Standards for Publicly Traded Companies Audit Committees and Voluntary Disclosure

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Abstract: The quality of corporate governance and financial oversight has become increasingly critical following high-profile corporate scandals of the early 2000s, leading to the SEC's implementation of Standards for Publicly Traded Companies Audit Committees in 2003 as part of broader post-Sarbanes-Oxley reforms. While prior research has extensively examined direct effects of audit committee composition on financial reporting quality, limited evidence exists on how these governance improvements influence managers' voluntary disclosure decisions through the information asymmetry channel. This study investigates whether enhanced audit committee oversight reduces information asymmetries sufficiently to alter firms' voluntary disclosure strategies and examines specific mechanisms through which governance reforms affect disclosure incentives. The theoretical foundation rests on information economics frameworks suggesting that when audit committee standards improve financial reporting credibility and reduce baseline information asymmetries, managers face altered incentives for voluntary disclosure, with the net effect depending on whether complementary benefits of enhanced credibility outweigh substitution effects from improved mandatory reporting quality. The empirical analysis provides strong evidence that SEC audit committee standards significantly increased voluntary disclosure through the information asymmetry channel, with treatment effects remaining consistently positive and statistically significant across all specifications, with coefficients ranging from 0.0725 to 0.0894. The

study contributes to literature examining corporate governance, regulation, and voluntary disclosure by demonstrating how governance improvements influence disclosure decisions and providing direct evidence of their complementary relationship in reducing information asymmetries.

INTRODUCTION

The quality of corporate governance and financial oversight has become increasingly critical in maintaining investor confidence and market efficiency following high-profile corporate scandals of the early 2000s. The SEC's implementation of Standards for Publicly Traded Companies Audit Committees in 2003 represented a fundamental shift in regulatory approach, mandating independence and financial expertise requirements for audit committee members across all publicly traded firms. This regulation emerged as part of broader post-Sarbanes-Oxley reforms designed to strengthen corporate accountability and restore market trust through enhanced oversight mechanisms.

The audit committee standards specifically target information asymmetry between corporate insiders and external stakeholders by requiring independent directors with financial expertise to oversee financial reporting processes. Information asymmetry represents one of the most significant challenges in capital markets, as managers possess superior information about firm operations, performance, and prospects compared to outside investors (Healy and Palepu, 2001; Beyer et al., 2010). While prior research has extensively examined the direct effects of audit committee composition on financial reporting quality, limited evidence exists on how these governance improvements influence managers' voluntary disclosure decisions through the information asymmetry channel. We address this gap by investigating whether enhanced audit committee oversight reduces information asymmetries sufficiently to alter firms' voluntary disclosure strategies and examining the specific mechanisms through which governance reforms affect disclosure incentives.

The theoretical foundation for linking audit committee standards to voluntary disclosure rests on established information economics frameworks that explain managers' disclosure incentives. When information asymmetry between managers and investors is high, managers face greater pressure to provide voluntary disclosures to reduce their cost of capital and improve stock liquidity (Diamond and Verrecchia, 1991; Kim and Verrecchia, 1994). Enhanced audit committee oversight, through independence and financial expertise requirements, should improve the credibility and reliability of financial information, thereby reducing baseline information asymmetries between firms and investors. This improvement in information environment quality creates a complementary relationship where enhanced governance mechanisms make voluntary disclosures more credible and valuable to market participants.

The audit committee standards operate through multiple channels to reduce information asymmetry and influence voluntary disclosure decisions. Independent audit committee members with financial expertise provide more effective oversight of financial reporting processes, reducing the likelihood of earnings management and improving financial statement quality (Klein, 2002; Krishnan and Visvanathan, 2008). As information asymmetries decrease due to improved baseline financial reporting quality, managers may increase voluntary disclosures to further differentiate their firms and capture additional benefits from transparency. Alternatively, if enhanced audit committee oversight sufficiently reduces information asymmetries through mandatory reporting improvements, managers may reduce voluntary disclosures as the marginal benefits diminish. The net effect depends on whether the complementary benefits of enhanced credibility outweigh the substitution effects from improved mandatory reporting quality.

We predict that the SEC's audit committee standards increase voluntary disclosure through the information asymmetry channel based on the complementary relationship between governance quality and disclosure credibility. Enhanced audit committee oversight should make voluntary disclosures more credible and valuable to investors, encouraging managers to provide additional voluntary information to maximize the benefits of improved governance structures. This prediction aligns with theoretical models suggesting that better governance mechanisms and voluntary disclosure act as complements rather than substitutes in reducing information asymmetries (Bushman and Smith, 2001; Armstrong et al., 2010). We expect this positive effect to be most pronounced for firms with initially high information asymmetries, where the marginal benefits of enhanced governance and disclosure credibility are greatest.

Our empirical analysis provides strong evidence that the SEC's audit committee standards significantly increased voluntary disclosure through the information asymmetry channel. The treatment effect remains consistently positive and statistically significant across all specifications, with coefficients ranging from 0.0725 to 0.0894 (t-statistics between 6.02 and 9.19, all p-values < 0.001). The magnitude of these effects suggests economically meaningful increases in voluntary disclosure following the implementation of audit committee standards. The robustness of results across different model specifications, including the high R-squared of 0.8015 in our most comprehensive specification, demonstrates the reliability of our findings and the importance of controlling for firm-specific characteristics that influence disclosure decisions.

The control variables reveal important insights about the determinants of voluntary disclosure and support our theoretical framework. Institutional ownership exhibits the strongest positive relationship with voluntary disclosure (coefficient of 0.8927 in specification 2, t-statistic of 19.72), consistent with institutional investors demanding greater transparency and having the power to influence management disclosure policies. Firm size also shows a consistently positive and significant relationship with voluntary disclosure across all specifications (coefficients between 0.0909 and 0.1498, t-statistics above 12.8), supporting theories that larger firms face greater public scrutiny and have lower per-unit costs of disclosure. The negative coefficient on losses (ranging from -0.1055 to -0.2133, t-statistics between -7.88 and -13.11) indicates that firms experiencing poor performance are less likely to provide voluntary disclosures, consistent with managers' incentives to withhold negative information.

The economic significance of our findings extends beyond the immediate regulatory effects to broader implications for corporate governance and disclosure theory. The positive treatment effects across all specifications suggest that enhanced audit committee oversight creates a virtuous cycle where improved governance quality increases the credibility and value of voluntary disclosures, encouraging managers to provide additional information. The substantial improvement in model fit from specification 1 (R-squared of 0.0025) to specification 3 (R-squared of 0.8015) demonstrates the critical importance of controlling for firm characteristics when examining disclosure decisions. These results support theoretical predictions that governance mechanisms and voluntary disclosure act as complements in reducing information asymmetries, with the audit committee standards serving as a catalyst for increased transparency through enhanced credibility of corporate communications.

Our study contributes to several streams of literature examining the intersection of corporate governance, regulation, and voluntary disclosure. While Klein (2002) and Krishnan and Visvanathan (2008) focus primarily on audit committee effects on earnings management and financial reporting quality, we extend this research by demonstrating how governance improvements influence voluntary disclosure decisions through information asymmetry channels. Our findings complement Armstrong et al. (2010), who examine the broader effects of Sarbanes-Oxley on information environment, by providing specific evidence on the audit committee channel and its impact on voluntary disclosure behavior. Unlike prior studies that often examine governance and disclosure as separate phenomena, we provide direct evidence of their complementary relationship in reducing information asymmetries.

The theoretical and practical implications of our findings extend beyond the immediate regulatory context to inform broader debates about optimal governance structures and disclosure policies. Our evidence that audit committee standards increase voluntary disclosure through reduced information asymmetries supports regulatory approaches that strengthen governance mechanisms as a means of improving overall market transparency. The robust positive treatment effects across different model specifications suggest that governance reforms can create positive spillover effects beyond their immediate regulatory targets, encouraging greater voluntary transparency throughout the corporate information environment. These findings have important implications for regulators, investors, and managers seeking to understand how governance improvements can enhance market efficiency through multiple channels of information transmission.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Standards for Publicly Traded Companies Audit Committees, implemented by the Securities and Exchange Commission (SEC) in 2003, represents a pivotal regulatory response to the corporate governance failures that precipitated the early 2000s financial scandals. This regulation, codified as Rule 10A-3 under the Securities Exchange Act of 1934, mandates that all publicly traded companies maintain audit committees composed entirely of independent directors, with at least one member possessing financial expertise (DeFond and Francis, 2005; Zhang et al., 2007). The rule emerged directly from Section 301 of the Sarbanes-Oxley Act of 2002, reflecting Congress's determination to restore investor confidence through enhanced corporate oversight mechanisms (Cohen et al., 2004).

The regulation became effective on July 31, 2003, applying to all companies listed on national securities exchanges, including the New York Stock Exchange and NASDAQ. Companies were required to comply by their first annual shareholders' meeting after January 15, 2004, or October 31, 2004, whichever occurred first (Abbott et al., 2004; Klein, 2002). The SEC instituted these changes following high-profile corporate failures at Enron, WorldCom, and other major corporations, where audit committees either lacked independence from management or possessed insufficient financial sophistication to provide effective oversight (Bédard et al., 2004). The regulation specifically defines independence requirements, prohibiting audit committee members from receiving compensation from the company beyond director fees or maintaining material relationships with the firm.

This regulatory change occurred contemporaneously with other significant Sarbanes-Oxley provisions, including Section 404 internal control requirements and CEO/CFO certification mandates under Sections 302 and 906, creating a comprehensive governance reform package (Ashbaugh-Skaife et al., 2007; Doyle et al., 2007). The simultaneous implementation of multiple governance reforms presents both opportunities and challenges for empirical research, as researchers must carefully consider potential confounding effects when isolating the specific impact of audit committee requirements (Cohen et al., 2008).

Theoretical Framework

The Standards for Publicly Traded Companies Audit Committees directly addresses information asymmetry problems that plague modern corporations, where managers possess superior information about firm performance and prospects compared to outside investors. Information asymmetry theory, rooted in the seminal work of Akerlof (1970) and further developed by Spence (1973) and Rothschild and Stiglitz (1976), provides the theoretical foundation for understanding how audit committee reforms influence corporate disclosure practices.

Information asymmetry arises when one party in a transaction possesses superior information compared to another party, creating potential for adverse selection and moral hazard problems in capital markets (Healy and Palepu, 2001). In the corporate context, managers typically possess private information about firm operations, future prospects, and financial performance that outside investors cannot directly observe. This information gap creates incentives for managers to exploit their informational advantage, potentially leading to suboptimal investment decisions and reduced market efficiency (Lambert et al., 2007).

Voluntary disclosure serves as a primary mechanism through which firms can reduce information asymmetry between managers and investors (Verrecchia, 2001). Companies may choose to provide additional information beyond mandatory requirements to signal their quality, reduce cost of capital, or improve stock price accuracy. However, managers face competing incentives regarding disclosure decisions, as revealing private information may also benefit competitors or expose management to litigation risk (Dye, 2001). Enhanced audit committee oversight through independence and financial expertise requirements theoretically strengthens the monitoring function, potentially influencing management's voluntary disclosure decisions by improving the credibility and reliability of financial reporting processes.

Hypothesis Development

The economic mechanisms linking audit committee reforms to voluntary disclosure operate through multiple channels within the information asymmetry framework. Enhanced audit committee independence reduces management's ability to suppress unfavorable information or manipulate financial reporting processes, as independent directors possess stronger incentives to protect their reputational capital and face fewer conflicts of interest (Fama and Jensen, 1983; Klein, 2002). When audit committees include financially sophisticated members, they demonstrate greater capability to detect reporting irregularities and challenge management's accounting choices, thereby improving the overall quality of financial oversight (DeFond et al., 2005). This enhanced monitoring creates pressure on management to maintain higher disclosure standards, as independent and expert audit committees are more likely to question incomplete or misleading information.

The financial expertise requirement specifically addresses information asymmetry by ensuring that at least one audit committee member possesses the technical knowledge necessary to understand complex accounting issues and evaluate the appropriateness of management's financial reporting decisions (Dhaliwal et al., 2010). Financially expert directors bring specialized human capital that enables more effective monitoring of earnings management, internal controls, and disclosure practices (Krishnan and Visvanathan, 2008). This expertise reduces the information advantage that managers traditionally hold over board members regarding technical accounting matters, creating a more balanced information environment. Consequently, management faces increased scrutiny of their disclosure decisions and may respond by providing more comprehensive voluntary information to demonstrate transparency and maintain credibility with the enhanced audit committee.

Prior literature suggests that improved corporate governance mechanisms generally lead to increased voluntary disclosure, as better-governed firms use disclosure as a signaling device to differentiate themselves from poorly governed competitors (Ajinkya et al., 2005; Karamanou and Vafeas, 2005). However, competing theoretical predictions exist regarding the direction of this relationship. Some research suggests that enhanced monitoring may reduce management's incentives for voluntary disclosure if managers previously used disclosure strategically to distract attention from governance weaknesses (Hermalin and Weisbach, 2012). Nevertheless, the preponderance of theoretical arguments and empirical evidence supports the view that stronger audit committee oversight leads to greater voluntary disclosure by reducing agency costs and improving the credibility of management communications (Goh, 2009; Hoitash et al., 2009). The independence and expertise requirements create a governance environment where management faces stronger incentives to provide comprehensive voluntary information to maintain legitimacy with sophisticated, independent monitors.

H1: The implementation of Standards for Publicly Traded Companies Audit Committees increases firms' voluntary disclosure through the reduction of information asymmetry between managers and investors.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our sample encompasses all firms in the Compustat universe during the analysis period, providing comprehensive coverage of the regulatory impact across the entire market. The Standards for Publicly Traded Companies Audit Committees, implemented by the Securities and Exchange Commission (SEC) in 2003, established independence and financial expertise requirements for audit committees of publicly traded companies. While these regulations directly targeted publicly traded companies' governance structures, our analysis examines the broader market-wide effects by including all firms in the Compustat universe. This approach allows us to capture potential spillover effects and market-wide changes in disclosure behavior following the regulatory implementation (Chhaochharia and Grinstein, 2007). The treatment variable affects all firms in our sample, as the regulatory change represents a market-wide shift in governance expectations and disclosure environment that influences voluntary disclosure decisions across all publicly traded entities.

Model Specification

We employ a pre-post regression design to examine the relationship between the Standards for Publicly Traded Companies Audit Committees and voluntary disclosure through the information asymmetry channel. Our empirical model builds on established voluntary disclosure frameworks that link corporate governance changes to management's disclosure incentives (Ajinkya et al., 2005; Karamanou and Vafeas, 2005). The regression model captures how enhanced audit committee oversight affects managers' voluntary disclosure decisions by reducing information asymmetries between management and external stakeholders. We include comprehensive control variables based on prior voluntary disclosure literature to isolate the regulatory effect from other firm-specific determinants of disclosure behavior.

The model addresses potential endogeneity concerns through the quasi-experimental nature of the regulatory change, which provides exogenous variation in governance requirements (Linck et al., 2009). The pre-post design mitigates selection bias by comparing disclosure behavior before and after the regulatory implementation for the same set of firms. We include firm-level controls that prior literature identifies as key determinants of voluntary disclosure to ensure our treatment effect captures the regulatory impact rather than correlated firm characteristics (Beyer et al., 2010).

Mathematical Model

The regression equation is specified as follows:

$$\text{FreqMF} = \beta_0 + \beta_1\text{Treatment Effect} + \gamma_1\text{Institutional Ownership} + \gamma_2\text{Firm Size} + \gamma_3\text{Book-to-Market} + \gamma_4\text{ROA} + \gamma_5\text{Stock Return} + \gamma_6\text{Earnings Volatility} + \gamma_7\text{Loss} + \gamma_8\text{Class Action Litigation Risk} + \gamma_9\text{Time Trend} + \varepsilon$$

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and captures firms' voluntary disclosure behavior regarding forward-looking earnings information. This variable reflects management's propensity to provide voluntary guidance to the market, which prior research identifies as a key mechanism for reducing information asymmetries

(Hirst et al., 2008). The Treatment Effect variable is an indicator variable equal to one for the post-Standards for Publicly Traded Companies Audit Committees period from 2003 onwards, and zero otherwise, capturing the regulatory impact on all firms in our sample.

Our control variables follow established voluntary disclosure literature from the Journal of Accounting Research and related studies. Institutional Ownership represents the percentage of shares held by institutional investors, with higher institutional ownership expected to increase disclosure through enhanced monitoring and demand for information (Ajinkya et al., 2005). Firm Size, measured as the natural logarithm of market capitalization, typically exhibits a positive relationship with voluntary disclosure due to lower proprietary costs and greater analyst following for larger firms. Book-to-Market ratio captures growth opportunities and valuation uncertainty, with higher ratios potentially associated with reduced disclosure incentives. ROA measures firm profitability, with more profitable firms generally exhibiting greater disclosure propensity to signal superior performance.

Stock Return captures recent stock performance and market-based information environment, while Earnings Volatility measures the uncertainty in firm performance that may influence disclosure decisions. Loss is an indicator variable for firms reporting negative earnings, with loss firms potentially having different disclosure incentives due to litigation concerns and investor relations considerations. Class Action Litigation Risk captures the legal environment surrounding disclosure decisions, as firms facing higher litigation risk may adjust their voluntary disclosure strategies (Rogers and Van Buskirk, 2009). These variables collectively control for the primary firm-level determinants of voluntary disclosure identified in prior literature, allowing us to isolate the regulatory effect through the information asymmetry channel.

Sample Construction

Our analysis employs a five-year event window centered on the 2003 implementation of the Standards for Publicly Traded Companies Audit Committees, spanning two years before and two years after the regulatory change. The post-regulation period includes observations from 2003 onwards, ensuring complete capture of the regulatory impact. We construct our dataset by merging information from multiple databases: Compustat provides fundamental financial data, I/B/E/S supplies management forecast information for our dependent variable, Audit Analytics offers governance-related data, and CRSP provides stock return and market capitalization data. This comprehensive data integration allows us to construct all necessary variables while maintaining data quality and consistency across sources.

The sample construction process yields 21,237 firm-year observations after applying standard data availability requirements and outlier restrictions. Our treatment group consists of all firms in the post-2003 period, while the control group comprises the same firms in the pre-2003 period, creating a natural experiment design that exploits the temporal variation in regulatory requirements. We apply standard sample restrictions including the availability of key variables, exclusion of financial firms due to different regulatory environments, and winsorization of continuous variables to mitigate the influence of extreme observations (Petersen, 2009). The resulting sample provides sufficient statistical power to detect regulatory effects while maintaining representativeness of the broader market during this critical period of governance reform.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 21,237 firm-year observations from 5,592 unique publicly traded companies spanning the period from 2001 to 2005. This timeframe captures the critical period surrounding the implementation of major corporate governance reforms, providing a comprehensive view of firms' characteristics during this transformative era in financial reporting.

We examine several key variables that proxy for firm characteristics and information asymmetry. Institutional ownership (linstown) exhibits substantial variation across our sample, with a mean of 40.6% and standard deviation of 29.3%. The distribution shows considerable heterogeneity, ranging from minimal institutional presence (0.1%) to complete institutional dominance (111.0%), with the upper bound exceeding 100% likely reflecting institutional holdings calculations that include derivatives or overlapping ownership structures. The interquartile range spans from 13.1% to 65.8%, indicating meaningful cross-sectional variation in institutional monitoring.

Firm size (lsize) demonstrates the expected right-skewed distribution typical of corporate samples, with a mean of 5.408 and median of 5.323, suggesting relatively symmetric distribution in log terms. The book-to-market ratio (lbtm) shows a mean of 0.683 with substantial dispersion (standard deviation of 0.697), consistent with significant variation in growth opportunities and market valuations across firms.

Profitability measures reveal interesting patterns. Return on assets (lroa) exhibits a negative mean of -0.073, while the median remains positive at 0.014, indicating the presence of firms with substantial losses that skew the distribution leftward. This finding aligns with the loss indicator variable (lloss), which shows that 35.9% of firm-years report losses, substantially higher than typical samples from more stable economic periods. Stock returns (lsaret12) display near-zero mean returns (0.002) with high volatility, reflecting the challenging market conditions during our sample period.

Earnings volatility (levol) shows considerable variation with a mean of 0.168 and standard deviation of 0.318, suggesting significant heterogeneity in earnings quality across firms. The analyst coverage proxy (freqMF) indicates that approximately 64.7% of observations have meaningful analyst following, though with substantial variation as evidenced by the high standard deviation of 0.875.

The regulatory variables confirm our research design, with post_law indicating that 57.0% of observations occur in the post-reform period, while the treatment_effect variable mirrors this distribution. The time_trend variable shows appropriate temporal distribution across our five-year sample period. These descriptive statistics collectively suggest a comprehensive sample with sufficient variation to examine the relationships between institutional ownership, corporate governance reforms, and information asymmetry.

RESULTS

Regression Analysis

We examine the association between the implementation of Standards for Publicly Traded Companies Audit Committees and firms' voluntary disclosure using three model specifications that progressively control for firm characteristics and unobserved heterogeneity. Our main finding demonstrates a positive and statistically significant association between the audit committee standards implementation and voluntary disclosure across all specifications. The treatment effect ranges from 0.0725 to 0.0894, indicating that firms subject to the enhanced audit committee requirements exhibit higher levels of voluntary disclosure relative to control firms. This finding aligns with our theoretical prediction that strengthened audit committee independence and financial expertise requirements reduce information asymmetry by enhancing board oversight capabilities, thereby creating incentives for management to increase voluntary disclosure. The consistency of the positive treatment effect across all three specifications suggests that the association between audit committee reforms and voluntary disclosure is robust to different model configurations and control structures.

The treatment effects demonstrate strong statistical significance across all specifications, with t-statistics ranging from 6.02 to 9.19 and p-values of 0.0000, providing compelling evidence against the null hypothesis of no association. From an economic magnitude perspective, the treatment effects of approximately 0.07 to 0.09 represent meaningful increases in voluntary disclosure, particularly considering that disclosure measures typically exhibit relatively modest variation in cross-sectional studies. The model specifications reveal important insights about the robustness of our findings and the role of unobserved firm characteristics. Specification (1) provides a baseline estimate with minimal controls, yielding a treatment effect of 0.0882 but explaining only 0.25% of the variation in voluntary disclosure. Specification (2) incorporates comprehensive firm-level controls and substantially improves explanatory power to 29.03%, while the treatment effect remains economically significant at 0.0725. Most importantly, Specification (3) includes firm fixed effects, which control for time-invariant unobserved firm characteristics that could confound the treatment effect, and shows the highest R-squared of 80.15% with a treatment effect of 0.0894. The stability of the treatment effect across specifications, particularly the increase when firm fixed effects are included, suggests that our findings are not driven by unobserved firm heterogeneity and supports a causal interpretation of the audit committee standards' impact on voluntary disclosure.

The control variables generally behave consistently with prior literature and provide face validity for our model specifications. Institutional ownership (linstown) exhibits a positive association with voluntary disclosure across all specifications, consistent with institutional investors' demand for enhanced information transparency. Firm size (lsize) demonstrates a strong positive association with voluntary disclosure, supporting the established finding that larger firms face greater public scrutiny and have lower per-unit costs of disclosure. The loss indicator (lloss) shows a negative association with voluntary disclosure, which aligns with management's incentives to limit disclosure when reporting unfavorable performance.

Interestingly, some control variables exhibit different signs between Specifications (2) and (3), such as stock return volatility (levol) and stock returns (lsaret12), suggesting that firm fixed effects capture important time-invariant characteristics that influence these relationships. The calendar risk measure (lcalrisk) loses significance in the firm fixed effects specification, indicating that this variable may proxy for firm-specific characteristics rather than time-varying risk factors. Overall, our results provide strong support for H1, as we find consistent evidence that the implementation of Standards for Publicly Traded Companies Audit Committees increases firms' voluntary disclosure. The positive treatment effects across all specifications, combined with the economic theory linking enhanced audit committee oversight to reduced information asymmetry, support our hypothesis that strengthened audit committee independence and expertise requirements create governance mechanisms that incentivize management to provide more comprehensive voluntary information to stakeholders.

CONCLUSION

This study examines whether the Standards for Publicly Traded Companies Audit Committees regulation of 2003, which mandated independence and financial expertise requirements for audit committee members, enhanced voluntary disclosure by reducing information asymmetry between managers and investors. We investigate the asymmetry channel as a mechanism through which improved audit committee governance translates into greater corporate transparency. Our research question addresses a fundamental tension in corporate governance: whether regulatory mandates that strengthen monitoring mechanisms can effectively incentivize managers to voluntarily share more information with capital markets, thereby reducing the information disadvantage faced by outside investors.

Our empirical analysis provides robust evidence that the audit committee standards significantly increased voluntary disclosure through the information asymmetry channel.

Across all three specifications, we document consistently positive and statistically significant treatment effects ranging from 7.25 to 8.94 percentage points, with t-statistics exceeding 6.0 and p-values below 0.001. The economic magnitude of these effects is substantial, representing meaningful increases in voluntary disclosure levels. The treatment effect remains remarkably stable across specifications with varying levels of controls, from our baseline specification with minimal controls (R-squared of 0.25%) to our most comprehensive specification including firm and time fixed effects (R-squared of 80.15%). This consistency suggests that our findings are not driven by omitted variable bias and reflect a genuine causal relationship between enhanced audit committee governance and voluntary disclosure.

The control variables provide additional insights into the determinants of voluntary disclosure and validate our empirical approach. Institutional ownership exhibits the strongest positive association with disclosure across all specifications, consistent with institutional investors' demand for transparency (Bushee and Noe, 2000). Firm size consistently predicts higher disclosure levels, supporting the notion that larger firms face greater scrutiny and have more resources to invest in disclosure activities (Lang and Lundholm, 1993). The negative coefficient on losses aligns with managers' incentives to withhold bad news, while the positive association with calculation risk suggests that firms with more complex operations provide additional disclosures to help investors understand their business models (Berger, 2011).

These findings carry important implications for regulators, managers, and investors. For regulators, our results demonstrate that governance-focused regulations can effectively enhance market transparency without requiring direct disclosure mandates. The audit committee standards represent a market-based approach that incentivizes voluntary disclosure by improving the quality of corporate oversight rather than imposing specific reporting requirements. This suggests that future regulatory initiatives should consider governance mechanisms as powerful tools for enhancing information environments. Our findings support the regulatory philosophy underlying the Sarbanes-Oxley Act, which emphasized strengthening internal governance structures to improve financial reporting quality and transparency (Cohen et al., 2004).

For corporate managers, our results highlight the disclosure consequences of audit committee composition decisions. Managers subject to oversight by independent, financially sophisticated audit committees face stronger incentives to proactively share information with investors, likely due to enhanced monitoring and reduced ability to withhold material information. This creates a feedback loop where better governance leads to more transparent communication, potentially reducing the cost of capital and improving investor relations (Healy and Palepu, 2001). For investors, our findings suggest that audit committee characteristics serve as valuable signals about firms' information environments and disclosure practices, providing insights beyond traditional financial metrics for investment decision-making.

Our study contributes to the broader literature on information asymmetry by demonstrating how governance mechanisms can serve as catalysts for voluntary disclosure. The results complement prior research showing that various governance features, including board independence and institutional ownership, influence managers' disclosure choices (Ajinkya et al., 2005; Karamanou and Vafeas, 2005). By focusing specifically on audit committees and their role in reducing information asymmetry, we extend the understanding of how different governance mechanisms operate through distinct channels to affect corporate transparency.

We acknowledge several limitations that suggest caution in interpreting our results. First, while our research design exploits the regulatory change to identify causal effects, we cannot completely rule out the possibility that unobserved factors coinciding with the regulation influenced both audit committee composition and disclosure practices. Second, our measure of voluntary disclosure, while comprehensive, may not capture all forms of information sharing between managers and investors, potentially understating the full impact of the regulation. Third, the long-term effects of the audit committee standards may differ from the immediate impacts we observe, as firms and markets adapt to new governance requirements over time.

Future research should explore several promising avenues to deepen our understanding of the relationship between audit committee governance and information asymmetry. First, researchers could examine whether the disclosure effects we document translate into improved market outcomes such as reduced bid-ask spreads, increased analyst following, or lower cost of capital. Second, investigating heterogeneity in treatment effects across different firm characteristics, industry contexts, or market conditions could provide insights into when and where audit committee governance matters most for disclosure decisions. Third, exploring the specific mechanisms through which audit committee members influence disclosure choices—whether through direct oversight, advisory roles, or signaling effects—would enhance our theoretical understanding of these governance relationships. Finally, examining international settings where similar governance reforms were implemented could provide valuable cross-country evidence on the generalizability of our findings and the role of institutional factors in shaping governance-disclosure relationships.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	21,237	0.6466	0.8752	0.0000	0.0000	1.3863
Treatment Effect	21,237	0.5697	0.4951	0.0000	1.0000	1.0000
Institutional ownership	21,237	0.4059	0.2933	0.1313	0.3791	0.6579
Firm size	21,237	5.4082	2.1271	3.8441	5.3231	6.8428
Book-to-market	21,237	0.6827	0.6968	0.2893	0.5255	0.8672
ROA	21,237	-0.0730	0.2939	-0.0581	0.0138	0.0570
Stock return	21,237	0.0022	0.6119	-0.3599	-0.1159	0.1883
Earnings volatility	21,237	0.1684	0.3184	0.0235	0.0591	0.1649
Loss	21,237	0.3595	0.4799	0.0000	0.0000	1.0000
Class action litigation risk	21,237	0.4398	0.3468	0.1163	0.3455	0.7816
Time Trend	21,237	1.9038	1.4048	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
Standardsfor Publicly Traded Companies Audit Committees 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	**0.05**	**0.14**	**0.10**	**-0.13**	**0.07**	0.00	**-0.04**	**-0.07**	**-0.10**
FreqMF	**0.05**	1.00	**0.48**	**0.48**	**-0.16**	**0.22**	-0.00	**-0.13**	**-0.25**	**0.07**
Institutional ownership	**0.14**	**0.48**	1.00	**0.69**	**-0.18**	**0.28**	**-0.11**	**-0.22**	**-0.24**	**0.05**
Firm size	**0.10**	**0.48**	**0.69**	1.00	**-0.38**	**0.32**	**-0.02**	**-0.23**	**-0.34**	**0.06**
Book-to-market	**-0.13**	**-0.16**	**-0.18**	**-0.38**	1.00	**0.06**	**-0.15**	**-0.11**	**0.10**	**-0.08**
ROA	**0.07**	**0.22**	**0.28**	**0.32**	**0.06**	1.00	**0.18**	**-0.59**	**-0.59**	**-0.29**
Stock return	0.00	-0.00	**-0.11**	**-0.02**	**-0.15**	**0.18**	1.00	**-0.05**	**-0.17**	**-0.09**
Earnings volatility	**-0.04**	**-0.13**	**-0.22**	**-0.23**	**-0.11**	**-0.59**	**-0.05**	1.00	**0.39**	**0.31**
Loss	**-0.07**	**-0.25**	**-0.24**	**-0.34**	**0.10**	**-0.59**	**-0.17**	**0.39**	1.00	**0.35**
Class action litigation risk	**-0.10**	**0.07**	**0.05**	**0.06**	**-0.08**	**-0.29**	**-0.09**	**0.31**	**0.35**	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 Standards for Publicly Traded Companies Audit Committees on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	0.0882*** (9.19)	0.0725*** (6.02)	0.0894*** (7.53)
Institutional ownership		0.8927*** (19.72)	0.1412** (2.36)
Firm size		0.0909*** (12.84)	0.1498*** (14.50)
Book-to-market		-0.0060 (0.62)	0.0136 (1.30)
ROA		0.1331*** (5.53)	0.0284 (1.17)
Stock return		0.0215*** (2.64)	-0.0188*** (2.68)
Earnings volatility		0.0863*** (3.27)	-0.0333 (0.86)
Loss		-0.2133*** (13.11)	-0.1055*** (7.88)
Class action litigation risk		0.2193*** (10.35)	0.0033 (0.21)
Time Trend		-0.0420*** (8.53)	-0.0398*** (7.83)
Firm fixed effects	No	No	Yes
N	21,237	21,237	21,237
R^2	0.0025	0.2903	0.8015

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