

**DOES THE QUALITY OF FINANCIAL ADVICE AFFECT PRICES?**

**By**

Arthur Allen, Ph.D.  
Associate Professor  
University of Nebraska-Lincoln  
College of Business  
12<sup>th</sup> and R Street  
Lincoln, NE 68588  
402-472-3275

Donna Dudney, Ph.D.  
Assistant Professor  
University of Nebraska-Lincoln  
College of Business  
Department of Finance  
P.O. Box 880490  
Lincoln, NE 68588-0490  
402-472-5695

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# DOES THE QUALITY OF FINANCIAL ADVICE AFFECT PRICES?

## *Abstract*

*Using a large data sample of 69,539 new municipal issues covering the period from 1984 to 2002, we examine whether the quality of advice provided by a financial advisor affects new issue interest costs. We find that more reputable financial advisors are associated with statistically significant decreases in new issue yields. We argue that in the municipal debt market, price certification signals have minimal value to investors and therefore attribute these reputational effects primarily to the quality of the financial advice provided. We interpret our evidence as supportive of the quality of advice affecting yields rather than yields being affected by a signal about issuer quality. Another measure of the quality of advice is continuing relationships between the financial advisor and the issuer. We find that continuing relationships are also associated with reduced interest costs. The effect of advisor quality and continuing relationships on yields is especially pronounced for more complex issues (negotiated and revenue bonds).*

## **I. INTRODUCTION**

Previous research indicates that underwriter reputation affects the pricing of seasoned new equity and debt issues. Helou and Park (2001) argue that the impact of reputation on pricing occurs primarily through a signaling effect. Underwriters with substantial reputational capital at risk have a greater incentive to signal accurately to avoid risking damage to that capital, therefore association with a reputable underwriter sends a price certification signal to the marketplace. We argue that it is also plausible that reputation proxies for the quality of financial advice. Underwriters providing high quality financial advice may be able to provide superior structuring or marketing of an issue, resulting in improved pricing and lower costs. Thus, in addition to price certification signaling, the quality of financial advice may be an important cause of the empirical relation between reputation and new issue pricing.

To disentangle these competing explanations, we examine new issue pricing in the municipal bond market. We argue that because of unique institutional features of the municipal market, price certification signaling by underwriters has minimal value to investors in this market. Pricing in the municipal bond market is more straightforward than in the equity market. Municipal issues rarely default, so cash flows on fixed-rate investment-grade municipal issues can be easily predicted with a high degree of accuracy. Most municipal bonds have at least one credit rating, so default risk measures are generally readily available. The greater cash flow certainty in the municipal market results in a much lower demand for price certification by underwriters.

In the corporate equity and bond markets, virtually all issues are sold on a negotiated basis, with the underwriter providing advisory as well as underwriting services. The municipal market is instead characterized by a substantial portion (49% in our sample) of issues with an external financial advisor. For issues utilizing a financial advisor, the role of the underwriter is limited primarily to marketing the bonds. This is particularly true for competitively sold issues. For these issues, the financial advisor (not the underwriter) structures the issue and supervises the preparation of offering and legal documents. Underwriters are then invited to submit an interest rate bid on the issue (generally within a 4 to 6-day period), with the issue awarded to the underwriter with the lowest Net Interest Cost (NIC) or True Interest Cost (TIC). The underwriter serves a marketing role, but does not work closely with the issuer prior to the bond sale. Even for negotiated issues, if an external financial advisor is involved, the advisor frequently completes the preliminary financial structuring and due diligence on an issue before drafting a request for proposals from prospective underwriters. Because of the more

limited contact between the issuer and underwriter on issues utilizing a financial advisor, investors are less likely to rely on underwriter reputation as a reliable price certification signal. Indeed, the three empirical studies examining the impact of underwriter reputation on municipal yields found no such effect (Roden and Bassler, 1996; Butler, 2004; Allen and Sanders, 2004).<sup>1</sup>

We argue that in the municipal market, any association between reputation and yields will be caused primarily by the quality of the advice provided by financial advisors. High quality financial advisors achieve lower yields for their municipal clients in at least three ways. First, the advisor's financial expertise ensures that an optimal financing structure is selected and that the timing of the issue is appropriate. Second, the advisor's contacts and expertise in generating interest among potential bidders may result in more underwriter interest in competitively-sold issues. The same networking skills can be used to attract a broader range of proposals if a request for proposals (RFP) process is used to select the underwriter for negotiated issues. In addition, in negotiated issues, a skilled financial advisor can bargain with the underwriter on the behalf of the issuer to ensure the best terms and rates. The third reason is related to the second - an advisor's quality/experience may also aid in the marketing of an issue to potential underwriters. Through their association with a variety of financial advisors, over time underwriting firms can distinguish between high quality and low quality financial advisors. Particularly for issuers without an established track record in the municipal

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<sup>1</sup> In the Roden and Bassler (1996) study, they found that when market participants were surveyed to determine the most prestigious municipal underwriters, the rankings were highly correlated with measures of prestige in the corporate underwriting market, but were uncorrelated or negatively correlated with measures of the volume of municipal issues underwritten. They conclude that perceptions of underwriter quality are based on reputations from work done in the corporate market rather than work done in the municipal market. This evidence suggests that municipal market participants are not highly concerned about the reputation of municipal underwriters.

marketplace, the advisor's association with the issue may result in more underwriter interest in competitively-sold issues, and may improve the underwriter response to requests for proposals for negotiated issues.

The presence of separate external financial advisors in the municipal market allows us to isolate the impact of the quality of financial advice on price. In addition, the relative lack of financial sophistication of many municipal issuers may make the quality of financial advice particularly important in this market. Many municipal entities issue bonds infrequently and lack specialized in-house staff skilled in bond financing. There is also generally less depth of knowledge in municipal settings, particularly when appointed or elected officials can change with the outcome of elections. According to Monique Moyer, public finance director for the City and County of San Francisco, "Institutional knowledge [of debt issues] is vested in one, maybe two, individuals – individuals, by the way, who are not compensated or rewarded or even valued as the repository of this knowledge. In all likelihood, financial advisors will know more about their municipal clients' debt portfolio and bond covenants than their clients know." (2003, p. 18)) For many local governments, the issuance of municipal debt is an infrequent occurrence. Even for frequent issuers, changes in tax-exempt financing regulations, increases in the complexity of municipal financing structures, and the increasing role of institutional investors in the municipal marketplace make it difficult to keep abreast of changing market conditions. Given the relative infrequency of issues and the complexity of the market, it is often more cost-effective for issuers to hire outside expertise to assist with the issuance process than to rely on in-house staff (Lamb, Liegland and Rappoport, 1993). Because of the greater involvement of financial

advisors in municipal issues, and the relative unsophistication of municipal issuers, advisor quality may be more valuable in this market than in the equity or corporate bond markets.

While association between financial advisor reputation and pricing has been examined in corporate equity offerings, (Kale, Kini and Ryan, 1998 and 2003), we are not aware of any papers that examine the relationship between advisor quality and municipal new issue yields. Because of the unique features of the municipal market discussed above, we argue that this market provides a relatively clean test of whether the quality of financial advice affects prices.

We examine a full sample of 69,539 primary market municipal bonds issued between 1984 and 2002, and a subsample of bonds with external financial advisors and find strong evidence of a negative relation between the quality of financial advice and new issue pricing. This relation is particularly strong for more complex issues, where high-quality financial advice would presumably be most valuable.

We also examine whether continuing relationships between financial advisors and issuers are associated with reduced interest costs. Because of the lack of depth in the debt staffs of many municipal issuers, continuity in the financial advisory relationship may substitute for in-house staff continuity. Continued association may also allow an advisor to gain a more in-depth knowledge of the issuer, enabling the advisor to better structure and market future issues. In addition, continuity allows the advisor to perform a monitoring or oversight role to ensure that the issuer meets continuing disclosure requirements and bond covenants. If these services are valued by investors, financial advisor continuity should be associated with lower new issue yields. Our results support

this hypothesis - we find that financial advisor continuity is associated with lower new issue yields.

The remainder of this paper is organized as follows: Section II provides a brief review of the literature, Section III delineates our hypotheses, Section IV describes the data and methodology, Section V discusses the results of the model and Section VI contains the conclusions and implications.

## **II. LITERATURE REVIEW**

The impact of reputation on issue costs has been studied extensively in the equity markets, but these studies have primarily focused on underwriter reputation. Issuers in equity markets hire an underwriter to assist in the structuring and marketing of stock issues, and may also engage the services of a financial advisor (this is most common in corporate acquisitions and takeovers). The certification hypothesis (Booth and Smith, 1986) suggests that since prestigious underwriters have a large amount of reputational capital at risk, they are less likely to be associated with poor new issues. Thus, association with a prestigious underwriter sends a quality signal to investors.

Although early studies found that issues from prestigious underwriters had less underpricing on new equity issues (Logue, 19783 and McDonald and Fisher, 1972), these studies did not include risk measures. More complete models report mixed results, with Johnson and Miller (1988) finding no significant relationship between the degree of underpricing and advisor reputation, while Carter and Manaster (1990) find that prestigious underwriters have less underpricing than their nonprestigious counterparts. This is consistent with the findings of Balvers, McDonald and Miller (1988) who found

that issuers using prestigious underwriters also use prestigious auditors and the reputations of both parties reduce underpricing.

Only three studies examine the effect of underwriter prestige on the interest cost of municipal bond offerings. Roden and Bassler (1996) use rankings in tombstones from Investment Dealers' Digest to develop prestige measures of underwriters in the municipal bond market. Using a sample of 490 municipal new issues from the U.S. mid-Atlantic region from 1977 to 1982, they conclude that underwriter prestige is not associated with lower net interest costs. Butler (2004) also examines the effect of underwriter reputation on new issue municipal bond yields, although his main research focus is the effect of corruption on bond yields. Using a sample of 2,182 taxable municipal bonds, he measures underwriter reputation with a market share measure developed by Megginson and Weiss (1991) and finds that high underwriter reputation does not significantly reduce yields or all-in costs. Allen and Sanders (2004) find that net interest costs are *higher* when underwritten by a national underwriter because local underwriters tend to underwrite issues that are tax advantaged to local issuers. After controlling for differential state taxation, underwriter prestige was not associated with lower net interest costs.

Research on the reputational impact of financial advisors in the corporate arena is much less extensive, probably because the use of separate financial advisors is most common in equity transactions associated with mergers and acquisitions. Kale, Kini and Ryan (1998 and 2003) study the effect of financial advisor reputation on wealth gains in corporate takeovers. They construct a measure of the relative reputations of the bidder's and the target's financial advisors and find that the share of the total takeover wealth gain

accruing to the bidder increases as the relative reputation of the bidder's advisor increases. Further, bidder advisor reputation is positively related to the probability of bid success. These studies demonstrate some association between financial advisor reputation and issue pricing, but may not be generalizable to other markets.

The municipal market is characterized by much greater financial advisor involvement. The role of financial advisors in the municipal market has been examined in prior studies, however most of these studies have focused on potential conflicts of interest faced by advisors. Robbins and Simonsen (2003) examine the relation between financial advisor independence and municipal bond sales type. They find that issuers using independent (i.e. not also involved in underwriting municipal bonds) financial advisors are more likely to choose a competitive sale method. When financial advisors are associated more closely with one underwriter, or when they themselves are underwriters, their clients are more likely to choose negotiated sales.

Clarke (1997) examined the cost implications of allowing a financial advisor to also bid as an underwriter on competitive issues. The Municipal Securities Rulemaking Board (MSRB) Rule G-23 prohibits financial advisors from submitting underwriting bids on issues for which they provide advisory services unless the financial advisor secures written permission from the issuer to participate in the bidding process. If a decision is made to negotiate instead of competitively sell an issue, the advisor cannot act as underwriter for the negotiated issue unless the advisory contract is first terminated and the possible conflict of interest and financial gain are disclosed to the issuer. Clarke used a sample of 1,262 competitively sold municipal bond issues in the state of Texas from 1991 through 1995. He found no evidence of higher interest costs when a financial

advisor participates in the bidding process as an underwriter on GO and state-backed school district debt. However, for revenue debt, net interest costs were about 6 basis points higher when the advisor serves as the underwriter.

We are not aware of any studies on the impact of financial advisor quality or advisor continuity on municipal bond yields. While earlier studies have examined other aspects of financial advisor involvement in the issuance process, these studies have used limited data sets. Our data set is much more extensive, covering virtually all new municipal issues utilizing the services of a financial advisor during the period from 1984 to 2002.

### **III. HYPOTHESES**

The primary focus of this study is on answering two research questions:

- 1) Does the quality of financial advice affect new issue pricing? and
- 2) Does a continuing relationship with a single financial advisor result in lower interest costs?

In addition to these primary research questions, we also confirm results of previous studies using a larger data sample covering a longer time period and a more diverse group of issuers. Specifically, we examine whether the use of an external financial advisor lowers interest costs, and whether increased interest costs are associated with issues where the financial advisor also serves as the underwriter for the issue.

#### ***Financial Advisor Quality***

Financial advisors provide issuers with expert advice on the appropriate financing structure and timing of an issue, prepare offering documents, obtain bond ratings, prepare and review bid documents for competitive sales (or bargain with underwriters on

negotiated issues), obtain ratings, satisfy continuing disclosure requirements and advise clients on the investment of bond proceeds. Many financial advisors also provide ongoing consulting services to their municipal clients, including monitoring outstanding issues for refunding opportunities, developing long-term financing plans to meet ongoing capital needs, developing fiscal policies and keeping issuers abreast of changes in tax-exempt regulations and arbitrage requirements.

Experienced financial advisors may over time become more competent than their less experienced counterparts. This competence may result in superior financing structures and issue timing. More experienced advisors may do a better job of preparing offering and rating materials and soliciting underwriter interest for competitive issues. For negotiated issues, more experienced advisors may be better able to assist issuers in the underwriter selection process and may be able to successfully bargain for more favorable issue terms or lower interest rates. Through their association with a variety of financial advisors, over time underwriting firms can distinguish between high quality and low quality financial advisors. In competitive bid situations, underwriters may be more likely to bid on bonds structured by high quality financial advisors. Because of the limited time frame for bidding, the underwriter may substitute advisor reputation for time-consuming due diligence. Similarly, underwriters may be more interested in responding to a request for proposals on a negotiated issue if the request is received from a high quality financial advisor.

Because the use of external financial advisors is more common in the municipal marketplace than in the equity or corporate bond arena, use of a municipal bond sample allows us to more easily isolate the impact of quality on yield separate from the impact of

price certification signaling on yield. We argue that price certification signaling is less valuable in the municipal market because cash flows on investment grade municipal bonds can be predicted with a high degree of accuracy and the availability of published ratings on most municipal bonds allows investors to easily assess default risk. If an external financial advisor is involved, the role of the underwriter consists primarily of marketing the bonds. Therefore, any reduction in yields associated with the quality of financial advice should be due primarily to the advice provided by the financial advisor.

We would expect that as the complexity of an issue increases, the value of quality financial advice would increase. Revenue-backed issues are typically more complex to structure than general obligation issues because the revenue stream is less predictable and the timing of the cash flows is tied to completion of the project funded from bond proceeds. Debt service must be tailored to the projected revenue stream, and trust indenture covenants must provide adequate security for bondholders while maintaining issuer flexibility in managing the revenue stream. “Plain vanilla” general obligation bonds are more straightforward than revenue bonds, thus the marginal impact of financial advisor quality may be smaller.

We also expect to see a stronger financial advisor quality effect for negotiated versus competitive issues. Revenue issues are more likely to be sold on a negotiated rather than competitive basis, and advisors have more control over the timing of negotiated issues. Sale dates of competitive issues must be set in advance to allow time for underwriters to submit bids, and once set, the sale date is not easily changed. In contrast, the sale date of negotiated issues is set by the financial advisor and underwriter and can easily be accelerated or delayed in response to changes in market conditions. If

an advisor has timing expertise, this expertise will be reflected in the yields for negotiated, but not competitive issues.

### ***Continuing Relationships***

A continuing relationship with an issuer may allow an advisor to gain a more in-depth knowledge of the issuer, enabling the advisor to better market the issuer's bonds. Through a continuing relationship with the issuer, an advisor can recommend changes in fiscal policy that may enhance the marketability of the issuer's bonds. Continuity also ensures that the issuer meets continuing disclosure requirements and bond covenants. Continuing disclosure is particularly important to institutional investors who must prove compliance with credit quality standards. According to Colby (2003), institutional investors will penalize issuers on future bond issues if they do not provide continuing disclosure. We expect that financial advisors with continuous issuer relationships will be able to translate the knowledge they obtain about these issuers into optimal financing structures, resulting in a negative relation between advisor continuity and new issue yields.

## **IV. DESCRIPTION OF DATA AND METHODOLOGY**

### ***Description of Data***

We initially include all primary market municipal bond issues included on the *Securities Data Corporation (SDC Platinum)* Public Finance database from 1984 to 2002. We exclude putable issues, issues with variable interest rates, issues with sinking fund provisions<sup>2</sup> and issues missing yield data. To ensure that our results are not due to a few very frequent issuers, we include only one issue by a particular issuer within a 12-

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<sup>2</sup> Only 154 out of the 347,000 original observations have some reference to a sinking fund.

month period. Our final sample includes 69,539 issues, representing general obligation as well as revenue bonds.

Municipal bond issues are generally structured with serial maturities (i.e. principal maturing in each year). This convention allows the issuer to structure the financing so that the pattern of total principal and interest payments are optimized relative to the issuer's budget planning. Coupon rates often vary by maturity. Our dependent variable is the reoffering yield. We use the available reoffering yield closest to 10 years. We use the term "issue" or "bond issue" to denote the entire package of maturities purchased by the underwriter. In general, an issue's features (e.g., revenue vs. general obligation, fixed vs. variable interest rates, security and call provisions, etc.) apply to all maturities in an issue.

Our full sample includes issues with and without a financial advisor. External financial advisors were reported for approximately half of the issues in our sample. This is consistent with Johnson (1994), who found that external financial advisors were used in an average of 43% of new municipal issues between 1986 and 1992. To be sure that our results are not contaminated by a self-selection bias, we also report results for only those issues using an external advisor (36,673 issues out of 69,539 in the total sample).

### *Methodology*

To test our hypotheses, we regress measures of financial advisor quality, independence and continuity and a set of control variables on new issue bond yields. The dependent variable is the reoffering yield of new issues.

**Deleted:** The overall yield on the entire issue is calculated using one of two methods: the Net Interest Cost (NIC) or the True Interest Cost (TIC). The Net Interest Cost is calculated as the undiscounted sum of total interest payments over the life of the issue, less any premium measured by the projected offering price, less the underwriter spread and face value of the issue, all divided by the number of bond years in the issue (bond years is the sum of the principal amount of each serial maturity multiplied by that maturity in years (see Roden and Bassler, 1996). True Interest Cost is the interest rate that equates the present value of payments on the bond issue with the net proceeds derived from the issue. While NIC ignores the time value of money and thus is theoretically inferior to TIC, the vast majority of competitive issues of bonds issued prior to the 1980's were awarded based on NIC, and NIC is still frequently used as the basis for bid awards.

**Deleted:**<sup>3</sup> ¶

**Deleted:** interest cost

**Deleted:** Interest cost is either measured using TIC, NIC, or reoffering yields depending on data availability. Either TIC or NIC is usually reported in the results of a bond sale because the issuer used one or the other as a criterion for choosing a buyer. Although TIC has gained popularity over the years, NIC is still used by some issuers. No systematic difference in yields was detected for issuers using TIC versus NIC, nor were the determinants of yields systematically different. Reoffering yields are used where neither TIC nor NIC is available.<sup>4</sup> No systematic difference in the determinants was found between reoffering yields and TIC/NIC. As a sensitivity analysis, separate models were run using only reoffering yields or TIC/NIC. The results were not materially different.

### ***Financial Advisor Variables***

Prior studies focusing on underwriter reputation frequently measure reputation by examining relative underwriter placement on tombstones advertising an issue. Presumably, if the underwriter is in a higher bracket on a tombstone, that underwriter is more prestigious. Use of this method to examine financial advisor quality is problematic. First, typically only one financial advisor is used per issue, so relative placement on a tombstone has no meaning. Second, financial advisors tend to be employed locally or regionally in the municipal market, so national rankings of financial advisors may not reflect regional preferences. For example, a particular financial advisor may have established a strong reputation and be the advisor of choice in a particular state, but if that state is not a large issuer of municipal bonds, it is unlikely that that advisor will appear in national financial advisor rankings (as these rankings are generally based on issue volumes).

An advisor's quality reputation is built through performance on a substantial number of issues. Presumably, firms are not rehired if performance is poor, so over time, "good" financial advisors should attract more issuers than "bad" financial advisors. Thus, financial advisor quality and experience should be highly correlated. To measure financial advisor quality, we use a variation of the market share measure used by Megginson and Weiss (1991). For each advisor, we calculate the number of issues handled by that advisor in that state in a particular year, divided by the total number of issues handled by any financial advisor in that state in that same year. This measure has the advantage of being state-specific, and is less prone to outlier distortion than volume-

based measures. As a supplemental test, we also use volume of issues in place of number of issues and obtain similar results (unreported).

In addition to this continuous measure of advisor quality, we also rank the advisor quality variable from highest to lowest and use this ranking to create three indicator variables used in a separate regression analysis. The *Low Quality Financial Advisor* variable is coded 1 if the continuous quality measure for the advisor falls into the bottom quartile of the ranking. The *Medium Quality Financial Advisor* is coded 1 if the continuous quality measure falls in the second or third quartile, while the *High Quality Financial Advisor* variable is coded 1 if the continuous quality measure falls in the top quartile. The excluded group is no financial advisor. In the sample including only bonds with a financial advisor, the excluded group is *Low Quality Financial Advisor*.

To measure continuity of the financial advisor, we include an indicator variable coded 1 if the same financial advisor was used for the issuer's previous issue. If continuity enhances ability of financial advisors to obtain a more in-depth knowledge of the issuer, and therefore, provide better quality advice, the expected sign on the coefficient of the indicator variable should be negative.

The final financial advisor variables are also indicator variables. The first is coded 1 if the financial advisor also serves as the underwriter on an issue, while the second is coded 1 if the issuer hires an external financial advisor instead of using in-house staff. The second variable is used only in the full sample analysis as all of the bonds in the subsample have an external financial advisor.

### ***Control Variables***

Most of the control variables were suggested by prior research. The level of interest rates is measured as the Bond Buyer's index of local government bond yields as of the week of the bond sale for a particular issue. It is important to use local government bond yields because the spreads between local government yields and corporate (or Treasury) yields varies substantially over time. Maturity is defined as the years to maturity associated with the reoffering yield chosen.<sup>5</sup> Although the municipal yield curve is never downward sloping, it becomes flat at longer maturities. Therefore, the maturity variable is truncated at 20 years. The natural log of issue size is the final continuous control variable in the model.

**Deleted:** Average

**Deleted:** value-weighted average maturity for the issue, calculated by multiplying the proportion of the issue maturing in each year by the number of years until maturity

Indicator variables are used to control for many factors including negotiated offerings, private placements, the presence of a state tax preference,<sup>6</sup> bank qualified bonds, callable issues, issues subject to the alternative minimum tax (AMT), state guaranteed issues, insured issues, bonds backed by letters of credit, bonds with two managing underwriters, certificates,<sup>7</sup> taxable bonds, tax increment bonds, revenue bonds and zero coupon bonds. We also include entity type indicator variables (state, county, school district, college, and other with city the excluded group), and an issuer experience variable (coded 1 if the issuer has been in the market for at least ten years).

In addition, separate indicator variables are included to control for credit rating differences between issues. Bonds with Aaa ratings from both agencies are the excluded group. There are five variables for bonds with identical ratings from both of the

<sup>5</sup> For bonds where the reoffering yield is used, there is only a single maturity. Duration cannot be used because it requires complete data on coupon, maturity amounts and dates. Complete data was generally unavailable.

<sup>6</sup> The tax preference variable is coded 1 for states which tax interest on out-of-state bonds only, and 0 otherwise.

<sup>7</sup> "Certificates" include certificates of participation, certificates of obligation, certificates of appreciation, etc. Results were not materially different when separate variables were included for each type of certificate.

major agencies: Aa, A, Baa, Ba, and B bonds. There are also four split rating variables: AAA/Aa or Aaa/AA; AA/A or Aa/A; A/Baa or A/BBB; and BBB/Ba or Baa/BB.<sup>8</sup>

Additional indicator variables are included for non-rated bonds and bonds with only one rating.

## V. RESULTS

### *Descriptive Results and Results on Control Variables*

Table 1 presents the descriptive statistics of the continuous variables for the full and reduced samples. The reduced sample contains only issues with an external financial advisor. Table 2 contains the descriptive statistics for the indicator variables in the full sample and reduced samples. Although the level of interest rates is similar between the two samples, issues with a financial advisor have lower yields (mean of 5.567 in the reduced sample compared to 5.702 in the full sample). Issues with a financial advisor were larger, more likely to be rated, and less likely to be negotiated or revenue bonds. The financial advisor also served as the underwriter on 3% of the issues in the full sample and 6% of the issues in the reduced sample. Approximately 48% of the issues in our sample used external financial advisors. The median value of the financial advisor quality variable is zero in the full sample because this variable is defined as zero when there is no external financial advisor. For the reduced sample of issues with external financial advisors, the median value of the financial advisor quality variable is .167. Of those issues using a financial advisor, about 39% used the same financial advisor that was

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<sup>8</sup> Because of very limited sample sizes, observations were deleted if they were split-rated with ratings more than one category apart. Note that a particular split rating variable is coded one regardless of which rating agency awarded the higher rating. For example, an issue rated AAA by Standard & Poor's and Aa by Moody's and an issue rated Aaa by Moody's and AA by S&P would both be coded 1 in the triple-A double-A split ratings variable.

used on the last issue while the other issues either did not use a financial advisor for the previous issue or they switched financial advisors.

Table 3 presents the results of the regression model on the full sample including firms with and without an external advisor. There are 69,539 observations, and the model appears to be well-specified ( $R^2 = .86$ ). The Pearson correlation coefficients between the independent variables are relatively low, indicating that collinearity is unlikely to be problematic. For control variables where the expected sign is determinant, coefficients are generally significant with the expected signs. No expectations are formed about the sign of some control variables.

Consistent with the findings of Clarke (1997), we find that higher interest costs are associated with issues underwritten by the financial advisor. This result is expected given the conflicts of interest present in the advisor-turned-underwriter scenario. If the financial advisor also serves as underwriter, the interest costs are 7.3 basis points higher on average in the full sample and 8.8 basis points higher in the sample including only issues with external advisors (see Table 5). Clarke found that financial advisors tended to bid to underwrite competitively sold issues when the number of bids received was small, possibly due to the risk or complexity of a particular issue. Therefore, the higher interest costs may be at least partially justified by these factors. Interpreted differently, a lower number of bids could be received when a financial advisor serves as underwriter because other potential bidders feel that the advisor will have an unfair bidding advantage.

Surprisingly, after controlling for other factors, issues with two managing underwriters on average are associated with a 3.5 basis point increase in interest rates compared to issues with one managing underwriter. We hypothesize that issues with two

managing underwriters may be more complex or hard to market. Similarly, bonds with only one rating are associated with increased interest costs of 4.5 basis points, indicating that the market penalizes issuers who obtain only one credit rating. This result indicates that the market values the second rating as a confirmation of the initial ratings signal. The coefficient on the *Log of Issue Size* variable is significantly negative. This implies that after controlling for other factors, larger issues tend to be associated with lower interest costs than smaller issues. The negative coefficient on this variable is consistent with Braswell, Nosari and Summers (1983), but opposite that reported by Kidwell and Rogowski (1983).

### ***Results on Financial Advisor Variables***

Results on the financial advisor variables support our hypotheses. We find that using an external financial advisor results in a statistically significant interest cost reduction of 1.5 basis points on average, after controlling for other factors. Similarly, the continuous financial advisor quality variable is significant and negative for the full sample data. Note that the full impact of using an external financial advisor is the sum of the coefficients on the external financial advisor variable and the advisor quality variable. Assuming the mean value for the financial advisor quality variable, this total is 1.9 basis points.

We also run the regression using the financial advisor quality indicator variables instead of the continuous quality measure, and the results are reported in Table 4. Using indicator variables allows us to interpret the coefficient on the indicator variable as the average decrease in yields associated with a particular quality level, holding other factors

constant.<sup>9</sup> In addition, it seems plausible that investors, underwriters and issuers classify advisors into rough quality groups instead evaluating advisors using a continuous quality scale. As shown in Table 4, the coefficients on the medium and high quality advisor variables are significant and negative, while the coefficient on the low quality variable is close to zero (and insignificant). The use of a medium or high quality financial advisor reduces interest costs by 3.5 and 3.0 basis points, respectively. Because the full sample includes issues without a financial advisor, our results could be due to a self-selection bias.

To test for this possibility, we rerun the regression in Table 4 on just the 33,469 issues with an external financial advisor. Since all of the issues in this sample have an external advisor, the excluded group for the advisor quality indicator variables is the low quality group (bottom quartile of the quality ranking). As shown in Table 5, the coefficients on the medium and high quality financial advisor variables remain significant and negative. Holding other factors constant, the use of a medium or high quality financial advisor is associated with an average reduction in interest costs of 4.9 basis points compared to the use of a low quality financial advisor.

Similar results are obtained when the continuous measure of advisor quality is used for the sample including only bonds with an external financial advisor (Table 6). However, the magnitude of the coefficient on the quality variable is much larger in this model than in the full sample model. The interest cost difference between using a financial advisor at the 1<sup>st</sup> quartile vs. the 3<sup>rd</sup> quartile is 2.6 basis points. This result suggests that the involvement of an experienced financial advisor sends a valuable quality

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<sup>9</sup> Note that when the indicator variable approach is used to measure financial advisor quality, bonds without a financial advisor are the excluded group. Therefore, the External FA variable is redundant and is excluded from this analysis.

signal to the marketplace and is consistent with the notion that high quality financial advisors may be more competent than their lower quality counterparts.

Our quality measure is a market share measure. Advisors with higher market shares are bringing issues to market more frequently and therefore may develop superior knowledge of both the current interest rate environment and the financial structures most appealing to buyers. This knowledge may allow the advisor to structure the issue to achieve the lowest competitive bids, or to negotiate lower rates in non-competitive transactions. Experienced advisors may also have more well-developed connections with underwriters. These connections may enable the advisor to attract more bids on competitive issues, or more underwriter participation in requests for proposals for negotiated issues.

The results on the financial advisor quality variable are somewhat surprising given that the market share measure used to measure quality can also be thought of as a measure of the monopoly power of the advisor. Advisors with high quality ratings may possess some degree of monopoly power and would be expected to exercise that power to extract rents from the issuer or the marketplace. However, maintaining a monopoly position in the long term requires barriers to entry or a low threat of entry. There are few barriers to entry in the financial advisor industry, and competing firms generally have access to pricing information on new issues. Competitors are quick to point out above-market terms to issuers; thus the threat of competition may limit the exercise of monopoly power.

Of course, high quality financial advisors should be able to command higher advisory fees than their low quality counterparts, so monopoly rents may be obtained

through higher fees. We were unable to obtain a breakdown of financial advisor fees, so it is possible that the interest costs savings suggested by our regression analysis are offset by higher advisory fees. However, for many issues, even small decreases in interest costs can result in large dollar savings. For large issues, it is likely that the interest costs savings would be greater than the additional fees paid to high quality financial advisors.

Financial advisor continuity is also associated with reduced interest costs. The coefficient on the *Financial Advisor Continuity* variable can be interpreted as the incremental increase or decrease in yield associated with advisor continuity, holding constant other model variables. This coefficient is significant and negative in both the full sample using the continuous quality measure and the full sample using indicator variables to measure quality. In the full sample, using the same financial advisor on an issuer's previous issue is associated with a 1.2-1.3 basis point reduction in new issue yield (Tables 3 and 4). When the regression is run on the data set including only firms with an external advisor (Tables 5 and 6), the coefficient on the continuity variable remains significantly negative, but the magnitude increases to a 1.6-1.7 basis point yield reduction. The market appears to value the enhanced monitoring that may occur when advisors have a continuing relationship with an issuer, however the economic impact is smaller than the impact of financial advisor quality.

We hypothesize that the financial advisor quality effect on yields will be more pronounced for revenue bonds and negotiated bonds. Using the reduced sample of bonds with external financial advisors and the indicator variable measure of financial advisor quality, we test this hypothesis using both a split sample analysis and interaction terms.

We split the reduced sample into revenue and general obligation issues and then into competitive and negotiated issues. Regressions are run separately on each subsample, and a t-test is used to test for significant differences in the coefficients of the financial advisor quality variables across subsamples. Table 7 provides a comparison of the effect of financial advisor quality and continuity across revenue and general obligation subsamples. Panel A shows the results for the variables of interest in the model that includes only Revenue bonds (N=12,467). Panel B shows the results for the model that includes only General Obligation Bonds (N=24,206). All financial quality variables are significant in the expected direction in both models. These results are consistent with our earlier conclusion that financial advisor quality is associated with lower interest costs. However, our variable measuring financial advisor continuity is not statistically significant in either model. Panel C shows test for differences in coefficients across samples. Compared to general obligation issues, financial advisor quality is associated with significantly lower yields for revenue issues (about 2.7 basis points) for both of the indicator quality variables. This finding supports our hypothesis that the effect of quality of financial advice on yields is larger for more complex issues. We do not find a significant difference in the financial advisor continuity coefficients across the two samples.

Table 8 provides a comparison of the effect of financial advisor quality and continuity across negotiated and competitive subsamples. Panel A shows the results of the variables of interest in the model that includes only Negotiated Bonds (N=10,066). Panel B shows the results of the variables of interest in the model that includes only Competitive issues (N=26,607). All financial quality variables are significant in the

expected direction in both models. These results are consistent with our earlier conclusion that financial advisor quality is associated with lower interest costs. However, our variable measuring financial advisor continuity is statistically significant for the negotiated sample, but only marginally significant ( $t=-1.70$ ) in the competitive sample.

Because the negotiated form of offering is typically used for the more complex issues, we expect the quality of advice to be more important in the negotiated sample than in the competitively sold sample. Panel C shows tests for differences in coefficients across samples. High financial advisor quality is associated with significantly lower yields for the negotiated sample ( $p\text{-value}=.0006$ ). Medium financial advisor quality is associated with marginally significantly lower yields for the negotiated sample ( $t=.0735$  for a two-tailed test). Again, there is not a significant difference in financial advisor continuity across the two samples.

As a check on the robustness of our results, we also use interaction terms to examine the effect of bond issue complexity on the relation between financial advisor quality and new issue yields. Table 9 presents a model using the reduced sample of bonds with an external financial advisor. This model includes the indicator measures of financial advisor quality and interaction terms for our measures of the quality of financial advice and negotiated & revenue issues. The medium financial advisor quality variable (MFAQ) is statistically significant and has the expected sign (negative). This implies that for bonds which are competitive G.O issues, financial advisor quality is marginally associated with lower yields. The combined effect of MFAQ on yields<sup>10</sup> for competitive

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<sup>10</sup> The interaction terms with negotiated and revenue issues allows us to determine the effects for each of the four groups (e.g., negotiated/revenue, negotiated/G.O., competitive/revenue, competitive/G.O.) To determine the effect of Financial Advisor on new issue yields for each of the four groups, the coefficients are added for each the interaction terms that apply to each group. For example, to determine the effect of

G.O. bonds is -2.1 basis points; for competitive revenue bonds is -7.7 basis points; for negotiated G.O. bonds is -7.8 basis points, and for negotiated revenue bonds is -6.2 basis points. For both measures of issue complexity, MFAQ is associated with low yields when the issue is complex. However, for the most complex issues (negotiated revenue), MFAQ is not associated with lower yields as compared either negotiated G.O. or to competitive revenue issues.

The high financial advisor quality variable (HFAQ) is not statistically significant. This implies that for bonds which are competitive G.O issues, high financial advisor quality is not significantly associated with lower yields. The combined effect of HFAQ on yields<sup>11</sup> for competitive revenue bonds is -5.5 basis points; for negotiated G.O. bonds is -8.4 basis points and for negotiated revenue bonds is -10.6 basis points. Again, FA quality has a greater effect for more complex issues. For the most complex issues (negotiated revenue bonds), HFAQ is associated with significantly lower yields (-10.6 basis points) than either negotiated G.O. bonds (-8.4 basis points) or competitive revenue bonds (-5.5 basis points). Overall, the results for FA quality are supportive of our hypothesis – the quality of financial advice has a greater effect on yields for more complex issues.

The financial advisor continuity variable (CONT) is not statistically significant indicating that for the least complex issue type (competitive G.O.), issuer continuity is not helpful in lower yields. However, for issues which are more complex (either

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FA on yields for the competitive/revenue issues, we add the coefficients for FAR and FAR\*Revenue (-.030 plus -.062 = .092)

<sup>11</sup> The interaction terms with negotiated and revenue issues allows us to determine the effects for each of the four groups (e.g., negotiated/revenue, negotiated/G.O., competitive/revenue, competitive/G.O.) To determine the effect of Financial Advisor on new issue yields for each of the four groups, the coefficients are added for each the interaction terms that apply to each group. For example, to determine the effect of FA on yields for the competitive/revenue issues, we add the coefficients for FAR and FAR\*Revenue (-.030 plus -.062 = .092)

negotiated or revenue), financial advisor continuity is associated with lower yields (about 3 basis points). For the most complex issue type (negotiated revenue), CONT is associated with about 3 basis points lower yields as compared to either competitive revenue issues or to negotiated G.O. issues. The results for issuer continuity are consistent with our hypothesis. The quality of financial advice, as measured by both FA quality and issuer continuity, has a greater effect on yields when the issue is particularly complex.

## **VI. CONCLUSIONS AND IMPLICATIONS**

Using a large data sample of 69,539 new issues covering the period from 1984 to 2002, we examine whether financial advisor quality and continuity affect new issue interest costs on municipal bonds. Because of unique institutional features of the municipal marketplace, quality of financial advice may be more important in this market than in the equity or corporate bond markets, while price certification signaling may be less important. We measure the quality of financial advice provided by external financial advisors using a market share measure defined as the number of issues handled by a particular financial advisor in a particular state and year, divided by the total number of issues handled by any financial advisor in that state and year. Continuity is measured using an indicator variable coded one if the same financial advisor was used on an issuer's previous issue.

We find that more experienced financial advisors are associated with statistically significant decreases in new issue yields. Specifically, medium and high quality advisors reduce yields by 4.9 basis points compared to low quality advisors. Although the market

penalizes issues with low quality advisors, investors do not appear to distinguish between medium and high quality advisors. This result is consistent with the hypothesis that high quality financial advisors may have superior expertise in structuring and bidding or negotiating new issues. This superior expertise translates into lower new issue yields on issues with quality financial advisors. The size of the relation between advisor quality and yield is related to the complexity of the municipal issue; the relation is more pronounced for revenue and negotiated issues. Continuing relationships between the financial advisor and the issuer are also associated with reduced interest costs. In ongoing advisory relationships, the advisor may be able to more closely monitor the issuer and make sure that the issuer complies with continuing disclosure requirements and technical bond covenants, thus enhancing the reputation of the issuer in the municipal marketplace. In addition, the in-depth knowledge gained through a continuing relationship may allow the advisor to better market the issuer to prospective bidders and investors.

Previous studies examine the effect of underwriter reputation on new issue pricing in the corporate equity and bond markets. Many of these studies find that increases in underwriter reputation are associated with decreases in underpricing on new issues. This finding is attributed primarily to a price certification signaling effect. Underwriters with strong reputations will not want to damage their reputational capital by associating with poor quality issuers, therefore the use of a reputable underwriter sends a quality signal to the market. The results of this study have implications for the interpretation of the results of earlier studies. Our evidence suggests that the quality of financial advice may be an additional cause of the empirical relation between reputation and new issue pricing. In

the municipal market, where price certification is less valuable to investors, we still find that high quality financial advice is associated with lower yields. This finding suggests that that the quality of financial advice is an important cause of the reputation effect.

## REFERENCES

- Allen, Arthur and George Sanders, "Underwriter Prestige, State Taxes, and Reoffering Yields of Municipal Bond Offerings," *Research in Governmental and Nonprofit Accounting* 2004, Vol. 11: pp. 61-81.
- Balvers, Ronald J., Bill McDonald and Robert E. Miller. "Underpricing of New Issues and the Choice of Auditor as a Signal of Investment Banker Reputation." *The Accounting Review* 63 (October 1988): 605-622.
- Bond Buyer Yearbook, 1989, New York, New York: International Thomson Publishing.
- Booth, James R. and Richard L. Smith II. "Capital Raising, Underwriting and the Certification Hypothesis." *Journal of Financial Economics* 15 (January/February 1986): 261-281.
- Braswell, Ronald C., E. Joe Nosari, and DeWitt L. Sumners. "A Comparison of the True Interest Costs of Competitive and Negotiated Underwritings in the Municipal Bond Market," *Journal of Money, Credit and Banking*, 15(1) (February 1983): 102-107.
- Butler, Alexander W., "Corruption and Municipal Finance." (November 28, 2004). <http://ssrn.com/abstract=576601>.
- Carter, Richard R. "Underwriter Reputation and Repetitive Public Offerings." *The Journal of Financial Research*, 55 (Winter 1992): 341-354.
- Carter, Richard R. and Steven Manaster. "Initial Public Offerings and Underwriter Reputation." *The Journal of Finance*, 45 (September 1990): 1045-1067.
- Clarke, Wes, "The Interest Cost Implications of the Financial Advisor Turned Underwriter," *Public Budgeting and Finance*, 17(3) (September, 1997): 74-88.
- Colby, Mary, "Bond Pricing and Credit Approval: An Institutional Investor's Point of View," *Municipal Finance Journal*, 24 (2) (Summer 2003): 45-50.
- Helou and Park, 2001, "Is There a Signaling Effect of Underwriter Reputation?" *Journal of Financial Research*, 24(1) (Spring 2001): 27-43.
- Henderson, Brian J., Narasimham Jegadeesh and Michael Weisbach. 2003. "World Markets for Raising New Capital," AFA 2005 Philadelphia Meetings. <http://ssrn.com/abstract=466540>.
- Johnson, Craig L. "The Changing Market Structure of the Municipal Financial Advisor Industry." *Municipal Finance Journal* 15 (Spring 1994): 1-17.

Johnson, James M. and Robert E. Miller. "Investment Banker Prestige and the Underpricing of Initial Public Offerings." *Financial Management* 17 (Summer 1988): 19-29.

Kale, Jayant, Omesh Kini and Harley Ryan, Jr. "On the Participation and Reputation of Financial Advisors in Corporate Acquisitions," (September, 1998), SSRN Working Paper.

Kale, Jayant, Omesh Kini and Harley Ryan, Jr., "Financial Advisors and Shareholder Wealth Gains in Corporate Takeovers." *Journal of Financial and Quantitative Analysis*, 38(3) (September 2003): 475-501.

Kidwell, David S., and Robert J. Rogowski. "State Bond Bank Issues: Method of Sale and Market Acceptance over Time." *Financial Management* 12 (Summer 1983): 15-20.

Kittredge, William P. "Recent Research in Public Finance: The Impact of Financial Advisor Independence on Issuer Interest Cost," *Municipal Finance Journal*, 24(2) (Summer 2003): 63-72.

Lamb, Robert, James Liegland, and Stephen Rappaport. "The Role of the Financial Advisor," *The Handbook of Municipal Bonds and Public Finance*, Chapter 34, 620-634.

Logue, Dennis E. "On the Pricing of Unseasoned Equity Issues: 1965-1969" *Journal of Financial and Quantitative Analysis* 8 (January 1973): 91-103.

McDonald, James G. and A.K. Fisher. "New-Issue Stock Price Behavior," *Journal of Finance*, 27 (March 1972): 97-102.

Meggison, W. and K. Weiss. "Venture Capitalist Certification in Initial Public Offerings," *Journal of Finance*, 46 (1991), 879-904.

Moyer, Monique. "Current Issues Facing Bond Issuers and Their Financial Advisors," *Municipal Finance Journal*, 24 (2) (Summer 2003), 17-25.

Robbins, Mark D. and Bill and Simonsen. "Financial Advisor Independence and the Choice of Municipal Bond Sale Type," *Municipal Finance Journal*, 24(1) (Spring 2003): 17-57.

Roden, Peyton Foster and John Bassler. "Effect of Underwriter Prestige on the Interest Cost of Municipal Bond Offerings." *Financial Review*, 31(3) (August 1996): 641-667.

**Table 1**  
**Descriptive Statistics – Continuous Variables**

Panel A: Full Sample  
N=69,539

Variable	Mean	Standard Deviation	1 <sup>st</sup> Quartile	Median	3 <sup>rd</sup> Quartile
Yield of New Issues	5.702	1.339	4.75	5.40	6.60
Level of Interest Rates	6.252	1.038	5.42	5.98	6.97
Average Maturity	9.529	3.420	9.54	9.97	10.22
Log of Issue Size	15.346	1.449	14.40	15.32	16.16
Financial Advisor Quality	0.104	0.168	0.00	0.00	0.15

Panel B: Reduced Sample – Only Observations with an External Financial Advisor  
N=33,469

Variable	Mean	Standard Deviation	1 <sup>st</sup> Quartile	Median	3 <sup>rd</sup> Quartile
Yield of New Issues	5.567	1.269	4.65	5.25	6.45
Level of Interest Rates	6.232	1.021	5.40	5.96	6.98
Average Maturity	9.467	3.361	9.52	9.98	10.26
Log of Issue Size	15.488	1.451	14.51	15.42	16.31
Financial Advisor Quality	0.216	0.185	0.06	0.16	0.37

**Table 2**  
**Descriptive Statistics – Indicator Variables**

Variable	Full Sample: N=69,539		Reduced Sample: N=33,469	
	Number	Percentage	Number	Percentage
External Financial Advisor (FA)	33,469	48.13	33,469	100.00
Financial Advisor Continuity	13,142	18.90	13,142	39.27
FA also serves as Underwriter	2,008	2.89	2,008	6.00
AAA/Aa or Aaa/AA Rating	253	0.36	165	0.49
AA or Aa Rating	6,051	8.70	3,676	10.98
AA/A or Aa/A Rating	1,206	1.73	782	2.34
A Rating	9,455	13.60	5,262	15.72
A/BBB or Baa/A Rating	248	0.36	121	0.36
BBB or Baa Rating	2,846	4.09	1,451	4.34
BBB/Ba or Baa/BB Rating	24	0.03	12	0.04
BB or Ba Rating	81	0.12	27	0.08
Insured	24,272	34.90	12,646	37.78
Not Rated	23,238	33.42	8,113	24.24
Single-Rated	14,464	20.80	8,067	24.10
Letter of Credit	636	0.91	129	0.39
Tax Preference	47,782	68.71	22,061	65.91
Two Managing Underwriters	27,377	39.37	18,481	55.22
Bank-Qualified	33,485	48.15	16,573	49.52
Callable	52,372	75.31	25,397	75.88
Alternative Minimum Tax	1,709	2.46	572	1.71
Taxable	1,332	1.92	531	1.59
State Issuer	492	0.71	277	0.83
Certificates of Participation	4,165	5.99	1,904	5.69
Zero Coupon Bonds	2,419	3.48	939	2.81
County Issuer	6,147	8.84	2,813	8.40
College Issuer	1,023	1.47	406	1.21
School District Issuer	26,401	37.97	13,433	40.14
Other Issuer	13,173	18.94	5,265	15.73
Private Placement	501	0.72	99	0.30
Negotiated Issue	39,457	56.74	9,894	29.56
Revenue Bonds	28,881	41.53	11,818	35.31
>Ten Years in the Market	39,835	57.29	21,120	63.10

The reduced sample includes only observations with an external financial advisor.

Table 3  
The Effect of Financial Advisor Quality and Continuity on New Issue Bond Yields  
Full Sample

Variable	Expected Sign	Parameter Estimate	t- statistic	p-value
Intercept	?	-1.903	-50.24	<.0001
Financial Advisor Quality	-	-0.047	-3.08	0.0021
Financial Advisor Continuity	-	-0.017	-2.88	0.0040
Financial Advisor also serves as Underwriter	+	0.073	6.32	<.0001
Financial Advisor	-	-0.015	-2.60	0.0092
Level of Interest Rates	+	1.005	497.78	<.0001
Average Maturity	+	0.124	192.89	<.0001
Log of Issue Size	?	-0.017	-8.67	<.0001
AAA/Aa or Aaa/AA Rating	+	0.066	1.94	0.0524
AA or Aa Rating	+	0.070	5.16	<.0001
AA/A or Aa/A Rating	+	0.114	5.84	<.0001
A Rating	+	0.133	10.24	<.0001
A/BBB or Baa/A Rating	+	0.386	11.21	<.0001
BBB or Baa Rating	+	0.508	32.99	<.0001
BBB/Ba or Baa/BB Rating	+	0.742	7.22	<.0001
BB or Ba Rating	+	0.986	17.35	<.0001
Insured	+	0.070	5.12	<.0001
Not Rated	+	0.464	32.21	<.0001
Single-Rated	+	0.062	7.38	<.0001
Letter of Credit	-	-0.117	-5.73	<.0001
Tax Preference	-	-0.084	-19.83	<.0001
Two Managing Underwriters	?	0.031	6.55	<.0001
Bank-Qualified	-	-0.134	-28.07	<.0001
Callable	+	0.112	22.44	<.0001
Alternative Minimum Tax	+	0.169	13.26	<.0001
Taxable	+	1.794	127.58	<.0001
State Issuer	?	0.011	0.46	0.6457
Certificates of Participation	-	0.006	0.68	0.4933
Zero Coupon Bonds	?	0.114	10.62	<.0001
County Issuer	?	-0.013	-1.75	0.0810
College Issuer	?	-0.110	-6.77	<.0001
School District Issuer	?	0.008	1.55	0.1215
Other Issuer	?	0.059	8.87	<.0001
Private Placement	+	0.353	15.34	<.0001
Negotiated Issue	+	0.156	29.36	<.0001
Revenue Bonds	+	0.164	32.12	<.0001
>Ten Years in the Market	-	-0.033	-7.82	<.0001

| Dependent variable is the reoffering yield.  
N=69,539  
R-Squared=0.861

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Table 4  
 The Effect of Financial Advisor Quality and Continuity on New Issue Bond Yields –  
 Using Indicator Variables to Measure Financial Advisor Quality – Full Sample

Variable	Expected Sign	Parameter Estimate	t-statistic	p-value
Low Quality Financial Advisor	-	-0.007	-1.00	0.3153
Medium Quality Financial Advisor	-	-0.035	-5.75	<.0001
High Quality Financial Advisor	-	-0.030	-4.18	<.0001
Financial Advisor Continuity	-	-0.016	-2.78	0.0054
Financial Advisor also serves as Underwriter	+	0.076	6.55	<.0001

Dependent variable is the reoffering yield.

N=69,539

R-Squared=0.861

Deleted: TIC, NIC, or

The Financial Advisor Quality variables are indicator variables. To calculate these variables, a continuous measure of financial advisor quality is first calculated by dividing the number of issues handled by an advisor in a state/year by the total number of issues handled by any financial advisor in that state/year. The continuous financial advisor variable is then ranked from highest to lowest, and the ranked variable is divided into quartiles. The Low Quality Financial Advisor variable is coded 1 if the continuous quality measure falls in the bottom quartile of the ranking. The Medium Quality Financial Advisor variable is coded 1 if the continuous quality measure falls in the second or third quartile, while the High Quality Financial Advisor variable is coded 1 if the continuous quality measure falls in the top quartile. The excluded group is no financial advisor.

The Financial Advisor Continuity variable is coded 1 if the financial advisor also served as the financial advisor for the issuer's most-recent previous issue, and zero otherwise.

The control variables in this regression (unreported) are identical to those in the previous regression model (Table 3). The signs and significance of these variables are the same as in the original regression.

Table 5  
 The Effect of Financial Advisor Quality and Continuity on New Issue Bond Yields –  
 Using Indicator Variables to Measure Financial Advisor Quality  
 Reduced Sample – Only Issues with External Financial Advisors

Variable	Expected Sign	Parameter Estimate	t- statistic	p-value
Medium Quality Financial Advisor	-	-0.049	-8.37	<.0001
High Quality Financial Advisor	-	-0.049	-7.24	<.0001
Financial Advisor Continuity	-	-0.023	-4.62	<.0001
Financial Advisor also serves as Underwriter	+	0.088	8.99	<.0001

Dependent variable is reoffering yield.

N=33,469

R-Squared=0.891

The Financial Advisor Quality variables are indicator variables. To calculate these variables, a continuous measure of financial advisor quality is first calculated by dividing the number of issues handled by an advisor in a state/year by the total number of issues handled by any financial advisor in that state/year. The continuous financial advisor variable is then ranked from highest to lowest, and the ranked variable is divided into quartiles. The Low Quality Financial Advisor variable is coded 1 if the continuous quality measure falls in the bottom quartile of the ranking. The Medium Quality Financial Advisor variable is coded 1 if the continuous quality measure falls in the second or third quartile, while the High Quality Financial Advisor variable is coded 1 if the continuous quality measure falls in the top quartile. The excluded group is Low Quality Financial Advisor.

The Financial Advisor Continuity variable is coded 1 if the financial advisor also served as the financial advisor for the issuer's most-recent previous issue, and zero otherwise.

The control variables in this regression (unreported) are identical to those in the previous regression model (Table 3). The signs and significance of these variables are the same as in the original regression.

Table 6  
 The Effect of Financial Advisor Quality and Continuity on New Issue Bond Yields –  
 Using Continuous Variables to Measure Financial Advisor Quality  
 Reduced Sample – Only Issues with External Financial Advisors

Variable	Expected Sign	Parameter Estimate	t- statistic	p-value
Financial Advisor Quality	-	-0.085	-6.56	<.0001
Financial Advisor Continuity	-	-0.024	-4.89	<.0001
Financial Advisor also serves as Underwriter	+	0.084	8.55	<.0001

Dependent variable is reoffering yield.

N=33,469

R-Squared=0.891

The control variables in this regression (unreported) are identical to those in the primary regression model (Table 3) except that there is no Financial Advisor indicator variable in this model. The signs and significance of these variables are the same as in the original regression.

Table 7  
The Effect of Financial Advisor Quality and Continuity  
on New Issue Yields – Comparing Revenue Bonds to General Obligation Bonds  
Split Sample Analysis – Only Issues with External Financial Advisors

Panel A: Revenue Bonds

Variable	Expected Sign	Parameter Estimate	t-Statistic	p-value
Medium Quality Financial Advisor	-	-0.057	-5.99	<.0001
High Quality Financial Advisor	-	-0.046	-3.69	0.0002
Financial Advisor Continuity	-	-0.009	-0.99	0.3227
Financial Advisor also serves as Underwriter	+	0.039	2.33	0.0198

N=11,818; R-Square=.886

Panel B: General Obligation Bonds

Variable	Expected Sign	Parameter Estimate	t-Statistic	p-value
Medium Quality Financial Advisor	-	-0.027	-3.94	<.0001
High Quality Financial Advisor	-	-0.024	-3.13	0.0017
Financial Advisor Continuity	-	-0.016	-2.80	0.0051
Financial Advisor also serves as Underwriter	+	0.128	11.17	<.0001

N=21,650; R-Square=.902

Dependent variable in both models is the reoffering yield.

The control variables in these regressions (unreported) are identical to those in the primary regression model (Table 3) except that there is no Financial Advisor indicator variable in these models. The signs and significance of these variables are the same as in the original regression.

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Panel C: Test of Differences in Coefficients Across Models

Variable	Difference In coefficients	t-Statistic	p-value
Medium Quality Financial Advisor	0.030	3.57	0.0002
High Quality Financial Advisor	0.022	2.37	0.0178
Financial Advisor Continuity	-0.007	0.92	0.3576
Financial Advisor also serves as Underwriter	-0.089	-6.24	<0.0001

Table 8  
The Effect of Financial Advisor Quality and Continuity  
on New Issue Yields – Comparing Negotiated Bonds to Competitive Bonds  
Split Sample Analysis – Only Issues with External Financial Advisors

Panel A: Negotiated Bonds				
Variable	Expected Sign	Parameter Estimate	t-Statistic	p-value
Medium Quality Financial Advisor	-	-0.053	-4.88	<.0001
High Quality Financial Advisor	-	-0.063	-4.67	<.0001
Financial Advisor Continuity	-	-0.021	-2.00	0.0455
Financial Advisor also serves as Underwriter	+	-0.015	-0.69	0.4929

N=9,894; R-Square=.873

Panel B: Competitive Bonds				
Variable	Expected Sign	Parameter Estimate	t-Statistic	p-value
Medium Quality Financial Advisor	-	-0.032	-4.75	<.0001
High Quality Financial Advisor	-	-0.020	-2.66	0.0078
Financial Advisor Continuity	-	-0.019	-3.55	0.0004
Financial Advisor also serves as Underwriter	+	0.115	10.96	<.0001

N=23,575; R-Square=.907

Dependent variable in both models is the reoffering yield. The control variables in these regressions (unreported) are identical to those in the primary regression model (Table 3) except that there is no Financial Advisor indicator variable in these models. The signs and significance of these variables are the same as in the original regression.

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Panel C: Test of Differences in Coefficients Across Models

Variable	Difference In coefficients	t-Statistic	p-value
Medium Quality Financial Advisor	0.021	2.41	0.0160
High Quality Financial Advisor	0.043	4.09	<.0001
Financial Advisor Continuity	0.002	0.26	0.7949
Financial Advisor also serves as Underwriter	-0.130	-8.12	<0.0001

Table 9  
The Effect of Financial Advisor Quality and Continuity on New Issue Bond Yields –  
Interaction Effects with Negotiated and Competitive Issues – Reduced Sample

Variable	Expected Sign	Parameter Estimate	t-Statistic	p-value
Medium Financial Advisor Quality (MFAQ)	-	-0.014	-1.70	0.0898
MFAQ * Negotiated	-	-0.071	-4.36	<.0001
MFAQ * Revenue	-	-0.068	-4.84	<.0001
MFAQ * Revenue * Negotiated	?	0.089	4.75	<.0001
High Financial Advisor Quality (HFAQ)	-	-0.014	-1.47	0.1406
HFAQ * Negotiated	-	-0.070	-3.92	<.0001
HFAQ * Revenue	-	-0.030	-1.74	0.0812
HFAQ * Revenue * Negotiated	?	0.008	0.33	0.7440
Financial Advisor Continuity (CONT)	-	-0.008	-1.20	0.2319
CONT * Negotiated	-	-0.020	-1.32	0.1880
CONT * Revenue	-	-0.019	-1.47	0.1423
CONT * Negotiated * Revenue	?	-0.012	-0.57	0.5686
Financial Advisor also serves as Underwriter	+	0.092	9.35	0.0898

Dependent variable is the reoffering yield.

N=33,469

R-Squared=0.892

Deleted: TIC, NIC, or

The control variables in this regression (unreported) are identical to those in the primary regression model (Table 3) except that there is no Financial Advisor indicator variable in this model. The signs and significance of these variables are the same as in the original regression.