Pay Now, Play Later:

Political Contributions and Underwriting Relationships in the Muni Market*

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Abstract

We investigate political contributions by municipal bond underwriters under the regulation of Rule G-37, which requires detailed disclosure and prohibits contributing banks from underwriting business for a two-year period if any contribution to a candidate exceeds $250. We find that underwriters can circumvent the restrictions of Rule G-37 by making multi-small donations (multiple contributions under the de minimis limit of $250) to campaign candidates and such strategy leads to a significant increase in their negotiated market shares. Large donations (contributions above the de minimis limit of $250) are also associated with a significant increase in underwriting market share, but with a two-year delay. Further analyses show that these effects are mainly driven by contributions to winning candidates in the elections. We find that regional underwriters are more likely to make multi-small donations and national underwriters tend to initiate large donations in states with high growth in negotiated issues. We also provide evidence that underwriters contribute more to political parties in states where they already have strong underwriting relations. Our findings suggest that underwriters strategically adopt different contribution arrangements to establish connections with municipal issuer officials even after the implementation of Rule G-37 and political connections still play an influential role in the municipal underwriting market.

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1 Introduction

The growing literature on corporate political contributions has studied the motivations of establishing political connections, the impact on firm values, and the underlying channels through which firms benefit from the political relationships. However, limited research has focused on the choice and impact of different contribution strategies and the influence of regulatory constraints. In this paper, we contribute to the literature by investigating strategies of political contributions by municipal underwriters to state executives, legislators, and political parties. We aim to analyze the impact of different contribution strategies on future underwriting market shares and explore factors affecting underwriters' contribution choices. In particular, our research sheds light on the effect of Rule G-37 on political contributions, a rule designed to curb the once rampant pay-to-play practice in the municipal debt underwriting market. We find that underwriters continue to make political contributions after the passage of Rule G-37 and that larger contributions predict higher underwriting market shares, especially when the candidates win the elections. We also find evidence consistent with underwriters adopting contribution strategies to circumvent the restrictions of Rule G-37.

The U.S. municipal debt market provides an appealing setting to study the motive and implication of political connections. During the period from 1997 to 2015, more than 77% of municipal bond issues were placed through negotiated deals in which municipal issuer officials play an active role in selecting underwriters (instead of through competitive bidding). The negotiated placement channel raised $1.83 trillion for municipalities and generated $8.51 billion underwriting fees for dealers, which provided a strong incentive for underwriters to secure connections with issuer officials. Moreover, 77 out of 94 underwriting banks in our sample made contributions to campaign candidates or political parties. The majority of U.S.

states, 45 out of 50, hired contributing banks to underwrite their municipal bond issues at least once during our sample period. Historically, the municipal issuance market was infamously known for the pay-to-play arrangement in which dealers made political contributions in exchange for underwriting business. In 1994, with the explicit purpose of ending such practice, the Municipal Security Rule-making Board (MSRB)[1] implemented Rule G-37 that prohibits dealers from receiving underwriting business for two years after contributing to an issuer official or campaign candidate who could later influence the selection of underwriters.

While the adoption of Rule G-37 limits the direct contributions to issuer officials by municipal underwriters, it leaves a number of concerning exemptions. First, the rule does not apply to donations less than $250 (a de minimis contribution of Rule G-37) by employees who are eligible to vote in the state. Second, the rule does not restrict donations made to political parties. As a result, possible loopholes may exist to circumvent the restrictions of Rule G-37. For example, dealers can split a large donation among multiple employees — each donating no greater than $250 to the same official or campaign candidate.[2] Alternatively, dealers can make contributions to political parties which could have indirect influence on the intended candidates. To investigate the effectiveness of Rule G-37 on curbing the pay-to-play practice, we distinguish between contributions to campaign candidates (including incumbent officials) and contributions to political parties or committees. Specifically, we examine the effects on underwriting business and the choice by underwriters of the following four contribution strategies: (1) *large donations* (contributions exceeding the de minimis limit of $250) to a campaign candidate; (2) *multi-small donations* (multiple contributions under the de minimis limit of $250) to an election candidate; (3) *small donations* (contributions under the de minimis limit of $250) to a campaign candidate; and (4) *party donations* (contributions of

[1] Municipal Securities Rulemaking Board (MSRB) is a self-regulatory organization authorized by the Securities and Exchange Commission (SEC) to create rules and regulate the market of municipal securities.
[2] See the example of multi-small donations in Appendix A.

any amount) to a political party or subdivision.

We measure the strength of political connection for each underwriter-state pair in a given year by the underwriter's donation amount relative to all other contributing underwriters. Specifically, we compute the donation percent as the dollar donation amount by the underwriter to all candidates (parties) in the state normalized by the total donation from all underwriters contributing to the state in a given year. For donations made directly to candidates, we separately compute the donation percent for large donations, multi-small donations, and small donations.

To alleviate the selection bias concern, we apply a methodology using home state indicator, past market share in the state, and past underwriting volume in the country to match each contributing underwriter with a group of non-contributing underwriters in each state. Based on this matched sample, we first use a pooled regression to examine whether a contribution strategy subsequently leads to a higher market share of negotiated deals in the contributing states, while simultaneously controlling for other types of contributions. Because underwriters making large donations are subject to the two-year lockup provision of Rule G-37, we expect a delay for the impact on their market share. To capture such regulation induced time delay, we next use an event study approach to identify the impact of large donations. Specifically, we compare the difference in contributing underwriter's market share between the pre-donation years (benchmark period) and the post-donation years (treatment period) with that of matched non-contributing banks.

We find that an increase in multi-small donations is associated with an immediate and significant increase in the dealer's market share of negotiated bond deals.[3] The finding suggests that underwriting banks may employ such strategy to circumvent the restriction of Rule G-37 and influence the decision making of issuer officials. Further, we find that

[3] The incremental sales are equivalent to $44.7 million underwriting fees for contributing underwriters.

initiating large donations (above the de minimis limit of $250) to campaign candidates is also positively associated with the donating underwriter's market share in the connected state — but with a two-year delay. This can be plausibly attributed to the restriction of Rule G-37. These findings are consistent with the investment-driven hypothesis of Stigler (1971) and Shleifer and Vishny (1994). That is, political contributions are motivated by acquiring future underwriting businesses from connected state officials. By contrast, we find no significant associations between small donations and future underwriting market shares. This lends support to the consumption-based hypothesis proposed by Ansolabehere, de Figueiredo, and Snyder (2003). That is, small contributions most likely reflect the political ideologies of participating municipal finance professionals rather than a political investment on behalf of their dealer employers. Regarding contributions made to political parties, despite the larger amount compared to contributions to candidates, we do not find significant evidence that they are associated with future underwriting market shares. This result suggests that contributing directly to political candidates appears to be more effective in catching the attention of politicians.

Using the number of campaign offices supported by an underwriter as an alternative measure of connection strength, we find that connections through multi-small donations have an immediate effect on contributing underwriter's market share. Connections through large donations also have a strong impact during the third and fourth years after the contribution. These results are consistent with the findings using dollar donation percent as the proxy for connection strength. In addition, they suggest that the political influence is stronger for underwriters that are connected with more political offices.

To further establish the causal relation between political contributions and underwriting market shares, we utilize election results as the identification method. If political contributions indeed influence the decision of underwriter selection by politicians, then the effect

should be mainly driven by donations to candidates (parties) that ultimately win the elections. We therefore divide our sample into "Elected" and "Unelected" subsamples. The "Elected" subsample consists of underwriter-state-year observations when at least one candidate (or party) supported by the underwriter won the state election during the year. The "Unelected" subsample include observations when none of the candidates (or parties) supported by the underwriter won the election. We use the same matched group of non-contributing underwriters used in the full sample regressions as the control group. We find that the significantly positive effects of multi-small donations and large donations on subsequent underwriting market shares are indeed driven by contributing to winning candidates in the elections. We find no significant relation between supporting losing candidates and future underwriting market shares.

We also conduct a placebo test using competitive sales in which the lead underwriters are often determined through competitive bidding.[4] If the political connection effect documented above is driven by some unobserved competitive advantage of contributing underwriters, we should expect a similar increase in the underwriter's market share of competitive sales following political contributions. However, we do not find any significant results in the placebo test for both the full sample and the subsamples based on election results. This suggests that the baseline results based on negotiated deals are unlikely driven by unobserved factors such as advanced sales skills of contributing underwriters.

Finally, we investigate factors that could affect an underwriter's choice of different contribution strategies using a multinomial logit regression. Except for large donations, all other contribution strategies exhibit strong persistence. The less frequent use of large donations is likely due to the two-year business restrictions of Rule G-37. Moreover, large donations and multi-small donations appear to be substitute strategies. We find that national underwriters

[4] The two-year lockup provision doesn't apply to competitive sales pursuant to Rule G-37.

are more likely to make large donations to states with high growth in negotiated bond sales. By contrast, regional underwriters are more likely to make multi-small donations to political candidates. We also find that underwriters are more likely to contribute money to political parties in states where they have already captured a large underwriting market share. This result suggests that underwriters may use "soft money" donations through parties to return the favor in order to maintain a sustainable relationship with the state officials. The evidence lends support to Snyder (1992), which argues that political donations represent an extended long-standing implicit contract between the corporate donors and politicians.[5] Hence, our result is consistent with the prediction that corporations may continue to make donations even after receiving political favors as a means to maintain a long-term relation with politicians.

Our study makes several contributions to the extant literature on political contributions. Fist, prior studies have treated political contributions as a single strategy and examined the collective effect of contributions. To the best of our knowledge, our paper is the first to study the impact and the strategic choice of different contribution arrangements. Second, our paper sheds new light on the motivations of political contributions. In previous studies, Stigler (1971) and Shleifer and Vishny (1994) argue that corporations use political connections as a means of investment to gain access to government resources. Ansolabehere, de Figueiredo, and Snyder (2003) and Coate (2004) propose that political contributions may reflect a form of consumption, motivated by individual ideologies instead of business considerations. Snyder (1992) points out that political contributions can be used as a means of rewarding and maintaining a long-term relation with politicians after the corporation receives political favors. Our results suggest that different contribution strategies adopted by corporations are

[5] Kroszner and Stratmann (2005) test the hypothesis using corporate PAC donations and document that legislators with high levels of reputation development are rewarded with more corporate PAC contributions.

likely driven by different incentives. Third, while prior studies mainly focus on the influence of political connections on firm values (e.g., Fisman, 2001; Faccio, Masulis, and McConnell, 2006; Cooper, Gulen, and Ovtchinnikov, 2010), we demonstrate a direct cash flow channel through which political connections increase the revenues of underwriting banks. Our results complement Claessens, Feijen, and Laeven (2008), Goldman, Rocholl, and So (2013), and Brogaard, Denes, and Duchin (2015), which shows that politically connected firms are more likely to have better access to finance or receive government contracts with favorable terms.

Our research also contributes to understanding the role political connection plays in the municipal debt underwriting market after the adoption of Rule G-37. Butler, Fauver, and Mortal (2009) show that underwriting fees significantly declined after Rule G-37 became effective. Brown (2017) finds that higher political contributions are associated with higher underpricing of municipal bond issues and higher fees charged by contributing underwriters. Our paper provides direct evidence of political contributions under Rule G-37 and, more importantly, the strategic response of underwriters to circumvent its restrictions. While direct large contributions to political candidates have been regulated to a great extent, we provide evidence that underwriting banks employ a mixture of strategies to continue the pay-to-play practice.

The reminder of the paper is structured as follows. Section 2 presents the background of MSRB's Rule G-37. Section 3 describes the data source. In Section 4, we present the main results. In Section 5, we provide identification strategies and robustness tests to strengthen the baseline results. Section 6 analyzes the determinants of different contribution strategies. Section 7 concludes.

2 Municipal issuance market and Rule G-37

In the primary municipal debt market, bonds are typically placed to the market in one of the three ways: negotiated sale, competitive sale, or private placement. In a negotiated deal, an underwriter is selected as the lead manager by the issuer. For a competitive sale, the issuer receives bids from underwriting banks and chooses the best bidder as the lead underwriter.[6] Private placements are direct sales by the issuer to investors without the service of an underwriter.

There have been widespread concerns that municipal bond issuers may award negotiated deals to underwriters for political considerations. Namely, underwriters with political connections (e.g., through campaign contributions) may receive favorable treatment in the underwriter selection process. This has been infamously known as the pay-to-play practice that created a stage for unfair competition and undermined the market integrity. In April 1994, the SEC approved MSRB Rule G-37 on political contributions and prohibitions on municipal securities business.[7] The Rule requires underwriters to disclose information on political contributions to the MSRB by filing Form G-37 on a quarterly basis. The mandatory disclosure includes contributions to both campaign candidates and political parties. Further, the Rule prohibits underwriters from engaging in municipal securities business with a municipal issuer, within two years after contributing to any issuer official that could influence the selection of underwriters.[8] The restriction applies to contributions made by the underwriter,

[6] A financial advisor is often hired to assist the bond issuer in a competitive sale. Underwriters are usually invited to submit their bids at the specified time. In some private-competitive sales, underwriters must be invited to participate the auction.

[7] See Appendix A for a detailed description.

[8] The Rule prohibits the underwriter from underwriting, advising, or remarketing negotiated deals with the issuer as a manager or a syndicate member. Rule G-37 defines an official of an issuer as any incumbent, candidate or successful candidate for elective office of the issuer, which office is directly or indirectly responsible for, or can influence the outcome of the hiring of a dealer for municipal securities business. See Rule G-37, http://www.msrb.org/Rules-and-Interpretations/MSRB-Rules/General/Rule-G-37.aspx

municipal finance professionals[9] and executive officers employed by the underwriter, and the underwriter controlled PACs. The stated goal of the Rule G-37 is to "prevent fraudulent acts, protect investors, and maintain the integrity" in the municipal securities market.[10]

However, there are several special exemptions to Rule G-37 under certain circumstances. For example, the two-year business prohibitions won't be enforced if the contributing municipal finance professional is eligible to vote for the candidate and the donation amount is under or equal to $250 per election.[11] Moreover, the Rule doesn't apply to contributions of any amount made to political parties of states or political committees, as long as the contribution is not explicitly designated to any specific candidate.[12] Due to the regulatory distinction, we first distinguish between contributions to campaign candidates and political parties. For donations for candidates, we further use the de minimis limit of $250 to separate large and small donations and identify the possible strategy to circumvent G-37's restrictions.

3 Data samples and variable definitions

We obtain data on municipal bond issuance and underwriters from the Mergent Municipal Bond Securities Database. For each bond issue, the Mergent database provides CUSIP, dated date, lead underwriter, issue size, and sales method classifications. Because state-level

[9] Rule G-37 defines municipal finance professional (MFP) as any associated person primarily engaged in municipal representative activities. In addition, the Rule also applies to the municipal securities dealers, executive officers, and dealer-controlled political action committees (PAC). The recordkeeping and disclosure provisions apply to non-MFP executive officers of the dealer.

[10] For instance, the MSRB sent a notice to remind municipal dealers that contributing to McCain/Palin campaign in 2008 would invoke the two-year business prohibition (Bobys et al., 2016). Contributions made to the Trump/Pence 2016 campaign are also subject to the business restriction under Rule G-37 (Carney and Hoffman, 2016).

[11] Rule G-37 defines a municipal finance professional (MFP) is entitled to vote if the MFP's principal residence is in the locality in which the issuer official seeks election.The de minis amount is defined as $250 by each donor per candidate per election. Primary and general elections for the same office are counted as two elections.

[12] There is also a disclosure exemption for small contributions. Contributions by MFPs less than $250 to campaign candidates per election or to political parties per year need not be disclosed if the MFPs are entitled to vote.

officials (e.g., governors, treasurers, or state legislators) have tremendous influence on the negotiated bond underwriting process and the election outcomes are readily available, we focus on bonds issued by state-level governments and agencies.[13] Using total underwriting volume in negotiated deals between 1997 and 2015, we rank all lead underwriters and keep the largest 100 underwriting firms. We then require them to be sufficiently active lead underwriters, i.e., underwriting at least $100 million municipal debt in negotiated sales during the sample period. The data filter leaves us with 94 largest lead underwriters, accounting for about 94% of all negotiated deals across the 50 states. For each underwriter, we measure its market share of negotiated sales in each state for each year with:

$$Market\ share_{u,s,t} = \frac{Negotiated\ amount\ by\ underwriter_{u,st,t}}{Total\ negotiated\ amount\ of\ state_{s,t}} \times 100. \tag{1}$$

where u, s, and t denote underwriter, state, and year, respectively. The numerator of equation (1) is the par value of negotiated deals underwritten by underwriter u for bonds issued by state s in year t. The denominator is the total par value of all negotiate deals issued by state s in year t. We use $Market\ share$ as the main dependent variable in our empirical analyses.

We collect the political contribution data from Form G-37 available on the MSRB website.[14] In accordance with Rule G-37, municipal bond underwriters are required to disclose on a quarterly basis all political contributions made by municipal finance professionals, executive officers, and underwriter-controlled PACs.[15] For each contribution, the disclosure must include the dollar amount, the names of campaign candidate and elective office, the name of

[13] We define a bond a state bond if the title of the issuer contains only the state name but not county or city names.

[14] See political contribution forms, http://emma.msrb.org/MarketActivity/PoliticalContributions.aspx

[15] We exclude donations made by non-municipal finance professionals because they are exempted from the two-year prohibition rule of G-37.

political party or subdivision, and the type of contributing employee. Our contribution data covers the period from 1997 to 2013. We omit the first three years following the approval of Rule G-37 in 1994 to ensure that market participants had sufficient time to adjust and comply with the the new rule.[16] We aggregate political contributions into two categories by underwriter-state-year: contributions to campaign candidates and contributions to political parties and committees. For contributions to campaign candidates, we further distinguish based on the de minimis limit of $250 under Rule G-37 into three types: large donations, multi-small donations, and small donations. For contributions to campaign candidates, we also collect the election results from OurCampaigns website.[17]

Our main explanatory variable is the contribution amount by an underwriter relative to contributions from all other underwriters in the same state and year. Specifically, we define the relative contribution measure as follows:

$$\textit{Donation percent}_{u,s,t} = \frac{\textit{Donation amount by underwriter}_{u,s,t}}{\textit{Total donation amount of state}_{s,t}} \times 100. \tag{2}$$

The numerator in equation (2) measures the donation amount to all campaign candidates or political parties/committees made by underwriter u to state s in year t. The denominator represents the total amount of contributions in the respective category made by all underwriters to state s in year t. We also separately calculate the relative contribution measures of large donations, multi-small donations, and small donations by replacing the numerator in equation (2) with the contribution amount of a particular type to all campaign candidates by the underwriter.

[16] Also, because of the inconsistency in the language for the definition of donating individuals and the definition of submission date, the MSRB filed an amendment with the SEC to clarify the technical terminology used in the Rule G-37 in 1997. We deem terminologies used in the G-37 files more consistent after the 1997 amendment.

[17] See http://www.ourcampaigns.com. For each campaign, we collect campaign position title, candidate names, party affiliations, and election results.

Alternatively, we construct a measure based on the number of election offices or political parties/committees to which the underwrite makes contributions. This is intended to capture whether the political influence is stronger for underwriters what are connected with more political offices. Specifically, we define the relative office number measure as follows:

$$\textit{Office percent}_{u,s,t} = \frac{\textit{Number of offices supported by underwriter}_{u,s,t}}{\textit{Total number of offices in state}_{s,t}} \times 100. \tag{3}$$

The numerator in equation (3) measures the number of campaign offices or political parties/committees in state s to which underwriter u makes contributions in year t. The denominator measures the total number of campaign offices or political parties/committees in state s receiving contributions from any underwriters in year t.

Table 1 presents the annual summary of municipal bond issuance and political contributions by underwriters. The majority of municipal bonds were placed through negotiated deals during our sample period. The total issuance amount in negotiated deals was \$1.89 trillion in 2013 dollars, compared to \$362 billion in competitive deals. This highlights the important role of issuer officials play in selecting lead underwriters. There were a total of 654 political contributions disclosed in Form G-37, 254 to campaign candidates and 400 to political parties or committees. During our sample period, 54 (68) underwriters made contributions to campaign candidates (political parties or committees) in 40 different states. In general, the dollar amount contributed to political parties was much larger than contributions to campaign candidates.

In Panel A of Table 2, we report the summary statistics by contribution types and amount.[18] Panel A presents the statistics based on the pooled underwriter-state-year sample. The overall sample consists of 595 underwriter-state-year contributions for which both

[18] We adjust for inflation by converting all donation and bond issue values to 2013 dollars.

the pre- and post-donation underwriting market shares are available. The average contribution amount is $9,066.435, accounting for 55.63% of the total contributions to the state in the year. The average underwriting market share in the state during the 5-year period before the contribution is 4.094%, compared to 4.364% during the 5-year period after the contribution. The average pre- and post-donation market shares for the contributing underwriter in the entire U.S. market are 1.853% and 1.743%, respectively. For the large donation subsample, we have 68 underwriter-state-year observations. The average contributing amount is $7,209.059, accounting for 56.866% of total contributions to all campaign candidates in the state during the year. The average market share of the contributing underwriter increases from 1.148% during the pre-donation period to 2.155% during the post-donation period. For the 43 multi-small donations, the average contribution amount is $1,262.47, much smaller than the average size of large donations but still accounting for a significant portion of the total contributions to campaign candidates for the year (45.213%). The average market share in the state increases from 2.602% before the contribution to 4.758% after the contribution. As expected, the average contribution amount for small donations is the smallest ($412.721). Finally, the average contribution amount to political parties or committees is $11,929.024. Despite the much larger dollar amount relative to the contributions to campaign candidates, the underwriting market shares in the state barely change before and after the donation: 5.127% vs. 5.109%. Note that the average underwriting market share prior to party donations is much larger than that prior to candidate donations.

Figure 1 plots the average market share of contributing underwriters before and after the donation year by contribution types. For multi-small donations, there is a large increase in market share in years 2 and 3 following the donation. By contrast, the change in market share following large donations does not show until year 3 following the donation. We observe no discernible changes in market shares following small donations and donations to political

parties.

In Panel B of Table 2, we report the summary statistics at the underwriter level and group underwriters into big donors, small donors, and non-donating underwriters. The non-donating underwriters are the ones who did not make any political contributions during our sample period. Among the contributing underwriters, we classify big and small donors relative to the median value of total contribution amount during the sample period. The average underwriter marketed \$20,070.182 million municipal bonds to investors for about 14 states during our sample period. The political contribution activity of the average underwriter was fairly concentrated, donating \$3,839.80 per state-year to over 3 different states. The average contribution amount per state-year for big donors was \$8,911.483, compared to \$352.446 for small donors. Larger contributions appear to be positively associated with the underwriting business. Big donors on average underwrote \$31,714.871 million bonds for 17.308 different states. By contrast, small donors on average underwrote \$15,954.773 million bonds for over 14 different states. Big donors also captured a higher average underwriting market shares in politically connected states than small donors: 3.631% vs. 3.378%. For non-donating underwriters, the average underwriting amount, the number of states with underwriting business, and the underwriting market share per state were all much smaller than the contributing underwriters.

Finally, we collect state-level economic and demographic data from the Bureau of Labor Statistics and the U.S. Census Bureau. We compile headquarter information from underwriting firms' official websites and Bloomberg.

4 Political contributions and underwriting market shares

In this section, we investigate whether political contributions help underwriters secure more bond issuance business from state governments and agencies. We are particularly interested in the impacts of differential contribution strategies under the regulation of Rule G-37. We first present the baseline regression results and then conduct several identification tests.

4.1 The matched control sample

To mitigate selection bias, we construct a control group for the sample of contributing underwriter-state-years based on the following three matching criteria.[19] First, we match each underwriter contributing to its home state with non-contributing banks headquartered in the same state.[20] For an underwriter contributing to a non-home state, the matched non-contributing underwriters are also headquartered in states different from the state receiving contributions. In both cases, the matched non-contributing underwriters should not have made any contributions to the state during the entire sample period. Second, we require that the matched non-contributing underwriters have the nearest market share in the same state during the past five-year period relative to the contributing underwriter. Third, we require that the matched non-contributing underwriters also have the nearest market share in the aggregate U.S. market during the past five years relative to the contributing underwriter. For each contributing underwriter-state-year, we identify five non-contributing underwriters for the same state-year observation.[21] The matching approach enables us to identify a set of

[19] We exclude from the control group seventeen underwriters that did not make any political contributions to any states during our sample period. This is to address the concern that these never-contributing underwriters may have fundamentally different characteristics than the contributing ones.

[20] Butler (2008) documents that an underwriting bank could be more competitive in the local market of its home state where the bank is headquartered.

[21] We use the first contributing year as the event year in the matching process. For cases in which we cannot find any underwriters headquartered in the same state, we use the other two criteria to find the control banks.

control underwriters that are most comparable to the contributing underwriters with respect to their existing relationships with the bond issuers in the state.

In Table 3, we report the mean statistics for the event and the control groups, respectively. Panel A presents the mean comparisons for contributions to campaign candidates, and Panel B reports the differences for contributions to political parties/committees. In general, the matching procedure identifies a reasonable control sample with similar pre-donation characteristics to the contributing sample, but with one notable exception. For underwriters contributing to political parties/committees, the average underwriting market share in the five-year period before the donation is considerably higher than that for the matched sample: 5.442% vs. 2.080%. This suggests that existing underwriting relationship may affect the decision of making political contributions, especially to political parties. We will come back to this issue when investigating the determinants of different contribution strategies.

4.2 Effects of different contribution strategies

In this section, we investigate the relation between different contribution strategies and the subsequent market share of negotiated bond issuance. Specifically, we estimate the following pooled regression based on the contributing sample of underwriter-state-years and the matched sample identified in Section 4.1:

$$Market\ share_{u,s,t} = \beta_0 + \beta_1 Donation\ percent_{t-1,t-2} + Controls_{u,s,t} + \gamma_{u,s} + \delta_t + \varepsilon_{u,s,t}. \quad (4)$$

The dependent variable in equation (4) is the underwriter's annual negotiated market share in a state as defined in equation (1). The key explanatory variable is Donation percent$_{t-1,t-2}$ as defined in equation (2). We include in the regression the contribution percentages of four different types of donations during the past 2 years: large donation, multi-small donation,

small donation, and party donation. For robustness, we replace *Donation percent* with *Office percent* defined in equation (3) as an alternative measure of political connections (Cooper, Gulen, and Ovtchinnikov, 2010).[22] We control for underwriter-state ($\gamma_{u,s}$) and year (δ_t) fixed effects and cluster the standard errors by underwriter and state.

Table 4 reports the relation between political contributions and future underwriting market shares. Columns (1) and (2) examine the combined contribution to campaign candidates across all donation sizes and the contribution to political parties. Neither type of contributions in the past 2 years is significantly related to the donating underwriter's future market share. Next, we distinguish among different types of contributions to campaign candidates (large donation, multi-small donation, and small donation) in columns (3) and (4). We find that only multi-small donation is significantly related to future underwriting business. The coefficient of multi-small donation percent is 0.066% and statistically significant at the 5% level. In terms of economic magnitude, a one standard deviation increase in multi-small donation percent is associated with 2.34 percentage points increase in negotiated market share. This represents a 90% increase given that the average pre-donation market share is 2.60%. We find similar results when using the percent of election offices contributed to by the underwriter as the proxy for political connection. These results suggest that both the dollar size and the breadth (number of connections) of political contribution appears to have an impact on underwriting business.

However, we don't find any significant result for large, small, or party donation. The insignificant impact of large donations could be attributed to the two-year business prohibition under Rule G-37. It is plausible that the effect of large donations begins in later years. In the next section, we use an event study approach to study the longer-term effect of large donations. The lack of market share impact from small donations is consistent with

[22] We require states receiving at least one donation during the past two years to be included in the analysis.

consumption-based explanations that such contributions are mainly driven by the political views of contributing MFPs (e.g., Ansolabehere, de Figueiredo, and Snyder, 2003; Coate, 2004). The insignificant result on party donations is puzzling, especially given the relative large dollar amount involved. We will revisit this issue in Section 6 where we examine the choice of different contribution strategies.

We control for a battery of underwriter- and state-level characteristics including the underwriter's past market share in the state and the U.S., the number of years conducting municipal underwriting business, the state's growth in negotiated issuance, the state's average credit rating, and the state's key demographic and economic indicators (Schultz, 2013). We find that the underwriting market share is highly persistent and positively related to the growth of the underwriter's total negotiated market share.

4.3 Effects of large donations above the de minimis limit of Rule G-37

In studying large donations that are subject to the two-year business ban, we employ an event study approach to examine the donation impact over a longer window. For each underwriter-state-year with large donations, we compare the underwriter's market share in the state during the post-donation years with the same underwriter's market share in the same state during the 5-year period before the donation. For underwriters making multiple large donations to a state, we keep the first large donation.[23] We use the matched sample constructed in Section 4.1 as the control group. The coefficients thus have the standard

[23] Because underwriters often wait for a few years to make another large donation in the same state, the restriction does not lead to a loss of many observations.

diff-in-diff interpretations. In particular, we estimate the following event study regression:

$$Market\ share_{u,s,t} = \alpha_0 + \sum_{\tau=0}^{4} \beta_\tau Large\ donation\ year_\tau + \beta_{-6} Large\ donation\ year_{-6} + \beta_{5+} Large\ donation\ year_{5+} + Controls_{u,s,t} + \gamma_{u,s} + \delta_t + \varepsilon_{u,s,t}. \quad (5)$$

Large donation year$_\tau$ is the donation percent (or office percent) for a large donation interacting with a year indicator and τ denotes the number of years relative to the donation year. For example, Large donation year$_3$ corresponds to the third year after the underwriter makes a large donation to a state. The coefficient β_3 captures the impact on underwriting market share three years after the large donation relative to the matched non-donating underwriters. We use the underwriter's market share in the state during the 5-year period prior to the large donation as the benchmark period. We also include Large donation year$_{-6}$ to denote years before the benchmark period and Large donation year$_{5+}$ to denote years after the fourth year following the large donation. We control for underwriter-state fixed effects $\gamma_{u,s}$ (Bertrand and Mullainathan, 2003) and year fixed effects δ_t. The standard errors are clustered by underwriter and state.

We also estimate a more parsimonious version of equation (5):

$$Market\ share_{u,s,t} = \beta_0 + \beta_1 Large\ donation\ year_{0-2} + \beta_2 Large\ donation\ year_{3-4} + \beta_{-6} Large\ donation\ year_{-6} + \beta_{5+} Large\ donation\ year_{5+} + Controls_{u,s,t} + \gamma_{u,s} + \delta_t + \varepsilon_{u,s,t}. \quad (6)$$

In equation (6), we combine the donation year and years 1-2 after the donation into Large donation year$_{0-2}$. Likewise, we combine years 3-4 after the donation into Large donation year$_{3-4}$.

Table 5 reports the coefficient estimates of equations (5) and (6). In columns (1) and (3), we use Donation percent as the measure of political contribution. We find that the coefficients for Large donation year are not different from zero for years 0-2. This is consistent with the two-year business prohibition under Rule G-37 having a binding effect on underwriters whose contributions exceed the de minimis limit. However, for years 3-4 after the large donation, the coefficients become significantly positive. This suggests that the contributing underwriter gains larger market share in the state than the matched non-contributing underwriters, after the two-year business prohibition period expires. In terms of economic magnitude, based on the coefficient estimate in column (3), a one standard deviation increase in large donation percent is associated with an increase of 1.09 percentage points in underwriting market share. Given that the average pre-large donation market share is 1.15%, this represents a 95% increase. In columns (2) and (4), we use Office percent as an alternative proxy for political connection and find a similar impact on underwriter's market share in the third and fourth years after a large donation. These findings imply that large donations have a strong but delayed impact on contributing underwriters' future market shares.

Overall, our findings in this section suggest that multi-small and large donations are strongly associated with contributing underwriters future market shares in negotiated sales. Underwriters appear to use multi-small donations to circumvent the two-year business prohibition under Rule G-37. Interestingly, some underwriters continue to make contributions exceeding the de minimis limit of Rule G-37, possibly with the intention of capturing longer-term underwriting business in certain states.

5 Identification tests

One concern about the baseline result in Section 4 is that the positive association between political contributions and underwriting market shares could be driven by non-political factors. For example, if underwriters are more likely to contribute to their home states and local underwriters have certain information advantage of underwriting home state bonds, then it is the unobserved local information advantage that drives the positive association between political contributions and underwriting market shares. Based on each underwriter's principal locations of business, Butler (2008) finds that local underwriters charge lower fees and sell bonds at higher prices (i.e., less underpricing), possibly due to having access to "soft" information on local debt market.

To address the endogeneity concerns, we conduct two additional tests to help establish the causal relationship between political contributions and underwriting market shares. In the first test, we use election outcomes because the impact of political contributions should be particularly strong if the candidates or parties receiving the donations win the elections. The second is a placebo test using competitive issuance for which the auction process of selecting lead underwriters implies minimal influence from political contributions.

5.1 Election results and the impact of political contributions

We use election results to separately examine any differential effects of political contributions in winning vs. losing elections. If political connections play an important role in lead underwriter selections, we expect the influence of winning campaign candidates or political parties to be stronger than that of unelected candidates/parties.

Using election records collected from OurCampaigns, we separate donations to campaign candidates into connections with winning candidates or incumbent officials (if donations

occur between election cycles) and connections with unelected candidates. For donations to parties or committees, we match them with the elected governor's affiliated party in each state-year and separate them into connections with the elected parties and connections with the unelected parties. For the group of unelected candidates (parties), we require that there are no hedging contributions to multiple candidates (parties) in the same campaign.

Table 6 reports the effects of political contributions on underwriting market shares based on election results. In Panel A, we examine the impact of different contribution strategies separately for the elected and unelected subsamples. For the elected subsample in columns (1) and (2), we find that multi-small donations are related to a significant increase in underwriting market shares. By contrast, the relation is no longer significant for the unelected subsample in columns (3) and (4). Consistent with Table 4, we find no significant relation between other donation types and underwriting market shares in either subsample. In Panel B, we employ the event study approach of Table 5 to estimate the impact of large donations based on election outcomes. The finding again shows that the positive impact of large donations on underwriting market shares in the third and fourth years exists only in the elected subsample. Moreover, compared to the baseline results, we find that the coefficients of multi-small and large donations for the elected subsample are both larger than those in Table 4 and Table 5. These results suggest that the positive impact of political contributions is primarily driven by the connections with winning campaign candidates.

In an unreported test, we re-run the analysis in Table 6 based on outcomes from close elections. Close elections are defined as elections within 10% margin of victory in terms of votes separating the winners from the losers. This is a more powerful identification test because outcomes from close elections are highly uncertain and are difficult for underwriters to predict the winners. The downside in our setting is that restricting to close elections leaves us a quite small sample size. Nonetheless, we find qualitatively similar results. Multi-

small donations have significantly positive impact on underwriting market shares only if the receiving candidates win the close elections. For large donations, we find no significant effect in either elected or unelected close elections. [24]

Our tests based on election outcomes support the notion that political contributions help underwriters establish connections with elected officials, which in turn help underwriters obtain more municipal bond business. Hence, our baseline result in Section 4 is more likely driven by political influence rather than non-political factors.

5.2 A placebo test using competitive bond issuance

We next perform a placebo test using competitive bond sales for which lead underwriters are determined through a competitive bidding process.[25] If our baseline result were caused by unobserved non-political factors (e.g., information advantage or advanced sales skills), we expect to have similar or even stronger relation in competitive bond sales.

In Panels A and B of Table 7, we re-estimate equations (4) and (5) by replacing the dependent variable with the underwriter's competitive market share as a percentage of the total competitive issue amount of the state. We use the same set of donation variables and examine the impact of different donation types on contributing underwriters' market share in competitive sales. The regression results show that none of the donation measures is significantly associated with underwriters' competitive market share. In particular, multi-small donations and large donations no longer predict a significant increase in underwriting market shares. Hence, the placebo test suggests that the significant relation between political contributions and negotiated market shares is unlikely driven by some unobserved non-

[24] The insignificant result for large donations is likely due to the small sample size because the close election restriction results in only 7 large donation events. All results based on close elections are available upon request.

[25] For this reason, the Rule G-37 does not prohibit a contributing underwriter from engaging in competitive sales with connected officials. Brown (2017) finds that gross spread and bond underpricing in competitive deals are not affected by political connections.

political factors.

In summary, our tests based on election outcomes and competitive bond sales support the causal interpretation that certain types of political donations have positive impact on underwriters' market shares of negotiated bond sales.

6 Choice of donation strategies

In this section, we examine the factors determining underwriter's choice of different donation strategies. It is noteworthy to point out that very few underwriters combine multiple donation strategies in our sample. This gives the first indication that the choice of specific donation strategies is likely to be strategic and determined by underwriter-specific factors.

In this section, we use a multinomial logistic model to examine factors affecting the choice of donation strategies. We exclude the few cases involving multiple donation types by the same underwriter to a state in a given year and keep only mutually exclusive ones. The dependent variable is a categorical variable representing the four different donation types: large donation, multi-small donation, small donation, or party donation. Using non-donation underwriter-state-years as benchmark, we examine how underwriter- and state-level characteristics affect the underwriter's choice among different donation strategies. We include the donation percentage measure for each donation type made by the underwriter to the same state in the past 5 years to control for persistence in donation strategies. To examine how past business relationship affects the choice of donation strategies, we control for the underwriter's negotiated market share in the state in the past 5 years. Other underwriter characteristics include the geographic distance between underwriter's home state and the target donation state, whether the underwriter is a national or regional bank, the number of years the underwriter has been in municipal bond underwriting business, whether the

underwriter is a public company, and the growth rate of the underwriter's negotiated market share in the U.S. market in the past 3 years.

We also include a host of state-level variables in the multinomial regression. To capture the supply effect, we control for the growth rate of negotiated bond issuance of the state in the past 3 years. Bain (1956) and Mann (1966) find that the degree of market concentration has an impact on market competition behaviors, especially for entry decisions (Gande, Puri, and Saunders, 1999). To the extent that underwriters make political contributions to gain access to the bond issuance market in the state, their decision could be affected by the current degree of market concentration. We measure state market concentration with the Herfindahl-Hirschman Index based on the negotiated market shares of all underwriters in the state during the past three years. Butler, Fauver, and Mortal (2009) show that states with higher political corruption tend to have larger underpricing and pay higher underwriting fees in negotiated bond issuance. We use the same corruption index to account for any impact on the underwriter's choice of donation strategies. Other state-level credit, economic, and demographic variables are similarly defined as in Table 4.

Table 8 presents the regression result for the four donation types, respectively. We find that all donation strategies, except large donations, exhibit strong persistence over time. This suggests that large donations are not frequently used by underwriters to gain market shares. Moreover, large donation and multi-small donation appear to be substitute strategies and are negatively associated with each other. This is reasonable given the two-year business prohibition triggered by any large donations under Rule G-37. We also find that underwriters are more likely to contribute to home or nearby states across all donation types. This suggests that proximity plays an important role in political contributions. Combined with Butler (2008)'s finding that underwriters with local business presence are likely to have local information advantages, this result highlights the importance of ruling out the endogeneity

issues caused by such unobserved non-political factors.

For large donations, we find in column (1) that the national indicator, underwriter's total share growth, and state's issue growth all have significantly positive coefficients. This suggests that large national underwriters[26] with high market share growth in the U.S. market are more likely to make contributions exceeding the de minimis limit of Rule G-37 to states with fast growing negotiated bond issuance. This is consistent with Baldwin (1995)'s finding that the size and expected growth of the market are significant determinants for market entry. Combined with the negative but insignificant coefficient on the past negotiated market share, these results are consistent with large national underwriters employing large donations to gain longer-term access to new bond issuance business in states where they do not have a strong presence.

For multi-small donations, we find in column (2) that the national indicator has significantly negative coefficient. This suggests that regional underwriters tend to use multi-small donations to establish political connections. Unlike national underwriting banks, regional underwriters do not have a strong presence in the national market and rely more on businesses from local or nearby states. They may not want to trigger the two-year business prohibition with local issuers. Instead, they strategically employ multi-small donations to circumvent the restrictions of Rule G-37 and gain immediate business access to local states.

For small donations, column (3) shows that the national indicator, the underwriter's business tenure, and state's issue growth have significantly negative coefficients. Compared to national underwriters, regional underwriters are more likely to hire employees from local states, who are in turn more likely to support local political candidates. There is however

[26] We define an underwriter as a national underwriter if it has done business in over 30 states before 1997. For underwriters that launched after 1997, we count the number of states in which an underwriter has done municipal debt businesses during the first 3 years after its establishment. There are 25 underwriters classified as national underwriters by this criterion.

no obvious explanations for the other two negative coefficients.

Finally, we find in column (4) that the coefficient for past negotiated market share is positive and statistically significant. Hence, underwriters are more likely to make donations to political parties or committees in states where they already have strong underwriting business relationship in the past. This lends support to the hypothesis that underwriters may use party donations as a means to reward and maintain a long-term relationship with the issuer officials (Snyder, 1992).

In sum, we find evidence that underwriters strategically choose donation strategies to achieve different business objectives. National underwriters are more likely to make large donations to gain access to new business in states with growing opportunities. Regional underwriters tend to choose multi-small donations to circumvent the business restrictions under Rule G-37. Moreover, underwriters appear to use party donations to reward officials in states where they have strong prior business relations.

7 Conclusion

In this paper, we study the impact of political contributions on donating underwriters' municipal bond business under the MSRB's Rule G-37. The SEC approved Rule G-37 in 1994 to curb the once rampant pay-to-play practice in the municipal issuance market. In addition to the disclosure requirement for contributions made by underwriters and their employees, the Rule imposes a two-year business prohibition for donations to state officials that exceed $250. We provide evidence that political contributions continue to play a role in obtaining underwriting business even after the implementation of Rule G-37. Underwriters have employed different donation strategies to advance their underwriting relationships with state bond issuers.

We find that some underwriters make multi-small donations (multiple small donations below the regulation limit of $250) to circumvent the two-year business prohibition under Rule G-37. Such strategy leads to a significant increase in negotiated market share in the near term. Interestingly, we find that some underwriters continue to make large donations (donations exceeding the regulation limit of $250). These donations also have positive impact on negotiated market shares — with a two-year delay. These results are consistent with the investment-driven hypothesis (Stigler (1971) and Shleifer and Vishny (1994)) that political contributions are motivated by gaining access to underwriting business from connected state officials. We find no evidence that small donations (single donations below $250) and donations made to political parities or committees have any significant impact on underwriter's future market share. Small donations are likely driven by donors' political ideologies. The lack of business impact of small donations is therefore consistent with the consumption-based hypothesis proposed by Ansolabehere, de Figueiredo, and Snyder (2003).

To address endogeneity concerns that some unobserved non-political factors may drive the correlation between political contributions and underwriting market shares, we conduct two identification tests. The first is based on election outcomes. If political connections play a role in capturing underwriting business, we expect the effect to be stronger for political contributions made to winning candidates in the elections. We find that the relation is stronger and statistically significant for donations in the elected subsample and insignificant for donations in the unelected subsample. The second approach is a placebo test using competitive bond issuance. If the baseline result were caused by non-political factors, there should be a similarly positive correlation between political contributions and competitive market share. However, we find no such correlation in the test. These results lend support to the causal interpretation that political contributions help underwriters establish connections with issuer officials which lead to an increase in their underwriting businesses.

Finally, we investigate factors that determine underwriter's choice of donation strategies. We find that underwriters pursue highly persistent donation strategy in a given state, except for large donations. The relatively infrequent use of large donations appears to be appropriate given the two-year business prohibition under the Rule G-37. Further analysis shows that national underwriters are more likely to initiate large donations to states with high growth in negotiated bond sales. This suggests that underwriters with national scales prefer large donations to gain longer-term access to new underwriting business in high growth markets. By contrast, regional underwriters are more likely to make multi-small donations in exchange for near-term underwriting business while circumventing the business prohibition under the Rule G-37. We also find that underwriters tend to make donations to political parties in states where they already have a strong underwriting presence. With the baseline finding that party donations don't have significant impact on underwriter's future market share, it's plausible that underwriters use party donations to return the favor and to maintain a long-term political relation with issuer officials.

Overall, we provide evidence that pay-to-play continues to play a role in municipal bond issuance even after the passage of Rule G-37. Political contributions, a proxy for connections with issuer officials, help underwriters gain access to underwriting business. The effect is particularly strong for donations made to candidates who are campaign winners. We also show that underwriters have strategically adopted a mixture of donation methods to advance their relationship with issuer officials.

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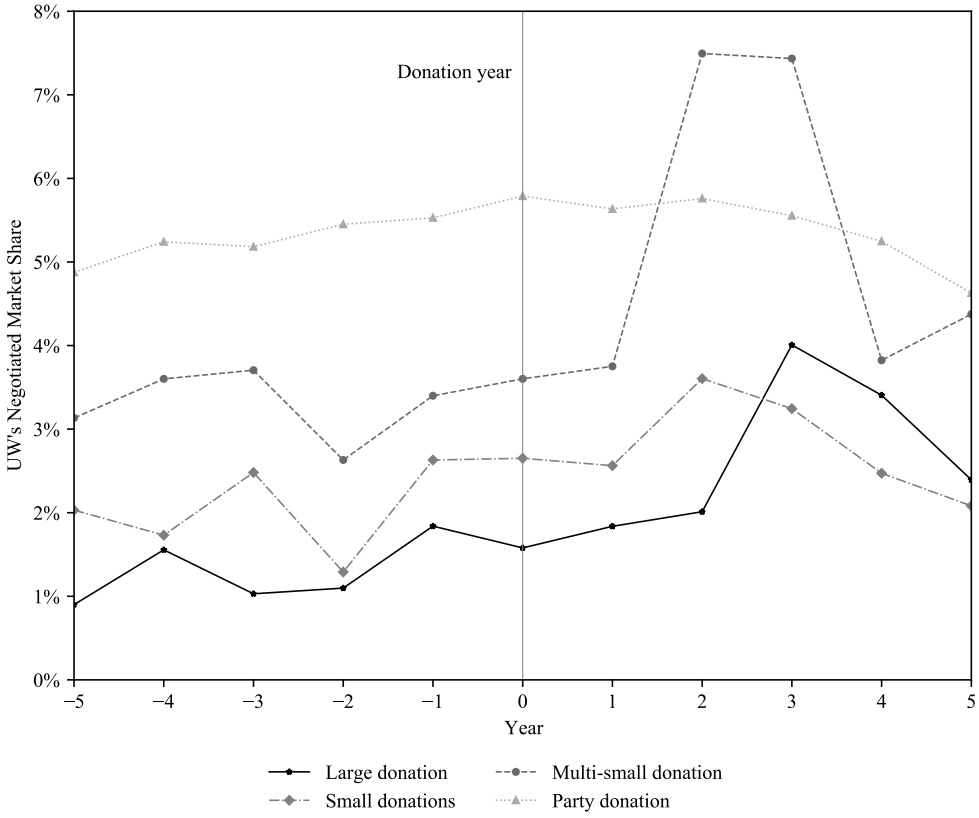

Figure 1: Donating underwriters' market share before and after political donations

The figure presents underwriter's average market share in negotiated sales five years before and after their donations. Year 0 represents the donation year. The four curves represent political connections through large donation, multi-small donation, small donation, and party donation, respectively. Donation types are defined in Appendix B.

Table 1: Summary of bond issues and political donations

This table presents the annual summary of issue amount in negotiated sales, total issue amount in competitive deals, political donations for campaign candidates and political parties. Candidate donation includes donations that are made by underwriters to campaign candidates in a state. Party donation includes donations that are made by underwriters to political parties or committees in a state. Donation amount is the annual total amount of donations collected from Form G-37. For each year, the table reports the number of donations, the number of contributing underwriters and the number of states receiving donations. Issue amount and donations have been adjusted in 2013 dollars.

Year	Issue amount in negotiated deals ($Mil)	Issue amount in competitive deals ($Mil)	Candidate donation				Party donation			
			Donation amount ($)	No. donations	No. donating underwriters	No. states	Donation amount ($)	No. donations	No. donating underwriters	No. states
1999	90,001	20,291	8,620	13	12	12	390,351	38	29	22
2000	83,892	17,935	61,695	21	17	17	587,952	38	27	18
2001	103,754	13,836	17,757	17	12	13	378,496	28	22	16
2002	133,079	31,930	26,206	26	17	19	923,241	53	27	25
2003	138,787	27,017	16,493	14	12	12	390,624	32	22	20
2004	128,556	25,694	58,097	20	15	14	492,921	37	24	19
2005	143,016	24,664	17,778	14	10	12	168,419	15	13	11
2006	126,716	24,256	87,849	15	9	12	153,166	13	12	10
2007	124,761	22,488	25,111	7	6	6	123,415	18	12	15
2008	138,869	18,861	20,692	13	9	10	144,787	13	11	10
2009	128,038	18,114	21,228	16	11	12	32,331	12	10	11
2010	118,275	22,746	27,295	11	8	9	85,285	13	12	11
2011	74,140	15,962	19,452	3	3	3	38,733	7	7	6
2012	83,552	21,526	121,174	10	8	10	69,959	7	6	7
2013	75,791	20,206	39,750	12	8	11	17,500	5	5	5
Total	1,886,597	362,537	622,919	254	54	40	4,771,609	400	68	40

Table 2 Panel A: Summary statistics of donating underwriters and connected states

This table summarizes the characteristics of underwriters' political donations and underwriting activities. Panel A presents the summary statistics of underwriters' four types of donations and market share in negotiated sales. Panel B presents the summary statistics of underwriting activities. Donating underwriters are classified as big donors and small donors by the median value of their total donations. Donations and issue amount have been adjusted in 2013 dollars. Donation types and variables are defined in Appendix B.

Type	Variables	N	Mean	SD	Min	Max
All donation	Total donation amount	595	9,066.435	16,945.345	22.471	106,831.313
	Donation percent in connected states	595	55.630	40.940	0.015	100.000
	Pre-donation market share	595	4.094	7.751	0.000	69.273
	Post-donation market share	595	4.364	8.920	0.000	68.054
	Pre-donation market share in U.S.	595	1.853	4.284	0.000	20.962
	Post-donation market share in U.S.	595	1.743	3.769	0.000	16.595
	Pre-donation state share in U.S.	595	3.993	4.765	0.067	19.912
	Post-donation state share in U.S.	595	3.709	3.867	0.067	15.039
Large donation	Total donation amount	68	7,209.059	14,944.803	320.501	101,464.762
	Donation percent in connected states	68	56.866	39.017	0.654	100.000
	Pre-donation market share	68	1.148	3.512	0.000	19.598
	Post-donation market share	68	2.155	7.572	0.000	57.133
	Pre-donation market share in U.S.	68	0.325	1.403	0.000	9.532
	Post-donation market share in U.S.	68	0.516	1.813	0.000	11.055
	Pre-donation state share in U.S.	68	3.410	3.413	0.106	13.776
	Post-donation state share in U.S.	68	3.470	3.409	0.067	14.340
Multi-small donation	Total donation amount	43	1,262.470	1,634.533	69.915	9,646.992
	Donation percent in connected states	43	45.213	35.406	0.673	100.000
	Pre-donation market share	43	2.602	5.132	0.000	26.151
	Post-donation market share	43	4.758	11.368	0.000	58.551
	Pre-donation market share in U.S.	43	0.115	0.141	0.000	0.489
	Post-donation market share in U.S.	43	0.152	0.183	0.000	0.635
	Pre-donation state share in U.S.	43	2.092	2.560	0.240	12.974
	Post-donation state share in U.S.	43	2.402	2.918	0.167	13.956
Small donation	Total donation amount	190	412.721	373.311	29.820	2,443.905
	Donation percent in connected states	190	35.719	40.054	0.015	100.000
	Pre-donation market share	190	1.862	4.824	0.000	32.684
	Post-donation market share	190	2.652	8.476	0.000	61.450
	Pre-donation market share in U.S.	190	0.257	1.348	0.000	15.393
	Post-donation market share in U.S.	190	0.336	1.521	0.000	15.245
	Pre-donation state share in U.S.	190	2.620	2.895	0.067	19.912
	Post-donation state share in U.S.	190	2.628	2.635	0.067	14.340
Party donation	Total donation amount	400	11,929.024	18,740.566	22.471	106,831.313
	Donation percent in connected states	400	51.255	37.902	0.060	100.000
	Pre-donation market share	400	5.127	8.573	0.000	69.273
	Post-donation market share	400	5.109	8.848	0.000	68.054
	Pre-donation market share in U.S.	400	2.606	4.962	0.000	20.962
	Post-donation market share in U.S.	400	2.374	4.298	0.000	16.595
	Pre-donation state share in U.S.	400	4.536	5.271	0.150	19.912
	Post-donation state share in U.S.	400	4.077	4.140	0.067	15.039

Table 2 Panel B: Summary statistics of UW's underwriting activities

Type	Variables	N	Mean	SD	Min	Max
All UWs	Underwriting amount ($Mil)	94	20,070.182	47,640.074	63.562	200,666.021
	No. states with underwriting business	94	14.489	14.329	1.000	48.000
	Underwriting amount per state ($Mil)	94	668.787	1,013.518	21.187	4,180.542
	UW's average donation	94	3,839.796	8,742.131	0.000	46,617.367
	No. states with donations	77	3.221	2.624	1.000	14.000
	No. states per donation year	77	1.539	0.840	1.000	7.182
	Total donation per state	77	2,705.251	5,530.995	7.257	36,578.667
	Average market share per state	94	1.174	2.587	0.002	11.766
	Average Market share in U.S.	94	1.189	2.686	0.004	11.017
Big donors	Underwriting amount ($Mil)	39	31,714.871	61,780.128	112.851	200,666.021
	No. states with underwriting business	39	17.308	15.730	1.000	48.000
	Underwriting amount per state ($Mil)	39	951.133	1,277.997	33.495	4,180.542
	UW's average donation	39	8,911.483	11,905.775	657.976	46,617.367
	No. states with donations	39	4.462	3.077	1.000	14.000
	No. states per donation year	39	1.808	1.037	1.000	7.182
	Total donation per state	39	5,058.365	7,039.649	285.537	36,578.667
	Average market share per state	39	1.760	3.192	0.003	12.522
	Market share in connected state	39	3.631	4.671	0.031	19.526
	Market share in non-connected state	39	1.571	3.061	0.000	11.860
	Average Market share in U.S.	39	1.778	3.333	0.007	11.017
Small donors	Underwriting amount ($Mil)	38	15,954.773	38,440.494	63.562	191,083.285
	No. states with underwriting business	38	14.421	14.206	1.000	48.000
	Underwriting amount per state ($Mil)	38	544.414	841.315	21.187	3,980.902
	UW's average donation	38	352.446	373.407	7.257	1,499.827
	No. states with donations	38	1.947	1.064	1.000	5.000
	No. states per donation year	38	1.262	0.435	1.000	2.455
	Total donation per state	38	290.213	338.972	7.257	1,499.827
	Average market share per state	38	1.064	2.384	0.005	10.254
	Market share in connected state	38	3.378	4.951	0.000	20.503
	Market share in non-connected state	38	0.995	2.408	0.000	10.251
	Average Market share in U.S.	38	1.047	2.413	0.004	9.554
Non-donating UWs	Underwriting amount ($Mil)	17	2,555.043	3,638.108	175.504	12,344.721
	No. states with underwriting business	17	8.176	8.791	1.000	35.000
	Underwriting amount per state ($Mil)	17	299.063	280.310	51.068	1,126.990
	Average market share per state	17	0.119	0.197	0.002	0.736
	Average Market share in U.S.	17	0.154	0.229	0.011	0.833

Table 3 Panel A: Mean test for underwriters with candidate donations

The table presents the result of mean difference test. Panel A includes underwriter-state pairs with candidate donations and the matched group of non-donating underwriters in the same state. Panel B includes underwriter-state pairs with party donations and the matched control group of non-donating underwriters in the same state. Difference is the mean difference between the two groups. P-values are calculated based on t-statistics (z-statistics for binary variables with †). Variables are defined in Appendix B. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	UW-States with donations		UW-States without donations		Difference
	N	Mean	N	Mean	
Past nego market share	100	1.460	631	1.152	0.308
Closeness (Ln)	100	-5.776	631	-6.542	0.766***
UW's experience (Ln)	100	2.605	631	2.583	0.021
National†	100	0.190	631	0.292	-0.102**
Public company†	100	0.150	631	0.274	-0.124***
UW's total share growth	100	0.001	631	-0.001	0.002**
State's issue growth	100	-0.052	631	0.028	-0.081
AAA†	100	0.330	631	0.377	-0.047
AA†	100	0.550	631	0.528	0.022
A-BBB†	100	0.070	631	0.055	0.015
Speculative†	100	0.000	631	0.000	0.000
State GDP	100	1.810	631	1.987	-0.176
State Population	100	0.937	631	0.968	-0.031
State Establishment	100	1.632	631	1.745	-0.113
State Employment	100	0.743	631	0.875	-0.132
State Income	100	0.714	631	0.736	-0.023
State interest tax	100	4.670	631	4.507	0.163
Market concentration	100	17.568	631	16.993	0.575

Table 3 Panel B: Mean test for underwriters with party donations

Variables	UW-States with donations		UW-States without donations		Difference
	N	Mean	N	Mean	
Past nego market share	147	5.442	807	2.080	3.362***
Closeness (Ln)	147	-5.497	807	-6.403	0.906***
UW's experience (Ln)	147	2.594	807	2.533	0.061
National†	147	0.435	807	0.419	0.017
Public company†	147	0.340	807	0.357	-0.017
UW's total share growth	147	0.456	807	0.387	0.069
State's issue growth	147	20.754	807	17.645	3.109
AAA†	147	0.395	807	0.424	-0.029
AA†	147	0.571	807	0.545	0.026
A-BBB†	147	0.034	807	0.031	0.003
Speculative†	147	0.000	807	0.000	0.000
State GDP	147	2.576	807	2.753	-0.177
State Population	147	0.816	807	0.890	-0.074
State Establishment	147	1.626	807	1.899	-0.273
State Employment	147	1.131	807	1.289	-0.158
State Income	147	1.475	807	1.364	0.111
State interest tax	147	4.701	807	4.436	0.265
Market concentration	147	18.712	807	18.755	-0.043

Table 4: The Impact of political donations on underwriter's negotiated market share

The table reports the effect of political donations on underwriter's market share. The dependent variable is underwriter's market share in negotiated sales. Candidate donation represents donations that are made to a campaign candidate of the state. Party donation represents donations that are made to a state's political parties. Large donation, multi-small donation, and small donation represent the different types of donations during the past two years. Donation pct is the ratio of the underwriter's candidate (party) donation relative to the total amount of candidate (party) donations received by the state. Office pct is the ratio of connected offices through candidate (party) donations relative to the total number of connected offices through candidate (party) donations in the state. Donation types and control variables are defined in Appendix B. Underwriter, state and year fixed effects are included. Standard errors are double-clustered by underwriter-state and reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	(1)	(2)	(3)	(4)
	Donation Pct	Office Pct	Donation Pct	Office Pct
Candidate donation	0.005	0.005		
	(0.008)	(0.008)		
Large donation			-0.007	-0.012
			(0.012)	(0.013)
Multi-small donation			0.066**	0.084**
			(0.033)	(0.040)
Small donation			0.006	0.002
			(0.008)	(0.006)
Party donation	0.009	0.003	0.011	0.003
	(0.013)	(0.017)	(0.013)	(0.017)
Past nego market share	0.249***	0.249***	0.249***	0.249***
	(0.068)	(0.068)	(0.069)	(0.069)
UW's experience (Ln)	0.825	0.849	0.793	0.786
	(0.532)	(0.531)	(0.537)	(0.537)
Public company	-0.187	-0.179	-0.213	-0.259
	(0.255)	(0.253)	(0.256)	(0.266)
UW's total share growth	0.368***	0.369***	0.366***	0.368***
	(0.107)	(0.107)	(0.108)	(0.108)
State's issue growth	0.014	0.013	0.015	0.014
	(0.064)	(0.064)	(0.063)	(0.063)
Constant	-0.595	-0.647	-0.501	-0.456
	(1.644)	(1.638)	(1.659)	(1.660)
Observations	5,969	5,969	5,969	5,969
Other controls	Yes	Yes	Yes	Yes
FE	UW-State Year	UW-State Year	UW-State Year	UW-State Year
SE Cluster	UW-State	UW-State	UW-State	UW-State
Adj. R	0.489	0.489	0.490	0.490

Table 5: The Impact of initial large donations on underwriter's negotiated market share

The table reports the effect of large donations on donating underwriter's market share. The dependent variable is underwriter's market share in negotiated sales. Large donation year$_\tau$ is an interaction term of large donation and the τth year following (prior to) a large donation. Donation pct is the ratio of the underwriter's candidate (party) donation relative to the total amount of candidate (party) donations received by the state. Office pct is the ratio of connected offices through candidate (party) donations relative to the total number of connected offices through candidate (party) donations in the state. Donation types and control variables are defined in Appendix B. Underwriter-state and year fixed effects are included. Standard errors are double-clustered by underwriter-state and reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	(1)	(2)	(3)	(4)
	Donation Pct	Office Pct	Donation Pct	Office Pct
Large donation year$_0$	0.004	0.002		
	(0.010)	(0.010)		
Large donation year$_1$	0.002	0.002		
	(0.009)	(0.008)		
Large donation year$_2$	0.005	0.007		
	(0.019)	(0.019)		
Large donation year$_3$	0.028*	0.025*		
	(0.015)	(0.015)		
Large donation year$_4$	0.027**	0.031**		
	(0.012)	(0.012)		
Large donation year$_{0\text{-}2}$			0.004	0.004
			(0.011)	(0.011)
Large donation year$_{3\text{-}4}$			0.028**	0.028**
			(0.013)	(0.013)
Large donation year$_{-6}$	-0.002	-0.004	-0.002	-0.004
	(0.004)	(0.005)	(0.004)	(0.005)
Large donation year$_{+5}$	0.011	0.016	0.011	0.016
	(0.011)	(0.013)	(0.011)	(0.013)
Past nego market share	0.376***	0.376***	0.376***	0.376***
	(0.039)	(0.039)	(0.039)	(0.039)
UW's experience (Ln)	0.365*	0.363*	0.365*	0.363*
	(0.215)	(0.215)	(0.215)	(0.215)
Public company	-2.464***	-2.477***	-2.464***	-2.476***
	(0.765)	(0.765)	(0.765)	(0.765)
UW's total share growth	0.488***	0.488***	0.488***	0.488***
	(0.060)	(0.060)	(0.060)	(0.060)
State's issue growth	0.010	0.010	0.010	0.010
	(0.028)	(0.028)	(0.028)	(0.028)
Constant	1.355*	1.358*	1.356*	1.359*
	(0.800)	(0.801)	(0.801)	(0.801)
Observations	23,667	23,667	23,667	23,667
Other controls	Yes	Yes	Yes	Yes
FE	UW-State Year	UW-State Year	UW-State Year	UW-State Year
SE Cluster	UW-State	UW-State	UW-State	UW-State
Adj. R	0.386	0.386	0.386	0.386

Table 6 Panel A: Election results and the effect of political donations

The table reports the effect of political donations through election results. The dependent variable is underwriter's market share in negotiated sales. In Panel A, large donation, multi-small donation, small donation, and party donation represent the four types of donations during the past two years. In Panel B, large donation year$_\tau$ is an interaction term of large donation and the τth year following (prior to) a large donation. In both panels, columns (1) and (2) include connections with elected candidates (party) and columns (3) and (4) include connections with unelected candidates (party). Donation pct is the ratio of the underwriter's candidate (party) donation relative to the total amount of candidate (party) donations received by the state. Office pct is the ratio of connected offices through candidate (party) donations relative to the total number of connected offices through candidate (party) donations in the state. Donation types and control variables are defined in Appendix B. Standard errors are double-clustered by underwriter-state and reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	(1)	(2)	(3)	(4)
	Elected		Unelected	
	Donation Pct	Office Pct	Donation Pct	Office Pct
Large donation	0.004	-0.003	-0.026	-0.076
	(0.014)	(0.014)	(0.026)	(0.064)
Multi-small donation	0.094**	0.115**	0.009	0.011
	(0.043)	(0.053)	(0.019)	(0.019)
Small donation	0.004	-0.002	0.014	0.019
	(0.006)	(0.006)	(0.014)	(0.018)
Party donation	0.005	-0.009	0.010	0.011
	(0.013)	(0.017)	(0.022)	(0.025)
Past nego market share	0.236***	0.235***	0.290**	0.290**
	(0.067)	(0.066)	(0.126)	(0.126)
UW's experience (Ln)	0.556	0.562	0.237	0.230
	(0.576)	(0.574)	(0.707)	(0.710)
Public company	-0.301	-0.397	-0.443	-0.469
	(0.281)	(0.313)	(0.440)	(0.463)
UW's total share growth	0.414***	0.417***	0.429*	0.429*
	(0.109)	(0.109)	(0.237)	(0.237)
State's issue growth	0.033	0.035	0.034	0.026
Constant	0.590	0.616	0.168	0.176
	(1.717)	(1.715)	(2.598)	(2.603)
Observations	5,355	5,355	2,329	2,329
Other controls	Yes	Yes	Yes	Yes
FE	UW-State Year	UW-State Year	UW-State Year	UW-State Year
SE Cluster	UW-State	UW-State	UW-State	UW-State
Adj. R	0.484	0.484	0.390	0.390

Table 6 Panel B: Election results and the effect of initial large donations

Variables	(1)	(2)	(3)	(4)
	Elected		Unelected	
	Donation Pct	Office Pct	Donation Pct	Office Pct
Large donation year$_{0\text{-}2}$	0.008	0.006	-0.009	-0.005
	(0.014)	(0.014)	(0.018)	(0.022)
Large donation year$_{3\text{-}4}$	0.036**	0.032**	0.015	0.024
	(0.018)	(0.016)	(0.011)	(0.017)
Large donation year$_{-6}$	-0.004	-0.005	0.005	0.008*
	(0.006)	(0.007)	(0.004)	(0.005)
Large donation year$_{+5}$	0.016	0.021	0.000	0.006
	(0.016)	(0.017)	(0.010)	(0.011)
Past nego market share	0.350***	0.350***	0.409***	0.409***
	(0.044)	(0.044)	(0.063)	(0.063)
UW's experience (Ln)	0.164	0.171	0.636*	0.636*
	(0.210)	(0.209)	(0.362)	(0.362)
Public company	-2.489***	-2.500***	-2.141*	-2.136*
	(0.852)	(0.852)	(1.233)	(1.233)
UW's total share growth	0.484***	0.484***	0.490***	0.490***
	(0.067)	(0.067)	(0.085)	(0.085)
State's issue growth	-0.003	-0.003	0.055	0.055
	(0.030)	(0.030)	(0.055)	(0.055)
Constant	2.086***	2.074***	0.467	0.460
	(0.805)	(0.803)	(1.317)	(1.316)
Observations	19,391	19,391	9,268	9,268
Other controls	Yes	Yes	Yes	Yes
FE	UW-State Year	UW-State Year	UW-State Year	UW-State Year
SE Cluster	UW-State	UW-State	UW-State	UW-State
Adj. R	0.369	0.369	0.397	0.397

Table 7 Panel A: The impact of political donations on underwriter's competitive market share

This table reports the effect of donations on underwriter's market share in competitive deals with full sample, elected candidates/parties, and unelected candidates/parties. The dependent variable is underwriter's market share in competitive sales. In Panel A, large donation, multi-small donation, small donation, and party donation represent the four types of donations during the past two years. In Panel B, large donation year$_\tau$ is an interaction term of large donation and the τth year following (prior to) a large donation. In both panels, columns (1) and (2) include all connections through candidate (party) donations, columns (3) and (4) include connections with elected candidate (party), and columns (5) and (6) include connections with unelected candidate (party). Donation pct is the ratio of the underwriter's candidate (party) donation relative to the total amount of candidate (party) donations received by the state. Office pct is the ratio of connected offices through candidate (party) donations relative to the total number of connected offices through candidate (party) donations in the state. Donation types and control variables are defined in Appendix B. Underwriter-state and year fixed effects are included. Standard errors are double-clustered by underwriter-state and reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	(1)	(2)	(3)	(4)	(5)	(6)
	Full sample		Elected		Unelected	
	Donation Pct	Office Pct	Donation Pct	Office Pct	Donation Pct	Office Pct
Large donation	-0.001	-0.005	-0.003	-0.007	0.003	0.014
	(0.009)	(0.010)	(0.012)	(0.012)	(0.007)	(0.022)
Multi-small donation	-0.015	-0.016	-0.021	-0.021	-0.013	-0.008
	(0.012)	(0.011)	(0.017)	(0.015)	(0.011)	(0.012)
Small donation	-0.003	0.000	0.000	0.003	-0.009	-0.012
	(0.005)	(0.004)	(0.003)	(0.003)	(0.011)	(0.011)
Party donation	0.001	-0.004	0.009	0.004	-0.018	-0.013
	(0.007)	(0.010)	(0.007)	(0.010)	(0.012)	(0.014)
Past comp market share	-0.122*	-0.122*	-0.118	-0.118	-0.170***	-0.170***
	(0.072)	(0.072)	(0.075)	(0.075)	(0.064)	(0.064)
Past nego market share	0.171	0.172	0.175	0.175	0.086	0.085
	(0.134)	(0.134)	(0.143)	(0.143)	(0.096)	(0.096)
UW's experience (Ln)	-0.257	-0.236	-0.275	-0.257	-0.066	-0.067
	(0.683)	(0.682)	(0.740)	(0.737)	(0.746)	(0.746)
Public company	-0.260	-0.206	-0.314	-0.287	0.256	0.237
	(0.327)	(0.331)	(0.349)	(0.353)	(0.372)	(0.366)
UW's total share growth	0.806***	0.806***	0.825***	0.825***	0.626***	0.626***
	(0.172)	(0.172)	(0.178)	(0.178)	(0.199)	(0.199)
State's issue growth	-0.043	-0.043	-0.042	-0.041	-0.044	-0.044
	(0.039)	(0.039)	(0.042)	(0.042)	(0.066)	(0.066)
Constant	0.968	0.903	2.398	2.348	-2.186	-2.211
	(2.177)	(2.171)	(2.059)	(2.056)	(3.695)	(3.687)
Observations	5,474	5,474	4,908	4,908	2,095	2,095
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
FE	UW-State	UW-State	UW-State	UW-State	UW-State	UW-State
	Year	Year	Year	Year	Year	Year
SE Cluster	UW-State	UW-State	UW-State	UW-State	UW-State	UW-State
Adj. R	0.262	0.262	0.262	0.262	0.287	0.287

Table 7 Panel B: The impact of large donations on underwriter's competitive market share

Variables	(1)	(2)	(3)	(4)	(5)	(6)
	Full sample		Elected		Unelected	
	Donation Pct	Office Pct	Donation Pct	Office Pct	Donation Pct	Office Pct
Large donation year$_{0\text{-}2}$	-0.002	-0.000	0.005	0.005	-0.024	-0.024
	(0.006)	(0.005)	(0.005)	(0.004)	(0.023)	(0.027)
Large donation year$_{3\text{-}4}$	-0.001	0.003	-0.008	-0.008	0.021	0.044
	(0.012)	(0.015)	(0.009)	(0.010)	(0.045)	(0.063)
Large donation year$_{-6}$	0.004	0.004	0.008	0.007	-0.010	-0.009
	(0.007)	(0.006)	(0.007)	(0.007)	(0.017)	(0.019)
Large donation year$_{5+}$	0.004	0.010	0.011	0.016	-0.015	-0.014
	(0.012)	(0.014)	(0.016)	(0.018)	(0.019)	(0.022)
Past comp market share	0.028	0.028	0.015	0.015	0.066	0.066
	(0.039)	(0.039)	(0.033)	(0.033)	(0.072)	(0.072)
Past nego market share	0.066**	0.066**	0.090***	0.090***	0.050	0.050
	(0.030)	(0.030)	(0.034)	(0.034)	(0.048)	(0.048)
UW's experience (Ln)	-0.353*	-0.357*	-0.511***	-0.518***	-0.223	-0.221
	(0.183)	(0.183)	(0.198)	(0.198)	(0.312)	(0.311)
Public company	-4.405***	-4.417***	-5.468***	-5.491***	-0.307	-0.301
	(1.473)	(1.474)	(1.739)	(1.741)	(1.313)	(1.313)
UW's total share growth	0.473***	0.473***	0.466***	0.466***	0.483***	0.483***
	(0.075)	(0.075)	(0.080)	(0.080)	(0.129)	(0.129)
State's issue growth	-0.007	-0.007	-0.013	-0.013	0.022	0.022
	(0.019)	(0.019)	(0.022)	(0.022)	(0.037)	(0.037)
Constant	2.747***	2.755***	3.971***	3.996***	-0.451	-0.466
	(0.858)	(0.858)	(0.885)	(0.884)	(1.818)	(1.818)
Observations	19,815	19,815	16,328	16,328	7,584	7,584
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
FE	UW-State Year	UW-State Year	UW-State Year	UW-State Year	UW-State Year	UW-State Year
SE Cluster	UW-State	UW-State	UW-State	UW-State	UW-State	UW-State
Adj. R	0.196	0.196	0.217	0.217	0.181	0.181

Table 8: Determinants of different donation strategies

This table reports the result of multinomial logistic regression for underwriter's choice of donations. The dependent variable is a categorical variable representing large donation, multi-small donation, small donation, party donation, or no donations. Past large donation, past multi-small donation, past small donation and past party donation is an indicator variable that equals 1 if the underwriter makes such type of donation in the past five years and 0 otherwise. Donation types and control variables are defined in Appendix B. Standard errors are double-clustered by underwriter-state and reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Variables	(1)	(2)	(3)	(4)
	Large	Multi-small	Small	Party
Past large donation	0.933	-15.674***	0.280	0.699*
	(0.790)	(1.313)	(0.424)	(0.412)
Past multi-small donation	-16.138***	4.068***	0.681	-0.106
	(0.775)	(0.677)	(0.430)	(0.996)
Past small donation	0.987	2.086**	2.205***	0.270
	(0.761)	(0.993)	(0.249)	(0.396)
Past party donation	0.578	-0.096	0.694**	2.770***
	(0.742)	(1.078)	(0.292)	(0.212)
Past nego market share	-0.076	0.011	0.023	0.035***
	(0.058)	(0.030)	(0.024)	(0.009)
Closeness (Ln)	0.437***	0.243**	0.244***	0.304***
	(0.105)	(0.109)	(0.058)	(0.059)
National	1.656***	-14.548***	-2.052***	-0.089
	(0.433)	(1.566)	(0.527)	(0.239)
UW's experience (Ln)	-0.164	-0.552	-0.470**	-0.406***
	(0.390)	(0.429)	(0.195)	(0.154)
Public company	-1.712***	0.515	-0.064	-0.177
	(0.563)	(0.682)	(0.266)	(0.198)
UW's total share growth	0.114**	0.327	0.067	0.020
	(0.054)	(0.391)	(0.118)	(0.059)
State's issue growth	0.363**	-0.187	-0.159*	-0.097
	(0.162)	(0.262)	(0.088)	(0.059)
Market concentration	-0.985	-0.296	-2.684**	-2.468**
	(1.552)	(2.381)	(1.118)	(1.188)
State corruption	-0.878	0.858	0.418*	0.396***
	(0.539)	(0.705)	(0.226)	(0.143)
Constant	-2.216*	-6.882***	-2.999***	-1.547**
	(1.344)	(2.136)	(1.106)	(0.698)
Observations	15,862	15,862	15,862	15,862
Other controls	Yes	Yes	Yes	Yes
SE Cluster	UW-State	UW-State	UW-State	UW-State
Log-Likelihood	-1,961	-1,961	-1,961	-1,961

Appendix A: Form G-37[27]

Example 1: Multi-small donations

FORM G-37/G-38 MSRB

Name of dealer: [redacted]

Report period: January 1, 1998 - March 31, 1998

I. CONTRIBUTIONS made to issuer officials (list by state)

STATE	Complete name, title (including city/county/state or other political subdivision) of issuer official	Contributions by each contributor category (i.e. dealer, dealer controlled PAC, municipal finance professional controlled PAC, municipal finance professionals and executive officers). For each contribution, list contribution amount and contributor category (For example, $500 contribution by executive officer)
AL	Don Siegleman, Lt Governor, State of Alabama (candidate for Governor)	$250 contribution by Registered Rep
	Lucy Baxley, Treasurer, State of Alabama	$250 contribution by Registered Rep
	DeWayne Freeman, candidate for Lt. Governor	$250 contribution by Registered Rep
	Don Siegleman, Lt Governor, State of Alabama (candidate for Governor)	$250 contribution by Registered Rep
	Lucy Baxley, Treasurer, State of Alabama	$250 contribution by Registered Rep
	DeWayne Freeman, candidate for Lt. Governor	$250 contribution by Registered Rep
	Mac McArthur, candidate for Attorney General	$250 contribution by Registered Rep
	Don Siegleman, Lt Governor, State of Alabama (candidate for Governor)	$250 contribution by Registered Rep
	Lucy Baxley, Treasurer, State of Alabama	$250 contribution by Registered Rep
	DeWayne Freeman, candidate for Lt. Governor	$250 contribution by Registered Rep
	Mac McArthur, candidate for Attorney General	$250 contribution by Registered Rep
	Don Siegleman, Lt Governor, State of Alabama (candidate for Governor)	$250 contribution by Registered Rep
	Lucy Baxley, Treasurer, State of Alabama	$250 contribution by Registered Rep
	DeWayne Freeman, candidate for Lt. Governor	$250 contribution by Registered Rep
	Mac McArthur, candidate for Attorney General	$250 contribution by Registered Rep
	Don Siegleman, Lt Governor, State of Alabama (candidate for Governor)	$250 contribution by Registered Rep
	Lucy Baxley, Treasurer, State of Alabama	$250 contribution by Registered Rep
	Sharon Yates, Court of Civil Appeals, Montgomery	$200 contribution by Registered Rep
	DeWayne Freeman, candidate for Lt. Governor	$250 contribution by Registered Rep
	Don Siegleman, Lt Governor, State of Alabama (candidate for Governor)	$250 contribution by Registered Rep
	Lucy Baxley, Treasurer, State of Alabama	$250 contribution by Registered Rep
	DeWayne Freeman, candidate for Lt. Governor	$250 contribution by Registered Rep
	Don Siegleman, Lt Governor, State of Alabama (candidate for Governor)	$250 contribution by Registered Rep
	Chris McNair, Jefferson County Commission	$250 contribution by Registered Rep
FL	Sandra Mortham for Secretary of State, Republican Primary	$250 contribution by Registered Rep

[27] Source: https://emma.msrb.org/MarketActivity/PoliticalContributions.aspx

Example 2: Large donations

FORM G-37

MSRB

Name of dealer: [redacted]

Report Period: *Third Quarter of 2006*

I. CONTRIBUTIONS made to issuer officials (list by state)

State	Complete name, title (including any city/county/state or other political subdivision) of issuer official	Contributions by each contributor category (i.e., dealer, dealer controlled PAC, municipal finance professional controlled PAC, municipal finance professionals and non-MFP executive officers). For each contribution, list contribution amount and contributor category (For example, $500 contribution by non-MFP executive officer) If any contribution is the subject of an automatic exemption pursuant to Rule G-37(j), list amount of contribution and date of such automatic exemption.
DE	*Jack Markel, State Treasurer of Delaware*	*$1,200 contribution by Municipal finance professional*
WI	*Jim Doyle, Governor of Wisconsin*	*$5,000 contribution by Municipal finance professional*

II. PAYMENTS made to political parties of states or political subdivisions (list by state)

State	Complete name (including any city/county/state or other political subdivision) of political party	Payments by each contributor category (i.e., dealer, dealer controlled PAC, municipal finance professional controlled PAC, municipal finance professionals, and non-MFP executive officers). For each payment, list payment amount and contributor category (For example, $500 payment by non-MFP executive officer)
IL	*Illinois House Republican Organization*	*$10,000 payment by Municipal finance professional*

Appendix B: Variable definitions

Table A1: Characterics of underwirters and states

Variables	Definition
AAA	Indicator variable equal to 1 if the bond has an average credit rating of AAA for rated issuers in the state and 0 otherwise. (The lowest available score among S&P, Moody's and Fitch – same for all rating variables below.)
AA	Indicator variable equal to 1 if the bond has an average credit rating of AA for rated issuers in the state and 0 otherwise.
A-BBB	Indicator variable equal to 1 if the bond has an average credit rating of A or BBB for rated issuers in the state and 0 otherwise.
Average market share in U.S.	Underwriter's negotiated market share in U.S.
Average market share per state	Underwriter's average negotiated market share in each state.
Candidate donation	Donations that are made to a campaign candidate of the state in the past two years.
Closeness (Ln)	Negative logged distance between the bank's headquarter and the capital city of a given state.
Competitive market share	The ratio of the underwriter's annual underwriting amount in competitive sales to the state's total annual issue amount in competitive sales.
Donation pct	The ratio of each type candidate (party) donation relative to the total candidate donation (party donation) in a state.
Donation pct in connected states	The ratio of the underwriter's donation relative to the total donation received by the state.
Large donation year$_\tau$	Interaction term of a large donation and the τth year following or prior to a large donation made by an underwriter to a state. The percent of large donation$_\tau$ is an interaction term of the τth year and the ratio of the underwriter's large donation relative to the total large donations received in the state.
Large donation	Donation that is greater than $250 to a campaign candidate of the state in the past two years.
Market concentration	The Herfindahl-Hirschman Index for the negotiated market share in each state during the past three years.
Market share	The ratio of the underwriter's underwriting amount in negotiated sales to the state's total issue amount in negotiated sales.
Market share in connected state	Underwriter's negotiated market share in states that receive donations.
Market share in non-connected state	Underwriter's negotiated market share in states without donations.
Multi-small donation	Multiple small donations with total amount greater than $250 to a campaign candidate in the past two years.
National	Indicator variable equal to 1 if the underwriter has negotiated underwriting business in at least thirty states in the U.S. before the beginning of sample period (1997). 0 otherwise. First three years are used for underwriter firms established after 1997.
No. states per donation year	Total number of states that receive donations from underwriting banks in each donation year.
No. states with donations	Total number of states that receive donations from underwriting banks during the sample period.
No. states with underwriting business	The total number of states in which the underwriter has underwriting business.
Office pct	The ratio of connected offices through different type candidate (party) donations relative to the total number of connected offices through candidate (party) donations in a state.
Party donation	Donations that are made to a political party or political committee of the state in the past two years.
Past nego market share	The ratio of the underwriter's underwriting amount in negotiated sales to the state's total issue amount in negotiated sales in the past three years.
Past comp market share	The ratio of the underwriter's underwriting amount in competitive sales to the state's total issue amount in competitive sales in the past three years.
Post-donation market share	UW's negotiated market share in the connected state during the five years after each donation.
Post-donation market share in U.S.	UW's negotiated market share in U.S. during the five years after each donation.
Post-donation state share in U.S.	State's issue amount in negotiated deals relative to the total U.S. amount during the five years after each donation.
Pre-donation market share	UW's negotiated market share in the connected state during the five years before each donation.
Pre-donation market share in U.S.	UW's negotiated market share in U.S. during the five years before each donation.
Pre-donation state share in U.S.	State's issue amount in negotiated deals relative to the total U.S. amount during the five years before each donation.
Public company	Indicator variable equal to 1 if the underwriter is a public company and 0 otherwise.
Small donation	Small donations with total amount less than or equal to $250 to a campaign candidate in the past two years.
Speculative	Indicator variable equal to 1 if the bond has an average credit rating of BB or lower for rated issuers in the state and 0 otherwise.
State corruption	Indicator variable equal to 1 if the state's total convictions in the past 3 years has a ranking in top quartile and 0 otherwise.
State employment	Log growth of the state's annual average of monthly employment.
State establishment	Log growth of the state's annual average of quarterly business establishment.
State GDP	Log growth of the state's per capita GDP in 2013 dollars.
State income	Log growth of the state's average annual per capita income in 2013 dollars.
State interest tax	State interest tax rate.
State population	Log growth of the state's population in a given year.
State's issue growth	The growth of a state's negotiated issue amount relative to the U.S. total issue amount in negotiated sales during the past three years.
Total donation amount	The total amount of donation made by the underwriter during the sample period. The value has been adjusted to 2013 dollars.
Total donation per state	The average donation amount made by the underwriter in each state. The value has been adjusted to 2013 dollars.
Underwriting amount ($Mil)	Underwriter's total underwriting amount in negotiated deals ($Mil). The value has been adjusted to 2013 dollars.
Underwriting amount per state ($Mil)	Underwriter's average underwriting amount in negotiated deals in each state ($Mil). The value has been adjusted to 2013 dollars.
UW's average donation	Underwriters average donation amount in negotiated deals. The value has been adjusted to 2013 dollars.
UW's experience (Ln)	Logged number of active years in municipal bond underwriting business since the first year in the municipal bond data base.
UW's total share growth	The growth of underwriter's negotiated underwriting amount relative to the U.S. total issue amount in negotiated sales during the past three years.