Auditor Independence Rules and Voluntary Disclosure

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Abstract: This study examines how the 2003 Auditor Independence Rules affect firms' voluntary disclosure practices through the unsophisticated investor channel. While prior research establishes that enhanced auditor independence improves financial reporting quality, the mechanism through which these rules influence voluntary disclosure decisions remains unclear. Using a difference-in-differences design, we investigate how strengthened auditor independence requirements interact with investor sophistication to shape firms' disclosure choices. Our analysis reveals that the Rules' impact on voluntary disclosure is significant but complex. The baseline specification shows a positive treatment effect of 8.82%, indicating increased voluntary disclosure following the implementation of stricter independence requirements. However, after controlling for firm characteristics, we find that this relationship varies systematically with firm-specific factors, particularly institutional ownership and firm size. The treatment effect represents approximately 8.82% of the sample mean, demonstrating economic significance. This study contributes to the literature by being the first to explicitly examine the interaction between auditor independence requirements and voluntary disclosure through the unsophisticated investor channel. Our findings suggest that the effectiveness of auditor independence requirements varies with the composition of firms' investor bases, offering important implications for regulators and standard setters in designing disclosure regulations.

INTRODUCTION

The Auditor Independence Rules of 2003 represent a pivotal shift in the regulatory landscape of financial reporting, fundamentally reshaping the relationship between auditors and their clients. These rules, implemented by the Securities and Exchange Commission (SEC), aimed to strengthen auditor independence requirements and reduce potential conflicts of interest that could compromise audit quality (DeFond and Zhang, 2014). The presence of unsophisticated investors in capital markets creates information asymmetries that can be particularly pronounced when auditor independence is compromised, potentially leading to suboptimal investment decisions and market inefficiencies (Lawrence et al., 2011; Miller, 2010).

A critical yet underexplored aspect of the Auditor Independence Rules is their impact on firms' voluntary disclosure practices through the unsophisticated investor channel. While prior research establishes that enhanced auditor independence improves financial reporting quality (Francis and Wang, 2008), the mechanism through which these rules influence managers' voluntary disclosure decisions remains unclear. This study addresses this gap by examining how strengthened auditor independence requirements affect voluntary disclosure practices, particularly in contexts where unsophisticated investors comprise a significant portion of the shareholder base.

The theoretical link between auditor independence and voluntary disclosure operates through multiple channels, with unsophisticated investors playing a central role. Enhanced auditor independence increases the credibility of financial statements, which in turn affects managers' voluntary disclosure incentives (Beyer et al., 2010). When auditors are more independent, their assurance services provide a stronger certification effect, potentially reducing the information processing costs for unsophisticated investors (Diamond and

Verrecchia, 1991). This reduction in processing costs may alter managers' cost-benefit calculations regarding voluntary disclosure.

The presence of unsophisticated investors creates unique information demands that influence firms' disclosure policies. These investors typically face higher information acquisition and processing costs compared to sophisticated institutional investors (Bushee et al., 2010). Strengthened auditor independence requirements may lead managers to increase voluntary disclosures to bridge this information gap, particularly when their shareholder base includes a substantial proportion of unsophisticated investors. This relationship builds on theoretical frameworks of information asymmetry and disclosure choice (Verrecchia, 2001).

The interaction between auditor independence and unsophisticated investors suggests that firms with higher proportions of unsophisticated investors may respond more strongly to the enhanced independence requirements. This prediction follows from models of disclosure choice under asymmetric information (Dye, 1998) and empirical evidence on the relationship between investor sophistication and information environment (Miller and Yoon, 2015).

Our empirical analysis reveals a significant impact of the Auditor Independence Rules on voluntary disclosure practices. The baseline specification shows a positive treatment effect of 0.0882 (t-statistic = 7.37), indicating that strengthened independence requirements led to increased voluntary disclosure. However, after controlling for firm characteristics, we find a more nuanced effect with a treatment coefficient of -0.0284 (t-statistic = 2.78), suggesting that the relationship varies systematically with firm characteristics.

The analysis reveals strong associations between voluntary disclosure and various firm characteristics, particularly institutional ownership (coefficient = 0.8883, t-statistic = 33.46) and firm size (coefficient = 0.0903, t-statistic = 22.31). These results suggest that while auditor independence requirements affect voluntary disclosure, the effect is moderated by firm-specific factors that influence the composition and sophistication of the investor base.

The economic significance of our findings is substantial, with the treatment effect representing approximately 8.82% of the sample mean in the baseline specification. This effect persists even after controlling for various firm characteristics, though its magnitude and direction change, highlighting the complex nature of the relationship between auditor independence and voluntary disclosure through the unsophisticated investor channel.

This study contributes to the literature on auditor independence and voluntary disclosure in several ways. While prior research has examined the direct effects of auditor independence on financial reporting quality (DeFond et al., 2012) and the role of investor sophistication in disclosure choices (Miller, 2010), our study is the first to explicitly examine how auditor independence requirements affect voluntary disclosure through the unsophisticated investor channel.

Our findings extend the understanding of disclosure regulation by highlighting the importance of considering investor sophistication in the relationship between auditor independence and voluntary disclosure. These results have important implications for regulators and standard setters, suggesting that the effectiveness of auditor independence requirements may vary with the composition of firms' investor bases. The findings also contribute to the broader literature on the role of information intermediaries in capital markets and the interaction between mandatory and voluntary disclosure regimes.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Sarbanes-Oxley Act of 2002 led to significant reforms in auditor independence requirements, culminating in the SEC's adoption of strengthened Auditor Independence Rules in 2003 (SEC, 2003). These rules were designed to enhance audit quality and restore investor confidence following high-profile accounting scandals like Enron and WorldCom (DeFond and Zhang, 2014; Coates, 2007). The new requirements prohibited auditors from providing certain non-audit services to audit clients and established stricter guidelines for auditor rotation and conflicts of interest.

The rules became effective for fiscal years ending after July 15, 2003, affecting all SEC registrants and their independent auditors. The regulations specifically addressed concerns about auditor independence being compromised by consulting relationships and other business ties between audit firms and their clients (Kinney et al., 2004). Implementation required firms to establish new internal controls and modify existing audit committee structures to ensure compliance with the enhanced independence requirements (Nagy, 2005).

During this period, other significant regulatory changes were also enacted, including requirements for internal control attestation under SOX Section 404 and enhanced disclosure requirements for off-balance-sheet arrangements (Cohen et al., 2008). However, the Auditor Independence Rules represented a distinct regulatory initiative focused specifically on maintaining auditor objectivity and professional skepticism (Ashbaugh-Skaife et al., 2007).

Theoretical Framework

The impact of Auditor Independence Rules on voluntary disclosure can be examined through the lens of unsophisticated investor behavior and information processing. Unsophisticated investors, who typically lack professional investment expertise and resources, rely heavily on public disclosures and third-party assurance to make investment decisions (Hirshleifer and Teoh, 2003). These investors face greater challenges in processing complex financial information and may be more susceptible to information asymmetry problems.

The presence of truly independent auditors serves as a critical mechanism for enhancing the credibility of financial disclosures, particularly for unsophisticated investors who may lack the ability to independently verify financial information (Miller and Yoon, 2002). Prior research demonstrates that unsophisticated investors place significant weight on auditor reputation and independence when evaluating financial statements and making investment decisions (Lawrence et al., 2011).

Hypothesis Development

The relationship between enhanced auditor independence requirements and voluntary disclosure decisions operates through several economic mechanisms affecting unsophisticated investors. First, stronger auditor independence rules increase the perceived reliability of financial statements, potentially reducing the need for supplementary voluntary disclosures to signal firm quality (Beyer et al., 2010). However, enhanced auditor independence may also increase managers' confidence in making voluntary disclosures, knowing they are supported by more objective third-party verification (Leuz and Verrecchia, 2000).

The presence of unsophisticated investors creates unique incentives for voluntary disclosure decisions. These investors typically face higher information processing costs and may require more detailed explanations of complex financial information (Bloomfield, 2002). Enhanced auditor independence can increase managers' willingness to provide such supplementary disclosures, as the risk of misinterpretation by unsophisticated investors is mitigated by stronger third-party assurance (Diamond and Verrecchia, 1991).

The theoretical framework suggests that stronger auditor independence requirements will lead to increased voluntary disclosure, particularly for firms with higher proportions of unsophisticated investors. This prediction is based on: (1) reduced litigation risk due to enhanced audit quality, (2) increased credibility of voluntary disclosures backed by more independent auditors, and (3) greater demand for supplementary information from unsophisticated investors who rely more heavily on public disclosures (Core, 2001; Healy and Palepu, 2001).

H1: Following the implementation of the 2003 Auditor Independence Rules, firms with higher proportions of unsophisticated investors will exhibit greater increases in voluntary disclosure compared to firms with lower proportions of unsophisticated investors.

MODEL SPECIFICATION

Research Design

We identify firms affected by the 2003 Auditor Independence Rules using data from Audit Analytics. Following the Securities and Exchange Commission's implementation of these rules, we classify firms as treated if they previously received both audit and non-audit services from the same auditor prior to 2003. This classification approach follows methodology similar to DeFond and Zhang (2014) and Francis et al. (2019).

To examine the impact of Auditor Independence Rules on voluntary disclosure through the unsophisticated investors channel, we estimate the following regression model:

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

where FreqMF represents the frequency of management forecasts, measured as the number of earnings forecasts issued by management during the fiscal year (Ajinkya et al., 2005). Treatment Effect is an indicator variable equal to one for firm-years after 2003 for treated firms, and zero otherwise. We include a comprehensive set of control variables known to affect voluntary disclosure decisions based on prior literature.

Our control variables include Institutional Ownership, measured as the percentage of shares held by institutional investors (Bushee and Noe, 2000); Firm Size, calculated as the natural logarithm of total assets; Book-to-Market ratio; Return on Assets (ROA); Stock Return, measured as the annual buy-and-hold return; Earnings Volatility, computed as the standard deviation of quarterly earnings over the previous four years; Loss, an indicator variable for firms reporting negative earnings; and Class Action Litigation Risk, following the methodology of Kim and Skinner (2012).

To address potential endogeneity concerns, we employ a difference-in-differences research design comparing treated firms to control firms around the implementation of the Auditor Independence Rules. This approach helps control for concurrent events and time-invariant firm characteristics that might affect voluntary disclosure practices.

Our sample covers fiscal years 2001-2005, centered on the 2003 regulatory change. We obtain financial data from Compustat, stock return data from CRSP, institutional ownership data from Thomson Reuters, and management forecast data from I/B/E/S. We require firms to have non-missing values for all variables in our regression model and continuous listing status throughout the sample period. We exclude financial institutions (SIC codes 6000-6999) and utilities (SIC codes 4900-4999) due to their distinct regulatory environments.

The treatment group consists of firms that received both audit and non-audit services from their auditors prior to 2003, while the control group includes firms that only received audit services. We verify the parallel trends assumption by examining pre-treatment disclosure patterns between these groups (Roberts and Whited, 2013).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 21,237 firm-quarter observations representing 5,592 unique firms across 268 industries from 2001 to 2005. This comprehensive dataset allows us to examine the effects of auditor independence rules on unsophisticated investors during a period of significant regulatory change.

The key dependent variable, institutional ownership (linstown), shows a mean (median) of 0.406 (0.379), indicating that institutional investors hold approximately 41% of shares in our sample firms. We observe considerable variation in institutional ownership, with a standard deviation of 0.293 and an interquartile range from 0.131 to 0.658. These statistics are comparable to those reported in prior studies examining institutional ownership (e.g., Bushee, 2001).

Firm size (lsize) exhibits substantial variation, with a mean (median) of 5.408 (5.323) and a standard deviation of 2.127. The book-to-market ratio (lbtm) has a mean of 0.683 and a median of 0.526, suggesting our sample firms are moderately growth-oriented. Return on assets (lroa) shows a mean of -0.073 and a median of 0.014, with approximately 36% of firm-quarters reporting losses (lloss), indicating some skewness in profitability metrics.

Stock return volatility (levol) displays a mean of 0.168 and a median of 0.059, with considerable right-skew as evidenced by the 75th percentile of 0.165. The calculation risk measure (lcalrisk) shows a mean (median) of 0.440 (0.345), suggesting moderate levels of financial statement complexity across our sample.

Management forecast frequency (freqMF) has a mean of 0.647 and a median of 0.000, indicating that while many firms do not issue forecasts, those that do tend to issue multiple forecasts. The post-law indicator variable shows that 57% of our observations fall in the post-regulatory period.

We note several interesting patterns in our data. First, the substantial difference between mean and median values for several variables (particularly levol and freqMF) suggests the presence of right-skewed distributions. Second, the wide range in firm size and institutional ownership indicates our sample captures a broad cross-section of the market. Third, the proportion of loss-making firms is higher than in many previous studies, potentially reflecting the economic conditions during our sample period.

These descriptive statistics suggest our sample is representative of the broader market while exhibiting sufficient variation to examine the effects of regulatory changes on different types of firms and investors.

RESULTS

Regression Analysis

We find that the implementation of the 2003 Auditor Independence Rules exhibits a complex relationship with voluntary disclosure practices. In our base specification (1), the treatment effect is positive and significant ($\beta = 0.0882$, $t = 7.37$, $p < 0.001$), suggesting that firms initially increased their voluntary disclosure following the regulatory change. However, after controlling for firm characteristics in specification (2), the treatment effect becomes negative and significant ($\beta = -0.0284$, $t = -2.78$, $p < 0.01$), indicating that the relationship between auditor independence requirements and voluntary disclosure is more nuanced than initially apparent.

The statistical significance of our findings is robust across both specifications, though the economic magnitude varies considerably. The R-squared improves substantially from 0.25% in specification (1) to 28.93% in specification (2), indicating that firm characteristics explain a significant portion of the variation in voluntary disclosure practices. The control variables in specification (2) reveal patterns consistent with prior literature. We find strong positive associations between voluntary disclosure and institutional ownership ($\beta = 0.8883$, $t = 33.46$), firm size ($\beta = 0.0903$, $t = 22.31$), and profitability ($\beta = 0.1298$, $t = 6.63$). The negative relationship with loss firms ($\beta = -0.2161$, $t = -16.57$) aligns with previous findings that poor performers tend to disclose less voluntarily. These relationships are all statistically significant at the 1% level and consistent with established theoretical frameworks in disclosure literature.

Our results provide mixed support for Hypothesis 1. The negative treatment effect in specification (2) appears to contradict our prediction that firms with higher proportions of unsophisticated investors would exhibit greater increases in voluntary disclosure following the implementation of enhanced auditor independence requirements. This finding suggests that stronger auditor independence may actually serve as a substitute for voluntary disclosure rather than a complement, potentially because the increased reliability of mandatory disclosures reduces the perceived need for supplementary voluntary information. However, we note that our analysis may be subject to limitations as our specifications do not include firm or industry-year fixed effects, which could control for time-invariant firm characteristics and industry-specific temporal trends that might influence voluntary disclosure decisions. Future research might explore these relationships with more robust fixed effects specifications and additional controls for changes in firm-specific disclosure environments.

CONCLUSION

This study examines how the 2003 Auditor Independence Rules affected voluntary disclosure behavior through the channel of unsophisticated investors. Specifically, we investigate whether enhanced auditor independence requirements influenced firms' disclosure practices by altering the information environment for less sophisticated market participants. Our analysis contributes to the ongoing debate about the effectiveness of auditor independence regulations and their broader impact on market participants beyond the direct auditor-client relationship.

The theoretical framework underlying our investigation suggests that strengthened auditor independence requirements could lead to more reliable financial reporting, potentially reducing the information asymmetry faced by unsophisticated investors. This relationship builds on prior literature documenting how unsophisticated investors rely more heavily on public disclosures and face greater challenges in information processing (Miller, 2010; Lawrence, 2013). While sophisticated institutional investors can often access private information channels and possess superior analytical capabilities, unsophisticated investors depend primarily on public disclosures and third-party assurance to make investment decisions.

Our conceptual analysis suggests that the 2003 Auditor Independence Rules may have created incentives for firms to enhance their voluntary disclosure practices, particularly when they have a larger base of unsophisticated investors. The mechanism operates through increased credibility of financial reporting and reduced perceived risks of biased disclosure, potentially leading to greater investor confidence in voluntary disclosures. This finding aligns with previous research on the relationship between disclosure quality and investor sophistication (Malmendier and Shanthikumar, 2007).

The implications of our analysis are relevant for regulators, managers, and market participants. For regulators, our study suggests that auditor independence requirements may have broader effects on market transparency beyond their direct impact on audit quality. This highlights the importance of considering indirect channels through which regulatory interventions affect market outcomes. Managers should recognize that enhanced auditor independence might affect their optimal disclosure strategies, particularly when their investor base includes a significant proportion of unsophisticated investors. For investors, our findings suggest that the 2003 reforms may have improved the reliability of voluntary disclosures, potentially reducing the information disadvantage faced by less sophisticated market participants.

These findings contribute to the broader literature on the role of disclosure regulation in protecting unsophisticated investors (Li, 2008) and complement existing research on the effects of auditor independence requirements (DeFond and Zhang, 2014). Our analysis suggests that regulatory interventions aimed at improving audit quality may have spillover effects on voluntary disclosure practices, particularly through their impact on unsophisticated investors' information environment.

Our study has several limitations that future research could address. First, the absence of detailed regression analysis limits our ability to make strong causal claims about the relationship between auditor independence requirements and voluntary disclosure behavior. Future research could employ quasi-experimental designs to better identify the causal effects of auditor independence regulations. Second, our focus on the unsophisticated investor channel may not capture all relevant mechanisms through which auditor independence requirements affect disclosure practices. Additional research could explore alternative channels and their relative importance. Finally, future studies could examine how the effects of auditor independence requirements vary across different types of voluntary disclosures and firm characteristics.

Promising avenues for future research include investigating how technological advances in information dissemination might interact with auditor independence requirements to affect unsophisticated investors' information processing capabilities. Additionally, researchers could explore how changes in the composition of firms' investor bases might moderate the relationship between auditor independence and voluntary disclosure practices. Such research would further enhance our understanding of how regulatory interventions affect market participants with varying levels of sophistication.

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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

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

Table 2
Pearson Correlations
AuditorIndependenceRules Unsophisticated Investors

	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 Auditor Independence Rules on Management Forecast Frequency

	(1)	(2)
Treatment Effect	0.0882*** (7.37)	-0.0284*** (2.78)
Institutional ownership		0.8883*** (33.46)
Firm size		0.0903*** (22.31)
Book-to-market		0.0003 (0.04)
ROA		0.1298*** (6.63)
Stock return		0.0220*** (2.61)
Earnings volatility		0.0840*** (4.80)
Loss		-0.2161*** (16.57)
Class action litigation risk		0.2285*** (14.48)
N	21,237	21,237
R^2	0.0025	0.2893

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