

Political Competition and Rule-Based Financing in the Municipal Bond Market

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Abstract

I study the link between the choice of rule-based contracts and political competition through the municipal bond market. I provide evidence that when the probability of losing office is high, mayors are more likely to issue revenue bonds over general obligation bonds and to choose competitive bidding over negotiated sales. This relationship can help explain trends in public financing and spending. The choice of revenue bonds and competitive bidding insulates public officials from referendum checks and allegations of impropriety but requires higher interest rates and administrative costs.

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Marian Moszoro

Cities, counties, and states issue municipal bonds to raise money for public projects, including new construction for education, utilities, and transportation.¹ Securing funding for these projects could benefit politicians who are up for reelection. While municipal bonds are a small part of overall state expenditures, these securities comprise a third of spending on capital projects and a substantial fraction of the overall American securities market.² In 2017, the municipal bond market accounted for \$4 trillion, roughly 10 percent of the American public debt. The choice between different types of bond instruments should be made efficiently, but the political incentives at play draw that efficiency into question.

Recent cases of spectacular defaults—for example, in Detroit³ and Puerto Rico⁴—have put municipal bonds in the spotlight. Large capital projects such as sports stadiums are commonly funded by bonds and are favored for their political popularity based on estimated economic development impact. In Albuquerque, revenue bonds are being used to finance sports fields, a new bus system, a library, and a visitor center. Mayor Richard Berry argues that the capital projects are necessary to stimulate the economy, a statement that plays well in elections. By using a revenue bond, city commissioners compete for the pot of money to benefit their districts and avoid a referendum.⁵

The best practices for issuing municipal bonds recommend that the end goal of any bond should be to provide funding at the lowest cost to the public. Choosing some riskier

¹ See National Association of State Budget Officers, “State Expenditure Report 2014–2016,” 11, accessed April 3, 2017.

² *Ibid.*, 2, 4.

³ See “Detroit Leads 2013 U.S. Bond Defaults: Moody’s,” *Reuters Business News*, May 7, 2014.

⁴ See Dawn Giel, “Puerto Rico Starts \$70 Billion Bankruptcy Proceeding, Biggest Ever for Municipal Bond Market,” *CNBC*, May 3, 2017.

⁵ Dan McKay, “Revenue Bonds Allow ABQ Leaders to Bypass Voters,” *Albuquerque Journal*, January 2, 2017.

characteristics within bonds may cause higher interest rates or come with higher fees. As long as choices between characteristics are based on accounting factors, officials and citizens have little cause for concern. Officials (mayors, city managers, and governors) who are in imminent risk of losing reelection may heavily consider the public perception of bonds and choose characteristics favorable for reelection. The result is that more expensive and procedural bonds and sales mechanisms are chosen to curtail the hazards from political opponents.

Types of Bonds

There are many different types of municipal bonds. General obligation and revenue bonds constitute the vast majority of securities issued by municipalities.

General Obligation (GO) Bonds pledge to all forms of city finances (including general tax revenues), and their proceeds can be used at the discretion of the elected official. GO bond issues must be approved in referenda and, in most jurisdictions, are subject to legislated debt limits.⁶

Revenue Bonds' proceeds are earmarked for specific purposes and are backed by specific revenue streams, normally from the investment project they finance. Revenue bond issues do not require approval in referenda and are excluded from debt ceiling calculations.⁷

In addition to GO and revenue bonds, there are a few other common types of municipal securities. **Limited-Tax General Obligation Bonds** require a local government to levy a property tax sufficient to meet its debt service obligations but only up to a statutory limit. Generally, local governments can choose to use a portion of the property tax they already levy or increase their property tax by an amount equal to its debt service payments.

⁶ Jacob S. Rugh and Jessica Trounstine, "The Provision of Local Public Goods in Diverse Communities: Analyzing Municipal Bond Elections," *Journal of Politics* 73, no. 4 (2011): 1038–50.

⁷ Ibid.

Certificates of Participation (COPs) are a form of lease revenue bond that permits the investor to participate in a stream of lease payments, installment payments, or loan payments relating to the acquisition or construction of specific equipment, land, or facilities. In theory, the certificate holder could foreclose on the equipment or facility financed in the event of default, but so far, no investor has ended up owning a piece of a schoolhouse or a storm drainage system.

Municipal Notes are short-term obligations, generally maturing in one year or less. The most common types include (1) bond anticipation notes (BANs), (2) grant anticipation notes (GANs), (3) revenue anticipation notes (RANs), (4) tax anticipation notes (TANs), (5) tax and revenue anticipation notes (TRANs), (6) project notes, and (7) construction loan notes.

Bonds Backed by Special Taxes and Assessments are often due on the same dates as property taxes, to compensate for their levied, but still unpaid, share.

Tax Allocation Bonds are issued to pay the cost of land and building acquisition and their redevelopment. They are repaid by the incremental increase in tax revenues produced by the increase in the assessed value of the area after redevelopment.

Because some of these categories are closely related to either GO or revenue bonds, they are lumped here into one of those two categories. In the construction of the final bond dataset, I ignored notes, bonds backed by special taxes and assessments, and tax allocation bonds and then aggregated the following:

- General obligation limited-tax bonds into **GO bonds**
- COPs and tax allocation bonds into **revenue bonds**

Choices of Bond Type and Sales Method

Bond Type: General Obligation versus Revenue Bonds

Due to their restricted collateral, revenue bonds must pay higher interest rates than GO bonds.⁸ Trade-offs emerge between spending flexibility, financial cost, and political oversight. By selecting revenue bond financing, a politician can self-restrict flexible spending to avoid an accusation of improper use of public monies, although they must accept the cost of higher bond yields. Revenue bonds may also require additional components, such as a feasibility study, as well as clauses to protect investors.⁹ These elements add significant costs to municipalities that are already resource-constrained.

Table 1. Typology of Main Classes of Municipal Bonds

Bond type	Backing	Spending	Subject to debt limits	Referendum required
General obligation	All revenue sources (general taxes)	Discretionary	Yes	Yes*
Revenue	Invested project revenue or another specific source	Earmarked	No	No

* Jacob S. Rugh and Jessica Trounstein, “The Provision of Local Public Goods in Diverse Communities: Analyzing Municipal Bond Elections,” *Journal of Politics* 73, no. 4 (2011): 1038–50.

This was the case in Rhode Island in November 2015, when Governor Gina Raimondo proposed to finance road improvements with revenue bonds. According to Rhode Island Department of Transportation (RIDOT), choosing a revenue bond was more costly—with a

⁸ Nova Edwards, “An Overview of Local Government General Obligation Bond Issuance Trends: 1985–2005,” *Brief CDIAC* (2008), 08–03, California Debt & Investment Advisory Commission.

⁹ Michael E. Howell-Moroney and Jeremy L. Hall, “Waste in the Sewer: The Collapse of Accountability and Transparency in Public Finance in Jefferson County, Alabama,” *Public Administration Review* 71, no. 2 (2011): 232–42.

projected 5 percent interest rate for the toll-backed revenue bond, compared to an average rate of 2.4 percent on a GO bond the state had proposed earlier that year. One benefit to the administration was that the governor could argue taxpayer money would never be used to pay the bond and—unlike with a GO bond—no referendum was required to approve the borrowing. RIDOT Deputy Director Peter Garino said revenue bonds provide “a safeguard to prevent future governors or lawmakers from redirecting toll revenue to other types of spending.”¹⁰

Sales Method: Negotiated versus Competitively Bid

The differences between negotiated and competitive bid bonds are more nuanced, and either method can be used within both GO and revenue bonds. In open **competitive bids**, the bond covenants are determined when the auction is announced and the bonds are placed to bidders who offer the lowest interest cost. In **negotiated sales**, the bond covenants and interest rate are negotiated with the selected underwriter.

Competitive bids require more time and effort to prepare than negotiated sales. Especially in complex projects, it may be difficult to specify every detail accurately in a competitive bid, which may later lead to costly adjustments.¹¹

Table 2. Typology of Underwriting Mechanisms of Municipal Bonds

Type of underwriting	Number of underwriters	Terms	Information disclosure
Competitive bid	1+	Determined when bid is submitted, chosen by issuer	All bidders must have information before constructing an offer
Negotiated	1	Negotiated before sale date of bond	Information disclosed only between negotiating parties

¹⁰ Ted Nesi, “Here’s Why RIDOT Says a Truck-Toll Bond Would Save RI US\$612M—Transportation Agency Explains Rationale for Borrowing US\$600M to Repair Bridges,” *WPRI 12 Eyewitness News*, November 2, 2015.

¹¹ Patrick Bajari and Steven Tadelis, “Incentives versus Transaction Costs: A Theory of Procurement Contracts,” *Rand Journal of Economics* 32, no. 3 (2001): 387–407.

The relative cost differences may look *prima facie* modest. If 10 percent of the bonds are misallocated, however, a 1 percent difference in paid interest and fees would account for \$4 billion additional costs to taxpayers.

Political Contestability

Most of the literature of the municipal bond market has only focused on the trade-offs between the type of bond issued and whether it is competitively bid or negotiated. This ignores the additional influences of close elections and interactions with public opinion. There are four players involved in a public contract: the incumbent political agent, the private contractor who can provide the public good or service, the potential political opponent, and the voting public. The contribution made by Marian Moszoro, Pablo Spiller, and Abhay Aneja is to consider all these agents together: the influence of public opinion on the incumbent and a challenging opponent, the challenging opponent on the incumbent, and the contract fulfiller on the incumbent.¹²

Foreseeing the possibility of an opportunistic challenge on a bond issue, incumbent officials may choose less flexibility—that is, more rules and *rigidity*—by earmarking spending through a revenue bond and choosing a provider through more procedural competitive bidding. To be effective, the level of rigidity must be just right. If rigidity is too low, the increased political cost offsets any decreases in bond issuance cost. If rigidity is too high, the increased cost of issuing rule-based debt outweighs the decrease in political cost.

¹² Marian Moszoro, Pablo T. Spiller, and Abhay Aneja, “Political Bonds: Political Hazards and the Choice of Municipal Financing Instruments” (2017), <https://ssrn.com/abstract=2493554>.

Theories Tested

When contracts allow more discretionary spending, there is more room for outsiders to challenge the official. The more rigid a contract is, the harder and costlier it is to successfully challenge it. In line with this, there are three specific hypotheses that are tested in the paper:

- 1) Elected officials are more likely to issue revenue bonds in politically contested municipalities.
- 2) Elected officials are more likely to issue bonds through competitive bidding in politically contested municipalities.
- 3) Elected officials are more likely to issue revenue bonds in politically contested municipalities closer to the next elections—that is, later in a mayoral term.

Results

Using a dataset of 6,505 bonds and controlling for election contestability, the paper provides empirical evidence that electoral conditions influence choices in public bond issuances.

Specifically, the paper confirms the hypotheses and reaches the following conclusions:

- 1) By choosing rule-based methods—revenue bonds and competitive sales—city officials signal transparency and trustworthiness to deliver a project. This limits concerns about the discretionary use of public monies to buy political favors or otherwise be wasteful.¹³
- 2) Earmarking spending prevents funds from going to other projects in the event the incumbent loses office.
- 3) Incumbents in contestable elections are less likely to want to disclose the information required for unsecured GO bonds and competitive sales.

¹³ Bruce L. Benson and John Baden, “The Political Economy of Governmental Corruption: The Logic of Underground Government,” *Journal of Legal Studies* 14, no. 2 (1985): 391–410.

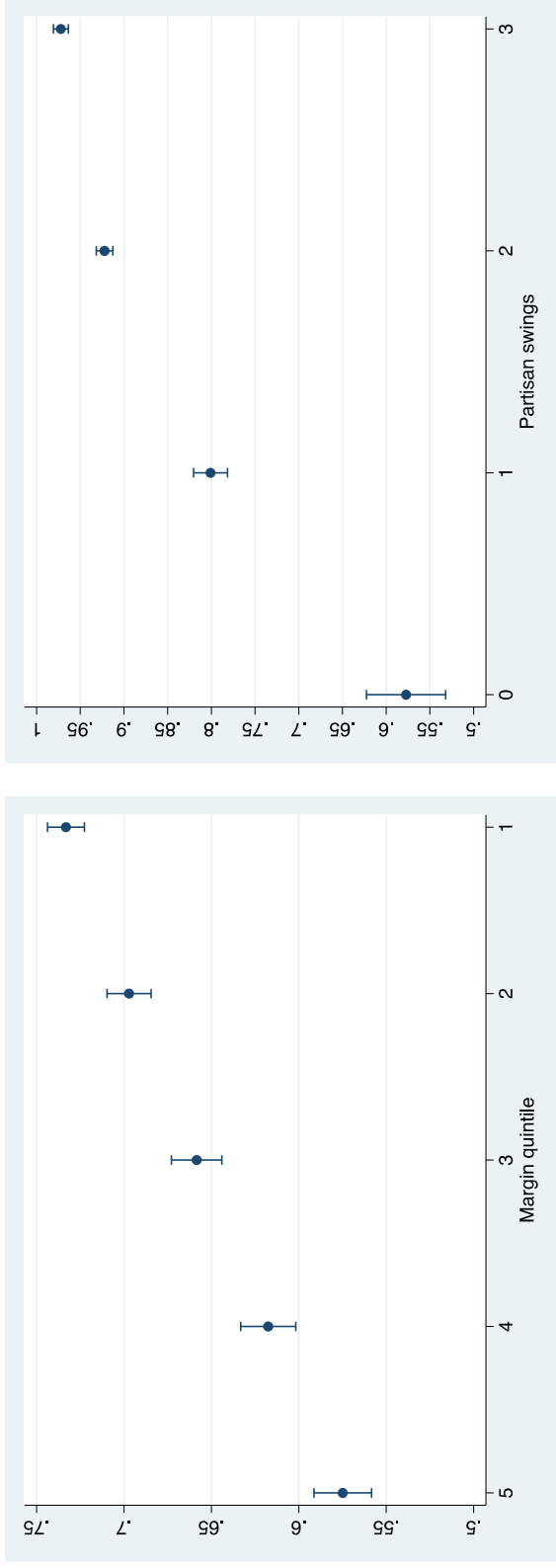
Narrowing election victory margins by one quintile increases the probability of debt being issued through a revenue bond by 2.7 to 4.2 percent, while an increase in the number of partisan swings in the past electoral races by one standard deviation leads to an increased probability of issuing a revenue bond by 8.2 percent (see figure 1). These results are more salient given that a large part of the municipal budget is fixed and tied to particular sources of financing, and only a fraction is subject to policymakers' discretion.

Likewise, narrowing victory margins by one quintile increases the probability of issuing bonds through competitive bids by 2.5 percent, and an increase in the number of partisan swings in the past electoral races by one standard deviation increases the probability by 2.3 percent (see figure 2).

Policy Implications

The empirical research of municipal financing consists of a long chain of tenuous inferences fraught with technical complexities in every link: beginning with diverse needs; compounded by heterogeneous and sophisticated financial instruments; compounded by uninformed taxpayers; compounded by the lack of nationwide data; compounded by the lack of exogenous shocks, good instruments, or discontinuities in political accountability to draw causal inferences. The result of this lengthy cascade of complexities is a reduced form of estimations about the aggregate welfare impacts of discretionary action of public agents to political hazards.

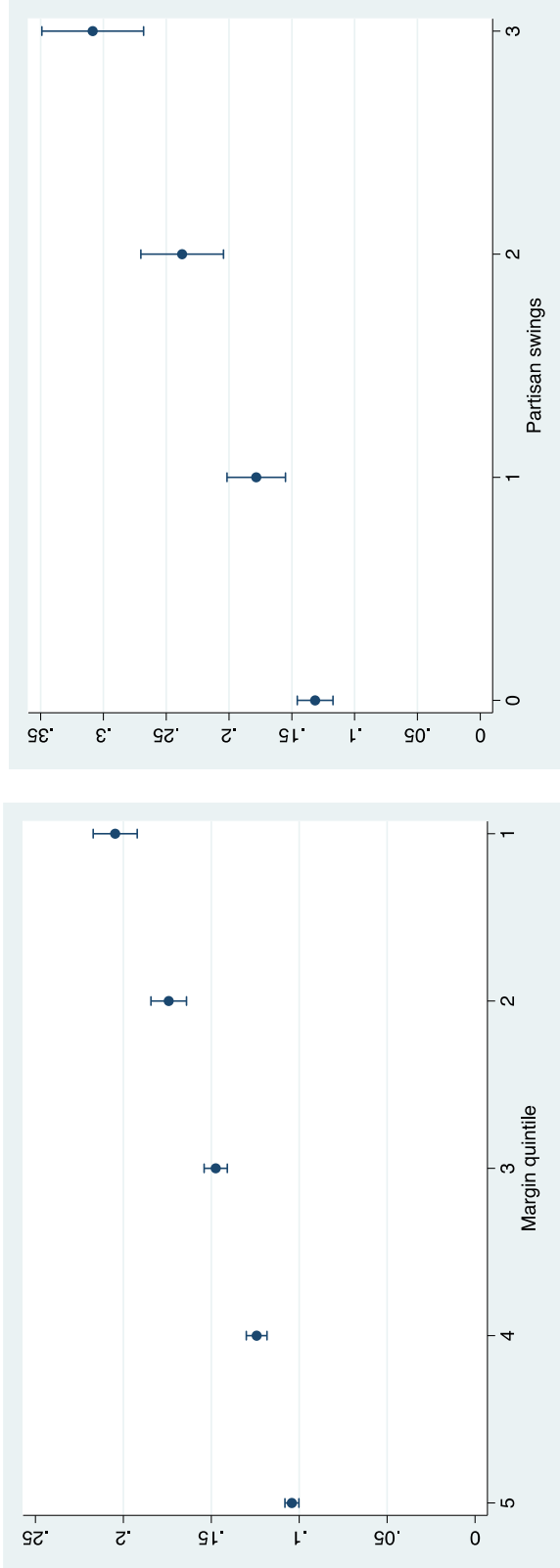
Figure 1. Predicted Probability of Issuing a Revenue Bond



Note: This figure presents the predicted probability of issuing a municipal bond as a revenue bond versus a general obligation bond, computed as the marginal effects of a change in the quintile of margin of victory vote (left graph) and number of partisan swings in the past three electoral races (right graph). The vertical bars represent the 95 percent confidence intervals of the point estimates for quintile of victory margin and partisan swings, respectively. Lower margin of victory quintile and more partisan swings in the past elections mean more politically contestable environment (from left to right).

Source: Author's calculations.

Figure 2. Predicted Probability of Issuing a Municipal Bond through a Competitive Bid



Note: This figure presents the predicted probability of issuing a municipal bond through a competitive bid versus a negotiated bilateral agreement, computed as the marginal effects of a change in the quintile of margin of victory vote (left graph) and number of partisan swings in the past three electoral races (right graph). The vertical bars represent the 95 percent confidence intervals of the point estimates for quintile of victory margin and partisan swings, respectively. Lower margin of victory quintile and more partisan swings in the past elections mean more politically contestable environment (from left to right).

Source: Author's calculations.

Political contestability seems to be a determinant of the type of bond and method of sale issued by municipalities. Using several types of specifications and measures of political risk, Moszoro et al.¹⁴ find suggestive evidence that mayors in more contested political environments issue more rigid revenue bond and use less discretionary competitive bidding.

The corollary is that the choice of revenue bonds in politically contestable municipalities, when otherwise a GO bond would be economically feasible, represents a welfare transfer from taxpayers to lenders, as lenders receive an interest premium over the interest rate appropriate to the credit risk of the borrowing municipality. In other words, politicians at risk of losing office buy political insurance (i.e., choose financial instruments less hazardous to politicians but not having the backing of all forms of city finance and, thus, more risky of default to the lenders) and externalize the additional cost to the public at large. Taxpayers' unawareness of "small" misallocations makes them susceptible to overcharges.

Four policy implications follow from the presented analysis. First, rating agencies should incorporate political variables into their algorithms. Consider revenue bonds issued in two financially similar cities, but one politically stable and the other politically hazardous. The aforementioned research suggests that in the second case, the choice of revenue bonds was not purely economic but politically stained and, thus, more likely inefficient. Disentangling political and financial risks could help fine-tune the risk premiums for revenue bonds in politically contestable but financially stable municipalities.

Second, to disincentivize the "strategic" use of revenue bonds in politically contestable municipalities, issues above a certain amount (e.g., 2 percent of a municipality's annual tax

¹⁴ Moszoro et al., "Political Bonds."

revenues) should be subject to a referendum similarly to GO bonds.¹⁵

Third, negotiated sales are a mechanism less subject to public control and, therefore, more prone to favoritism compared to competitive bids. There is evidence of use of direct loans by municipalities, in which public officials have total discretion regarding the choice of underwriter and terms.¹⁶ Both negotiated sales and private placements of municipal debt should be under the scrutiny of regulators, especially in light of corporate contributions and possible quid pro quo deals.

Finally, increased information to taxpayers about bond issues' covenants and costs will increase scrutiny and accountability of politicians in office, limit their strategic behavior regarding financing instruments and sales mechanisms, and, thus, lower the welfare transfer from taxpayers to lenders.

¹⁵ This proposition is not original. The California Voter Approval Requirement for Revenue Bonds above \$2 Billion Initiative, also known as Proposition 53, was on the ballot in California on November 8, 2016, as an initiated constitutional amendment. A “yes” vote supported requiring voter approval before the state could issue more than \$2 billion in public infrastructure bonds that would require an increase in taxes or fees for repayment. A “no” vote opposed this measure requiring voter approval before the state could issue more than \$2 billion in public infrastructure bonds that would require an increase in taxes or fees for repayment. Supporters of Proposition 53 referred to it as the “No Blank Checks Initiative.” The measure was defeated 6,660,555 votes (50.58 percent) to 6,508,909 votes (49.42 percent). Interestingly, the top two donors against Proposition 53 were the incumbent Governor Brown’s 2014 gubernatorial campaign committee and the California Democratic Party. See “California Proposition 53, Voter Approval Requirement for Revenue Bonds above \$2 Billion (2016),” *Ballotpedia*, accessed October 24, 2017, [https://ballotpedia.org/California_Proposition_53_Voter_Approval_Requirement_for_Revenue_Bonds_above_\\$2_Billion_\(2016\)](https://ballotpedia.org/California_Proposition_53_Voter_Approval_Requirement_for_Revenue_Bonds_above_$2_Billion_(2016)).

¹⁶ There are no data available on the number and magnitude of private placements by municipalities in the United States. Benji Nguyen, Sylesh Volla, and Annabel Wong present a preliminary study from California. See Benji Nguyen, Sylesh Volla, and Annabel Wong, “Private Placement of Municipal Debt: Lessons from California’s Mandatory Disclosure Rule,” a report for the Volcker Alliance, Public Policy Program, Stanford University (June 2017).