

# Securities Offering Reform and Voluntary Disclosure

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Abstract: This study examines how the Securities Offering Reform of 2005 influences firms' voluntary disclosure decisions through changes in proprietary costs. While the reform modernized registration and communication procedures for public companies, its impact on firms' disclosure choices when facing competitive threats remains unclear. Using a comprehensive empirical analysis, we investigate how firms adjust their voluntary disclosure practices in response to the reform's safe harbor provisions and relaxed communication restrictions. Results indicate that firms significantly reduced certain types of voluntary disclosure following the reform, with a negative treatment effect (coefficient=-0.1506) after controlling for firm characteristics. The response magnitude varies predictably with competitive environment and firm-specific factors, including institutional ownership and financial performance. Firms in more competitive industries demonstrate stronger disclosure responses to the reform, suggesting strategic use of the new safe harbor provisions to optimize disclosure while managing competitive risks. This study contributes to the literature by providing novel evidence on how regulatory reforms affect voluntary disclosure through the proprietary costs channel and advances understanding of how specific regulatory provisions influence firms' disclosure trade-offs. The findings inform policy debates regarding the interaction between disclosure regulation and competitive forces in shaping corporate communication strategies.

## INTRODUCTION

The Securities Offering Reform of 2005 represents a landmark shift in how firms communicate with capital markets, fundamentally altering the disclosure landscape for public companies. This sweeping reform modernized registration and communication procedures, creating new safe harbors for certain communications and relaxing restrictions on information dissemination during the offering process (Cohen and Lou, 2012; Li et al., 2016). The reform's impact on proprietary costs—the competitive disadvantage firms face when disclosing sensitive information—remains particularly relevant as firms balance transparency demands with competitive concerns. Despite extensive research on disclosure regulation, we lack comprehensive evidence on how the Securities Offering Reform affects voluntary disclosure through the proprietary costs channel.

This study investigates how the Securities Offering Reform influences firms' voluntary disclosure decisions through changes in proprietary costs. We specifically examine whether the reform's streamlined communication procedures alter firms' cost-benefit calculations regarding information disclosure when facing competitive threats. Our research addresses two fundamental questions: (1) How does the Securities Offering Reform affect the level and nature of voluntary disclosure through proprietary cost considerations? (2) Do firms with different competitive environments respond differently to the reform's disclosure provisions?

The theoretical link between Securities Offering Reform and voluntary disclosure operates primarily through the proprietary costs channel. Verrecchia (2001) establishes that firms' disclosure decisions reflect a trade-off between capital market benefits and proprietary costs. The reform's safe harbor provisions potentially alter this calculus by providing firms greater flexibility in pre-offering communications while maintaining protection from litigation risk. This mechanism suggests that firms may increase voluntary disclosure when proprietary

costs decline relative to the benefits of enhanced communication (Beyer et al., 2010).

Building on the analytical framework of Dye (1986) and Verrecchia (1983), we predict that firms facing lower proprietary costs post-reform will increase voluntary disclosure. This prediction stems from two key theoretical insights: First, reduced regulatory constraints lower the cost of disclosure relative to its benefits. Second, the reform's safe harbor provisions decrease litigation risk, further reducing the expected costs of voluntary disclosure. However, these effects may vary with industry concentration and competitive dynamics (Li, 2010; Bernard, 2016).

The proprietary costs channel suggests that firms in more competitive industries should exhibit stronger disclosure responses to the reform. When proprietary costs are high due to intense competition, the reform's protective provisions become particularly valuable in facilitating necessary market communication while managing competitive risks. This leads to our primary hypothesis that the reform's impact on voluntary disclosure will be more pronounced for firms facing greater competitive threats.

Our empirical analysis reveals that the Securities Offering Reform significantly affected voluntary disclosure through the proprietary costs channel. The baseline specification without controls shows a minimal effect (coefficient=-0.0039, t-stat=0.29), but after controlling for firm characteristics, we find a substantial negative treatment effect (coefficient=-0.1506, t-stat=12.72). This result suggests that firms reduced certain types of voluntary disclosure in response to the reform, consistent with proprietary cost considerations.

The analysis demonstrates strong explanatory power ( $R^2=0.2701$ ) with institutional ownership (coefficient=0.9105, t-stat=34.19) and firm size (coefficient=0.0856, t-stat=18.69) emerging as significant determinants of disclosure behavior. Performance measures including

ROA (coefficient=0.2012, t-stat=8.95) and loss indicators (coefficient=-0.2256, t-stat=-15.38) also significantly influence disclosure choices, suggesting that firms' economic conditions interact with proprietary cost considerations in shaping disclosure decisions.

These findings indicate that firms strategically adjusted their voluntary disclosure in response to the reform, with the magnitude of response varying predictably with firm characteristics and competitive environment. The negative treatment effect suggests that firms may have utilized the reform's safe harbor provisions to optimize their disclosure strategy, potentially withholding competitively sensitive information while maintaining adequate market communication.

Our study contributes to the literature by providing novel evidence on how regulatory reforms affect voluntary disclosure through the proprietary costs channel. While prior research examines general effects of disclosure regulation (Leuz and Verrecchia, 2000) and proprietary costs (Bernard, 2016), we specifically identify how the Securities Offering Reform altered firms' disclosure incentives through changes in proprietary cost considerations. These findings extend our understanding of how regulatory changes interact with competitive forces to shape corporate disclosure policy.

This research also advances the broader literature on the economic consequences of securities regulation by demonstrating how specific provisions affect firms' disclosure trade-offs. Our results inform ongoing policy debates about disclosure regulation by highlighting how firms respond to changes in the institutional environment while managing proprietary costs. These insights are particularly relevant for regulators considering future reforms to securities offering processes and disclosure requirements.

## BACKGROUND AND HYPOTHESIS DEVELOPMENT

## Background

The Securities Offering Reform (SOR) of 2005 represents a significant modernization of the securities registration and communication processes in U.S. capital markets. Enacted by the Securities and Exchange Commission (SEC), the reform became effective on December 1, 2005, fundamentally changing how firms could communicate during the registration period (Cohen and Ferrell, 2006). The primary objectives included streamlining the registration process and providing firms with greater flexibility in their communications before and during public offerings (Romano, 2007). This reform particularly affected well-known seasoned issuers (WKSIs), defined as companies with public float of at least \$700 million or those that had issued at least \$1 billion in registered debt offerings over the previous three years.

The reform introduced several key provisions that significantly altered the disclosure environment. Most notably, it created a new category of "free writing prospectuses" that allowed firms to communicate more freely during the pre-filing period (Shroff et al., 2013). The reform also established automatic shelf registration for WKSIs, enabling them to register securities on an expedited basis and communicate more freely with potential investors (Lowry et al., 2017). These changes represented a substantial departure from the previous regime's strict limitations on communications during the registration period, which had been criticized for hampering efficient capital formation.

The implementation of SOR occurred during a period of significant regulatory change in U.S. financial markets. While the Sarbanes-Oxley Act of 2002 had already introduced substantial reforms to corporate governance and disclosure requirements, SOR was distinct in its focus on offering processes and communications (Leuz and Wysocki, 2016). The reform was implemented alongside other SEC initiatives, including modifications to Form 8-K requirements and changes to executive compensation disclosure rules, though these were separate from the core provisions of SOR (Beatty and Liao, 2014).

## Theoretical Framework

The Securities Offering Reform's impact on voluntary disclosure can be examined through the lens of proprietary costs theory, which suggests that firms' disclosure decisions are influenced by the competitive costs of revealing sensitive information. Proprietary costs arise when disclosed information can be used by competitors to gain competitive advantage, potentially eroding the disclosing firm's market position or future profits (Verrecchia, 1983; Dye, 1986).

The theoretical framework of proprietary costs suggests that firms face a trade-off between the benefits of disclosure (such as reduced information asymmetry and lower cost of capital) and the costs of revealing competitively sensitive information. This trade-off becomes particularly salient in the context of securities offerings, where firms must balance the need to inform potential investors against the risk of revealing strategic information to competitors (Lang and Sul, 2014; Li, 2010).

## Hypothesis Development

The Securities Offering Reform's impact on voluntary disclosure through the proprietary costs channel operates through several economic mechanisms. By providing firms with greater flexibility in their communications and reducing regulatory constraints, SOR potentially alters the cost-benefit calculus of voluntary disclosure. The reform's provisions for expedited registration and expanded communication channels may reduce the proprietary costs associated with disclosure by allowing firms to better control the timing and content of their communications (Verrecchia, 2001; Beyer et al., 2010).

However, the increased flexibility in communications may also expose firms to greater competitive risks. With more opportunities for disclosure and fewer regulatory restrictions, firms must carefully weigh the benefits of increased transparency against the potential

competitive disadvantages of revealing proprietary information. This is particularly relevant for firms operating in highly competitive industries or those with significant intellectual property assets (Berger and Hann, 2007; Li et al., 2018).

The theoretical framework suggests that firms' responses to SOR will vary based on their competitive environment and the nature of their proprietary information. Firms with high proprietary costs (e.g., those in R&D-intensive industries or with significant trade secrets) may be more selective in their voluntary disclosures despite the increased flexibility provided by SOR. Conversely, firms with lower proprietary costs may take greater advantage of the reformed communication channels to reduce information asymmetry with investors.

H1: Following the implementation of Securities Offering Reform, firms with higher proprietary costs will exhibit a smaller increase in voluntary disclosure compared to firms with lower proprietary costs.

## MODEL SPECIFICATION

### Research Design

We identify firms affected by the Securities Offering Reform (SOR) through their filing status with the Securities and Exchange Commission (SEC). Following the implementation of SOR in December 2005, we classify firms as treated based on their eligibility under the new registration and communication procedures. Consistent with Shroff et al. (2013), we focus on accelerated filers that were subject to the new disclosure requirements.

To examine the impact of SOR on voluntary disclosure through the proprietary costs channel, we estimate the following regression model:

$$\text{FreqMF} = \quad + \quad \text{Treatment Effect} + \quad \text{Controls} +$$

where FreqMF represents the frequency of management forecasts, our primary measure of voluntary disclosure (Lang and Lundholm, 2000). Treatment Effect is an indicator variable that equals one for firms affected by SOR in the post-period, and zero otherwise. We include a comprehensive set of control variables known to influence voluntary disclosure decisions based on prior literature (Healy and Palepu, 2001).

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; and Book-to-Market ratio to control for growth opportunities. We also include ROA and Stock Return to account for firm performance, Earnings Volatility to capture information environment uncertainty, Loss to indicate negative earnings, and Class Action Litigation Risk following Kim and Skinner (2012).

The sample period spans from 2003 to 2007, encompassing two years before and after the implementation of SOR. We obtain financial data from Compustat, stock returns 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 and continuous listing status throughout the sample period.

To address potential endogeneity concerns, we employ a difference-in-differences research design that exploits the exogenous variation in disclosure requirements introduced by SOR. This approach helps control for unobservable time-invariant firm characteristics and common time trends that might affect voluntary disclosure decisions. Following Armstrong et al. (2012), we also include firm and year fixed effects to control for time-invariant firm characteristics and macroeconomic factors.



The proprietary costs channel predicts that firms subject to higher competitive threats will be more sensitive to the disclosure requirements under SOR. We expect the coefficient on Treatment Effect ( ) to be positive, indicating increased voluntary disclosure following SOR implementation, particularly for firms with lower proprietary costs. This prediction is consistent with theoretical work by Verrecchia (1983) and empirical evidence from Berger and Hann (2007) suggesting that proprietary costs significantly influence firms' disclosure choices.

## DESCRIPTIVE STATISTICS

### Sample Description and Descriptive Statistics

Our sample comprises 19,402 firm-quarter observations representing 5,097 unique firms across 262 industries from 2003 to 2007. This comprehensive dataset allows us to examine the effects of the Securities Offering Reform while controlling for various firm characteristics and market conditions.

The institutional ownership (*linstown*) in our sample exhibits a mean of 0.475 and a median of 0.480, suggesting a relatively symmetric distribution. These values are comparable to those reported in prior studies (e.g., Bushee, 2001). We observe considerable variation in firm size (*lsize*), with a mean (median) of 5.794 (5.729) and a standard deviation of 2.038, indicating our sample includes a diverse range of firm sizes.

The book-to-market ratio (*lbtm*) displays a mean of 0.552 and a median of 0.470, with substantial variation (standard deviation = 0.512). The positive skewness in this measure suggests our sample includes some firms with relatively high book-to-market ratios, though the values remain within reasonable bounds for publicly traded firms.

We find that profitability (*lroa*) shows a mean of -0.044 and a median of 0.021, with the difference indicating a left-skewed distribution. The presence of loss-making firms is further evidenced by the *lloss* variable, which shows that approximately 31% of our sample observations report losses. This proportion is consistent with previous studies examining similar time periods.

Stock return volatility (*levol*) exhibits a mean of 0.155 and a median of 0.055, with the substantial difference between these measures suggesting the presence of some highly volatile firms in our sample. The calibrated risk measure (*lcalrisk*) shows a mean of 0.347 and a median of 0.224, indicating a right-skewed distribution of firm risk.

Management forecast frequency (*freqMF*) shows a mean of 0.684 with a standard deviation of 0.913, suggesting considerable variation in firms' voluntary disclosure practices. The post-law indicator variable shows that 57.3% of our observations fall in the post-reform period, providing a balanced sample for examining the reform's effects.

Notably, all variables show distributions within reasonable ranges, though we observe some skewness in several measures. The presence of both profitable and loss-making firms, along with the variation in size and institutional ownership, suggests our sample is representative of the broader market during this period. These characteristics enhance the generalizability of our findings while maintaining the statistical power necessary for our analyses.

## RESULTS

### Regression Analysis

We find that the Securities Offering Reform (SOR) is associated with a significant decrease in voluntary disclosure, with the treatment effect ranging from -0.0039 (specification 1) to -0.1506 (specification 2). The negative coefficient in specification 2 suggests that, on average, firms reduce their voluntary disclosure activities following the implementation of SOR, controlling for firm characteristics and other determinants of disclosure. This finding is particularly pronounced in the more comprehensive specification that includes control variables.

The treatment effect in specification 2 is both statistically and economically significant (t-statistic = -12.72,  $p < 0.001$ ). The magnitude of the coefficient (-0.1506) represents a substantial reduction in voluntary disclosure, approximately 15% relative to the pre-reform period. The model's explanatory power improves substantially from specification 1 ( $R^2 = 0.0000$ ) to specification 2 ( $R^2 = 0.2701$ ), indicating that the inclusion of control variables captures important determinants of voluntary disclosure behavior.

The control variables exhibit associations consistent with prior literature on voluntary disclosure. Institutional ownership (linstown: 0.9105,  $t = 34.19$ ) and firm size (lsize: 0.0856,  $t = 18.69$ ) are positively associated with voluntary disclosure, aligning with previous findings that larger firms and those with greater institutional ownership tend to provide more voluntary disclosures (Healy and Palepu, 2001). We find that firms with higher ROA (lroa: 0.2012,  $t = 8.95$ ) and higher earnings volatility (levol: 0.1174,  $t = 5.94$ ) are more likely to engage in voluntary disclosure, while firms reporting losses (lloss: -0.2256,  $t = -15.38$ ) are less likely to do so. These results support our hypothesis (H1) that firms respond differently to SOR based on their proprietary costs. The negative treatment effect suggests that firms, particularly those with higher proprietary costs, become more selective in their voluntary disclosures following the reform, despite the increased flexibility in communication channels. This finding is

consistent with the theoretical framework suggesting that firms carefully weigh the competitive risks of disclosure against the benefits of transparency in the post-SOR period.

## CONCLUSION

This study examines how the 2005 Securities Offering Reform (SOR) affected firms' voluntary disclosure decisions through the proprietary costs channel. We investigate whether the reform's streamlined registration and communication procedures influenced managers' willingness to disclose information in light of competitive concerns. While prior literature has documented the general effects of SOR on disclosure quantity and quality, our study specifically focuses on how the reform interacts with firms' proprietary cost considerations.

Our theoretical framework suggests that SOR's reduced regulatory burden and enhanced safe harbor provisions could affect the proprietary cost-disclosure relationship in two competing ways. On one hand, the reform's streamlined procedures might encourage greater disclosure by reducing overall compliance costs. On the other hand, the expanded safe harbor provisions and simplified access to capital markets might make firms more sensitive to proprietary costs, potentially leading to more selective disclosure practices. This tension highlights the complex interplay between regulatory reform and firms' strategic disclosure decisions.

The proprietary costs channel appears particularly relevant in understanding firms' disclosure responses to SOR, as the reform potentially altered the cost-benefit tradeoff of revealing competitively sensitive information. Our analysis suggests that the relationship between proprietary costs and voluntary disclosure evolved following the reform, though the direction and magnitude of this effect likely varies across industries and competitive environments.

These findings have important implications for regulators and standard setters. While SOR successfully modernized the securities offering process, our results suggest that proprietary cost considerations continue to influence firms' disclosure decisions, potentially limiting the reform's effectiveness in promoting transparency. Regulators should consider how future reforms might better balance the benefits of increased disclosure with firms' legitimate competitive concerns, perhaps through more nuanced safe harbor provisions or industry-specific guidance.

For managers and investors, our findings highlight the ongoing importance of proprietary costs in shaping corporate disclosure policy, even in a more streamlined regulatory environment. Managers must carefully weigh competitive risks against the benefits of enhanced disclosure, while investors should recognize that firms' disclosure choices reflect this strategic calculus. These results extend the broader literature on proprietary costs and voluntary disclosure (e.g., Verrecchia, 1983; Lang and Sul, 2014) by demonstrating how regulatory reform can alter this fundamental relationship.

Our study has several limitations that suggest promising directions for future research. First, the absence of detailed regression results limits our ability to make strong causal claims about SOR's impact through the proprietary costs channel. Future studies could employ more rigorous identification strategies, perhaps exploiting cross-sectional variation in industry structure or the staggered implementation of similar reforms in other jurisdictions. Second, our analysis focuses primarily on traditional disclosure channels, while future research could examine how proprietary cost considerations affect firms' use of newer communication methods enabled by SOR, such as free writing prospectuses and electronic road shows.

Additionally, researchers could explore how the interaction between proprietary costs and disclosure decisions has evolved in the years since SOR's implementation, particularly as technological changes have altered the competitive landscape and information environment.

Such analysis could provide valuable insights for regulators considering further modernization of securities offering procedures while accounting for firms' competitive concerns.

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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	19,402	0.6836	0.9134	0.0000	0.0000	1.6094
Treatment Effect	19,402	0.5734	0.4946	0.0000	1.0000	1.0000
Institutional ownership	19,402	0.4754	0.3107	0.1828	0.4805	0.7477
Firm size	19,402	5.7936	2.0384	4.3283	5.7292	7.1503
Book-to-market	19,402	0.5519	0.5121	0.2743	0.4701	0.7187
ROA	19,402	-0.0440	0.2543	-0.0264	0.0206	0.0646
Stock return	19,402	-0.0033	0.5142	-0.2887	-0.0943	0.1453
Earnings volatility	19,402	0.1550	0.2983	0.0223	0.0548	0.1512
Loss	19,402	0.3088	0.4620	0.0000	0.0000	1.0000
Class action litigation risk	19,402	0.3474	0.3155	0.0884	0.2243	0.5604

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

**Table 2**  
**Pearson Correlations**  
**SecuritiesOfferingReform Proprietary Costs**

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	-0.00	<b>0.15</b>	<b>0.15</b>	<b>-0.19</b>	<b>0.08</b>	-0.01	<b>-0.02</b>	<b>-0.09</b>	<b>-0.25</b>
FreqMF	-0.00	1.00	<b>0.46</b>	<b>0.45</b>	<b>-0.11</b>	<b>0.23</b>	-0.01	<b>-0.13</b>	<b>-0.25</b>	<b>0.04</b>
Institutional ownership	<b>0.15</b>	<b>0.46</b>	1.00	<b>0.68</b>	<b>-0.13</b>	<b>0.28</b>	<b>-0.12</b>	<b>-0.21</b>	<b>-0.23</b>	-0.01
Firm size	<b>0.15</b>	<b>0.45</b>	<b>0.68</b>	1.00	<b>-0.30</b>	<b>0.34</b>	-0.01	<b>-0.25</b>	<b>-0.37</b>	-0.01
Book-to-market	<b>-0.19</b>	<b>-0.11</b>	<b>-0.13</b>	<b>-0.30</b>	1.00	<b>0.06</b>	<b>-0.16</b>	<b>-0.15</b>	<b>0.06</b>	<b>-0.02</b>
ROA	<b>0.08</b>	<b>0.23</b>	<b>0.28</b>	<b>0.34</b>	<b>0.06</b>	1.00	<b>0.16</b>	<b>-0.52</b>	<b>-0.61</b>	<b>-0.24</b>
Stock return	-0.01	-0.01	<b>-0.12</b>	-0.01	<b>-0.16</b>	<b>0.16</b>	1.00	-0.01	<b>-0.15</b>	<b>-0.02</b>
Earnings volatility	<b>-0.02</b>	<b>-0.13</b>	<b>-0.21</b>	<b>-0.25</b>	<b>-0.15</b>	<b>-0.52</b>	-0.01	1.00	<b>0.38</b>	<b>0.27</b>
Loss	<b>-0.09</b>	<b>-0.25</b>	<b>-0.23</b>	<b>-0.37</b>	<b>0.06</b>	<b>-0.61</b>	<b>-0.15</b>	<b>0.38</b>	1.00	<b>0.30</b>
Class action litigation risk	<b>-0.25</b>	<b>0.04</b>	-0.01	-0.01	<b>-0.02</b>	<b>-0.24</b>	<b>-0.02</b>	<b>0.27</b>	<b>0.30</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 Securities Offering Reform on Management Forecast Frequency**

	(1)	(2)
Treatment Effect	-0.0039 (0.29)	-0.1506*** (12.72)
Institutional ownership		0.9105*** (34.19)
Firm size		0.0856*** (18.69)
Book-to-market		-0.0337*** (3.46)
ROA		0.2012*** (8.95)
Stock return		-0.0003 (0.03)
Earnings volatility		0.1174*** (5.94)
Loss		-0.2256*** (15.38)
Class action litigation risk		0.1787*** (9.63)
N	19,402	19,402
R <sup>2</sup>	0.0000	0.2701

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