The Effect of Tax Abatement Disclosure on Municipal Financing[*]

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Abstract: Local governments' use of tax incentives (abatements) is both economically significant and politically controversial. However, government disclosures about tax abatements have historically been sparse or opaque, making it difficult for external parties to assess the magnitude, scope, and economic effects of these incentives. Utilizing the adoption of Governmental Accounting Standards Board Statement 77 (GASB 77), which requires local governments adhering to Generally Accepted Accounting Principles (GAAP) to disclose information about tax abatements, we investigate how mandatory abatement disclosures affect municipal financing costs. We find that the adoption of GASB 77 is associated with a significant reduction in the cost of bonds issued by affected counties. Additional analyses suggest this effect is not only a function of reduced information asymmetry or broader increases in scrutiny resulting from enhanced disclosure, but also of the nature of the disclosed tax abatement information.

Key words: Government transparency; GASB 77; Tax abatement; Municipal bonds

JEL classification: G12; H11; H25; H74; H83

I. INTRODUCTION

Tax incentives are a cornerstone of local government efforts to attract investment. Indeed U.S. state and local governments grant an estimated $95 billion a year in tax incentives to businesses (Tax Foundation 2021), amounting to 40 percent of total state corporate tax revenues, on average (Slattery and Zidar 2020). Yet governments' use of these incentives can be divisive (e.g., Ivanova 2019) and a general lack of transparency surrounding their design and implementation likely impedes taxpayers, investors, and other stakeholders from fully understanding their broader implications (Slattery 2024; De Simone, Lester, and Raghunandan 2025).[1]

Noting the need for stakeholders to understand how tax abatements shape governments' "financial position and results of operations," the Governmental Accounting Standards Board (GASB) issued Statement No. 77 (GASB 77, see Summary) on August 15, 2015. This standard requires state and local governments that prepare financial reports in accordance with the Generally Accepted Accounting Principles (GAAP) to disclose in the notes to their financial statements the amount of their tax abatements (tax-based incentives).[2] The standard aims to provide stakeholders with information to better evaluate the financial health of governments (GASB 2015). Consequently, it is often considered an important refinement in the local government reporting landscape in the U.S. (Urban Institute 2015).

We investigate whether and how the adoption of GASB 77 affects the municipal bond market, a primary financing source for local governments. The Securities Industry and Financial Markets Association reports that the magnitude of municipal bond issuances exceeded $480 billion in 2020, accounting for 11.42 percent of the fiscal expenditure of state

[1] Municipal bond analysts, who play a key role in the municipal bond market, generally hold a favorable view of and advocate for tax abatement disclosure. They strongly support the notion that governments should provide annual reports on abatement agreements (Harris, McKenzie, and Rentfro 2014).
[2] GASB develops and issues accounting standards for U.S. state and local governments.

and local governments (approximately $4.25 trillion) (U.S. Census 2020; SIFMA 2023). Municipal bonds are also a popular investment option for retail investors. In fact, individual investors constitute the primary holding group within the $4.1 trillion municipal bond market, representing 40.4% of the market through direct ownership.[3] Given that retail investors likely rely on public disclosures (e.g., Cornaggia, Cornaggia, and Israelsen 2018), the municipal bond market provides a compelling setting to evaluate responses to increased tax abatement disclosures.

We posit that increased GASB disclosures could lower issuers' borrowing costs for two reasons. First, the implementation of GASB 77 enhances transparency, enabling stakeholders to better evaluate the default risk of municipal bonds. Tax abatement disclosures arguably decrease local government borrowing costs by reducing information asymmetry between local governments and bondholders, thus enabling investors to better assess default risk. Second, assuming mandatory disclosures increase the salience of tax abatement issues (Fan 2025), anticipated public and regulatory scrutiny likely serves to discipline governments to better allocate public resources, leading to fewer defaults (e.g., Gao, Lee, and Murphy 2020).

However, there are also reasons to expect that GASB 77 disclosures will not meaningfully reduce, and could even increase, issuers' borrowing costs. First, although GASB 77 introduces new disclosures about a county's tax abatements, not all of this information may be informative to investors. For example, if the disclosed details do not significantly impact investors' assessment of a county's fiscal health or future cash flows, their influence on bond pricing may be limited. As a result, the effectiveness of GASB 77 in reducing financing costs depends, in part, on the relevance and materiality of the information disclosed. Second, tax abatements

[3] The Municipal Securities Rulemaking Board (MSRB) documented that retail investors hold 40.4 percent of municipal bonds through direct holdings in 2022, which is the largest share of municipal securities holdings. The report is available at https://www.msrb.org/sites/default/files/Trends-in-Municipal-Securities-Ownership.pdf.

generally reflect increased government expenditures or forgone tax revenues, which can give rise to concerns about inefficiency and potential political misuse. Considering these concerns, the introduction of additional information on tax incentives potentially raises issuers' borrowing costs if bondholders perceive the information unfavorably (Chava, Malakar, and Singh 2024). To the degree these competing effects offset one another, we would expect to observe no significant average effect on bond spreads. Thus, the relationship between GASB 77 disclosures and local government borrowing costs remains an open empirical question.

To examine this question, we employ a difference-in-differences (DiD) research design that compares the change in municipal bonds' offering yields for GAAP-adherent counties (i.e., the treatment group) with the change for non-GAAP-adhering counties (i.e., the control group). Controlling for time-varying bond and county characteristics and county and year fixed effects, treatment counties see a significantly lower cost of debt (i.e., the offering yield of municipal bond issuance) following GASB 77, compared with the control group. Our estimates suggest a 19.3 basis point reduction in the offering bond yield of treatment group bonds, relative to the control group, representing roughly 9 percent of the sample's average yield (2.14 percent). This 19.3-basis-point reduction translates into approximately $0.3 million in borrowing cost savings per average county annual issuance, reflecting a meaningful but reasonable economic benefit. We also find that treatment and control counties exhibit similar trends in the cost of municipal bonds prior to GASB 77, mitigating concerns about violations of the parallel trends assumption in our setting. Overall, our results indicate a significant average decline in municipal borrowing costs following the implementation of GASB 77, suggesting that the net market response is favorable.

We conduct a battery of tests to validate our DiD design. First, to account for concerns that *observed* heterogeneity could drive our results, we repeat the analysis using matched samples. Here we employ multiple methods, including border matching, propensity score

matching, and entropy balancing. Our inferences hold. In addition, to mitigate concerns that the treatment effect could reflect *unobserved* heterogeneity, we follow Oster (2019) to test for omitted variable bias and find that omitted variables are unlikely to influence our results. We also conduct a placebo analysis to eliminate the possibility that our results are merely due to chance. We randomly select a group of counties as pseudo-treated counties, use the remaining counties as pseudo-control counties, and repeat our test 1,000 times. We find the estimated treatment effect from the placebo test is, on average, statistically indistinguishable from zero. We also confirm that our results are robust to alternative sample windows, alternative fixed effects and clustering methods, alternative sample selections, and weighted regressions.

Next, we conduct several cross-sectional tests to explore why GASB 77 lowers bond offering costs. First, we posit that the impact of GASB 77 on municipal borrowing costs depends on the nature of the information it reveals, particularly on whether the specific content of the disclosures is likely to be informative for investors' bond pricing decisions (disclosure materiality) and on how favorable the information is for the disclosing counties (disclosure favorability). To examine this possibility, we manually collect and analyze over 15,000 county financial reports, extracting detailed GASB 77 disclosure items. We classify disclosures based on their likely materiality, distinguishing between those likely to have a significant impact on investors' valuation models and those that we expect to be less important. We evaluate perceived favorability using a large language model to categorize disclosures based on the nature of the information conveyed by separating disclosures that suggest positive fiscal management or limited use of abatements from those that potentially imply greater fiscal risk or ambiguity. Our analysis shows that the effect of GASB 77 is more pronounced for counties with greater disclosure materiality and favorability. These findings highlight the importance of the content of tax abatement disclosures in shaping investor perceptions and influencing municipal financing outcomes.

Second, we expect that if tax abatement disclosure reduces information asymmetry, the treatment effect should strengthen in counties that have higher pre-treatment information asymmetry. Using county-level internet coverage (Lelkes, Sood, and Iyengar 2017) and the Fog Index of counties' financial statements (Mekhaimer, Soliman, and Zhang 2024) prior to the treatment year, as well as bond-level investor sophistication (Beck, Parsons, and Sorensen 2023) as proxies for the information environment, we find results consistent with this interpretation. In addition, using data from the Good Jobs First (GJF) database, which provides some tax abatement information prior to the implementation of GASB 77, we find that our treatment effect is statistically significant only for counties *without* pre-disclosure on tax abatement.

Third, to the degree that public and regulatory monitoring increase as governments expand their disclosures (De Simone et al. 2025) and that scrutiny enhances government efficiency (Gao et al. 2020; Cornaggia, Hund, Nguyen, and Ye 2022), then expectations of increased public scrutiny of tax abatement disclosures could reduce borrowing costs by improving governments' efficient use of tax abatements. If so, we should observe a more pronounced reduction for counties that faced laxer monitoring prior to the implementation of GASB 77. To test this possibility, we measure the strength of monitoring using two proxies: (1) whether the county is subject to a state mandate requiring at least partial disclosure of tax abatement information and (2) household subscriptions to local newspapers. Consistent with our predictions, we find that the treatment effect is more pronounced in counties with less pre-treatment monitoring.

Taken together, evidence from these cross-sectional tests suggests that the effect of GASB 77 on municipal financing costs is driven not only by reduced information asymmetry and increased scrutiny resulting from enhanced disclosure, but also by the specific content of the disclosed tax abatement information.

This paper contributes to the literature in three ways. First, by showing that governmental disclosure of tax incentives is associated with decreases in the cost of municipal bond issuance, we contribute to a growing body of research examining factors that affect the prices of municipal bonds. Research documents how government characteristics and environments (Butler, Fauver, and Mortal 2009; Painter 2020; Butler and Yi 2022; Cornaggia et al. 2022; Cheng, De Franco, and Lin 2023), credit ratings (Cornaggia et al. 2018; Beck et al. 2023), and financial statements (Plummer, Hutchison, and Patton 2007; Baber and Gore 2008; Baber, Gore, Rich, and Zhang 2013; Cuny, Li, Nakhmurina, and Watts 2022) influence municipal financing costs. However, we know little far less about the impact of governmental accounting standards on municipal bond costs. Our evidence sheds light on how transparency in the reporting of tax incentives—as mandated by government accounting standards—affects governmental financing costs.

Notably, a related study by Chava et al. (2024) finds that counties receiving corporate subsidies experience an increase in bond yield spreads relative to losing counties. Our findings complement rather than contradict theirs. Chava et al. (2024) examine market reactions to media reports of corporate subsidies, which are often fragmented, non-standardized, and tend to emphasize negative or controversial events due to media selection and framing biases (e.g., Galtung and Ruge 1965; Harcup and O'Neill 2001, 2017). As a result, their sample likely reflects high-profile, negatively perceived subsidies, reinforcing adverse market reactions. In contrast, our study leverages standardized, comprehensive GASB 77 disclosures focused solely on tax abatements, offering verifiable information that reduces investor uncertainty and potentially signals transparency and governance quality, especially when disclosure content exceeds expectations (see Kim and Pae 2025). Moreover, although Chava et al. (2024) attribute higher bond yields to inefficient subsidies with low economic returns, we argue that GASB 77 potentially enhances the effectiveness of abatements by promoting transparency and

accountability, which in turn, could encourage more disciplined and economically sound subsidy use. Our supplementary analyses support this view, showing that GASB 77 adoption is associated with subsequent local economic development.

Second, our study begins to address the research gap highlighted in the literature on governmental financial reporting (Kim, Plumlee, and Stubben 2023). Specifically, we contribute to the important, but inconclusive, literature examining the impact of governmental financial reporting on the credit market. The evidence across prior work yields mixed findings, with some studies indicating no significant municipal bond investors response to information contained in governmental financial statements (e.g., Ingram, Raman, and Wilson 1989; Reck and Wilson 2006), but other work suggesting that such information is indeed valuable to bond market investors (e.g., Edmonds, Edmonds, Vermeer, and Vermeer 2017). Our study contributes to this conversation by highlighting the importance of mandatory tax abatement disclosures, which plausibly reduce information asymmetry and illuminate both tax incentive arrangements and the effectiveness of governments' use of taxpayer funds.

Third, our paper contributes to the literature examining market reactions to tax incentive disclosures. Lee, Walker, and Zeng (2014) document that Chinese subsidies matter to equity investors, with the value relevance being driven by subsidies granted through tax channels. Drake, Hess, Wilde, and Williams (2022) suggest that non-income tax relief is value-relevant but that markets incorporate this information into prices gradually. Together these studies suggest that equity investors value information about tax relief. Our research complements this work by exploring municipal bond market responses to tax abatement disclosures, underscoring the effect of government tax disclosures on the costs of government financing.

Our findings also speak to policymakers. Research suggests that GASB standards can alter local governmental decision-making (e.g., Dambra, Even-Tov, and Naughton 2022). In our context, GASB 77 seeks to increase fiscal transparency by giving readers of financial reports

crucial details on tax incentives. Our evidence suggests the increased fiscal transparency associated with GASB 77 can discipline municipal governments, underlining potential real effects associated with commitments to enhanced government fiscal reporting.

II. INSTITUTIONAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

Institutional Background

A tax abatement is a reduction of or exemption from the level of taxation faced by an individual or business. Abatements are common in the U.S., and the amounts involved are significant.[4] GJF, a national policy resource center that promotes corporate and government accountability in economic development, estimates that states and localities spend approximately tens of billions annually on economic development, primarily through tax abatements.[5] For example, in 2017, Kansas City reported $89 million on abatements, amounting to 26 percent of the tax revenues it collects.[6] By offering abatements, local governments aim to stimulate economic growth, attract businesses, and support firms within their jurisdictions. While the specific purposes for tax abatements vary, the aim is typically the same: forgoing some tax revenue to create jobs, attract business investment, and stimulate the economy.

Despite the prevalence and economic importance of tax abatements, GASB did not set forth disclosure rules for them until 2015. As abatements have grown rapidly in scale and fiscal significance, users of government financial statements, such as citizens, legislative and oversight bodies, investors, and creditors, are likely to seek more detailed information about their effects. In fact, a survey conducted in 2010 under the Gil Crain Memorial Research Grant

[4] A 2014 survey from International City/County Management Association (ICMA) shows that more than 60 percent of U.S. local governments offer tax abatements. The survey results are available at https://icma.org/sites/default/files/306723_Economic%20Development%202014%20Survey%20Results%20for%20website.pdf.

[5] See https://www.goodjobsfirst.org/wp-content/uploads/docs/pdf/moneyforsomethingexecsum.pdf.

[6] See https://www.kcmo.gov/city-hall/departments/finance/financial-information-reports-and-policies.

from GASB suggests that abatements are a concern for citizen groups, county board members, and municipal bond analysts and that each group desires information about the level of abatements and the results of the abatement programs.[7]

As a potential response, in August 2015, the GASB released Statement No. 77, Tax Abatement Disclosures. This standard introduces a new requirement for state and local governments that prepare financial statements in conformity with GAAP to disclose information about abatements in the notes to financial statements for reporting periods beginning after December 15, 2015.

To identify counties' GAAP-adherent status in the U.S., we hand-collect information from county financial reports to determine whether each county follows GAAP or non-GAAP standards. Among the 3,143 U.S. counties, 2,100 prepare financial statements in conformity with GAAP, while 825 follow an alternative method of financial reporting; we are unable to find financial reports for 218 counties. The methodology for identifying GAAP- and non-GAAP-compliant counties is detailed in Online Appendix 1.

GASB 77 strictly defines a tax abatement and emphasizes the substance of the transactions rather than their form. The statement defines a tax abatement as "a reduction in tax revenues that results from an agreement between one or more governments and an individual or entity in which (a) one or more governments promise to forgo tax revenues to which they are otherwise entitled and (b) the individual or entity promises to take a specific action after the agreement has been entered into that contributes to economic development or otherwise benefits the governments or the citizens of those governments" (GASB 2015, 2).

[7] However, for the standard, local governments are arguably less likely to voluntarily disclose this information if the costs associated with collecting and reporting the data exceed the perceived benefits. In addition, government officials could be resource-constrained, may not understand the potential benefits of additional disclosure, or may incur proprietary costs in doing so, due to competition with other U.S. governments. Jack Markell, former governor of Delaware, criticized this competition and its consequences in an article in *The New York Times* (September 21, 2017, available at https://www.nytimes.com/2017/09/21/opinion/incentives-businesses-corporations-giveaways.html).

The newly required disclosures include brief descriptive information, such as names and purposes of the tax abatements, the type of tax abatements, the authority under which the abatements are provided, eligibility criteria, the mechanism by which taxes are abated, provisions for recapturing abated taxes, the commitments made by recipients, the gross dollar amount of taxes abated during the period, etc. Not only does the statement require governments to disclose their own tax abatement agreements, it also requires information on agreements that are entered into by other governments and that reduce the reporting of governmental tax revenue.[8] Appendix B provides two examples of how the information is disclosed in the financial statement.

GASB 77 represents a significant step forward in transparency, allowing the public to access information on the actual costs borne by local communities, rather than only the purported benefits. Notably, after the adoption of GASB 77, some governments have begun to provide up-to-date information on tax abatements, mainly in the form of individual abatement disclosures. For example, since 2017, Oregon's Jackson County has disclosed GASB 77 tax abatement information both in its financial statements and on its official website.[9]

Hypothesis Development

While local governments likely benefit from tax abatements for job creation, firm growth, and investment, they potentially need to raise capital through additional municipal debt to fund additional infrastructure or reduce spending on public services. Consequently, the increased expenditures of local governments may expose them to higher credit risk.

Research suggests that bondholders are likely to accept a lower return if they believe that

[8] For a tax abatement entered into by other governments that reduces the reporting government's tax revenue, the specific disclosure content includes the name of the governments that entered into the agreements, the specific taxes being abated, and the gross dollar amount of taxes abated during the period. The original document of GASB No. 77 is available at https://gasb.org/page/ShowDocument?path=gasbs77_final-%2520Cropped.pdf.

[9] Available at https://jacksoncountyor.gov/departments/finance/taxation/gasb_77_tax_abatement_reports.php#outer-1194.

enhanced transparency will reduce uncertainty about local fiscal conditions (Welker 1995; Mansi, Maxwell, and Miller 2011; Franco, Urcan, and Vasvari 2016). When bondholders perceive a high credit risk, they tend to demand more disclosure (Gillette, Samuels, and Zhou 2020). In our context, disclosure on tax abatement potentially helps bondholders assess the associated costs and benefits, leading to better decisions.

We argue that the disclosures required by GASB 77 potentially reduce municipal bond prices by reducing information asymmetry between local governments and bondholders. Prior to GASB 77, government accounting standards did not require governments to communicate the revenue forgone from tax abatements. Thus, interested parties (citizens, legislative and oversight bodies, investors, creditors, bond analysts, and financial watchdogs) did not have uniform information. GASB 77 tax abatement disclosures potentially provide relevant information to bondholders because (i) information about tax abatements informs assessments of financial position and economic condition and (ii) information about limitations on tax revenues contributes to an understanding of the sources and uses of financial resources. To the degree this information minimizes information asymmetry between governments and bondholders, it should reduce municipal financing costs.

We also argue that GASB 77 mandatory disclosure potentially enables the public and relevant authorities to better monitor governmental spending. The enhanced ability of bondholders to understand and assess government tax abatements likely increases their confidence in the future solvency of those governments. For example, Fan (2025) shows that GASB regulatory changes can draw public attention to an issue that was once opaque. As such, the expected increase in public pressure may incentivize governments to take real actions (Anantharaman and Chuk 2018; Dambra et al. 2022), thus making them more accountable to taxpayers. In line with this argument, De Simone et al. (2025) document that better information about tax incentives can facilitate monitoring by stakeholders, increasing the likelihood that

tax incentives can achieve their intended economic and social outcomes. Moreover, Gao et al. (2020) find a significant increase in municipal financing prices after the loss of government monitoring derived from the local media closure. They emphasize the monitoring role of local newspapers and document a strong link between monitoring and government efficiency. Consistent with these arguments, we predict a negative association between GASB 77 and municipal borrowing costs, as follows:

H1*: The adoption of GASB 77 reduces the cost of municipal bond issuance.*

However, there are also reasons to expect that increased public awareness of tax abatements may not affect or even increase municipal bond prices. First, although GASB 77 requires new disclosures about a county's tax abatements, not all the information counties provide will necessarily be equally informative to investors, as only information that materially affects investors' expectations about future cash flows, fiscal risk, or default probability is likely to influence asset pricing. If the disclosed abatement details are perceived as routine, immaterial, or lacking in economic significance, they may have limited impact on investors' assessments of a county's fiscal condition.

Second, if abatement disclosures are perceived unfavorably, increased transparency may not lower borrowing costs. Both anecdotal and scholarly evidence question the effectiveness of government subsidies, suggesting they often fail to attract investment or boost economic growth (e.g., Peters and Fisher 2004; Bartik 1991, 2018; Slattery and Zidar 2020).[10] Prior studies also highlight weak oversight by state and local governments (Reese, Larnell, and Sands 2010; Mattera et al. 2012) and risks of cronyism or politically motivated allocations (Shleifer

[10] For example, *The Houston Chronicle* reports that the majority of tax incentives in Texas have been public funds given directly to some of the wealthiest regions in the state, failing to boost investment or provide basic services for most residents. (See https://www.houstonchronicle.com/news/investigations/unfair-burden/article/Houston-tax-incentives-benefit-Galleria-17447300.php).

and Vishny 1994; Brunori 2014; Bertrand et al. 2018). [11] Opponents further argue that subsidies can harm the economy by crowding out unsubsidized firms.[12]

Tax abatements may similarly raise concerns about inefficiency and political abuse. Research suggests that tax incentives can fail to live up to expectations regarding job creation and growth (e.g., Bartik 2018; Slattery and Zidar 2020) or serve as political tools to build quid pro quo relationships (Brunori 2014) or pay-to-play practices that favor politically connected parties (Shleifer and Vishny 1994; Bertrand et al. 2018). Before GASB 77, investors had little access to uniform abatement information, making it difficult for tax abatement considerations to meaningfully shape valuations. Subsequent to GASB 77, investors can inspect the details of tax revenue losses associated with tax abatements. If investors perceive the government is using taxpayer funds for inefficient investments or self-interested political agendas, they will likely price that risk (e.g., Butler et al. 2009), which would lead to higher municipal financing costs. Collectively, these arguments suggest it is unclear whether GASB 77 will reduce government financing costs.

III. EMPIRICAL FRAMEWORK

Data and Sample

We obtain municipal bond offerings data from the Securities Data Company's (SDC's) Global Public Finance U.S. New Issues database. We complement missing bond yield and

[11] Evidence indicates that the politician-to-firm monetary flow is primarily motivated by political considerations rather than economic justifications. For example, Jensen and Malesky (2018) suggest that tax subsidies are merely a strategic tool used by politicians for political purposes. Rickard (2018) contends that electoral geography shapes the decision to provide private benefits to individual firms. Faccio, Masulis, and McConnell (2006) and Tahoun and van Lent (2019) find a positive effect of companies' political ties on the likelihood of receiving government bailouts and the amount of bailouts.

[12] Using a dataset of federal subsidies, Cohen et al. (2011) find that government subsidies crowd out private sector investment and employment. They conclude that the decision to subsidize relates mainly to politicians' incentives. Aobdia, Koester, and Petacchi (2021) likewise show a strong correlation between political donations and both the likelihood that a company will obtain a subsidy and its amount. However, these preferred businesses do not produce faster growth, suggesting an inefficient use of public funds.

credit rating data with data from the Mergent Municipal Bond Securities Database.[13] To control for county-level economic conditions, we collect county GDP and population data from the Bureau of Economic Analysis, median household income from the Small Area Income and Poverty Estimates of the Census Bureau, and unemployment rate data from the Local Area Unemployment Statistics of the Bureau of Labor Statistics.

Next, we manually identify each county's GAAP adherence. All U.S. state governments file their annual financial statements in conformity with GAAP, but the requirements vary at the local government level. Some states require that their municipal governments follow GAAP, while others do not. According to a 2016 study by the National Association of Counties (NACo), 32 states mandated adherence to GAAP through legislation, while 16 others either encouraged the use of alternative reporting methods or permitted county financial reporting to evolve based on established practices.[14] States differ in their rationales for mandating GAAP disclosure. For example, states with numerous small communities might not require counties to adhere to GAAP, as the anticipated compliance costs could be prohibitive (Baber and Gore 2008).

We manually collect data on county governmental usage of GAAP in their annual financial statements from several sources, such as county websites, state comptroller or auditor websites, and the Electronic Municipal Market Access website.[15] Out of 3,143 counties across

[13] We use SDC as our primary data source because it reports each bond's county name, which is required to merge the bond-level data (e.g., yields) with the treatment variable and other county-level controls. We complement SDC with Mergent because bond yield data are occasionally missing from SDC data.

[14] The 32 states with mandatory GAAP regulations are Alaska, Arizona, California, Colorado, Washington D.C., Florida, Georgia, Hawaii, Idaho, Iowa, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming. Nine states encourage counties to use alternative financial reporting and accounting methods, namely Arkansas, Indiana, Kansas, Kentucky, Missouri, New Jersey, Oklahoma, Vermont, and Washington. In seven states—Alabama, Delaware, Illinois, Nebraska, New York, South Carolina, and South Dakota—adherence to GAAP is a tradition, not a state requirement for counties. Connecticut and Rhode Island do not have county governments. For more information, visit https://www.naco.org/resources/counting-money-state-and-gasb-standards-county-financial-reporting.

[15] We describe the process for identifying GAAP compliance in more detail in the Online Appendix 1.

the 50 U.S. states, 2,100 counties prepare financial reports in accordance with GAAP, 825 counties use alternative methods, and the remaining counties do not have available financial statement information.

The sample period for our primary empirical analyses extends from 2010–2020. We begin with 2010 to avoid the effect of the 2007–2009 financial crisis on the credit market. We focus on counties and restrict our sample to bonds issued by county-level authorities (i.e., issue type = 11 in SDC). We exclude non-GAAP counties that disclose tax abatements in their financial statements after the adoption of GASB 77 (i.e., voluntary adopters), counties that change their GAAP/non-GAAP status across the bond issuance period, and counties with limited financial statements to determine their accounting regimes.[16] After we remove observations with missing data or data errors, our final sample contains 94,796 municipal bond issues from 1,488 counties in 45 states.[17] Table 1 details the sample selection.

Model Specification

Our model employs the adoption of GASB 77, which leads to a plausibly exogenous increase in tax abatement disclosure by counties. A county that files financial statements with GAAP compliance is subject to GASB 77 and is therefore classified as a treatment county; a county with financial statements that are not GAAP compliant is not subject to GASB 77 and thus becomes part of our control group.[18] In our sample, the treatment group includes 85,064 observations from 1,164 counties, and the control group includes 9,732 observations from 324 counties. Figure 1 displays the geographical distribution of our treatment and control counties.

[16] In our sample, none of the GAAP and non-GAAP counties voluntarily disclosed tax abatements before GASB 77.

[17] We follow the literature to exclude bonds with yields to maturity greater than 50 percent, coupon rates larger than 20 percent, or prices less than $50 or greater than $150, as the information on these bonds is likely erroneous (Novy-Marx and Rauh 2012; Schwert 2017; Butler and Yi 2022).

[18] The selection of treatment and control groups hinges on the degree to which each group is impacted by GASB 77. Given that counties adhering to GAAP are obligated to comply with GASB reporting mandates, while non-GAAP counties are not, we expect the implementation of GASB 77 will predominantly occur in GAAP counties. We conduct several additional tests to assess the sensitivity of our results to alternative identification methods.

To test the effect of GASB 77 on municipal financing cost, we employ the following DiD specification:

$$Yield_{i,j,t} = \beta_0 + \beta_1 Treat_{i,j} \times Post_t + \beta_2 Controls + County\ FE + Year\ FE + \varepsilon_{i,j,t}, \quad (1)$$

where *Yield* is a bond's yield to maturity (as a percentage), measured following prior research (e.g., Butler et al. 2009; Cornaggia et al. 2022) for bond issuance *i* in county *j* in year *t*. *Treat* is an indicator variable equal to 1 if a bond is issued by a GAAP-compliant county and 0 otherwise.[19] *Post* is an indicator variable equal to 1 for post-adoption years (2017–2020) and 0 for pre-adoption years (2010–2016). The first treatment year is 2017, as it is the first year in which tax abatement information becomes available to investors.[20] The coefficient β_1 on the interaction term between *Treat* and *Post* captures the effect of GASB 77 adoption on municipalities' cost of debt.

We include both bond and county control variables (*Controls*) following prior work (Baber and Gore 2008; Butler et al. 2009; Cornaggia et al. 2018; Gao et al. 2020; Butler and Yi 2022; Cornaggia et al. 2022). Specifically, *Ln(Bond Amount)* is the natural logarithm of the issuance amount at the bond level. *Competitive bid* is an indicator variable equal to 1 for sales through competitive bids and 0 for negotiated sales. *General Obligation* is an indicator variable equal to 1 for general obligation issues (i.e., payback using tax revenue) and 0 for revenue

[19] This approach is effective because the DiD design does not necessarily require the control group to be directly comparable to the treatment group (Angrist and Pischke 2015). Rather, it requires that the outcomes of both the treatment and control groups follow parallel trends before the treatment. This assumption does not necessarily require the *level* of issuing yields to be identical between the treatment and the control counties, as the distinctions have been differenced out in the estimation (Lemmon and Roberts 2010; Fang, Tian, and Tice 2014; Luong, Moshirian, Nguyen, Tian, and Zhang 2017).

[20] GASB 77 became effective for fiscal periods beginning after December 15, 2015. Consequently, the first mandatory adopters are counties with fiscal years ending on December 31, 2016. Given the average reporting lag of more than six months for county financial statements (Henke and Maher 2016), the earliest disclosures under this new standard would have become publicly available in mid-2017. Accordingly, we designate 2017 as the first treatment year. As a robustness check, we confirm that our results are qualitatively unchanged when using 2016 as the first treatment year and that no effect emerges in 2016, consistent with the fact that tax abatement information was not yet available in that year.

issues. *Years to Maturity* is the number of years to a bond's maturity. *Inverse Years to Maturity* is the inverse number of years until maturity, which we include to account for potential non-linearity in the relationship between maturity and borrowing costs. *Bond Buyer Index* is the market yields for municipal bonds measured as of the day of the bond issuance, where a market yield is based on estimates from dealers and is derived from the bonds of 20 actual issuers with an average rating equivalent to Moody's Aa3 and S&P's AA. *Credit Enhance* is an indicator variable equal to 1 for a bond having any credit enhancements, such as bond insurance and letter of credit backing, and 0 otherwise. *Tax Exempt* is an indicator variable equal to 1 if a bond is tax exempt and 0 otherwise. *Credit Rating* is Moody's ratings, where the best rating is 1 for a rating of Aaa and the numerical rating increases as the bond rating declines.[21] Following prior studies (e.g., Gao et al. 2020), we also include an indicator variable (*Rated*) equal to 1 if a bond is rated, and 0 otherwise. *Coupon Rate* is a bond's coupon rate at issuance. *Bank Qualification* is an indicator variable for whether the bond is bank qualified. *Refund* takes the value of 1 if a bond is refunded after the issuance and 0 otherwise. *GDP Per Capita* is the gross county product divided by the county's population. *Population Growth* is the annual growth of the county population. *Unemployment Rate* represents the ratio of the unemployed population to the local labor force. *Ln(Household Income)* is the natural logarithm of the median household income in a county.

We also include county fixed effects (*County FE*) and year fixed effects (*Year FE*) in our specification.[22] We control for county fixed effects to account for all time-invariant county attributes and to mitigate the concern that counties with GAAP compliance differ from those without GAAP compliance. All continuous variables are winsorized at 1 percent and 99 percent.

[21] For bonds without credit ratings during our sample period, we assign a value of 27 following Mergent's The Fixed Investment Securities Database Codes Table. Prior studies (e.g., Butler et al. 2009; Gao et al. 2020) also assign a value to bonds without credit ratings.

[22] The effects of *Treat* and *Post* are absorbed when county and year fixed effects are included in the regression.

Standard errors are clustered at the county level.

Table 2 presents descriptive statistics for our sample. The average yield of county-issued bonds is 2.14 percent, with a minimum yield of 0.25 percent and a maximum yield of 5.28 percent. In our sample, 90 percent of the bonds observed are in the treatment group, likely due to the widespread adoption of GAAP for financial statement preparation among counties. Of the bonds in our sample, 34 percent are issued after the adoption of GASB 77. The average bond has a size of $2.31 million (at the bond level) and 8.83 years to maturity. Approximately 50 percent of the bonds in our sample are sold through competitive bids, 77 percent are general obligation bonds, and 13 percent have credit enhancement. Most are tax exempt. Bonds in our sample are issued by counties with an average population growth of 0.0027 percent and an average unemployment rate of 6.22 percent. In these counties, an average household earns $51,439 per year, and GDP per capita is $42,469 on average.

IV. EMPIRICAL RESULTS

Tax Abatement Disclosure and Municipal Borrowing Cost

To estimate the effect of tax abatement disclosure on municipal borrowing costs, we estimate Equation (1). Table 3 presents the results. As shown in columns (1) and (2), the coefficients on *Treat*×*Post* are negative and statistically significant at the 1 percent level, indicating that counties subject to mandatory disclosure of tax abatement information have a lower cost of debt following the adoption of GASB 77, compared with those without mandatory disclosure. This supports our hypothesis. Our estimates suggest that treatment counties experience a reduction of 19.3 basis points in borrowing costs, compared with control counties, after implementing tax abatement disclosure. This reduction amounts to 9% of the average yield. The 19.3 basis point reduction in borrowing costs is roughly equivalent to the effect of a

three-notch improvement in credit rating.[23] This finding implies that disclosure has an economically significant effect on the cost of debt for the municipalities, enabling them to reduce their financing costs.[24]

In column (3), we report the results of dynamic analysis to assess whether the pattern of results appears to violate the parallel trends assumption. The assumption requires that the outcomes of the treatment and control groups follow parallel trends prior to the treatment. We estimate the dynamic effect on offering yields in the years before and after the adoption of GASB 77. Specifically, we replace the *Post* variable in the main regression with a set of indicator variables for the years 2011–2020, denoted by *Pre6*, *Pre5*, *Pre4*, *Pre3*, *Pre2*, *Pre1*, *Post1*, *Post2*, *Post3*, and *Post4*, respectively. We set the benchmark year to 2010. We then re-estimate the main regression using these new variables and their interaction terms with *Treat*. We find insignificant coefficients on *Treat*×*Pre6*, *Treat*×*Pre5*, *Treat*×*Pre4*, *Treat*×*Pre3*, *Treat*×*Pre2*, and *Treat*×*Pre1*, suggesting that the difference in *Yield* between treatment and control counties does not differ statistically from the difference in the benchmark year. In Figure 2, we present a plot of the dynamic coefficients, which shows no evidence of pre-period trends, mitigating concerns about potential violations of the parallel trends assumption. In addition, the results show that significant differences in yields emerge after the adoption of

[23] While a 19.3-basis-point reduction in offering yields may initially seem large, it is consistent with prior research on policy shocks in municipal bond markets. For example, Garrett and Ivanov (2024) document a 27.7-basis-point increase following regulatory changes in Texas. Our estimate also translates to approximately $0.3 million in annual borrowing cost savings per average county, indicating a plausible and economically meaningful effect. Notably, tax abatement disclosures may provide investors with information not captured by credit ratings—such as fiscal transparency and governance quality—helping reduce information asymmetry.

[24] Although it is possible that prior expectations about tax abatements could, in theory, lead to offsetting surprises and no average effect on credit spreads, our results suggest otherwise. We find a statistically significant decline in borrowing costs following the implementation of GASB 77, indicating a net favorable market response. This likely reflects the fact that pre-GASB 77 disclosure was minimal, making investor expectations noisy and imprecise. By standardizing and mandating disclosures, GASB 77 reduced uncertainty and enabled more accurate risk assessment. Even if surprises were symmetrically distributed, the new transparency likely led investors to systematically revise risk downward, particularly when abatements turned out to be smaller or more controlled than anticipated.

GASB 77. Coefficients on *Treat*× *Post2*, *Treat*× *Post3*, and *Treat*× *Post4* are statistically and economically significant (ranging from −0.150 to −0.259), suggesting a persistent effect of tax abatement disclosure.

Alternative Empirical Approaches

Addressing Potential Selection on Observables

A potential concern regarding the validity of our identification strategy arises from the comparability between treatment and control counties, given that some counties may self-select into treatment. We conduct two tests to mitigate this concern. First, we use several matching methods to ensure that our results are not driven by selection on observable factors. To begin, we use the adjacent border matching method, which assumes that the neighboring counties share similarities. For example, they often possess comparable demographic and economic characteristics, creating similar growth patterns in the absence of regulatory changes (Holmes 1998). Therefore, neighboring counties are arguably good controls. Studies have adopted the border matching method to compare treated counties with neighbors across borders (Huang 2008; Rohlin 2011; Mian, Sufi, and Trebbi 2015; Cheng et al. 2023). This method not only addresses the endogeneity concern, where changes in state policies are influenced by the economic performance of a single county (Fan 2025) but also controls for observed heterogeneity at the county level (Rohlin 2011). We manually identify border-adjacent control counties for each treatment county. This procedure results in 10,509 observations with 117 control counties and 126 treatment counties. We re-estimate our main regression and dynamic analysis using this border-matched sample and present the results in columns (1) and (2) of Table 4 Panel A. The estimated coefficient on *Treat*×*Post* is significantly negative, and we find no evidence of pre-treatment trends.

Next, we conduct propensity score matching (PSM) to mitigate concerns regarding differences between treatment and control groups. Specifically, for each treatment county in

the year before the first treatment year, we match a control county according to county characteristics used in our main regression, including *GDP Per Capita*, *Population Growth*, *Unemployment Rate*, and *Ln(Household Income)*. Our matching is based on the closest propensity score (without replacement). To minimize the probability of suboptimal pairings, we apply a caliper distance of 0.01.[25] After this procedure, we obtain a matched sample consisting of 24,465 observations with 285 treatment counties and 285 control counties. In an untabulated test, we compare the county characteristics in the post-adoption period between the two groups. The statistics show that, for the propensity score matched sample, the county characteristics are indistinguishable between GAAP-adherent counties and non-GAAP-adhering counties. We re-estimate our main regression and dynamic analysis. Columns (3) and (4) of Table 4 Panel A report the results, which continue to hold in this matched sample.

As both border and propensity score matching reduce the sample size significantly, limiting the generalizability of the findings, we also apply entropy balancing for our full sample. This approach allows us to preserve the full sample while reweighting the control observations, so that the post-weighting statistics of observed county characteristics are almost identical between treatment and control counties. We report the results in the last two columns of Table 4 Panel A. The inferences again align with our main results.

In sum, the matched sample analyses in Table 4 Panel A continue to find significant decreases in offering yields after the initiation of GASB 77, suggesting that selection on observables is unlikely to bias our results.

Addressing Potential Unobservable Heterogeneity

To further reduce the concern that our results are driven by unobservable heterogeneity or random factors, we conduct an analysis developed by Oster (2019) to evaluate the robustness

[25] Our main finding is robust to alternative caliper settings. The results are reported in Online Appendix Table OA2.

of our results to correlated omitted variable bias and a falsification test, respectively. Table 4, Panel B reports the results of the Oster (2019) analysis. Following Gao and Huang (2020), we employ R_{max}=min{1.3R^2, 1}, where R_{max} is the R-squared from a hypothetical regression of the outcome on treatment and both observed and unobserved control variables and R^2 is the adjusted R-squared from the regression with control variables in column (2) of Table 3. As the adjusted R-squared from the regression is large, we use R_{max}=1. In column (1), we show that the estimated effects in the range [-0.228, -0.193] do not include zero and fall within the 99.5% confidence interval for β in column (2) of Table 3 [-0.341, -0.045], suggesting that unobservable heterogeneity is unlikely to unduly affect our inferences. In column (2), we calculate the relative degree of selection on observed and unobserved variables (δ=-18.320), suggesting that the effect of the unobservables would need to be more than 18 times stronger than the effect of the observables—and in the opposite direction—for there to be a treatment effect of zero.

We also conduct a falsification test, in which we re-estimate our main regression 1,000 times with a randomly selected group of counties as the pseudo-treated group and the remaining counties as the pseudo-control group (Amiram, Bauer, and Frank 2019; Ma, Pan, and Stubben 2020; Pinto 2023). After obtaining 1,000 estimates from 1,000 placebo analyses, we calculate the mean and standard deviation of these 1,000 coefficients on *Treat*×*Post* and compute the *t*-statistic. The mean is -0.0006, the standard deviation is 0.0331, and the *t*-statistic is -0.57. We plot the distribution of these estimates in Figure 3. The average placebo coefficient is close to zero, which differs significantly from the estimate in Table 3 (indicated by the vertical line). These results suggest that the decrease in offering yields documented in Table 3 is unlikely to be driven by spurious correlations. Overall, the results of these analyses mitigate concerns that correlated omitted variables drive our main findings.

V. CROSS-SECTIONAL ANALYSES

Our findings to this point indicate that, after the adoption of GASB 77, treatment counties experience a greater reduction in borrowing costs than control counties. In this section, we explore the cross-sectional variation in this effect, conditioning on information content, information asymmetry, and monitoring.

Information Content

We expect that the market impact of GASB 77 is driven by the specific nature of the disclosed tax abatement information; that is, whether investors are likely to view the content of the disclosures as material or favorable, the effect on governmental borrowing cost should be greater.

To examine this possibility, we first manually read each financial report's tax abatement disclosure and deconstruct each disclosure into 15 distinct information items (e.g., amount, name and purpose of the tax abatement, type of the tax abatement, grant year, authority, other governments involved, measurable and unmeasurable criteria for/commitment by recipients, mechanism, recapture provisions, recipient names, threshold of reporting individual projects, explanation for omission, amount received from other governments, and miscellaneous items). For each of these disclosure items, we construct an indicator variable equal to one if the specific information item is disclosed in the financial statement, and zero otherwise. We then count the number of information items contained in each disclosure to construct a total content variable, *Total Content*. We provide two examples (Smith County of Texas and Cook County of Illinois) in Appendix B. Smith County discloses more information, including nine items (i.e., amount, authority, purpose, mechanism, recipient names, type, measurable criteria, other government name, and miscellaneous item); Cook County only provides six (i.e., amount, authority, purpose, mechanism, type, and unmeasurable criteria).

To measure the potential materiality of tax abatement information, we partition *Total*

Content into more and less disclosure materiality groups based on whether the information item (1) provides quantitative or verifiable criteria that can directly affect creditors' assessment of future cash flows and the likelihood of contractual enforcement and/or (2) is highly related to public comments on the GASB 77 proposal, as these comments serve as a signal regarding which items are more valuable to investors.[26] Thus, items that are likely to be more material include: (1) quantitative information about the magnitude of the abatement (*Amount* and *Amount Recv*), (2) the grant years of existing abatements, which can be used to assess the time horizons of the tax abatements (*Grant Year*), (3) measurable criteria/commitment for awarding abatements, such as job creation thresholds or investment requirements (*Quant Commit*), and (4) items most relevant to the information enquiries in the GASB 77 comment letters (*Name or Purpose*, *Type*, and *Recipient Name*). We classify the remaining information items as less material items. We then aggregate the number of items that are likely to be more (less) material to construct *Likely More (Less) Material*.

Among these information items, the amount of tax abatement is likely the most informative (most material) for investors, as it provides critical insight into the financial implications of governmental decisions on public revenues. Accordingly, we divide *Total Content* into *Amount Content* and *Other Content*. *Amount Content* is the number of tax abatement information items related to specific tax abatement amount, including *Amount* and *Amount Rec*. *Other Content* is the number of the remaining items excluding amount.[27]

Beyond evaluating the potential materiality of tax abatement information, we also aim to assess how favorably each tax abatement information is perceived by municipal bond investors.

[26] The comment letters are available at https://www.gasb.org/page/commentletterspage?metadata=gasb_taxabatement_0228221200&PageId=/projects/comment-letters.html&typeofDocument=Exposure%20Draft&IssueDate=October%202014. We appreciate the anonymous reviewer for this valuable comment.

[27] Tables OA5 and 6 present the summary statistics and the correlation matrix for the tax abatement information variables.

Specifically, we use a large language model (LLM), Gemini 2.5 Flash, to simulate the perspective of a municipal bond investor who is reading each full financial report (in PDF format), including any tax abatement disclosures, to assess whether the tax abatement information provides more positive or less positive signals regarding the bond purchase decision. We construct two indicator variables based on the evaluation from the LLM: *Likely More Positive* and *Likely Less Positive*. Online Appendix 2 includes the LLM prompt and details of this LLM analysis.

We use each of these variables (i.e., *Total Content*, *Amount Content*, *Other Content*, *Likely More Material*, *Likely Less Material, Likely More Positive*, and *Likely Less Positive*) as alternative treatment variables in a specification similar to our main analysis in Eq. (1), as follows:[28]

$$Yield_{i,j,t} = \beta_0 + \beta_1 Information\ Content_{i,j} \times Post_t + \beta_2 Controls + County\ FE + Year\ FE + \varepsilon_{i,j,t}. \quad (2)$$

where *Information Content* is one of the seven information content variables mentioned above. Since tax abatements appear in financial statements in a systematic way only after the implementation of GASB 77, and disclosure patterns remain largely consistent in the post-GASB 77 period,[29] we use tax abatement information from the initial implementation year to construct our *Information Content* treatment variables.

Table 5 presents the results. Consistent with our prediction, we find that (1) the reduction in borrowing costs is greater for tax abatement amount (*Amount*) compared to other content (*Other Content*), and (2) the reduction in borrowing costs is greater for information that we expect to be more informative (material) to investors compared with information that we expect

[28] Online Appendix Tables OA4 and OA5 present the descriptive statistics and correlation analyses for these variables, respectively.

[29] The correlation coefficient between the information content in period *t* and period *t + 1* is 0.94, with a *p*-value < 0.01, indicating a highly persistent pattern.

to be less so. In fact, the coefficient on *Likely Less Material*×*Post* becomes insignificant when we include both treatment variables in the model. These findings indicate that counties experience greater reductions in financing costs when they provide more detailed disclosures, particularly when the information is of a nature that is likely to be more informative (material) to investors. In addition, from columns (8) and (9), we also find that the disclosure of more favorable tax abatement information is associated with a significant reduction in borrowing costs. In contrast, the disclosure of less favorable information does not lead to a comparable reduction, suggesting the benefits of reduced information asymmetry are offset by the less favorable tax abatement information. When both interaction terms (*Likely More Positive* × *Post* and *Likely Less Positive* × *Post*) are included in column (10), the reduction in borrowing costs remains statistically greater for more positive information. Overall, these findings suggest that counties experience greater reductions in financing costs when they disclose more favorable tax abatement information. This pattern of results is consistent with the impact of GASB 77 on municipal bond yields being conditional on the perceived favorability of the abatements disclosed.

Information Asymmetry

We next investigate the information asymmetry explanation. If information asymmetry is in play, we would anticipate a more significant treatment effect for counties with greater pre-treatment information asymmetry, as these counties would experience a greater reduction in information asymmetry once they reveal tax abatements.

We employ four measures to proxy for information asymmetry. First, we measure the quality of the local information environment using county-level internet coverage, as the internet is integral to modern information dissemination (Lelkes et al. 2017; Li, Li, and Yang 2022). Specifically, this measure captures the number of residential fixed broadband connections (with a downstream speed of at least 200 Kbps) per 1,000 housing units. A higher

value signifies broader internet coverage and thus a richer information environment (i.e., lower information asymmetry). We obtain the internet coverage data from the Federal Communications Commission (FCC).

Second, we proxy for financial reporting quality using the Fog Index of counties' annual financial reports. A higher Fog Index indicates lower readability and, consequently, poorer disclosure quality (e.g., Li 2008; Mekhaimer et al. 2024). Given the extensive literature establishing that poor disclosure quality is associated with high information asymmetry (e.g., Biddle and Hilary 2006; Biddle, Hilary, and Verdi 2009; Bhattacharya, Desai, and Venkataraman 2013), we expect the effects of GASB 77 to be stronger for counties with higher values of Fog Index (i.e., higher information asymmetry).

Third, we use investor sophistication as a proxy, measured by the average trade size of individual bonds within each municipal bond issuance (Beck et al. 2023). The rationale here is that larger trade sizes typically reflect institutional investors, who are generally more sophisticated and better equipped to navigate information frictions. Conversely, smaller average trade sizes imply a greater presence of retail investors who are less informed, indicating a market where information asymmetry is more likely to be a significant issue. We expect the effect of GASB 77 to be more pronounced for bonds primarily traded by less sophisticated investors.

Fourth, for each county we assess whether tax abatement information was available from sources other than GASB 77 prior to its adoption. For instance, some local governments or their agencies disclose tax abatement programs on their websites. We expect the effect of GASB 77 to be stronger where no alternative information sources exist. To measure alternative sources, we use data from GJF, which compiles firm-level tax abatement information. We then

aggregate firm-level tax abatement information into the county level.[30]

For each of these four proxies, we partition the sample into two groups based on the median value of the proxy measured in the pre-treatment period. First, counties are classified into low- and high-internet coverage groups based on whether their pre-treatment coverage is below or above the sample median, respectively. Second, we form low- and high-disclosure quality subsamples; the low-disclosure quality group consists of counties with a pre-treatment Fog Index above the median (indicating lower readability), while the high-disclosure quality group comprises those with a Fog Index below the median. Third, bond issues are categorized into low- and high-investor sophistication groups based on whether the average trade size is below or above the sample median. Fourth, we partition the sample into a group with tax abatement information prior to GASB 77 and another group without pre-GASB 77 information.

Table 6 presents the results of these analyses. In Panel A, we find that the effect of GASB 77 on county financing costs is significantly stronger for counties with low internet coverage. In particular, the coefficient on the interaction term *Treat* × *Post* is -0.263 (*t*-statistic = -4.09) in the low-coverage subsample, which is significantly more negative than the coefficient of -0.154 (*t*-statistic = -2.25) in the high-coverage subsample. Panel B reports the results for the disclosure quality partition. The reduction in borrowing costs is concentrated in counties with lower disclosure quality, where the coefficient on *Treat* × *Post* is -0.241 (*t*-statistic = -3.51) and highly significant. In contrast, the coefficient is statistically insignificant for the high-disclosure-quality group (-0.074, *t*-statistic = -0.89). A formal test confirms the difference between these coefficients is statistically significant. Panel C reveals a similar pattern for investor sophistication, showing a substantially stronger treatment effect for the low-

[30] However, we caution that aggregating GJF data at the county level may not accurately reflect the actual tax abatement amounts impacting the reported governments for at least three reasons: (1) the firm-level coverage of GJF data may be incomplete, (2) the county-level coverage may also be incomplete, due to missing county information in tax abatements or other factors, and (3) tax abatements granted by other governments that affect the finances of the reported governments cannot be identified.

sophistication group compared to the high-sophistication group, with the difference also being statistically significant. In Panel D, the treatment effect is statistically significant only for the sample of counties without alternative information sources prior to GASB 77, reinforcing the conclusion that our findings are attributable to the new, asymmetry-reducing information provided by GASB 77.[31]

Collectively, these findings are consistent with our prediction. The impact of the mandatory tax abatement disclosures is most pronounced for municipalities characterized by higher pre-existing information asymmetry. This evidence provides strong support for the information asymmetry reduction channel as one of the drivers of our main results.

Regulatory and Public Monitoring

Next, we delve into the monitoring explanation, which posits that the enhanced disclosure of tax abatements garners greater attention for what was once an opaque matter (Fan 2025), leading to increased public scrutiny. In response, the local governments may take actions, such as improving the efficiency of tax abatement grants, in anticipation of heightened scrutiny. If so, we expect a greater treatment effect in counties with lower pre-treatment monitoring because they stand to benefit more from the improved oversight.

We adopt two measures to gauge both the regulatory and public monitoring prior to the GASB 77 implementation. For regulatory scrutiny, we use states' disclosure requirements for tax abatements. To collect state polices related to tax abatements, for each state in our sample, we first read each county's financial statements to identify the titles of such policies mentioned in tax abatement disclosure in financial statements. We then search online to find more state policies. Specifically, for each state, we manually search the details of state statutes using

[31] We also find that GASB 77 has a stronger effect on bond yields for prior grants—tax abatements granted before, but disclosed after, its adoption—than for current grants (i.e., those granted post-GASB 77). This result suggests that investors respond more strongly to newly revealed information. However, we find little evidence linking prior grants to economic outcomes. We report the results in Online Appendix Table OA6.

various sources such as Justia.com (e.g., Martin, Pesendorfer, and Shannon 2025) and then independently read each provision of the statute to assess whether it requires tax abatement disclosure. We repeat this process for all states in our sample and identify 19 states with policies to require local governments to disclose some kind of tax abatements. We classify counties as *High State Monitoring* and *Low State Monitoring* based on whether or not the state has tax abatement disclosure policies prior to the first treatment year.

For public monitoring, we follow prior studies (e.g., Gao et al. 2020; Cornaggia et al. 2022) and use local newspapers as a proxy. Specifically, our measure for public monitoring is the proportion of households that subscribe to local newspapers at the county level (Cornaggia et al. 2022). The data are sourced from the Alliance for Audited Media, which provides annual audited circulation figures of each county in the U.S. We partition our sample based on the median of the average household subscription to local newspapers in 2016, one year before our first treatment year.

Table 7 reports the results. As seen in Panel A and B, the magnitude of coefficient on *Treat*×*Post* (−0.255, *t*-statistic = −4.22; −0.234, *t*-statistic = −3.61) for counties with low state monitoring and media monitoring is statistically greater than that on *Treat*×*Post* (−0.150, *t*-statistic = −2.06; −0.161, *t*-statistic = −1.98) for those with high state monitoring and media monitoring, consistent with our prediction. These findings suggest that tax abatement disclosures reduce counties' financing costs via intensified monitoring after the tax abatement information becomes public. When considered together, the results of the cross-sectional tests are consistent with both reduced information asymmetry and enhanced monitoring contributing to the lower financing costs local governments experience following the implementation of mandatory tax abatement disclosures.

VI. ADDITIONAL ANALYSES

Robustness Tests

In this subsection, we conduct an extensive set of tests to ascertain the robustness of our primary findings, including using (1) alternative windows, (2) alternative fixed effects and alternative clustering levels, (3) alternative samples, and (4) a weighted regression.

Alternative Windows

In the main regression, we use a relatively long event window, [−7, 4], to ensure sufficient observations for our analysis because of the low frequency of municipal bond issuance. To minimize the potential influence of extraneous occurrences within the event window, we employ comparatively short event windows for our robustness assessments. Specifically, we use the following alternative event windows: [−4, 4] and [−3, 3]. Table 8 Panel A reports the results. We continue to find significantly negative estimates.

Alternative Fixed Effects and Alternative Clustering Levels

The purposes of issuing municipal bonds are diverse, including education, general purpose, and infrastructure construction. Cornaggia et al. (2022) thus add a factor variable to proxy for the use of proceeds. With the same intent, we add issue purpose fixed effects into our regression in column (1) of Table 8 Panel B. In column (2), we replace year fixed effects with year-month fixed effects. Moreover, since GAAP compliance is largely determined by state policies, we cluster our standard errors at the state level in column (3). In column (4), we use two-way clustering to further adjust the heteroscedasticity-robust standard errors at the county and year levels. Overall, our results are insensitive to additional fixed effects and alternative clustering levels, with *t*-statistics ranging from −2.47 to −4.39.

Alternative Samples

Our main sample includes a variety of municipal bonds, irrespective of their security type or taxable status, because we believe that the increased transparency should affect the

yields of all bonds. We follow Butler and Yi (2022) in conducting a robustness analysis using a sample without taxable bonds and find that our inferences hold. We report the results of this test in column (1) of Table 8 Panel C. In addition, we conduct a robustness analysis using an issuance-level sample in column (2) of Table 8 Panel C and the results still hold.[32]

Weighted Regression

Our DiD regression is estimated at the county-bond-year level. One concern is that some counties issue a lot more bonds than others, which may affect borrowing costs. Therefore, to address the sampling bias arising from differences in the number of issuances across counties, we follow Butler and Yi (2022) to conduct a weighted regression. In Table 8 Panel D, we assign a weight to each observation using the reciprocal of the number of bond issuances within a county-year and then re-run our regression. The coefficient estimate based on the weighted regression is −0.197 (p-value < 0.01), consistent with our baseline findings, mitigating concerns that just a few large issuers drive the results.[33]

Additional Tests

This subsection provides additional context by analyzing the influence of GASB 77 on municipal bond credit ratings and issuance intensity.

Credit Rating

While the results in previous sections indicate that tax abatement disclosure reduces government financing costs, it is unclear whether credit ratings improve. Thus, in this section, we analyze credit ratings.

In Panel A of Table OA7 in Online Appendix, we use *Credit Rating* and *Rated* as the dependent variables. The coefficients on *Treat* × *Post* are positive, suggesting that the credit

[32] For most municipal bond issuances, the issuer offers multiple bonds within the same issuance that differ in par amounts, maturities, and other attributes. We retain only the bond with the longest maturity in this robustness test.
[33] Our results are also robust to the use of alternative credit rating measures, the inclusion of additional control variables (treasury rate and state tax rate), and the exclusion of the inverse of years to maturity as a control variable. These results are reported in Online Appendix Table OA3.

ratings become better and that the bond is more likely to be rated after GASB 77. However, they are not statistically significant. One possible reason might be that the credit rating agencies may have private information and incorporated some of that information into their rating decisions even before GASB 77. Although GASB 77 does not appear to affect credit ratings, it reduces bond yields, as investors price additional information beyond credit ratings (e.g., Cornaggia, Cornaggia, and Hund 2017; Gabaix, Koijen, Richmond, and Yogo 2025). Along these lines, using corporate bonds, Gabaix et al. (2025) find that there is a large amount of variation in credit spreads across firms with the same credit ratings, suggesting that credit ratings alone do not capture the full spectrum of risk and yield variation.

Issuance Activity

One possibility in our setting is that GASB 77 could influence the bond issuance activities of governments, such as the issuance amount and issuance frequency (Baber, Beck, and Koester 2024), which in turn could affect the financing costs. To examine this possibility, we explore whether and how tax abatement disclosure is associated with issuance activities. For each county, we aggregate the bond issuance amount and issuance frequency for each year. We then estimate a county-year-level DiD regression, with *Ln(Issue Amount)* and *Ln(Issue Frequency)* as dependent variables, and control for county characteristics (i.e., *GDP Per Capita*, *Population Growth*, *Unemployment Rate*, and *Ln(Household Income)*).

Table OA7 Panel B reports the results. In both columns, we do not observe significant changes in government issuance amount and issuance frequency following GASB 77. The null results for issuance activity may be attributed to the institutional, political, and legal constraints on debt issuance (such as balanced budget rules and voter approval requirements), which limit a government's ability to increase borrowing even when financing becomes marginally cheaper. Therefore, it is unlikely that tax abatement disclosures affect counties' issuance activities. Without changes in bond issuance, financing activities are unlikely to drive the reduction in

financing costs.

The Effectiveness of Tax Abatement Disclosure

In Table OA8 of Online Appendix, we examine whether tax abatement disclosures have the potential to improve the local economy to some extent. A positive effect would suggest that such disclosures discipline governments to allocate public resources more efficiently. We focus on three county-level economic outcomes: GDP per capita, household income, and the unemployment rate. These measures capture overall economic performance (GDP per capita), residents' welfare (household income), and labor market conditions (unemployment), and together provide a comprehensive assessment of local economic activity. We find that, while tax abatement disclosures do not significantly increase GDP per capita, they improve household income and reduce the unemployment rate, indicating benefits for residents and local labor markets. These results suggest that tax abatement disclosures exert monitoring effects, which in turn lead to more effective government resource allocation and oversight.[34]

VII. CONCLUSION

We investigate the impact of mandatory tax abatement disclosure (GASB 77) on government borrowing costs. Our findings indicate that counties subject to the standard's mandatory disclosures enjoy reduced bond yields. Moreover, our evidence suggests that tax abatement disclosures decrease counties' financing costs through the nature of the information they convey: via more informative (material) and more favorable content, reduced information asymmetry, and (perceived) improvements in monitoring.

Our study has both academic and policy implications. Debate continues about the effectiveness of government incentive programs. Advocates stress their significant role in promoting economic growth, such as job creation (Moretti and Wilson 2014; Williams 2018)

[34] We also find that counties with weaker pre-existing monitoring show greater improvements in economic outcomes and are more likely to disclose material tax abatement information following GASB 77 adoption. For brevity, these results are presented in Online Appendix Table OA8 (Panels B and C).

and productivity (Greenstone, Hornbeck, and Moretti 2010), while opponents cite numerous instances of inefficiency and abuse (Bartik 1991, 2018; Faccio et al. 2006; Jensen and Malesky 2018; Aobdia et al. 2021). However, research has provided limited insight into how the public responds to government subsidies. Our study demonstrates that investors, on average, view tax abatement programs positively when governments provide detailed information about them, highlighting an important nuance regarding the link between the transparency of tax incentives and government financing costs. More importantly, our results show that the effectiveness of GASB 77 depends on the nature of the tax abatement disclosures (i.e., the materiality and perceived favorability of the disclosed information). This conditional effect underscores a key nuance: disclosure alone is not enough. For transparency initiatives (such as GASB 77) to be truly effective, it appears that the information disclosed must be both interpretable and meaningful to market participants. Our results show that GASB 77 has the potential to strengthen market discipline, but its effectiveness appears to depend on the materiality and investor reception of the disclosed information.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process
During the preparation of this work, the authors used Google's Gemini to proofread some sentences in the manuscript. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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Appendix A. Variable Definitions

Variable	Definition
Bond Issue Level Variables	
Yield	A bond 's yield to maturity at issuance.
Treat	A dummy variable equal to 1 if a bond is issued by a county following generally accepted accounting standards issued by GASB, and 0 otherwise.
Post	A dummy variable equal to 1 for the post-GASB 77 period (2017-2020), and 0 for the pre-GASB 77 period (2010-2016).
Ln(Bond Amount)	The natural logarithm of the issue amount at the bond level.
Competitive Bid	A dummy variable equal to 1 for sales through a competitive bidding process, and 0 for negotiated sales.
General Obligation	A dummy variable equal to 1 for general obligation issues, and 0 for revenue issues.
Years to Maturity	The number of years to a bond's maturity.
Inverse Years to Maturity	The inverse of the number of years to a bond's maturity.
Bond Buyer Index	Market yields for municipal general obligation or revenue bonds, measured on the day of the municipal bond issuance.
Credit Enhance	A dummy variable equal to 1 for a bond having any credit enhancements such as bond insurance or letter of credit backing, and 0 otherwise.
Tax Exempt	A dummy variable equal to 1 if a bond is tax exempted, and 0 otherwise.
Credit Rating	Moody's ratings, where Aaa is coded as 1 and each successive rating notch is coded by incrementing the value by 1 (e.g., Aa1 = 2, Aa2 = 3, …). A value of 27 is assigned if the bond is unrated.
Rated	A dummy variable equal to 1 if a bond is rated, and 0 otherwise.
Coupon Rate	A bond's coupon rate at issuance.
Bank Qualification	A dummy variable equal to 1 if the bond allows banks to have the tax-exempt benefit, i.e., a bank-qualified bond, and 0 otherwise.
Refund	A dummy variable equal to 1 if a bond is refunded after the issuance, and 0 otherwise.
Issuer Level Variables	
GDP Per Capita	The gross county product divided by the county's population.
Population Growth	The annual growth of county population.
Unemployment Rate	The ratio of unemployed population over the local labor force.
Ln(Household Income)	The natural logarithm of the median household income of a county.
Cross-Sectional Analyses Variables	
Pre-Disclosure	A dummy variable equal to 1 (i.e., *Yes*) if a county is reported by GJF to have tax abatements prior to 2017, and 0 (i.e., *No*) otherwise.
Internet Coverage	A dummy variable equal to 1 (i.e., *High*) if a county's number of residential fixed broadband connections per 1,000 housing units is above the median, and 0 (i.e., *Low*) otherwise.
Disclosure Quality	A dummy variable equal to 1 (i.e., *High*) if a county's Fog Index of the financial report in 2016 is below the median, and 0 (i.e., *Low*) otherwise.
Sophistication	A dummy variable equal to 1 (i.e., *High*) if the average size of individual bonds in an issue is above the sample median, and 0 (i.e., *Low*) otherwise.
Total Content	The total number of tax abatement information items a county disclosed in its first adoption year's financial report, including amount (*Amount*), name or purpose of the tax abatement (*Name or Purpose*), type of the tax abatement (*Type*), grant year (*Grant Year*), authority, other governments involved, measurable criteria for awarding abatements or commitments made by recipients (*Quant Commit*), non-measurable criteria for awarding abatements or commitments made by recipients, mechanism, recapture provisions, recipient names (*Recipient Name*), threshold of reporting individual projects, explanation for omission, amount received from other governments (*Amount Recv*), and miscellaneous items.
Amount Content	The number of tax abatement information items related to specific tax abatement amount. The tax abatement amount refers to the gross dollar value of tax abatements that affect the finances of the reporting government, including abatements entered

	into directly by the reporting government and those entered into by other governments but that affect the reporting government's finances, as well as amount received from other governments.
Other Content	The number of tax abatement information items, excluding *Amount Content*, disclosed by the county in its first adoption year's financial report.
Likely More Material	The number of tax abatement information items that are perceived as more informative or material to investor decisions, including measurable items and those more relevant to the information enquiries in the GASB 77 comment letters (i.e., amount, grant year, measurable criteria for/commitment by recipients, amount received from other governments, name and purpose of the tax abatement, type of the tax abatement, and recipient names).
Likely Less Material	The number of tax abatement information items that are perceived as less informative or material to investor decisions, including unmeasurable items and those less relevant to the information enquiries in the GASB 77 comment letters (i.e., authority, mechanism, unmeasurable criteria for/commitment by recipients, threshold of reporting individual projects, explanation for omission, other governments involved, recapture provisions, and miscellaneous items).
Likely More Positive	A dummy variable equal to 1 if the large language model (LLM) Gemini 2.5 Flash, simulating the perspective of a municipal bond investor, assesses the tax abatement information in a treatment county's financial report in the first adoption year as conveying a more positive signal for a bond purchase decision, and 0 otherwise.
Likely Less Positive	A dummy variable equal to 1 if the large language model (LLM) Gemini 2.5 Flash, simulating the perspective of a municipal bond investor, assesses the tax abatement information in a treatment county's financial report in the first adoption year as conveying a less positive signal for a bond purchase decision, and 0 otherwise.
Media Monitoring	A dummy variable equal to 1 (i.e., *High*) if a county's average percentage of households subscribing to local newspapers in 2016 is above the sample median, and 0 (i.e., *Low*) otherwise.
State Monitoring	A dummy variable equal to 1 (i.e., *High*) if a county is subject to a state mandate requiring at least partial disclosure of tax abatement information in 2016, and 0 (i.e., *Low*) otherwise.
Additional Analysis Variables	
Ln(Issue Amount)	The natural logarithm of the county's total issue amount in the year.
Ln(Issue Frequency)	The natural logarithm of one plus the county's total number of bond issuances in the year.

Appendix B. Examples of Tax Abatement Disclosures

1. Cook County, Illinois, Fiscal Year 2019

Cook County provides tax reductions under numerous programs with individuals, local businesses, and developers. The objective of the agreements is to encourage the development and rehabilitation of new and existing industrial and commercial property, encourage industrial and commercial development in areas of severe economic stagnation, and increase multi-family residential affordable rental housing throughout Cook County by offering a real estate tax incentive. An eligibility application must be filed prior to commencement of a project and include a resolution from the municipality where the real estate is located. Once the project has been completed, the applicant must file an Incentive Appeal Form with the County Assessor's Office. Upon approval by the County Assessor's Office and based on the property classification, the applicant is eligible to receive one of the following tax incentives:

- Property will be assessed at 10% of market value for the first 10 years, 15% in the 11th year and 20% in the 12th year.
- Property will be assessed at 10% of market value for the first 3 years, 15% in the 4th year and 20% in the 5th year.
- Property will be assessed at 10% of the market value for ten years from the date of completion of major rehabilitation.

In the absence of the incentive, the property tax would be assessed at 25% of its market value. This incentive constitutes a substantial reduction in the level of assessment and results in significant tax savings for eligible applicants. For FY 2019, the amount of property tax revenue forgone by the County due to these incentives is estimated at $13.2 million. Of this amount, $7.2 million was for the purpose of development and rehabilitation of new and existing industrial property, $3.3 million was for the purpose of development and rehabilitation of commercial property, $1.1 million was for the purpose of industrial and commercial development in areas of severe economic stagnation, and $1.6 million was for the purpose of increasing multi-family residential affordable rental housing.

2. Smith County, Texas, Fiscal Year 2018

The County enters into property tax abatement agreements with local businesses under the State Property Redevelopment and Tax Abatement Act, Chapter 312, as well as its own guidelines and criteria, which is required under the Act. Under the Act, including its guidelines and criteria, the County may grant property tax abatements for economic projects under the program that provide an increase of at least $1,000,000 in property values, or an annual payroll increase of $400,000 or the creation of 25 new permanent full time jobs. Abatements are granted for up to 100% over a period of time specified on an individual basis. The County's priority for tax abatement is to extend tax abatement to primary employers. In providing local jobs, the retention of existing jobs is recognized as more important than recruitment of new companies. Abatement is given to provide significant, long term, positive economic impact to the community using local contractors and the resident workforce to the maximum extent feasible and by developing, redeveloping and improving real estate within the County.

Disclosure relevant for the fiscal year ended September 30, 2018 is:

Government Entering Into Tax Abatement	Terms of Abatement	Name	Type	Smith County Applied Value	Amount of Taxes Abated for FY 2018
Smith County	100% 4 years	Boyd Metals	Manufacturing	$ 474,535	$ 1,601
Smith County	100% 5 years	JSF-2	Food Processing Facility	12,016,765	40,534
Smith County	100% 6 years	John Soules Enterprises	Food Processing Facility	4,764,079	16,070
Smith County	100% 4 years	Wiggins Creek Leasing LLC	Manufacturing	54,000	182
			Total County Initiated	$ 17,309,379	$ 58,387
City of Tyler	100% 5 years	VME Process, Inc.	Process System Supplier	$ 1,190,541	$ 4,016
City of Tyler	100% 7 years	Renal Care Group Texas, Inc.	Dialysis Service Provider	2,127,424	7,176
City of Tyler	100% 3 years	Crest Process Systems	Manufacturing	2,147,943	7,245
City of Tyler	100% 3 years	Hood Packaging, Inc.	Manufacturing	3,300,135	11,132
City of Tyler	100% 5 years	Centene Corp	Claims Processing Center	1,021,713	3,446
City of Tyler	100% 5 years	Thomas Lee Properties, LLC	Manufacturing	1,649,949	5,565
City of Tyler	100% 5 years	Centene Company of Texas LP	Claims Processing Center	11,251,249	37,952
City of Tyler	100% 7 years	Vereit OFC Tyler TX LLC	Medical Support	8,800,000	29,683
			Total Initiated by Others	$ 31,488,954	$ 106,215

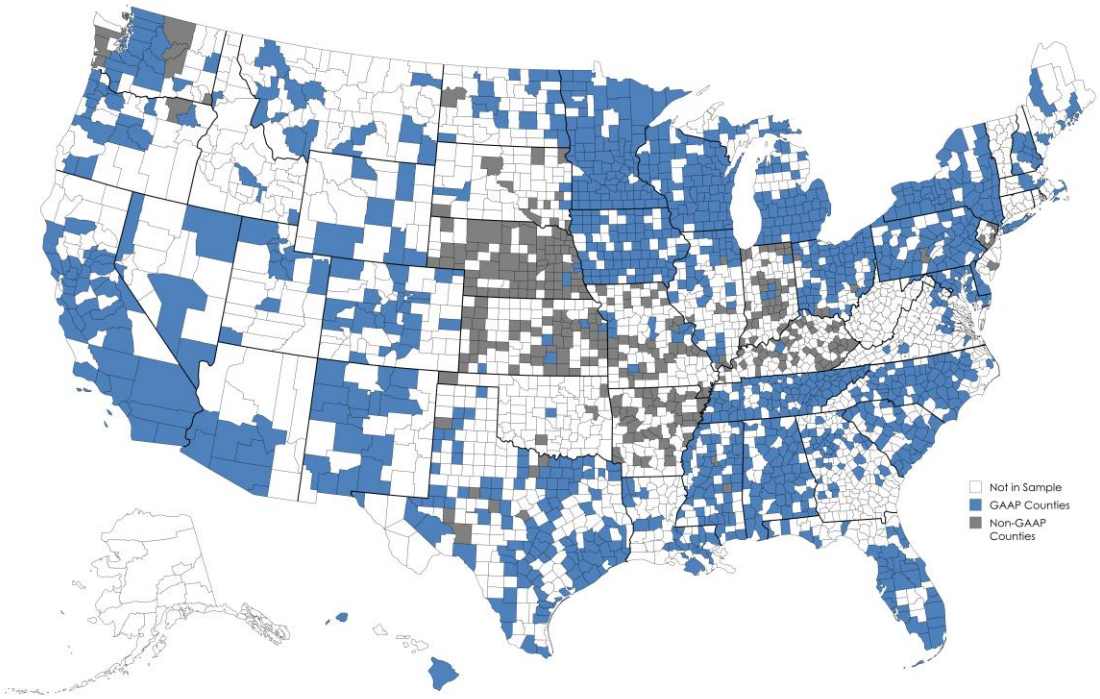

Figure 1. Sample Geographic Distribution

The figure plots Generally Accepted Accounting Principles (GAAP) adherence at the county level in our sample, where 1,164 county governments (blue) prepare financial statements in conformity with GAAP (i.e., the treatment group) and 324 county governments (grey) follow non-GAAP accounting practices (i.e., the control group). Counties shown in white are not included in the sample because (1) they voluntarily adopt GASB 77, (2) their GAAP status changes during the sample period, (3) financial reports are unavailable to determine GAAP adherence, (4) they do not issue any bonds during the sample period, or (5) key variables needed for the regression analyses are missing.

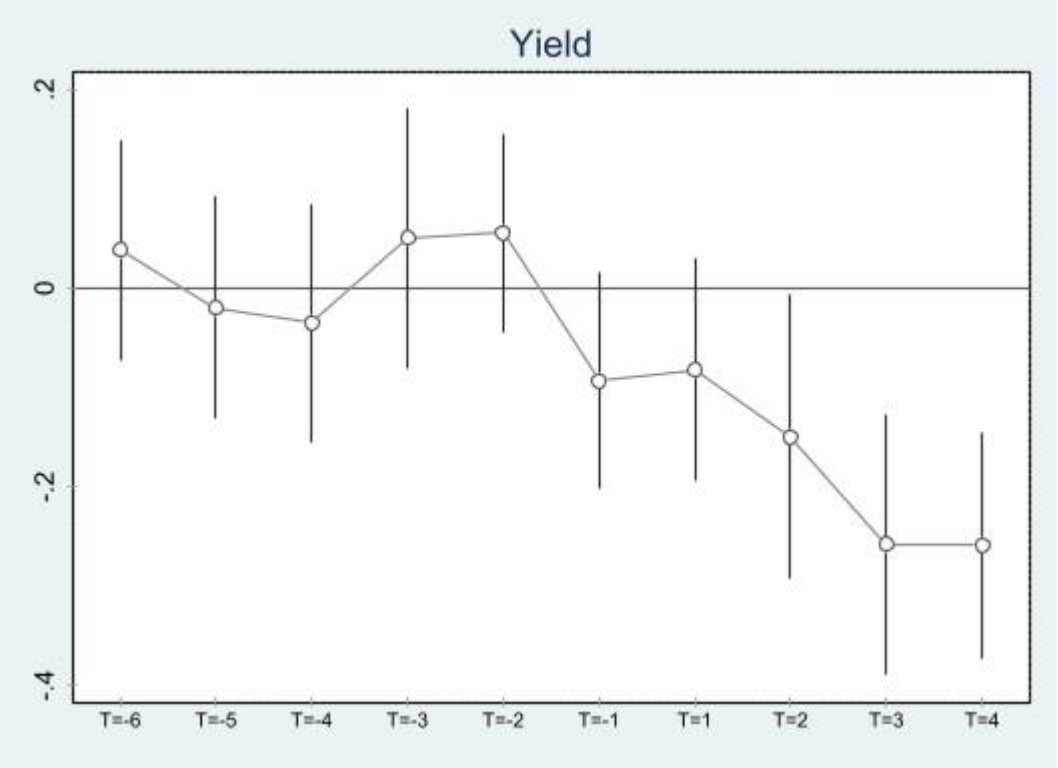

Figure 2. Plot of Dynamic DiD Coefficient Estimates

The figure presents the dynamic DiD coefficient estimates from the parallel trends test. It plots the coefficients on the interaction terms between *Treat* and indicator variables for the years 2011–2020 (i.e., T=-6 to T=4), denoted as *Pre6*, *Pre5*, *Pre4*, *Pre3*, *Pre2*, *Pre1*, *Post1*, *Post2*, *Post3*, and *Post4*, respectively. The benchmark year is 2010 (*Pre7*). Coefficients are plotted with 90% confidence intervals based on robust standard errors clustered at the county level.

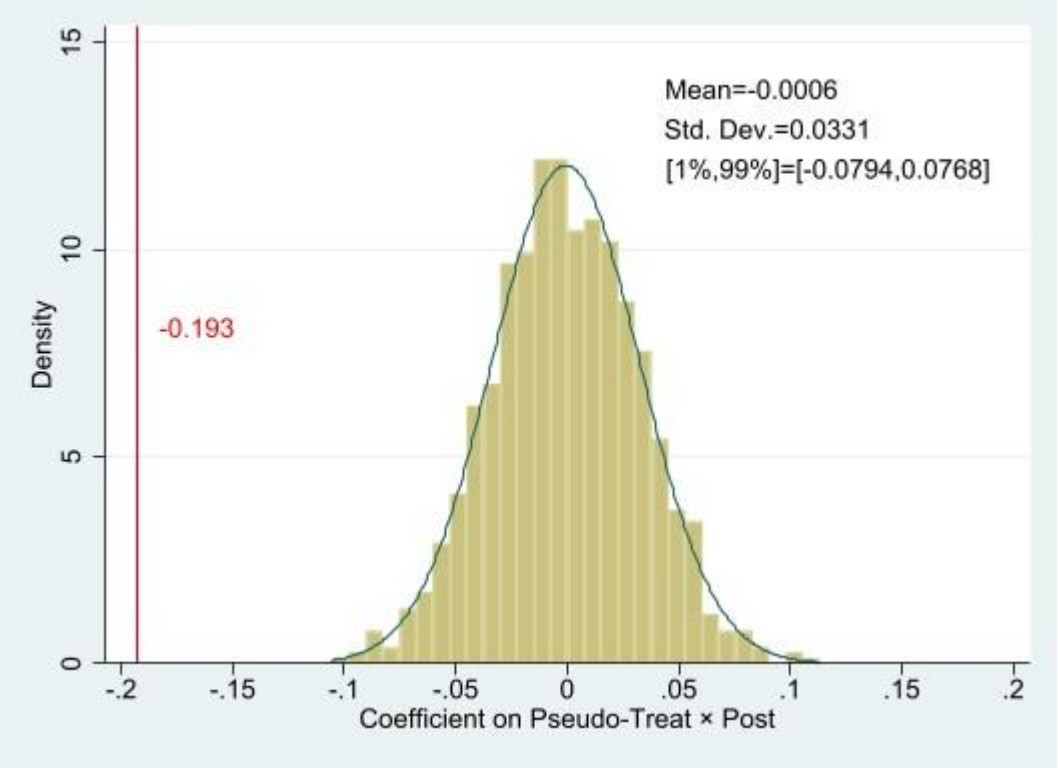

Figure 3. Distribution of Treatment Effects in the 1,000 Placebo Tests

The figure plots the distribution of the coefficient on *Treat*×*Post* from 1,000 bootstrap simulations of the regression reported in Table 3, column (2), using randomly selected treatment and control counties. In each iteration, we randomly select 1,164 counties (the number of actual treatment counties) as "pseudo treatment counties" from the full sample, with the remaining counties serving as "pseudo control counties." We then re-estimate the specification in Table 3, column (2), and plot the distribution of the *Treat*×*Post* coefficients obtained from these 1,000 regressions. The red vertical line on the left represents the actual estimate (−0.193) from Table 3, column (2).

Table 1. Sample Selection

Criteria	No. of Bond Issuances	No. of Counties
SDC universe with bonds issued by counties (i.e., issue type = 11)	121,935	1,730
Delete: bonds not in the sample period 2010-2020	(11,259)	(48)
Delete: counties without demographic data	(351)	(25)
Delete: (1) non-GAAP counties disclosing tax abatements (2) counties changing non-GAAP/GAAP status (3) counties without sufficient financial statements to identify GAAP/non-GAAP status	(4,913)	(62)
Delete: bonds with missing CUSIPs or duplicated CUSIPs	(7,285)	(79)
Delete: bonds with data errors (yields >50, coupon rate>20, price> 150 or price <50)	(1,604)	(12)
Delete: bonds with missing variables in main analysis	(1,727)	(16)
Final Sample	94,796	1,488

Table 2. Summary Statistics

This table reports the summary statistics for the bond and county characteristics. The bond sample in Panel A contains 94,796 bonds issued by county governments (SDC codes 11) between 2010 and 2020. Panel B reports the county characteristics of 1,464 counties in the sample. All continuous variables are winsorized at the 1% and 99% levels. See Appendix A for detailed variable definitions.

Panel A: Bond Issuance Characteristics								
Variable	**N**	**Mean**	**SD**	**Min**	**P25**	**P50**	**P75**	**Max**
Yield (%)	94,796	2.14	1.09	0.25	1.30	2.05	2.89	5.28
Treat	94,796	0.90	0.30	0.00	1.00	1.00	1.00	1.00
Post	94,796	0.34	0.47	0.00	0.00	0.00	1.00	1.00
Bond Amount ($ in millions)	94,796	2.31	4.48	0.03	0.33	0.80	2.20	31.02
Competitive Bid	94,796	0.50	0.50	0.00	0.00	0.00	1.00	1.00
General Obligation	94,796	0.77	0.42	0.00	1.00	1.00	1.00	1.00
Years to Maturity	94,796	8.83	5.82	0.47	4.05	7.94	12.68	25.49
Inverse Years to Maturity	94,796	0.24	0.33	0.04	0.08	0.13	0.25	2.12
Bond Buyer Index	94,796	3.82	0.71	2.13	3.50	3.84	4.32	5.33
Credit Enhance	94,796	0.13	0.33	0.00	0.00	0.00	0.00	1.00
Tax Exempt	94,796	0.90	0.30	0.00	1.00	1.00	1.00	1.00
Credit Rating	94,796	12.30	11.78	1.00	2.00	4.00	27.00	27.00
Rated	94,796	0.61	0.49	0.00	0.00	1.00	1.00	1.00
Coupon Rate	94,796	3.36	1.22	0.70	2.25	3.10	4.40	5.38
Bank Qualification	94,796	0.31	0.46	0.00	0.00	0.00	1.00	1.00
Refund	94,796	0.28	0.45	0.00	0.00	0.00	1.00	1.00
Panel B: County Characteristics								
GDP Per Capita ($ in thousands)	16,368	42.47	21.20	14.88	29.13	38.15	49.63	148.83
Population Growth	16,368	0.00	0.01	-0.04	0.00	0.00	0.01	0.04
Unemployment Rate	16,368	6.22	2.72	2.20	4.10	5.70	7.90	14.60
Household Income ($)	16,368	51,438.88	13,362.77	28,449.00	42,189.00	49,610.50	57,858.50	97,960.00

Table 3. Offering Yields and Tax Abatement Disclosure

This table presents the effect of tax abatement disclosure on offering yields. Observations are at the individual bond level. Column (1) presents the baseline regression results with bond-level controls, while column (2) further incorporates county-level characteristics. Column (3) presents the results from the parallel trends test. Indicator variables for the years 2011–2020 are denoted as *Pre6*, *Pre5*, *Pre4*, *Pre3*, *Pre2*, *Pre1*, *Post1*, *Post2*, *Post3*, and *Post4*, respectively. We set the benchmark year to 2010 (*Pre7*). Standard errors are clustered at the county level and *t*-statistics are reported in parentheses. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively. See Appendix A for detailed variable definitions.

	pred. sign	(1) *Yield*	(2) *Yield*	(3) *Yield*
Treat×Post		-0.192***	-0.193***	
		(-3.54)	(-3.66)	
Treat×Pre6				0.038
				(0.57)
Treat×Pre5				-0.020
				(-0.30)
Treat×Pre4				-0.035
				(-0.48)
Treat×Pre3				0.051
				(0.64)
Treat×Pre2				0.056
				(0.92)
Treat×Pre1				-0.094
				(-1.41)
Treat×Post1				-0.082
				(-1.21)
Treat×Post2				-0.150*
				(-1.73)
Treat×Post3				-0.258***
				(-3.24)
Treat×Post4				-0.259***
				(-3.74)
Ln(Bond Amount)	−	-0.057***	-0.057***	-0.057***
		(-9.89)	(-10.13)	(-10.21)
Competitive Bid	−	-0.047**	-0.043**	-0.043**
		(-2.46)	(-2.22)	(-2.24)
General Obligation	−	0.137***	0.132***	0.131***
		(5.37)	(5.27)	(5.26)
Years to Maturity	+	0.129***	0.129***	0.129***
		(124.94)	(124.46)	(124.61)
Inverse Years to Maturity	−	-0.286***	-0.286***	-0.286***
		(-23.88)	(-23.76)	(-23.78)
Bond Buyer Index	+	0.512***	0.511***	0.511***
		(34.92)	(35.54)	(35.60)
Credit Enhance	−	0.015	0.016	0.016
		(0.70)	(0.74)	(0.75)
Tax Exempt	−	-0.736***	-0.735***	-0.735***
		(-33.39)	(-33.83)	(-33.74)
Credit Rating	+	0.062***	0.059***	0.059***
		(6.53)	(6.24)	(6.20)
Rated	−	1.311***	1.255***	1.246***
		(5.85)	(5.58)	(5.53)
Coupon Rate	+	0.154***	0.154***	0.154***
		(29.92)	(29.89)	(29.98)
Bank Qualification	−	-0.055***	-0.055***	-0.055***
		(-3.16)	(-3.25)	(-3.24)
Refund	−	-0.041***	-0.039***	-0.039***
		(-3.63)	(-3.50)	(-3.48)
GDP Per Capita	−		0.003*	0.003*

			(1.91)	(1.72)
Population Growth	**?**		-0.151	-0.245
			(-0.22)	(-0.35)
Unemployment Rate	+		0.030***	0.029***
			(3.37)	(3.27)
Ln(Household Income)	−		-0.428***	-0.425***
			(-2.81)	(-2.77)
County FE		Y	Y	Y
Year FE		Y	Y	Y
Observations		94,796	94,796	94,796
Adjusted R^2		0.858	0.858	0.859

Table 4. Alternative Research Designs and Oster (2019) Sensitivity Test

This table reports results from alternative research designs using different matching approaches (Panel A) and the Oster (2019) sensitivity test (Panel B). Panel A presents the effect of tax abatement disclosure on offering yields using different sample matching methods. Columns (1) and (2) present the results from the baseline regression and the parallel trends test using the border matching method. Columns (3) and (4) present the results from the baseline regression and the parallel trends test using the propensity score matching (PSM) method. Columns (5) and (6) present the results from the baseline regression and the parallel trends test using the entropy balancing matching method. Indicator variables for the years 2011–2020 are denoted as *Pre6*, *Pre5*, *Pre4*, *Pre3*, *Pre2*, *Pre1*, *Post1*, *Post2*, *Post3*, and *Post4*, respectively. We set the benchmark year to 2010 (*Pre7*). Panel B displays the results from tests evaluating the sensitivity of our main findings to unobservable selection and coefficient stability (Oster 2019). For brevity, all of the control variables are included but not reported. Standard errors are clustered at the county level and *t*-statistics are reported in parentheses. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively. See Appendix A for detailed variable definitions.

Panel A: Matching analysis

	Border		**PSM**		**Entropy Balancing**	
	(1)	(2)	(3)	(4)	(5)	(6)
	Yield	*Yield*	*Yield*	*Yield*	*Yield*	*Yield*
Treat×Post	-0.280***		-0.173***		-0.145***	
	(-4.42)		(-2.65)		(-2.83)	
Treat×Pre6		0.086		0.070		0.021
		(0.69)		(0.76)		(0.33)
Treat×Pre5		-0.198		-0.021		-0.029
		(-1.53)		(-0.26)		(-0.43)
Treat×Pre4		-0.121		-0.040		-0.072
		(-0.89)		(-0.42)		(-1.03)
Treat×Pre3		0.008		0.062		0.024
		(0.05)		(0.68)		(0.31)
Treat×Pre2		-0.102		0.076		0.017
		(-0.81)		(1.00)		(0.28)
Treat×Pre1		-0.229		-0.063		-0.082
		(-1.49)		(-0.77)		(-1.15)
Treat×Post1		-0.326***		-0.071		-0.092
		(-2.77)		(-0.86)		(-1.30)
Treat×Post2		-0.348**		-0.171		-0.123
		(-2.46)		(-1.55)		(-1.42)
Treat×Post3		-0.529***		-0.216**		-0.225***
		(-4.42)		(-2.30)		(-2.79)
Treat×Post4		-0.284**		-0.194**		-0.200***
		(-2.13)		(-2.18)		(-2.83)
Controls	Y	Y	Y	Y	Y	Y
County FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Observations	10,509	10,509	24,465	24,465	94,796	94,796
Adjusted R^2	0.865	0.866	0.870	0.870	0.877	0.877

Panel B: The Oster (2019) test

	Parameter Assumptions	
	(1)	(2)
	Rmax=1; δ=1	δ for β=0
	"True" β Range	δ
	(-0.228, -0.193)	-18.320

Table 5. Cross-Sectional Analysis: Information Content

This table presents the results from cross-sectional analyses based on the information content of tax abatement information after the adoption of GASB 77. *Total Content* is the number of tax abatement information items disclosed in the county's financial report in the first adoption year, where the information items include amount, name and purpose of the tax abatement, type of the tax abatement, grant year, authority, other governments involved, measurable and unmeasurable criteria for/commitment by recipients, mechanism, recapture provisions, recipient names, threshold of reporting individual projects, explanation for omission, amount received from other governments, and miscellaneous items. *Amount Content* is the number of tax abatement information related to specific amount in the first adoption year's financial report. *Other Content* is the number of tax abatement information items, excluding amount-related information items, disclosed in the first adoption year's financial report. *Likely More (Less) Material* is the number of tax abatement information items that are deemed likely to be more (less) material, including measurable (unmeasurable) items and items mentioned frequently (not mentioned frequently) in public comment letters submitted in response to the GASB 77 Exposure Draft. *Likely More (Less) Positive* is an indicator variable equal to 1 if the information content of the tax abatement is considered more (less) positive by investors, and 0 otherwise. The *p*-values of tests of differences in the coefficients on *Treat*×*Post* are reported. Standard errors are clustered at the county level and *t*-statistics are reported in parentheses. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively. See Appendix A for detailed variable definitions.

	(1) *Yield*	(2) *Yield*	(3) *Yield*	(4) *Yield*	(5) *Yield*	(6) *Yield*	(7) *Yield*	(8) *Yield*	(9) *Yield*	(10) *Yield*
Total Content×*Post*	-0.010***									
	(-2.58)									
Amount Content×*Post*		-0.084***		-0.070**						
		(-3.00)		(-2.16)						
Other Content×*Post*			-0.010**	-0.003						
			(-2.46)	(-0.68)						
Likely More Material×*Post*					-0.023***		-0.031**			
					(-2.90)		(-2.44)			
Likely Less Material×*Post*						-0.013**	0.009			
						(-2.09)	(0.88)			
Likely More Positive×*Post*								-0.071**		-0.218***
								(-2.50)		(-3.93)
Likely Less Positive×*Post*									0.017	-0.170***
									(0.60)	(-3.12)
Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
County FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	94,673	94,673	94,673	94,673	94,673	94,673	94,673	90,072	90,072	90,072
Adjusted R^2	0.858	0.858	0.858	0.858	0.858	0.858	0.858	0.858	0.858	0.858
p-value of coeff. difference				0.056			0.064			0.094

Table 6. Cross-Sectional Analysis: Information Asymmetry

This table presents the results from the cross-sectional tests based on information asymmetry. In Panel A, the sample is partitioned based on the county internet coverage level before the adoption of GASB 77. In Panel B, the sample is partitioned based on the Fog Index of the county financial report before the adoption of GASB 77. In Panel C, the sample is partitioned based on investor sophistication. Panel D examines how pre-disclosure of tax abatements from Good Jobs First influences the effect of GASB 77. The sample is divided based on whether the county is reported by GJF to have tax abatement prior to 2017. The *p*-values of tests of differences in the coefficients on *Treat×Post* are reported. Standard errors are clustered at the county level and *t*-statistics are reported in parentheses. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively. See Appendix A for detailed variable definitions.

Panel A: Internet coverage		
	(1)	(2)
Dependent Variable = *Yield*	*Low Internet Coverage*	*High Internet Coverage*
Treat×Post	-0.263***	-0.154**
	(-4.09)	(-2.25)
Controls	Y	Y
County FE	Y	Y
Year FE	Y	Y
Observations	22,172	72,624
Adjusted R^2	0.896	0.849
p-value of coeff. difference	<0.01	
Panel B: Financial reporting quality		
	(1)	(2)
Dependent Variable = *Yield*	*Low Disclosure Quality*	*High Disclosure Quality*
Treat×Post	-0.241***	-0.074
	(-3.51)	(-0.89)
Controls	Y	Y
County FE	Y	Y
Year FE	Y	Y
Observations	37,563	50,599
Adjusted R^2	0.861	0.857
p-value of coeff. difference	<0.01	
Panel C: Investor sophistication		
	(1)	(2)
Dependent Variable = *Yield*	*Low Sophistication*	*High Sophistication*
Treat×Post	-0.198***	-0.146*
	(-3.28)	(-1.66)
Controls	Y	Y
County FE	Y	Y
Year FE	Y	Y
Observations	40,118	54,678
Adjusted R^2	0.891	0.854
p-value of coeff. difference	0.013	
Panel D: Pre-disclosure through Good Jobs First		
	(1)	(2)
Dependent Variable = *Yield*	*Pre-Disclosure=No*	*Pre-Disclosure=Yes*
Treat×Post	-0.190***	-0.064
	(-3.50)	(-0.32)
Controls	Y	Y
County FE	Y	Y
Year FE	Y	Y
Observations	69,254	25,542
Adjusted R^2	0.861	0.853
p-value of coeff. difference	<0.01	

Table 7. Cross-Sectional Analysis: Monitoring

This table presents the results from the cross-sectional tests based on monitoring. In Panel A, the sample is partitioned based on whether a county is subject to a state mandate requiring at least partial disclosure of tax abatement information prior to the adoption of GASB 77. In Panel B, the sample is partitioned by the median of the average percentage of households subscribing to local newspapers. The *p*-values of tests of differences in the coefficients on *Treat*×*Post* are reported. Standard errors are clustered at the county level and *t*-statistics are reported in parentheses. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively. See Appendix A for detailed variable definitions.

Panel A: State monitoring		
	(1)	(2)
Dependent Variable = *Yield*	*Low State Monitoring*	*High State Monitoring*
Treat×*Post*	-0.255***	-0.150**
	(-4.22)	(-2.06)
Controls	Y	Y
County FE	Y	Y
Year FE	Y	Y
Observations	39,161	55,635
Adjusted R^2	0.870	0.852
p-value of coeff. difference	<0.01	
Panel B: Media monitoring		
	(1)	(2)
Dependent Variable = *Yield*	*Low Media Monitoring*	*High State Monitoring*
Treat×*Post*	-0.234***	-0.161**
	(-3.61)	(-1.98)
Controls	Y	Y
County FE	Y	Y
Year FE	Y	Y
Observations	39,936	52,658
Adjusted R^2	0.864	0.853
p-value of coeff. difference	<0.01	

Table 8. Robustness Tests

This table presents the results of the robustness tests. Panel A displays the results of using alternative windows [-4, 4] and [-3,3] in columns (1) and (2), respectively. Panel B presents the results of using issue purposes as additional fixed effects in column (1), replacing year fixed effects with year-month fixed effects in column (2), clustering standard errors at the state level in column (3), and double-clustering by county and year in column (4). In Panel C, column (1) presents the regression results after excluding taxable bonds, and column (2) presents results from the issuance-level regression by retaining only the longest-maturity bond within each bond issuance. Panel D presents the results of the weighted regression, where the weight is the inverse of the number of bond issuances in a county-year. Standard errors are clustered at the county level and *t*-statistics are reported in parentheses. ***, **, * denote significance at the 1%, 5%, and 10% levels, respectively. See Appendix A for detailed variable definitions.

Panel A: Alternative window

	(1) *Yield* [-4,4]	(2) *Yield* [-3,3]
Treat×*Post*	-0.141***	-0.102*
	(-2.67)	(-1.86)
Controls	Y	Y
County FE	Y	Y
Year FE	Y	Y
Observations	66,364	49,321
Adjusted R^2	0.847	0.851

Panel B: Alternative fixed effect and cluster level

	(1) *Yield*	(2) *Yield*	(3) *Yield*	(4) *Yield*
Treat×*Post*	-0.201***	-0.206***	-0.193***	-0.193***
	(-4.27)	(-4.39)	(-2.47)	(-3.01)
Controls	Y	Y	Y	Y
County FE	Y	Y	Y	Y
Year FE	Y	N	Y	Y
Issue Purpose FE	Y	N	N	N
Year-month FE	N	Y	N	N
Clustered by	County	County	State	County, Year
Observations	94,774	94,796	94,796	94,775
Adjusted R^2	0.861	0.866	0.858	0.858

Panel C: Alternative sample

Dependent Variable = *Yield*	(1) No Taxable Bonds	(2) Issuance Level
Treat×*Post*	-0.190***	-0.281***
	(-3.55)	(-4.82)
Controls	Y	Y
County FE	Y	Y
Year FE	Y	Y
Observations	85,557	8,869
Adjusted R^2	0.854	0.863

Panel D: Weighted regression

	Yield
Treat×*Post*	-0.196***
	(-2.73)
Controls	Y
County FE	Y
Year FE	Y
Observations	94,796
Adjusted R^2	0.849

The Online Appendix is available at this link.