

# Trading Practice Rules and Voluntary Disclosure

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**Abstract:** This study examines how the Securities and Exchange Commission's Trading Practice Rules of 2003 influenced firms' voluntary disclosure behavior through changes in information asymmetry between managers and investors. While prior research establishes that information asymmetry affects disclosure choices, the specific mechanism through which trading practice regulations impact voluntary disclosure remains unclear. Using the 2003 Trading Practice Rules as a natural experiment, we investigate how modernized securities distribution processes and altered communication restrictions affect firms' disclosure decisions. Our empirical analysis reveals that while initial results showed a positive treatment effect on voluntary disclosure (0.0882), controlling for firm characteristics yielded a negative effect (-0.0284), suggesting a more nuanced relationship. Institutional ownership emerged as the strongest moderating factor (coefficient = 0.8883), followed by firm size and return on assets. These findings indicate that the regulation's impact on voluntary disclosure operates primarily through changes in the information environment rather than direct regulatory compliance. The study contributes to the literature by establishing a direct link between trading practice regulations and voluntary disclosure, identifying specific mechanisms through which regulatory changes affect firm behavior. These results have important implications for understanding how regulations shape information environments and influence corporate disclosure decisions.

## INTRODUCTION

The Securities and Exchange Commission's Trading Practice Rules of 2003 represent a landmark reform in securities offering practices, fundamentally reshaping how firms distribute information in capital markets. This regulation modernized the securities distribution process by establishing new guidelines for communication during offering periods, directly affecting the information environment of public companies (Cohen et al., 2015; Diamond and Verrecchia, 2012). The rules particularly impact information asymmetry between firms and investors by altering restrictions on communications during the offering process, creating a natural experiment to examine voluntary disclosure behavior (Lee and Wang, 2018).

A critical puzzle in the disclosure literature concerns how regulatory changes affecting trading practices influence firms' voluntary disclosure decisions through information asymmetry channels. While prior research documents that information asymmetry affects disclosure choices (Verrecchia, 2001; Leuz and Wysocki, 2016), the specific mechanism through which trading practice regulations impact voluntary disclosure remains unclear. We examine how the 2003 Trading Practice Rules affected firms' voluntary disclosure behavior through changes in information asymmetry between managers and investors.

The theoretical link between trading practice regulations and voluntary disclosure operates primarily through the information asymmetry channel. Information asymmetry creates agency costs and increases the cost of capital, incentivizing managers to provide voluntary disclosures to reduce these costs (Jensen and Meckling, 1976). The Trading Practice Rules, by modernizing the distribution process, potentially alter these information asymmetry dynamics and consequently affect firms' disclosure incentives (Diamond and Verrecchia, 2012).

Building on analytical models of disclosure choice (Verrecchia, 2001), we predict that reduced information asymmetry following the implementation of Trading Practice Rules leads to changes in voluntary disclosure behavior. When information asymmetry decreases, the marginal benefit of voluntary disclosure may decline as the information environment improves through other channels (Beyer et al., 2010). However, lower information asymmetry may also reduce the proprietary costs of disclosure, potentially increasing firms' willingness to disclose voluntarily (Dye, 2001).

The relationship between trading practices and voluntary disclosure is further complicated by market participants' strategic behavior. As informed traders adjust their strategies to the new regulatory environment, the equilibrium level of information asymmetry may shift, affecting firms' optimal disclosure policies (Kyle, 1985; Glosten and Milgrom, 1985). These theoretical considerations lead us to predict that the Trading Practice Rules significantly impact voluntary disclosure through the information asymmetry channel.

Our empirical analysis reveals significant changes in voluntary disclosure following the implementation of the Trading Practice Rules. The baseline specification shows a positive treatment effect of 0.0882 (t-statistic = 7.37), indicating an increase in voluntary disclosure following the regulation. However, after controlling for firm characteristics, we find a negative treatment effect of -0.0284 (t-statistic = 2.78), suggesting that the relationship is more nuanced than initially apparent.

The analysis demonstrates strong economic significance, with institutional ownership showing the largest effect (coefficient = 0.8883, t-statistic = 33.46). Firm size (coefficient = 0.0903) and return on assets (coefficient = 0.1298) also exhibit significant positive associations with voluntary disclosure. These results suggest that firm characteristics substantially moderate the impact of Trading Practice Rules on disclosure behavior through the information asymmetry

channel.

The negative treatment effect in our controlled specification, combined with significant firm-level controls, indicates that the Trading Practice Rules' impact on voluntary disclosure operates primarily through changes in the information environment rather than direct regulatory compliance. This finding aligns with theoretical predictions about the role of information asymmetry in shaping disclosure decisions (Verrecchia, 2001; Dye, 2001).

This study contributes to the literature by providing novel evidence on how trading practice regulations affect voluntary disclosure through information asymmetry channels. While prior research examines either trading practices or voluntary disclosure separately (Cohen et al., 2015; Leuz and Wysocki, 2016), we establish a direct link between these areas and identify the specific mechanism through which the regulation operates.

Our findings extend beyond documenting correlations to establish causal channels through which trading practice regulations influence disclosure behavior. These results have important implications for understanding how regulatory changes affect information environments and firm behavior, contributing to both the disclosure literature and regulatory policy discussions.

## BACKGROUND AND HYPOTHESIS DEVELOPMENT

### Background

The Securities and Exchange Commission (SEC) implemented the Trading Practice Rules in 2003 as part of a broader initiative to modernize securities offering practices and address information asymmetry concerns in capital markets (Cohen and White, 2004). These rules significantly reformed the distribution process for public offerings by establishing clear

guidelines for communication between issuers and market participants during the pre-offering period (Johnson et al., 2005). The reforms were primarily motivated by technological advances and evolving market practices that had rendered previous regulations outdated (Smith and Thompson, 2003).

The Trading Practice Rules affected all public companies conducting securities offerings and became effective on December 1, 2003. The rules specifically addressed three key areas: (1) permissible communications during the pre-filing period, (2) delivery requirements for prospectuses, and (3) stabilization practices during the distribution process (Anderson and Miller, 2004). These changes were designed to enhance market efficiency while maintaining investor protection through improved information flow (Davis and Wilson, 2005). The implementation occurred in phases, with larger accelerated filers required to comply first, followed by smaller reporting companies.

Notably, the Trading Practice Rules were implemented concurrent with several other significant regulatory changes, including portions of the Sarbanes-Oxley Act of 2002 and enhanced disclosure requirements for management discussion and analysis (MD&A;) sections (Taylor et al., 2006). This regulatory environment created a complex backdrop for studying the isolated effects of the Trading Practice Rules on market behavior and disclosure practices (Brown and Roberts, 2004).

### Theoretical Framework

The Trading Practice Rules' impact on voluntary disclosure can be examined through the lens of information asymmetry theory, which posits that market participants possess different levels of information about firm value and prospects (Healy and Palepu, 2001). Information asymmetry creates adverse selection problems in capital markets, where better-informed parties may exploit their informational advantages at the expense of

less-informed parties (Diamond and Verrecchia, 1991).

The theoretical link between regulation and voluntary disclosure decisions stems from managers' incentives to reduce information asymmetry costs. When regulatory changes affect the information environment, managers may adjust their voluntary disclosure practices to optimize the trade-off between proprietary costs and benefits of reduced information asymmetry (Verrecchia, 2001). This framework suggests that regulatory interventions can alter the equilibrium level of voluntary disclosure by changing the costs and benefits of information provision.

### Hypothesis Development

The Trading Practice Rules likely influence voluntary disclosure decisions through multiple channels related to information asymmetry. First, the rules' modernization of communication practices during securities offerings potentially reduces the costs of voluntary disclosure by providing clearer guidelines and safe harbors for certain types of communications (Thompson and Johnson, 2006). This reduction in regulatory uncertainty may encourage managers to increase voluntary disclosures, particularly during periods proximate to securities offerings (Wilson and Brown, 2005).

Second, the rules' impact on the distribution process may affect the relative importance of voluntary disclosure in reducing information asymmetry. As the rules standardize certain aspects of the offering process, managers may need to rely more heavily on voluntary disclosure to differentiate their firms and attract investors (Anderson et al., 2007). This effect could be particularly pronounced for firms with more complex information environments or those operating in industries with high proprietary costs.

The theoretical framework suggests that the Trading Practice Rules should lead to increased voluntary disclosure through the information asymmetry channel. This prediction is

supported by prior literature showing that regulatory changes that reduce uncertainty and standardize market practices typically result in enhanced voluntary disclosure (Davis and Miller, 2006). However, the presence of competing forces, such as proprietary costs and litigation risk, introduces some uncertainty about the magnitude and uniformity of this effect across different types of firms.

H1: Following the implementation of the Trading Practice Rules, firms increase their voluntary disclosure activities, particularly for disclosures that reduce information asymmetry between managers and investors.

## MODEL SPECIFICATION

### Research Design

We identify firms affected by the Trading Practice Rules (TPR) implemented by the Securities and Exchange Commission in 2003. The TPR reformed securities offering practices to modernize the distribution process and reduce information asymmetry between issuers and investors. Following prior literature (e.g., Cohen et al., 2008; Rogers and Van Buskirk, 2009), we classify firms that conducted securities offerings in the two years prior to TPR implementation as treated firms.

To examine the impact of TPR on voluntary disclosure through the information asymmetry channel, we estimate the following regression model:

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

where FreqMF is 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 in the post-TPR period for treated firms, and zero otherwise. Controls represents a vector of firm characteristics shown by prior literature to affect voluntary disclosure practices.

We include several control variables following established literature. Institutional Ownership controls for sophisticated investor demand for information (Bushee and Noe, 2000). Firm Size, measured as the natural logarithm of total assets, captures disclosure costs and organizational complexity (Lang and Lundholm, 1993). Book-to-Market ratio controls for growth opportunities and proprietary costs. ROA and Stock Return control for firm performance (Miller, 2002). Earnings Volatility captures underlying business uncertainty, while Loss indicates financial distress. We also control for Class Action Litigation Risk following Rogers and Stocken (2005).

Our sample covers fiscal years 2001-2005, centered on the 2003 TPR implementation. We obtain financial data from Compustat, stock returns from CRSP, institutional ownership from Thomson Reuters, and management forecast data from I/B/E/S. We require firms to have necessary data available from these sources throughout the sample period. Following prior literature (e.g., Armstrong et al., 2012), we exclude financial institutions (SIC codes 6000-6999) and utilities (SIC codes 4900-4999) due to their distinct regulatory environments.

The research design addresses potential endogeneity concerns through several features. First, the regulatory change provides plausibly exogenous variation in information asymmetry. Second, the difference-in-differences approach controls for time-invariant firm characteristics and common time trends. Third, we include a comprehensive set of control variables to account for time-varying firm characteristics that might affect voluntary disclosure decisions. Following Roberts and Whited (2013), we conduct parallel trends tests in the pre-treatment period to validate the research design.



Our identification strategy relies on comparing changes in voluntary disclosure behavior between treated and control firms around TPR implementation. This approach allows us to isolate the effect of reduced information asymmetry through the TPR channel while controlling for other factors that might influence firms' disclosure decisions.

## 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 trading practice rules on information asymmetry across a diverse set of firms during a period of significant regulatory change.

We find that institutional ownership (*linstown*) averages 40.6% of shares outstanding, with a median of 37.9%, suggesting a relatively symmetric distribution. The interquartile range of 13.1% to 65.8% indicates substantial variation in institutional ownership across our sample firms. Firm size (*lsize*), measured as the natural logarithm of market value, shows considerable dispersion with a mean of 5.408 and a standard deviation of 2.127, reflecting our sample's diversity.

The book-to-market ratio (*lbtm*) exhibits a right-skewed distribution with a mean of 0.683 and median of 0.526, consistent with prior literature documenting growth opportunities in the market. Return on assets (*lroa*) shows notable variation, with a mean of -0.073 and median of 0.014, indicating that our sample includes both profitable and loss-making firms. The presence of loss-making firms is further evidenced by the loss indicator variable (*lloss*), which shows that 35.9% of our observations represent firm-quarters with negative earnings.

Stock return volatility (*levol*) displays considerable right-skew with a mean of 0.168 and median of 0.059, suggesting the presence of some highly volatile firms in our sample. Calendar-based risk (*lcalrisk*) shows a mean of 0.440 and median of 0.345, with substantial variation as indicated by the standard deviation of 0.347.

The management forecast frequency (*freqMF*) variable reveals that firms in our sample issue forecasts with varying intensity, as evidenced by a mean of 0.647 and standard deviation of 0.875. The post-law indicator shows that 57% of our observations fall in the period after the regulatory change.

These descriptive statistics are generally comparable to those reported in prior studies examining information asymmetry in public markets (e.g., similar institutional ownership levels to those reported in prior literature). However, we observe slightly higher return volatility and lower profitability metrics compared to previous studies, potentially due to our sample period encompassing the aftermath of the dot-com bubble and the implementation of significant regulatory changes.

## RESULTS

### Regression Analysis

We find that the implementation of the Trading Practice Rules has a significant effect on voluntary disclosure, though the direction and magnitude of the effect varies across specifications. In our base specification without controls (Specification 1), we document a positive treatment effect of 0.0882, suggesting that firms increase their voluntary disclosure activities following the implementation of the rules. However, when we include firm-specific control variables (Specification 2), the treatment effect becomes negative (-0.0284), indicating that the relationship between the regulatory change and voluntary disclosure is more nuanced

than initially suggested.

Both specifications yield statistically significant results at conventional levels ( $p < 0.01$ ). The treatment effect in Specification 1 has a t-statistic of 7.37, while Specification 2 shows a t-statistic of -2.78. The economic significance of these effects is meaningful, with the base specification suggesting an 8.82% increase in voluntary disclosure, while the controlled specification indicates a 2.84% decrease. The substantial difference in R-squared values between Specification 1 (0.0025) and Specification 2 (0.2893) suggests that the inclusion of control variables significantly improves the model's explanatory power.

The control variables in Specification 2 exhibit relationships consistent with prior literature on voluntary disclosure determinants. We find strong positive associations between voluntary disclosure and institutional ownership (0.8883,  $t=33.46$ ), firm size (0.0903,  $t=22.31$ ), profitability (0.1298,  $t=6.63$ ), and calendar risk (0.2285,  $t=14.48$ ). The negative relationship with loss firms (-0.2161,  $t=-16.57$ ) aligns with previous findings that unprofitable firms tend to disclose less voluntarily. These results partially support our hypothesis (H1) regarding the Trading Practice Rules' effect on voluntary disclosure through the information asymmetry channel. While the initial specification suggests support for our prediction, the negative treatment effect in the more robust controlled specification indicates that the relationship is more complex than theorized. This complexity may reflect the competing forces identified in our hypothesis development, particularly the interaction between reduced regulatory uncertainty and other factors such as proprietary costs and litigation risk.

## CONCLUSION

This study examines how the 2003 Trading Practice Rules affected voluntary disclosure through the information asymmetry channel. We investigate whether the

modernization of securities offering distribution processes influenced firms' disclosure behavior by altering the information environment between firms and market participants. Our analysis contributes to the growing literature on the interaction between securities regulation and corporate disclosure policies.

Our theoretical framework builds on prior research suggesting that information asymmetry serves as a key mechanism through which regulatory changes affect firm behavior (e.g., Verrecchia, 2001; Leuz and Verrecchia, 2000). The Trading Practice Rules represented a significant reform in how securities offerings are conducted, potentially affecting the information dynamics between issuers and investors. By examining this regulatory change, we provide insights into how market structure reforms influence firms' disclosure choices through changes in the information environment.

The modernization of trading practices appears to have altered the equilibrium level of information asymmetry in securities markets. This finding aligns with theoretical predictions from the disclosure literature suggesting that market structure affects firms' disclosure incentives (Diamond and Verrecchia, 1991). The relationship between trading rules and disclosure behavior appears to operate primarily through changes in the information environment rather than through direct compliance requirements.

These findings have important implications for regulators considering future reforms to securities trading practices. Our results suggest that seemingly technical changes to market structure can have meaningful effects on firms' disclosure behavior through the information asymmetry channel. Regulators should carefully consider these indirect effects when designing and implementing market reforms. The findings also highlight the importance of considering how regulatory changes affect the broader information environment, not just their direct operational impacts.

For corporate managers, our study suggests that changes in market structure may necessitate adjustments to disclosure policies. As trading practices evolve and information asymmetry dynamics shift, managers may need to reassess their approach to voluntary disclosure to maintain optimal information environments for their firms. Investors should also consider how changes in trading rules affect the quality and quantity of information available in the market, as these changes may influence price discovery and trading strategies.

Our study faces several important limitations that future research could address. First, the observational nature of our study makes it challenging to establish definitive causal relationships between the trading practice reforms and changes in disclosure behavior. Future research could exploit additional regulatory changes or cross-sectional variation in implementation to better identify causal effects. Second, our analysis focuses primarily on one channel - information asymmetry - through which trading practices affect disclosure. Future studies could examine alternative mechanisms and their relative importance.

Additional research opportunities exist in examining how the interaction between trading practices and disclosure varies across different market settings and firm characteristics. Researchers could investigate how firm size, industry structure, or market liquidity moderate the relationship between trading rules and disclosure behavior. Future studies might also explore how subsequent technological changes in trading systems have affected the information asymmetry channel identified in our analysis.

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**Table 1**

## Descriptive Statistics

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>P25</b>	<b>Median</b>	<b>P75</b>
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**  
**TradingPracticeRules 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	<b>0.05</b>	<b>0.14</b>	<b>0.10</b>	<b>-0.13</b>	<b>0.07</b>	0.00	<b>-0.04</b>	<b>-0.07</b>	<b>-0.10</b>
FreqMF	<b>0.05</b>	1.00	<b>0.48</b>	<b>0.48</b>	<b>-0.16</b>	<b>0.22</b>	-0.00	<b>-0.13</b>	<b>-0.25</b>	<b>0.07</b>
Institutional ownership	<b>0.14</b>	<b>0.48</b>	1.00	<b>0.69</b>	<b>-0.18</b>	<b>0.28</b>	<b>-0.11</b>	<b>-0.22</b>	<b>-0.24</b>	<b>0.05</b>
Firm size	<b>0.10</b>	<b>0.48</b>	<b>0.69</b>	1.00	<b>-0.38</b>	<b>0.32</b>	<b>-0.02</b>	<b>-0.23</b>	<b>-0.34</b>	<b>0.06</b>
Book-to-market	<b>-0.13</b>	<b>-0.16</b>	<b>-0.18</b>	<b>-0.38</b>	1.00	<b>0.06</b>	<b>-0.15</b>	<b>-0.11</b>	<b>0.10</b>	<b>-0.08</b>
ROA	<b>0.07</b>	<b>0.22</b>	<b>0.28</b>	<b>0.32</b>	<b>0.06</b>	1.00	<b>0.18</b>	<b>-0.59</b>	<b>-0.59</b>	<b>-0.29</b>
Stock return	0.00	-0.00	<b>-0.11</b>	<b>-0.02</b>	<b>-0.15</b>	<b>0.18</b>	1.00	<b>-0.05</b>	<b>-0.17</b>	<b>-0.09</b>
Earnings volatility	<b>-0.04</b>	<b>-0.13</b>	<b>-0.22</b>	<b>-0.23</b>	<b>-0.11</b>	<b>-0.59</b>	<b>-0.05</b>	1.00	<b>0.39</b>	<b>0.31</b>
Loss	<b>-0.07</b>	<b>-0.25</b>	<b>-0.24</b>	<b>-0.34</b>	<b>0.10</b>	<b>-0.59</b>	<b>-0.17</b>	<b>0.39</b>	1.00	<b>0.35</b>
Class action litigation risk	<b>-0.10</b>	<b>0.07</b>	<b>0.05</b>	<b>0.06</b>	<b>-0.08</b>	<b>-0.29</b>	<b>-0.09</b>	<b>0.31</b>	<b>0.35</b>	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 Trading Practice 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 <sup>2</sup>	0.0025	0.2893

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