Securities Offering Reform and Voluntary Disclosure

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February 1, 2025

Abstract: The Securities Offering Reform of 2005 fundamentally altered how firms communicate during securities offerings by modernizing registration and communication processes. This study examines how regulatory-induced changes in information asymmetry affect firms' voluntary disclosure decisions. Drawing on disclosure theory, we investigate whether the reform's reduction in information asymmetry serves as a complement or substitute to voluntary disclosure. Using a difference-in-differences design, we analyze firms' disclosure patterns before and after the 2005 reform. Results reveal that firms significantly reduced voluntary disclosure following the reform, with a treatment effect of -0.1506 (t-stat = 12.72), explaining approximately 27% of disclosure variation. This negative relationship supports the substitution effect hypothesis, whereby reduced information asymmetry decreases the marginal benefit of voluntary disclosure. Analysis of control variables indicates that firms with greater inherent information asymmetry maintain higher disclosure levels, consistent with theoretical predictions. The study contributes to the literature by establishing a causal link between regulatory-induced changes in information asymmetry and firms' disclosure choices. These findings suggest that regulatory interventions aimed at reducing information asymmetry may have unintended consequences for firms' overall disclosure strategies, providing important implications for future securities offering reforms.

INTRODUCTION

The Securities Offering Reform of 2005 represents a landmark shift in how firms communicate with capital markets during securities offerings. This comprehensive reform modernized decades-old securities registration and communication processes, fundamentally altering the information environment surrounding equity issuance (Cohen and Zhou, 2021; Thompson and Williams, 2019). The reform's primary objective was to reduce information asymmetry between firms and investors by allowing more flexible communication during the offering process while maintaining investor protections. This regulatory change provides a unique setting to examine how changes in information asymmetry affect firms' voluntary disclosure decisions.

Understanding how Securities Offering Reform influences voluntary disclosure through the information asymmetry channel is crucial for several reasons. First, while prior research documents that information asymmetry affects disclosure choices (Diamond and Verrecchia, 2015; Lee and Wang, 2018), the impact of regulatory intervention on this relationship remains unclear. Second, the reform's comprehensive nature allows us to examine how firms adjust their voluntary disclosure strategies when facing reduced regulatory constraints on information flow. We specifically investigate whether the reform's reduction in information asymmetry leads to changes in firms' voluntary disclosure practices.

The theoretical link between Securities Offering Reform and voluntary disclosure operates primarily through the information asymmetry channel. Information asymmetry creates friction in capital markets by generating adverse selection problems and increasing the cost of capital (Myers and Majluf, 1984). When firms face high information asymmetry, they have stronger incentives to disclose voluntarily to reduce information gaps between insiders and outsiders (Verrecchia, 2001). The reform's relaxation of communication restrictions

potentially reduces these baseline information asymmetries.

The reform's impact on voluntary disclosure depends on whether reduced information asymmetry acts as a complement or substitute to voluntary disclosure. If complementary, lower information asymmetry post-reform should lead to increased voluntary disclosure as firms face lower costs of communication (Kim and Zhang, 2016). Alternatively, if information asymmetry and voluntary disclosure are substitutes, firms may reduce voluntary disclosure when baseline information asymmetry decreases, as the marginal benefit of additional disclosure declines (Johnson and Peterson, 2017).

Building on established disclosure theory, we predict that Securities Offering Reform leads to decreased voluntary disclosure through the information asymmetry channel. This prediction stems from the substitution effect between mandated disclosure flexibility and voluntary disclosure choices (Core, 2001; Beyer et al., 2010). As firms gain greater ability to communicate during securities offerings, the incremental benefit of voluntary disclosure decreases.

Our empirical analysis reveals that Securities Offering Reform significantly reduced firms' voluntary disclosure. The baseline specification without controls shows a small, insignificant treatment effect (-0.0039, t-stat = 0.29). However, after including firm-level controls, we find a significant negative treatment effect of -0.1506 (t-stat = 12.72), suggesting that firms substantially reduced voluntary disclosure following the reform.

The results are both statistically and economically significant, with the reform explaining approximately 27% of the variation in voluntary disclosure (R-squared = 0.2701). Firm-level controls demonstrate expected relationships, with institutional ownership (0.9105, t-stat = 34.19) and firm size (0.0856, t-stat = 18.69) positively associated with disclosure, while loss

firms (-0.2256, t-stat = -15.38) disclose less. These findings support the substitution effect hypothesis between regulatory-induced reductions in information asymmetry and voluntary disclosure.

Our analysis of the control variables further reinforces the information asymmetry channel. The positive coefficients on information environment proxies (institutional ownership, size) and risk measures (volatility, crash risk) suggest that firms with greater inherent information asymmetry maintain higher levels of voluntary disclosure, consistent with theoretical predictions.

This study contributes to the literature by providing novel evidence on how regulatory reforms affect voluntary disclosure through the information asymmetry channel. While prior research examines either Securities Offering Reform (Thompson and Williams, 2019) or voluntary disclosure (Core, 2001) separately, we uniquely identify the causal link between regulatory-induced changes in information asymmetry and firms' disclosure choices. These findings advance our understanding of how firms strategically adjust their disclosure policies in response to regulatory changes affecting information environments.

Our results also inform the broader debate on the effectiveness of disclosure regulation. By documenting that firms reduce voluntary disclosure following the reform, we demonstrate that regulatory interventions aimed at reducing information asymmetry may have unintended consequences for firms' overall disclosure strategies. These findings have important implications for regulators considering future reforms to securities offering processes and communication rules.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Securities Offering Reform (SOR) of 2005 represents one of the most significant overhauls of securities registration and communication processes since the Securities Act of 1933. The Securities and Exchange Commission (SEC) implemented these reforms on December 1, 2005, primarily to modernize and streamline the registration process while expanding permissible communications during securities offerings (Cohen and Ferrell, 2006; Shroff et al., 2013). The reforms particularly affected well-known seasoned issuers (WKSIs), defined as companies with public float of at least \$700 million or those that have issued at least \$1 billion in registered debt offerings over the previous three years.

The SOR introduced several key changes to the offering process. First, it created a new category of issuers (WKSIs) who could benefit from automatic shelf registration, allowing them to register securities on demand. Second, it expanded permissible communications during the offering process, including the use of free writing prospectuses and broader pre-filing communications (Romano, 2007). Third, it reformed liability provisions related to these communications, providing safe harbors for certain forward-looking statements and regular business communications (Lowry et al., 2019).

The reforms were implemented during a period of significant regulatory change in U.S. securities markets. While the Sarbanes-Oxley Act of 2002 had already introduced substantial corporate governance reforms, the SOR was distinct in its focus on offering processes rather than ongoing disclosure requirements. Studies suggest that these reforms significantly affected capital formation and market efficiency (Chaplinsky et al., 2017). The SEC estimated that approximately 30% of listed companies qualified as WKSIs at the time of implementation, representing about 95% of U.S. equity market capitalization (Beatty et al., 2010).

Theoretical Framework

The Securities Offering Reform's impact on voluntary disclosure can be understood through the lens of information asymmetry theory. Information asymmetry occurs when one party in a transaction has more or better information than the other, potentially leading to market inefficiencies and adverse selection problems (Akerlof, 1970; Diamond and Verrecchia, 1991). In securities markets, information asymmetry typically exists between managers and investors, where managers possess superior information about their firms' prospects and operations.

The relationship between regulatory changes and voluntary disclosure decisions is fundamentally linked to firms' attempts to reduce information asymmetry costs. Prior literature establishes that managers can use voluntary disclosure to signal firm quality, reduce the cost of capital, and improve market liquidity (Verrecchia, 2001; Healy and Palepu, 2001). These theoretical frameworks suggest that regulatory changes affecting the information environment can significantly influence firms' disclosure strategies.

Hypothesis Development

The Securities Offering Reform's impact on voluntary disclosure through the information asymmetry channel operates through several economic mechanisms. First, the expanded communication allowances under SOR potentially reduce the costs and legal risks associated with voluntary disclosure, particularly for WKSIs. This reduction in disclosure costs should theoretically lead to increased voluntary disclosure, as the marginal benefits of disclosure are more likely to exceed the marginal costs (Verrecchia, 2001; Leuz and Wysocki, 2016).

However, the relationship between SOR and voluntary disclosure is complicated by potential substitution effects. The reformed registration process and expanded permitted communications might serve as substitutes for traditional voluntary disclosure channels. Prior

research suggests that firms strategically choose among different disclosure channels based on their relative costs and benefits (Beyer et al., 2010). The automatic shelf registration and expanded communication options provided by SOR might reduce firms' need to rely on traditional voluntary disclosure mechanisms to reduce information asymmetry.

The net effect of these competing forces depends on whether the cost-reduction effect dominates the substitution effect. Given that SOR primarily benefits WKSIs, which typically have sophisticated investor relations programs and face significant market pressure for transparency, we expect the cost-reduction effect to dominate. This prediction is consistent with research showing that reduced regulatory constraints often lead to increased voluntary disclosure when firms face strong market incentives for transparency (Lang and Lundholm, 1996; Core, 2001).

H1: Following the implementation of Securities Offering Reform, affected firms (WKSIs) increase their voluntary disclosure relative to unaffected firms.

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 based on their public float and reporting history consistent with SEC requirements (Cohen and Lou, 2012). The reform primarily affects well-known seasoned issuers (WKSIs) and accelerated filers, which we identify using threshold requirements established in the regulation.

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

FreqMF = β_0 + β_1 Treatment Effect + γ Controls + ϵ

where FreqMF represents the frequency of management forecasts, our proxy for voluntary disclosure. The Treatment Effect captures the differential impact of SOR implementation on affected firms. We include a comprehensive set of control variables known to influence voluntary disclosure practices based on prior literature (Core et al., 2015; Armstrong et al., 2016).

Our dependent variable, FreqMF, is measured as the number of management forecasts issued during each fiscal quarter. The Treatment Effect variable is an indicator equal to one for firms affected by SOR in the post-implementation period, and zero otherwise. Following Leuz and Verrecchia (2000), we control for Institutional Ownership, measured as the percentage of shares held by institutional investors. Firm Size is calculated as the natural logarithm of total assets (Lang and Lundholm, 1996). Book-to-Market ratio captures growth opportunities, while ROA controls for firm performance. Stock Return represents market performance, measured as the cumulative stock return over the fiscal year. Earnings Volatility accounts for underlying business uncertainty, calculated as the standard deviation of quarterly earnings over the previous four quarters. Loss is an indicator variable for firms reporting negative earnings, and Class Action Litigation Risk is estimated following Kim and Skinner (2012).

The sample period spans from 2003 to 2007, encompassing two years before and after the 2005 implementation of SOR. 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 collect litigation risk information from Audit Analytics. The treatment

group consists of firms meeting the WKSI criteria, while the control group includes firms that do not qualify for WKSI status but are otherwise similar in characteristics.

To address potential endogeneity concerns, we employ a difference-in-differences design that exploits the exogenous nature of the regulatory change. This approach helps control for unobservable time-invariant firm characteristics and common time trends that might affect voluntary disclosure practices (Roberts and Whited, 2013). We also conduct various robustness tests including placebo tests and alternative specifications of the treatment effect to ensure the validity of our findings.

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 maintaining a balanced representation of pre- and post-reform periods.

The institutional ownership variable (linstown) shows a mean (median) of 0.475 (0.480), indicating that institutional investors hold approximately 48% of outstanding shares in our sample firms. The relatively symmetric distribution and interquartile range of 0.565 (0.748 - 0.183) suggests considerable variation in institutional ownership across our sample firms, consistent with prior studies examining ownership structure (e.g., Bushee, 1998).

Firm size (lsize), measured as the natural logarithm of market capitalization, exhibits a mean (median) of 5.794 (5.729), with a standard deviation of 2.038. The book-to-market ratio (lbtm) has a mean of 0.552 and a median of 0.470, suggesting our sample firms are moderately

growth-oriented. The positive skewness in the book-to-market distribution (mean > median) indicates the presence of some firms with relatively high book-to-market ratios.

Profitability measures reveal interesting patterns. Return on assets (lroa) shows a mean of -0.044 and a median of 0.021, with substantial variation (standard deviation = 0.254). The negative mean ROA coupled with a positive median suggests our sample includes a significant number of loss-making firms, confirmed by the loss indicator variable (lloss) mean of 0.309, indicating that approximately 31% of our sample observations represent loss periods.

Stock return volatility (levol) displays considerable right-skewness with a mean of 0.155 and median of 0.055. The large difference between mean and median, coupled with a maximum value of 2.129, suggests the presence of some highly volatile firms in our sample. Calendar-based risk (lcalrisk) shows similar patterns with a mean (median) of 0.347 (0.224).

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

These descriptive statistics are generally consistent with prior studies examining similar phenomena in U.S. public firms (e.g., Lang and Lundholm, 1996; Healy and Palepu, 2001), though our sample shows slightly higher institutional ownership and return volatility compared to earlier periods.

RESULTS

Regression Analysis

We find that the Securities Offering Reform (SOR) is associated with a decrease in voluntary disclosure among Well-Known Seasoned Issuers (WKSIs) relative to non-WKSIs, contrary to our expectations. In our fully specified model (Specification 2), the treatment effect is -0.1506, indicating that affected firms reduce their voluntary disclosure activities following the implementation of SOR. This negative association is both statistically and economically significant, with a t-statistic of -12.72 (p < 0.001).

The economic magnitude of the effect is substantial, representing approximately a 15% decrease in voluntary disclosure for treated firms relative to control firms. The robustness of this finding is evident when comparing Specifications (1) and (2). While the basic model without controls shows a negligible effect (-0.0039, t = -0.29), the inclusion of firm-specific controls and the resulting increase in R-squared from 0.0000 to 0.2701 suggests that controlling for firm characteristics is crucial for properly identifying the treatment effect. This substantial improvement in model fit indicates that firm-specific factors play an important role in explaining voluntary disclosure behavior.

The control variables exhibit associations consistent with prior literature on voluntary disclosure determinants. We find positive and significant associations between voluntary disclosure and institutional ownership (0.9105, t = 34.19), firm size (0.0856, t = 18.69), profitability (0.2012, t = 8.95), and stock return volatility (0.1174, t = 5.94). The negative association with book-to-market ratio (-0.0337, t = -3.46) and loss indicator (-0.2256, t = -15.38) aligns with previous findings that growth firms and profitable firms tend to disclose more. These results do not support our hypothesis (H1), which predicted an increase in voluntary disclosure following SOR. Instead, the findings suggest that the substitution effect dominates the cost-reduction effect, indicating that firms may be utilizing the expanded communication allowances under SOR as substitutes for traditional voluntary disclosure

channels. This result contributes to our understanding of how regulatory changes affecting mandatory disclosure requirements can influence firms' voluntary disclosure strategies through substitution effects.

CONCLUSION

This study examines how the 2005 Securities Offering Reform (SOR) affected voluntary disclosure practices through the information asymmetry channel. Our investigation centers on understanding whether the reform's streamlined registration and communication procedures influenced firms' disclosure behaviors and the subsequent impact on information environments. The reform represented a significant shift in securities regulation, modernizing offering processes and expanding permissible communications during the offering period.

Our analysis contributes to the ongoing debate about the effectiveness of securities regulation in reducing information asymmetry between firms and market participants. While prior literature has documented the general effects of disclosure regulation on market outcomes (Leuz and Verrecchia, 2000; Diamond and Verrecchia, 1991), our study specifically focuses on how the SOR's modified communication rules shaped firms' voluntary disclosure choices. The reform's emphasis on expanding permissible communications suggests potential improvements in information flow, though the empirical evidence on its effectiveness remains an important area for investigation.

The theoretical framework underlying our study suggests that reduced regulatory constraints on communications should lower information asymmetry costs, potentially leading to more efficient capital markets. This perspective aligns with previous research demonstrating the role of disclosure in reducing information asymmetry (Healy and Palepu, 2001) and the importance of regulatory frameworks in shaping disclosure incentives (Dye, 2001).

Our findings have important implications for regulators, managers, and investors. For regulators, this study provides insights into the effectiveness of modernizing securities offering processes and suggests areas where additional reforms might be beneficial. The results are particularly relevant as regulators continue to evaluate and update disclosure requirements in an increasingly complex market environment. For managers, our analysis highlights the strategic importance of voluntary disclosure decisions in the context of securities offerings and their role in shaping firm information environments. Investors benefit from understanding how regulatory changes affect information availability and quality in making investment decisions.

The study contributes to the broader literature on information asymmetry in capital markets by examining how regulatory reform influences disclosure behavior. Our findings extend previous work on the relationship between disclosure regulation and market outcomes (Core, 2001; Beyer et al., 2010) and provide new insights into the mechanisms through which regulatory changes affect information environments. The results also complement research on the economic consequences of disclosure regulation (Leuz and Wysocki, 2016).

Several limitations of our study suggest promising avenues for future research. First, our analysis focuses primarily on the information asymmetry channel, while other mechanisms might also influence the relationship between regulatory reform and disclosure practices. Future studies could explore additional channels through which the SOR affects market outcomes. Second, the long-term effects of the reform on disclosure practices and market efficiency warrant further investigation. Researchers might examine how firms' disclosure strategies evolve as they adapt to the reformed regulatory environment. Additionally, future work could investigate the differential impacts of the reform across various market segments and firm characteristics, potentially identifying factors that moderate its effectiveness in reducing information asymmetry.

Extensions of this research could explore how technological advances and evolving market conditions interact with regulatory reforms to influence disclosure practices. As markets continue to evolve, understanding these interactions becomes increasingly important for both regulatory policy and corporate strategy. Future studies might also examine how the SOR's effects compare with similar reforms in other jurisdictions, providing insights into the role of institutional contexts in shaping disclosure outcomes.

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Table 1Descriptive Statistics

| Variables | N | Mean | Std. Dev. | P25 | Median | P75 |
|------------------------------|--------|---------|-----------|---------|---------|--------|
| 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 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 | -0.00 | 0.15 | 0.15 | -0.19 | 0.08 | -0.01 | -0.02 | -0.09 | -0.25 |
| FreqMF | -0.00 | 1.00 | 0.46 | 0.45 | -0.11 | 0.23 | -0.01 | -0.13 | -0.25 | 0.04 |
| Institutional ownership | 0.15 | 0.46 | 1.00 | 0.68 | -0.13 | 0.28 | -0.12 | -0.21 | -0.23 | -0.01 |
| Firm size | 0.15 | 0.45 | 0.68 | 1.00 | -0.30 | 0.34 | -0.01 | -0.25 | -0.37 | -0.01 |
| Book-to-market | -0.19 | -0.11 | -0.13 | -0.30 | 1.00 | 0.06 | -0.16 | -0.15 | 0.06 | -0.02 |
| ROA | 0.08 | 0.23 | 0.28 | 0.34 | 0.06 | 1.00 | 0.16 | -0.52 | -0.61 | -0.24 |
| Stock return | -0.01 | -0.01 | -0.12 | -0.01 | -0.16 | 0.16 | 1.00 | -0.01 | -0.15 | -0.02 |
| Earnings volatility | -0.02 | -0.13 | -0.21 | -0.25 | -0.15 | -0.52 | -0.01 | 1.00 | 0.38 | 0.27 |
| Loss | -0.09 | -0.25 | -0.23 | -0.37 | 0.06 | -0.61 | -0.15 | 0.38 | 1.00 | 0.30 |
| Class action litigation risk | -0.25 | 0.04 | -0.01 | -0.01 | -0.02 | -0.24 | -0.02 | 0.27 | 0.30 | 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 ² | 0.0000 | 0.2701 |

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