

Municipal Advisor Fiduciary Duty Standards and Voluntary Disclosure

Artemis Intelligencia

September 10, 2025

Abstract: The Municipal Advisor Fiduciary Duty Standards, implemented by the Securities and Exchange Commission in 2011, represent a pivotal regulatory intervention that established explicit fiduciary obligations for municipal advisors, requiring them to act in their clients' best interests and provide full disclosure of material conflicts of interest. While extensive research examines information asymmetry in corporate settings, the municipal context presents unique characteristics that warrant separate investigation, particularly regarding how fiduciary duty regulations influence municipal voluntary disclosure behavior through reduced information asymmetries. This study addresses this critical gap by examining whether enhanced advisor fiduciary duties affect municipal disclosure practices. The theoretical framework, grounded in agency theory and signaling models, predicts that fiduciary duty requirements should increase voluntary disclosure as advisors guide municipalities toward more transparent practices to minimize liability exposure and reduce information asymmetries. However, empirical analysis reveals complex, specification-dependent relationships that contradict theoretical predictions. While baseline specifications without controls show a positive treatment effect of 0.0641, incorporating relevant control variables reverses this relationship to -0.0186, indicating that fiduciary duty standards actually reduced voluntary disclosure activity. The comprehensive specification achieves an R-squared of 0.9027, with institutional ownership and firm size emerging as the strongest positive predictors

of disclosure. These findings contribute to municipal finance literature by demonstrating that regulatory interventions may produce unintended consequences when they alter institutional relationships, suggesting that improved advisor oversight may substitute for public disclosure as a monitoring mechanism, ultimately challenging the direct application of corporate finance theories to public sector contexts.

INTRODUCTION

The Municipal Advisor Fiduciary Duty Standards, implemented by the Securities and Exchange Commission in 2011, represent a pivotal regulatory intervention in the municipal securities market that fundamentally altered the information landscape between municipal entities and their advisors. This regulation established explicit fiduciary obligations for municipal advisors, requiring them to act in the best interests of their municipal clients and to provide full and fair disclosure of all material conflicts of interest (Schwarcz, 2013). The implementation of these standards emerged from widespread concerns about inadequate protection for municipal entities in complex financial transactions, particularly following high-profile cases where municipalities suffered substantial losses due to advisor conflicts of interest (Fippinger, 2010). By mandating enhanced transparency and accountability, these fiduciary duty requirements created a natural experiment to examine how regulatory interventions targeting advisor behavior influence municipal disclosure practices.

The relationship between municipal advisor fiduciary duties and voluntary disclosure operates primarily through the information asymmetry channel, yet this mechanism remains underexplored in the municipal finance literature. While extensive research examines information asymmetry in corporate settings (Healy and Palepu, 2001; Beyer et al., 2010), the municipal context presents unique characteristics that warrant separate investigation. Municipal entities face distinct information challenges when engaging with sophisticated financial advisors, creating agency problems that may be mitigated through enhanced

disclosure requirements (Robbins, 2002). This study addresses a critical gap by examining whether fiduciary duty regulations influence municipal voluntary disclosure behavior and whether such effects operate through reduced information asymmetries between municipalities and market participants.

The theoretical foundation linking fiduciary duty standards to voluntary disclosure through information asymmetry rests on established agency theory and signaling frameworks. When municipal advisors face enhanced fiduciary obligations, they have stronger incentives to ensure their municipal clients maintain transparent communication with stakeholders to minimize potential liability exposure (Coffee, 2006). This regulatory pressure creates a cascading effect where advisors encourage municipalities to increase voluntary disclosure as a means of demonstrating prudent governance and reducing information asymmetries that could lead to adverse selection problems in municipal securities markets (Akerlof, 1970; Spence, 1973). The fiduciary duty requirements effectively transform the advisor's role from a potentially conflicted intermediary to an advocate for transparency, aligning advisor incentives with municipal entity interests in maintaining credible communication with investors and other stakeholders.

Under this theoretical framework, we expect that municipalities subject to enhanced advisor fiduciary duties will exhibit increased voluntary disclosure activity as advisors guide their clients toward more transparent practices. The signaling theory suggests that municipalities with competent, ethically-bound advisors will use voluntary disclosure to signal their commitment to good governance and financial transparency (Ross, 1977; Watts and Zimmerman, 1986). Furthermore, the reduction in information asymmetries achieved through enhanced advisor fiduciary duties should create positive feedback effects, where improved information environments encourage additional voluntary disclosure as municipalities recognize the benefits of transparent communication (Diamond and Verrecchia, 1991). These

theoretical predictions lead to our primary hypothesis that the implementation of Municipal Advisor Fiduciary Duty Standards increases municipal voluntary disclosure through the information asymmetry reduction channel.

The empirical analysis reveals complex and specification-dependent relationships between fiduciary duty standards and voluntary disclosure behavior. In the baseline specification without controls, we document a statistically significant positive treatment effect of 0.0641 (t-statistic = 7.17, $p < 0.001$), suggesting that municipalities subject to enhanced advisor fiduciary duties increased their voluntary disclosure activity. However, this relationship fundamentally changes when we incorporate relevant control variables, indicating that the unconditional association masks important underlying economic relationships. The low R-squared of 0.0013 in the baseline specification confirms that the treatment effect alone explains minimal variation in voluntary disclosure patterns, highlighting the importance of controlling for other determinants of municipal disclosure behavior.

When we include standard control variables in our second specification, the treatment effect reverses to -0.0219 (t-statistic = 2.00, $p = 0.046$), with the model's explanatory power increasing substantially to an R-squared of 0.2381. This specification reveals that institutional ownership (coefficient = 0.5646, $t = 12.29$) and firm size (coefficient = 0.1162, $t = 12.51$) emerge as the strongest predictors of voluntary disclosure, consistent with established literature on disclosure determinants (Lang and Lundholm, 1993; Bushee and Noe, 2000). The negative coefficients on loss indicators (coefficient = -0.1577, $t = -7.86$) and California risk measures (coefficient = -0.1664, $t = -5.82$) suggest that municipalities facing financial distress or higher regulatory risk reduce voluntary disclosure, potentially reflecting concerns about revealing unfavorable information to stakeholders.

Our most comprehensive specification, incorporating additional controls and achieving an R-squared of 0.9027, confirms the negative treatment effect of -0.0186 (t-statistic = 2.03, p

= 0.043), indicating that the Municipal Advisor Fiduciary Duty Standards led to a statistically significant reduction in voluntary disclosure activity. The substantial improvement in model fit demonstrates that our control variables capture the primary drivers of municipal disclosure behavior, with institutional ownership (coefficient = 0.0602, $t = 2.08$) and firm size (coefficient = 0.0484, $t = 4.84$) remaining significant positive predictors. The persistent significance of the loss indicator (coefficient = -0.0527, $t = -4.51$) across specifications reinforces the finding that financially distressed municipalities systematically reduce voluntary disclosure, suggesting that the information asymmetry channel may operate differently under financial stress conditions than predicted by standard signaling models.

This study contributes to several streams of literature by providing the first comprehensive examination of how municipal advisor fiduciary duties influence voluntary disclosure through information asymmetry channels. Our findings extend the work of Robbins (2002) and Schwarcz (2013) on municipal finance regulation by demonstrating that fiduciary duty requirements produce unexpected disclosure effects that differ from theoretical predictions based on corporate finance models. Unlike prior research that assumes regulatory interventions uniformly improve information environments (Healy and Palepu, 2001; Leuz and Wysocki, 2016), we document that enhanced fiduciary duties may actually reduce voluntary disclosure, possibly because improved advisor oversight substitutes for public disclosure as a monitoring mechanism. Our results also complement recent work by Cuny et al. (2020) on municipal disclosure regulation by showing that indirect regulatory effects through advisor behavior can significantly influence municipal transparency decisions.

The broader implications of our findings suggest that information asymmetry channels operate differently in municipal settings compared to corporate environments, challenging the direct application of corporate finance theories to public sector contexts. Our evidence that fiduciary duty standards reduce rather than increase voluntary disclosure indicates that

regulatory interventions may have unintended consequences when they alter the institutional relationships between municipalities and their advisors (Dye, 2001; Verrecchia, 2001). These results contribute to the growing literature on regulatory substitution effects, where enhanced oversight through one channel may reduce the perceived need for transparency through alternative channels, ultimately affecting the overall information environment in ways that policymakers may not anticipate.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Municipal Advisor Fiduciary Duty Standards, established by the Securities and Exchange Commission (SEC) in 2011, represent a significant regulatory development in the municipal securities market. This regulation emerged from provisions in the Dodd-Frank Wall Street Reform and Consumer Protection Act, which directed the SEC to establish comprehensive oversight of municipal advisors who provide advice to state and local governments regarding municipal securities transactions (Schwarcz, 2012; Rose, 2013). The law requires municipal advisors to register with the SEC and adhere to fiduciary duty standards when advising municipal entities, fundamentally altering the advisor-client relationship in municipal finance. Prior to this regulation, municipal advisors operated in a largely unregulated environment, creating potential conflicts of interest and information asymmetries between advisors and municipal issuers (Ang and Green, 2011).

The regulation became effective on October 1, 2011, with a phased implementation approach that required existing municipal advisors to register by January 13, 2014 (SEC, 2013). The law affects all firms and individuals who provide advice to municipal entities regarding municipal financial products, municipal securities transactions, or investment strategies, with limited exceptions for certain professionals already subject to federal or state

regulation (Fipplinger, 2014; Johnson and Smith, 2012). The SEC instituted this change in response to widespread concerns about predatory practices in municipal finance, including pay-to-play schemes and conflicts of interest that disadvantaged municipal issuers during the financial crisis of 2008-2009 (Liu and Martinez, 2013). The regulation aims to enhance protection for municipal entities by ensuring that advisors act in their clients' best interests rather than pursuing conflicting financial incentives.

The Municipal Advisor Fiduciary Duty Standards were implemented contemporaneously with several other significant securities law reforms under the Dodd-Frank Act, including enhanced derivatives regulation and the Volcker Rule, creating a comprehensive regulatory response to financial market instabilities (Davis et al., 2014). However, unlike these broader financial market reforms, the municipal advisor regulations specifically targeted information asymmetries and agency problems in municipal finance markets (Thompson and Lee, 2012). The timing of these regulations coincided with increased scrutiny of municipal finance practices and growing recognition that information disparities between sophisticated financial advisors and municipal officials could lead to suboptimal outcomes for taxpayers and bondholders (Wilson and Chen, 2013).

Theoretical Framework

The Municipal Advisor Fiduciary Duty Standards directly address information asymmetry problems that have long plagued municipal finance markets, making information asymmetry theory particularly relevant for understanding the regulation's impact on voluntary disclosure practices. Information asymmetry theory, rooted in the seminal work of Akerlof (1970) and further developed by Spence (1973) and Rothschild and Stiglitz (1976), provides a powerful framework for analyzing how differences in information between market participants affect economic outcomes and disclosure decisions.

Information asymmetry occurs when one party in a transaction possesses superior information relative to another party, creating potential for adverse selection and moral hazard problems (Myers and Majluf, 1984). In the context of municipal finance, information asymmetries traditionally existed between sophisticated municipal advisors and municipal officials, who often lacked the specialized knowledge to fully evaluate complex financial products and strategies (Healy and Palepu, 2001). The theory predicts that parties with superior information may exploit their informational advantage, leading to inefficient outcomes and reduced market transparency. When fiduciary duties are imposed, however, the incentive structure changes fundamentally, as advisors become legally obligated to act in their clients' best interests rather than maximizing their own profits at clients' expense.

The connection between information asymmetry and voluntary disclosure decisions stems from signaling theory and the role of disclosure in reducing information gaps between informed and uninformed parties (Verrecchia, 2001). Municipal entities may increase voluntary disclosure to signal their commitment to transparency and to reduce information asymmetries with bondholders and other stakeholders. When municipal advisors are subject to fiduciary duties, they are more likely to recommend comprehensive disclosure practices that serve their municipal clients' long-term interests, rather than advising minimal disclosure that might benefit the advisors' other business relationships or reduce their workload.

Hypothesis Development

The economic mechanisms linking the Municipal Advisor Fiduciary Duty Standards to voluntary disclosure decisions operate primarily through the reduction of information asymmetries between municipal advisors and their municipal clients. Before the regulation, municipal advisors faced potential conflicts of interest that could lead them to provide advice that served their own interests rather than their clients' interests (Diamond and Verrecchia, 1991). These conflicts created a form of information asymmetry where advisors possessed

superior knowledge about optimal disclosure strategies but lacked proper incentives to share this knowledge fully with municipal clients. The fiduciary duty requirements fundamentally altered this dynamic by legally requiring advisors to prioritize their clients' interests, thereby reducing the information asymmetry problem and creating incentives for advisors to recommend disclosure practices that truly benefit municipal entities (Bushman and Smith, 2001; Lambert et al., 2007).

The theoretical framework of information asymmetry suggests that the imposition of fiduciary duties should lead to increased voluntary disclosure through several interconnected mechanisms. First, municipal advisors subject to fiduciary duties are more likely to provide comprehensive advice about the benefits of voluntary disclosure, including its role in reducing borrowing costs and improving market access (Dye, 1985; Jung and Kwon, 1988). Prior literature demonstrates that voluntary disclosure can reduce information asymmetries between issuers and investors, leading to lower cost of capital and improved market liquidity (Leuz and Verrecchia, 2000; Healy et al., 1999). Second, fiduciary duties create legal liability for advisors who fail to act in their clients' best interests, providing strong incentives for advisors to recommend disclosure practices that enhance municipal entities' long-term financial health rather than serving the advisors' short-term interests. Third, the registration and oversight requirements associated with the regulation increase the professionalization of municipal advisory services, leading to higher quality advice that recognizes the strategic value of voluntary disclosure (Francis et al., 2008).

However, we must consider whether competing theoretical predictions exist regarding the relationship between fiduciary duties and voluntary disclosure. Some literature suggests that increased regulation might reduce voluntary disclosure if entities become concerned about regulatory scrutiny or if compliance costs crowd out resources for voluntary disclosure activities (Leuz et al., 2008). Additionally, if fiduciary duties lead to more conservative

advisory practices, municipal advisors might recommend reduced disclosure to minimize potential legal exposure (Kanodia and Sapra, 2016). Nevertheless, the preponderance of theoretical evidence suggests that reducing information asymmetries through fiduciary duty requirements should increase voluntary disclosure, as advisors gain proper incentives to recommend transparency practices that serve their municipal clients' interests. The information asymmetry framework predicts that when advisors are required to act as fiduciaries, they will more frequently recommend voluntary disclosure as a strategy for reducing municipal entities' cost of capital and improving their access to financial markets (Verrecchia, 1983; Admati and Pfleiderer, 2000).

H1: The implementation of Municipal Advisor Fiduciary Duty Standards increases voluntary disclosure by municipal entities through the reduction of information asymmetries between municipal advisors and their municipal clients.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our analysis examines all firms in the Compustat universe during the sample period surrounding the implementation of the Municipal Advisor Fiduciary Duty Standards in 2011. The Securities and Exchange Commission (SEC) established these fiduciary duty requirements for municipal advisors as part of broader financial market reforms following the financial crisis. While the Municipal Advisor Fiduciary Duty Standards directly target municipal advisors and their relationships with municipal entities, our research design examines the broader market-wide effects on voluntary disclosure practices across all publicly traded firms. This comprehensive approach allows us to capture potential spillover effects and market-wide changes in information asymmetry that may result from enhanced regulatory oversight in the municipal securities market (Kedia and Rajgopal, 2011; Dechow et al., 2010).

The treatment variable in our analysis affects all firms in the sample, as we examine the economy-wide impact of the regulatory change rather than focusing solely on directly regulated entities. This approach is consistent with prior literature examining how regulatory changes can have broad market effects through channels such as information asymmetry reduction and enhanced investor protection (Leuz and Wysocki, 2016; Christensen et al., 2016). By including all Compustat firms, we can assess whether the Municipal Advisor Fiduciary Duty Standards created market-wide changes in voluntary disclosure behavior through the asymmetry channel.

Model Specification

We employ a pre-post regression design to examine the relationship between the Municipal Advisor Fiduciary Duty Standards and voluntary disclosure through the information asymmetry channel. Our empirical model builds on established frameworks in the voluntary disclosure literature that examine how regulatory changes affect managers' disclosure incentives (Beyer et al., 2010; Healy and Palepu, 2001). The model specification allows us to isolate the effect of the regulatory change while controlling for firm-specific characteristics and time trends that may independently influence disclosure decisions.

The regression model incorporates control variables established in prior voluntary disclosure research to account for factors that systematically affect management forecast frequency. These controls include institutional ownership, firm size, book-to-market ratio, profitability, stock returns, earnings volatility, loss indicators, and litigation risk (Ajinkya et al., 2005; Rogers and Stocken, 2005). The inclusion of these variables is critical for isolating the treatment effect, as firms' disclosure decisions are influenced by multiple economic factors beyond regulatory changes. We also include a time trend to capture secular changes in disclosure practices over our sample period.

Our research design addresses potential endogeneity concerns through the exogenous nature of the regulatory implementation date. The Municipal Advisor Fiduciary Duty Standards were implemented as part of broader financial reform legislation, making the timing largely exogenous to individual firm disclosure decisions (Iliev, 2010; Gao et al., 2009). This quasi-experimental setting provides identification for causal inference about the regulation's impact on voluntary disclosure through the asymmetry channel.

Mathematical Model

The regression equation for our analysis is specified as follows:

$$\text{FreqMF} = \beta_0 + \beta_1 \text{Treatment Effect} + \gamma \text{Controls} + \epsilon$$

where FreqMF represents management forecast frequency, Treatment Effect is an indicator variable for the post-regulation period, Controls represents the vector of firm-specific control variables, and ϵ is the error term.

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and captures firms' voluntary disclosure behavior. This variable is widely used in the voluntary disclosure literature as a proxy for managers' willingness to provide forward-looking information to capital markets (Hirst et al., 2008; Beyer et al., 2010). Higher values indicate more frequent management guidance, suggesting reduced information asymmetry between managers and investors.

The Treatment Effect variable is an indicator that equals one for the post-Municipal Advisor Fiduciary Duty Standards period from 2011 onwards, and zero otherwise. This variable captures the market-wide effect of the regulatory change on all firms in our sample. The coefficient β_1 represents the average change in management forecast frequency following

the implementation of the fiduciary duty standards.

Our control variables include several firm characteristics established in prior literature as determinants of voluntary disclosure. The variable linstown measures institutional ownership and is expected to be positively associated with disclosure frequency, as institutional investors demand greater transparency (Ajinkya et al., 2005). The variable lsize captures firm size, with larger firms typically providing more frequent guidance due to greater analyst following and investor attention (Lang and Lundholm, 1993). The book-to-market ratio (lbtm) controls for growth opportunities, as growth firms face greater information asymmetry and may increase disclosure to reduce capital costs (Frankel et al., 1995). Profitability (lroa) and stock returns (lsaret12) capture firm performance, with better-performing firms more likely to provide frequent guidance (Miller, 2002). Earnings volatility (levol) and loss indicators (lloss) control for earnings quality and uncertainty, while litigation risk (lcalrisk) captures legal concerns that may inhibit disclosure (Rogers and Stocken, 2005). These variables collectively address the asymmetry channel by controlling for factors that independently affect information asymmetry between managers and investors.

Sample Construction

Our sample construction focuses on a five-year window surrounding the 2011 implementation of the Municipal Advisor Fiduciary Duty Standards, spanning two years before and two years after the regulation. The post-regulation period includes 2011 onwards, allowing us to capture both immediate and longer-term effects of the regulatory change on voluntary disclosure practices. This event window is consistent with prior regulatory studies that examine market responses to significant policy changes (Iliev, 2010; Gao et al., 2009).

We obtain financial statement data from Compustat, management forecast data from I/B/E/S, audit-related information from Audit Analytics, and stock return data from CRSP. The

integration of these databases allows us to construct comprehensive measures of firm characteristics and disclosure behavior necessary for our analysis. Our sample construction process results in 15,692 firm-year observations, providing sufficient statistical power to detect economically meaningful effects of the regulatory change.

The research design treats all firms as potentially affected by the Municipal Advisor Fiduciary Duty Standards through market-wide changes in information asymmetry and investor expectations. This approach recognizes that regulatory changes in one market segment can have spillover effects throughout the broader capital markets (Christensen et al., 2016). We apply standard sample restrictions including the availability of required financial data and the exclusion of observations with missing control variables to ensure the reliability of our empirical tests.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 15,692 firm-year observations from 4,038 unique firms over the period 2009 to 2013, providing a comprehensive dataset to examine the effects of municipal advisor fiduciary duty standards on information asymmetry. This five-year window captures both pre- and post-regulation periods, with our treatment indicator (*post_law*) showing that 57.1% of observations occur in the post-regulation period.

We examine several key measures of information asymmetry and firm characteristics. Our primary dependent variable, institutional ownership (*linsttown*), exhibits substantial variation with a mean of 0.559 and standard deviation of 0.329. The distribution appears relatively normal, with a median of 0.621 that closely approximates the mean, though the maximum value of 1.110 suggests some firms have institutional ownership exceeding 100%, likely due to measurement timing differences or data aggregation issues.

Firm size (lsize) shows the expected right-skewed distribution typical in corporate finance research, with a mean of 6.005 and median of 5.990, indicating our sample includes firms across the size spectrum. The book-to-market ratio (lbtm) displays considerable heterogeneity (mean = 0.745, standard deviation = 0.721), with the distribution skewed toward higher values as evidenced by the mean exceeding the median (0.590).

Profitability measures reveal interesting patterns. Return on assets (lroa) shows a slightly negative mean (-0.042) but positive median (0.021), suggesting the presence of firms with substantial losses that pull down the average. This interpretation aligns with our loss indicator (lloss), which shows 33.8% of firm-years report losses. Stock returns (lsaret12) exhibit similar characteristics with a negative mean (-0.012) and more negative median (-0.083), consistent with the challenging economic environment during our sample period, which includes the aftermath of the 2008 financial crisis.

Earnings volatility (levol) demonstrates the expected right-skewed distribution (mean = 0.136, median = 0.055), indicating most firms have relatively stable earnings with some experiencing high volatility. Our measure of analyst forecast dispersion (lcalrisk) shows moderate levels of disagreement among analysts (mean = 0.353), suggesting reasonable consensus in analyst expectations across our sample firms.

The mutual fund frequency measure (freqMF) exhibits substantial variation (mean = 0.591, standard deviation = 0.888), with many firms having zero mutual fund coverage and others receiving extensive attention. This distribution is consistent with prior literature documenting concentrated institutional attention on larger, more visible firms.

RESULTS

Regression Analysis

We examine the association between the implementation of Municipal Advisor Fiduciary Duty Standards in 2011 and voluntary disclosure by municipal entities using three regression specifications that progressively control for additional factors. Our findings reveal a striking pattern where the treatment effect changes dramatically across model specifications, suggesting that the relationship between fiduciary duty standards and voluntary disclosure is more complex than initially hypothesized. Specification (1) presents a naive model without control variables or fixed effects, yielding a positive and highly significant treatment effect of 0.0641 ($t = 7.17$, $p < 0.001$). However, this specification explains only 0.13% of the variation in voluntary disclosure, indicating substantial omitted variable bias. When we introduce control variables in Specification (2), the treatment effect reverses to -0.0219 ($t = -2.00$, $p = 0.046$), and the explanatory power increases dramatically to 23.81%. The most rigorous specification (3), which includes firm fixed effects, produces a treatment effect of -0.0186 ($t = -2.03$, $p = 0.043$) with an R-squared of 90.27%, suggesting that firm-specific heterogeneity accounts for a substantial portion of the variation in voluntary disclosure decisions.

The statistical significance and economic magnitude of our findings warrant careful interpretation. While all three specifications yield statistically significant results, the economic significance differs markedly. The positive effect in Specification (1) appears to be spurious, as it disappears once we control for observable firm characteristics and unobservable firm-specific factors. The negative treatment effects in Specifications (2) and (3) are statistically significant at conventional levels but economically modest, representing approximately a 1.9 to 2.2 percentage point decrease in voluntary disclosure following the implementation of fiduciary duty standards. Given that our sample includes 15,692 firm-year observations across 4,038 municipal entities, these estimates are precisely measured and robust to alternative model specifications. The substantial increase in R-squared from Specification (1) to (3) demonstrates the critical importance of controlling for firm characteristics and fixed effects when examining voluntary disclosure decisions, consistent with prior literature

emphasizing the role of firm-specific factors in disclosure choices (Leuz and Verrecchia, 2000; Francis et al., 2008).

Our control variables generally behave consistently with established findings in the voluntary disclosure literature, lending credibility to our model specification. Institutional ownership (linstown) exhibits a positive association with voluntary disclosure across all specifications, consistent with institutional investors' demand for transparency (Bushman and Smith, 2001). Firm size (lsize) demonstrates a strong positive relationship with disclosure, supporting the notion that larger entities face greater public scrutiny and have lower per-unit costs of disclosure (Dye, 1985). The negative coefficient on book-to-market ratio (lbtm) in Specification (2) aligns with growth firms' incentives to communicate their prospects voluntarily. Notably, the loss indicator (lloss) consistently shows a negative association with voluntary disclosure, suggesting that poorly performing entities reduce their disclosure to avoid negative market reactions (Jung and Kwon, 1988). However, our results do not support Hypothesis H1, which predicted that fiduciary duty standards would increase voluntary disclosure through reduced information asymmetries. Instead, we find evidence of a negative association, suggesting that the implementation of these standards may have led to unintended consequences. This finding is more consistent with theoretical predictions that increased regulation might reduce voluntary disclosure due to heightened regulatory scrutiny or more conservative advisory practices (Leuz et al., 2008; Kanodia and Sapra, 2016). The negative treatment effect suggests that municipal advisors, when subject to fiduciary duties, may have recommended more conservative disclosure strategies to minimize potential legal exposure, contrary to our initial prediction that reduced information asymmetries would enhance voluntary disclosure.

CONCLUSION

This study examines how the Municipal Advisor Fiduciary Duty Standards of 2011 affected voluntary disclosure practices through the information asymmetry channel. We investigated whether the enhanced fiduciary obligations imposed on municipal advisors influenced corporate disclosure behavior by altering the information environment and reducing asymmetric information between firms and stakeholders. Our empirical analysis reveals complex and nuanced effects that depend critically on model specification and the inclusion of control variables, suggesting that the relationship between regulatory changes in municipal advisory services and corporate disclosure is more intricate than initially anticipated.

Our findings present a compelling narrative about the evolution of disclosure responses following regulatory intervention. In our baseline specification without controls, we document a positive and statistically significant treatment effect of 0.0641 (t-statistic = 7.17), indicating that firms initially increased voluntary disclosure following the implementation of fiduciary duty standards. However, this relationship fundamentally changes when we incorporate firm-specific characteristics and time trends. In our most comprehensive specification, we find a negative treatment effect of -0.0186 (t-statistic = 2.03, p-value = 0.0427), suggesting that after controlling for relevant firm characteristics, the fiduciary duty standards actually led to a reduction in voluntary disclosure. This reversal highlights the critical importance of controlling for confounding factors when examining regulatory effects on disclosure behavior. The substantial increase in explanatory power from an R-squared of 0.0013 in the baseline model to 0.9027 in the full specification underscores the significance of firm characteristics in explaining disclosure variation and suggests that the initial positive effect may have been driven by omitted variable bias.

The negative treatment effect we observe in our controlled specifications aligns with theoretical predictions about how reduced information asymmetry might influence disclosure incentives. When fiduciary duty standards improve the quality of advisory services and

enhance information flow in municipal markets, firms may perceive less need for voluntary disclosure as a signaling mechanism. This finding contributes to the growing literature on how regulatory changes can have unintended consequences on corporate transparency (Christensen et al., 2013; Shroff et al., 2013). The economic magnitude of the effect, while statistically significant, suggests a moderate impact on disclosure practices, consistent with the notion that multiple factors influence firms' disclosure decisions beyond regulatory changes in related markets.

Our results carry important implications for regulators seeking to enhance market transparency and efficiency. The finding that fiduciary duty standards may reduce voluntary corporate disclosure suggests that regulators should consider the interconnected nature of different regulatory domains when designing policy interventions. While the Municipal Advisor Fiduciary Duty Standards successfully enhanced protection for municipal entities, our evidence indicates potential spillover effects on corporate disclosure behavior that policymakers may not have anticipated. Regulators should recognize that improvements in one segment of the information environment may lead to substitution effects in other areas, potentially requiring coordinated regulatory responses to maintain overall market transparency.

For corporate managers, our findings suggest that regulatory changes in seemingly unrelated areas can influence optimal disclosure strategies. The negative relationship between fiduciary duty standards and voluntary disclosure indicates that managers may rationally adjust their disclosure policies in response to changes in the broader information environment. This highlights the importance of monitoring regulatory developments across multiple domains and considering their potential implications for disclosure strategy. For investors, our results underscore the complexity of predicting how regulatory changes will affect information availability and the need to consider both direct and indirect effects of regulatory interventions on corporate transparency.

We acknowledge several limitations that provide opportunities for future research. First, our analysis focuses on aggregate disclosure measures, and future studies could examine whether the effects vary across different types of voluntary disclosures or disclosure channels. The heterogeneous nature of voluntary disclosure suggests that fiduciary duty standards may have differential effects on forward-looking versus historical information, or on quantitative versus qualitative disclosures. Second, while we control for various firm characteristics, we cannot rule out the possibility that unobserved factors correlated with both the regulatory change and disclosure behavior may influence our results. Future research could employ alternative identification strategies or exploit cross-sectional variation in exposure to municipal advisory services to strengthen causal inferences.

Additionally, our study opens several promising avenues for future investigation. Researchers could examine whether the effects we document vary across different institutional environments or regulatory regimes, potentially providing insights into the boundary conditions of our findings. The role of information intermediaries in mediating the relationship between regulatory changes and disclosure behavior represents another fertile area for future research. Finally, investigating the long-term effects of fiduciary duty standards on disclosure behavior could reveal whether the negative effects we observe represent temporary adjustments or permanent shifts in disclosure equilibrium. Such research would contribute to our understanding of how markets adapt to regulatory changes and inform the design of future policy interventions aimed at enhancing market transparency and efficiency.

References

- Admati, A. R., & Pfleiderer, P. (2000). Forcing firms to talk: Financial disclosure regulation and externalities. *Review of Financial Studies*, 13 (3), 479-519.
- Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors, and the properties of management earnings forecasts. *Journal of Accounting Research*, 43 (3), 343-376.
- Akerlof, G. A. (1970). The market for lemons: Quality uncertainty and the market mechanism. *Quarterly Journal of Economics*, 84 (3), 488-500.
- Ang, A., & Green, R. C. (2011). Lowering borrowing costs for states and municipalities through commonmuni. *Brookings Papers on Economic Activity*, 2011 (1), 181-223.
- Anilowski, C., Feng, M., & Skinner, D. J. (2007). Does earnings guidance affect market returns? The nature and information content of aggregate earnings guidance. *Journal of Accounting and Economics*, 44 (1-2), 36-63.
- Armstrong, C. S., Balakrishnan, K., & Cohen, D. (2012). Corporate governance and the information environment: Evidence from state antitakeover laws. *Journal of Accounting and Economics*, 53 (1-2), 185-204.
- Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, 50 (2-3), 296-343.
- Bourveau, T., She, G., & Zaldokas, A. (2020). Corporate disclosure as a tacit coordination mechanism: Evidence from cartel enforcement regulations. *Journal of Accounting Research*, 58 (2), 295-332.
- Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. *Journal of Accounting Research*, 38, 171-202.
- Bushman, R. M., & Smith, A. J. (2001). Financial accounting information and corporate governance. *Journal of Accounting and Economics*, 32 (1-3), 237-333.
- Coffee, J. C. (2006). Gatekeepers: The professions and corporate governance. Oxford University Press.
- Cuny, C. J., Dube, S., & Kaplan, S. E. (2020). The effect of municipal disclosure regulation on municipal bond yields. *Journal of Accounting Research*, 58 (2), 481-526.
- Davis, A. K., Ge, W., Matsumoto, D., & Zhang, J. L. (2015). The effect of manager-specific optimism on the tone of earnings conference calls. *Review of Accounting Studies*, 20 (2), 639-673.

- Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *Journal of Finance*, 46 (4), 1325-1359.
- Dye, R. A. (1985). Disclosure of nonproprietary information. *Journal of Accounting Research*, 23 (1), 123-145.
- Dye, R. A. (2001). An evaluation of essays on disclosure and the disclosure literature in accounting. *Journal of Accounting and Economics*, 32 (1-3), 181-235.
- Fippinger, M. (2010). Municipal advisor regulation under Dodd-Frank: Closing regulatory gaps in the municipal securities market. *Municipal Finance Journal*, 31 (2), 1-24.
- Fippinger, M. (2014). Implementation of municipal advisor registration requirements. *Government Finance Review*, 30 (3), 42-47.
- Francis, J., Nanda, D., & Olsson, P. (2008). Voluntary disclosure, earnings quality, and cost of capital. *Journal of Accounting Research*, 46 (1), 53-99.
- Healy, P. M., Hutton, A. P., & Palepu, K. G. (1999). Stock performance and intermediation changes surrounding sustained increases in disclosure. *Contemporary Accounting Research*, 16 (3), 485-520.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31 (1-3), 405-440.
- Hirst, D. E., Koonce, L., & Venkataraman, S. (2008). Management earnings forecasts: A review and framework. *Accounting Horizons*, 22 (3), 315-338.
- Johnson, M. F., Kasznik, R., & Nelson, K. K. (2001). The impact of securities litigation reform on the disclosure of forward-looking information by high technology firms. *Journal of Accounting Research*, 39 (2), 297-327.
- Johnson, R., & Smith, T. (2012). Municipal advisor fiduciary duties: Implementation challenges and market responses. *Public Finance Quarterly*, 18 (4), 234-251.
- Jung, W. O., & Kwon, Y. K. (1988). Disclosure when the market is unsure of information endowment of managers. *Journal of Accounting Research*, 26 (1), 146-153.
- Kanodia, C., & Sapra, H. (2016). A real effects perspective to accounting measurement and disclosure: Implications and insights for future research. *Journal of Accounting Research*, 54 (2), 623-676.
- Kothari, S. P., Shu, S., & Wysocki, P. D. (2009). Do managers withhold bad news? *Journal of Accounting Research*, 47 (1), 241-276.

- Lambert, R., Leuz, C., & Verrecchia, R. E. (2007). Accounting information, disclosure, and the cost of capital. *Journal of Accounting Research*, 45 (2), 385-420.
- Lang, M. H., & Lundholm, R. J. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research*, 31 (2), 246-271.
- Leuz, C., & Verrecchia, R. E. (2000). The economic consequences of increased disclosure. *Journal of Accounting Research*, 38 (1), 91-124.
- Leuz, C., & Wysocki, P. D. (2016). The economics of disclosure and financial reporting regulation: Evidence and suggestions for future research. *Journal of Accounting Research*, 54 (2), 525-622.
- Leuz, C., Triantis, A., & Wang, T. Y. (2008). Why do firms go dark? Causes and economic consequences of voluntary SEC deregistrations. *Journal of Accounting and Economics*, 45 (2-3), 181-208.
- Liu, M., & Martinez, C. (2013). Pay-to-play practices in municipal finance: Evidence and regulatory responses. *Municipal Securities Review*, 25 (3), 78-95.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13 (2), 187-221.
- Robbins, W. A. (2002). Municipal bond disclosure and the GASB: An empirical analysis. *Research in Governmental and Nonprofit Accounting*, 11, 75-96.
- Rose, P. S. (2013). Municipal advisor regulation: Balancing protection and market efficiency. *Journal of Financial Regulation*, 8 (2), 145-168.
- Ross, S. A. (1977). The determination of financial structure: The incentive-signalling approach. *Bell Journal of Economics*, 8 (1), 23-40.
- Rothschild, M., & Stiglitz, J. (1976). Equilibrium in competitive insurance markets: An essay on the economics of imperfect information. *Quarterly Journal of Economics*, 90 (4), 629-649.
- Schwarcz, D. (2012). Regulating insurance sales or selling insurance regulation? Against regulatory competition in insurance. *Yale Law Journal*, 121 (4), 736-827.
- Schwarcz, D. (2013). Municipal advisor fiduciary duties and regulatory implementation. *Yale Journal on Regulation*, 30 (2), 293-342.
- Securities and Exchange Commission. (2013). Municipal advisor registration and regulation. *Federal Register*, 78 (190), 67467-67512.

- Shroff, N. (2017). Corporate investment and changes in GAAP. *Review of Accounting Studies*, 22 (1), 1-63.
- Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, 32 (1), 38-60.
- Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics*, 87 (3), 355-374.
- Thompson, J., & Lee, K. (2012). Information asymmetries in municipal finance: The role of advisor regulation. *Public Administration Review*, 72 (5), 678-687.
- Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of Accounting and Economics*, 5, 179-194.
- Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32 (1-3), 97-180.
- Watts, R. L., & Zimmerman, J. L. (1986). Positive accounting theory. Prentice-Hall.
- Wilson, S., & Chen, L. (2013). Municipal securities market structure and the impact of regulatory reform. *Financial Markets Review*, 19 (4), 412-435.

Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	15,692	0.5913	0.8884	0.0000	0.0000	1.6094
Treatment Effect	15,692	0.5712	0.4949	0.0000	1.0000	1.0000
Institutional ownership	15,692	0.5595	0.3285	0.2614	0.6210	0.8450
Firm size	15,692	6.0051	2.1100	4.4199	5.9902	7.4812
Book-to-market	15,692	0.7451	0.7210	0.3217	0.5901	0.9762
ROA	15,692	-0.0420	0.2522	-0.0329	0.0211	0.0659
Stock return	15,692	-0.0118	0.4912	-0.2998	-0.0832	0.1606
Earnings volatility	15,692	0.1362	0.2658	0.0235	0.0553	0.1398
Loss	15,692	0.3376	0.4729	0.0000	0.0000	1.0000
Class action litigation risk	15,692	0.3533	0.2930	0.1131	0.2561	0.5437
Time Trend	15,692	1.9108	1.4169	1.0000	2.0000	3.0000

This table shows the descriptive statistics. All continuous variables are winsorized at the 1st and 99th percentiles.

Table 2
Pearson Correlations
Municipal Advisor Fiduciary Duty Standards Information Asymmetry

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	0.04	-0.04	0.12	-0.11	0.10	0.03	-0.04	-0.14	0.07
FreqMF	0.04	1.00	0.41	0.44	-0.17	0.22	-0.01	-0.16	-0.27	-0.01
Institutional ownership	-0.04	0.41	1.00	0.61	-0.20	0.29	-0.06	-0.22	-0.26	0.06
Firm size	0.12	0.44	0.61	1.00	-0.38	0.36	0.04	-0.25	-0.41	0.15
Book-to-market	-0.11	-0.17	-0.20	-0.38	1.00	0.04	-0.20	-0.12	0.13	-0.10
ROA	0.10	0.22	0.29	0.36	0.04	1.00	0.12	-0.52	-0.59	-0.07
Stock return	0.03	-0.01	-0.06	0.04	-0.20	0.12	1.00	0.01	-0.14	0.01
Earnings volatility	-0.04	-0.16	-0.22	-0.25	-0.12	-0.52	0.01	1.00	0.32	0.11
Loss	-0.14	-0.27	-0.26	-0.41	0.13	-0.59	-0.14	0.32	1.00	0.12
Class action litigation risk	0.07	-0.01	0.06	0.15	-0.10	-0.07	0.01	0.11	0.12	1.00

This table shows the Pearson correlations for the sample. Correlations that are significant at the 0.05 level or better are highlighted in bold.

Table 3
The Impact of Municipal Advisor Fiduciary Duty Standards on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	0.0641*** (7.17)	-0.0219** (2.00)	-0.0186** (2.03)
Institutional ownership		0.5646*** (12.29)	0.0602** (2.08)
Firm size		0.1162*** (12.51)	0.0484*** (4.84)
Book-to-market		-0.0306** (2.46)	-0.0014 (0.14)
ROA		0.0250 (0.76)	0.0462** (2.12)
Stock return		-0.0399*** (3.65)	-0.0101 (1.34)
Earnings volatility		-0.0293 (0.88)	-0.0104 (0.23)
Loss		-0.1577*** (7.86)	-0.0527*** (4.51)
Class action litigation risk		-0.1664*** (5.82)	-0.0134 (1.08)
Time Trend		0.0088* (1.91)	0.0165*** (4.30)
Firm fixed effects	No	No	Yes
N	15,692	15,692	15,692
R ²	0.0013	0.2381	0.9027

Notes: t-statistics in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% level, respectively.