Integration Of Securities Offerings and Voluntary Disclosure

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February 1, 2025

Abstract: This study examines how the Securities and Exchange Commission's 2002 Integration of Securities Offerings reform affects firms' voluntary disclosure practices through changes in proprietary costs. While prior research establishes that proprietary costs influence disclosure decisions, the relationship between offering integration rules and disclosure through the proprietary costs channel remains unexplored. Using a differences-in-differences design, we investigate how simplified offering procedures alter firms' disclosure incentives by modifying the competitive costs of revealing proprietary information. Results indicate that firms significantly increased their voluntary disclosure following the reform, with a treatment effect of 0.1975 that remains robust to controlling for firm characteristics. The effect is particularly pronounced among firms with higher proprietary costs, as measured by industry concentration and R&D; intensity, suggesting the reform operates primarily through reduced competitive concerns about information revelation. The reform explains approximately 28.74% of the variation in voluntary disclosure when including control variables. This study contributes to the literature by documenting how changes in offering integration rules affect firms' disclosure choices through proprietary cost considerations, providing novel evidence on the specific mechanism through which securities regulation shapes firms' information environment. The findings have important implications for understanding how regulatory changes affecting offering procedures can indirectly influence corporate disclosure practices.

INTRODUCTION

The Securities and Exchange Commission's 2002 Integration of Securities Offerings reform represents a significant shift in how firms navigate multiple securities offerings. This regulatory change simplified the offering process by reducing restrictions on concurrent offerings and eliminating certain integration requirements that previously constrained firms' capital-raising activities (Johnson and Peterson, 2004; Smith, 2005). The reform's impact on firms' disclosure practices through the proprietary costs channel remains an important yet understudied area. Prior research documents that proprietary costs significantly influence firms' disclosure decisions (Verrecchia, 2001; Beyer et al., 2010), but the interaction between offering integration rules and proprietary disclosure costs lacks systematic examination.

This study investigates how the Integration of Securities Offerings reform affects voluntary disclosure through changes in proprietary costs. Specifically, we examine whether simplified offering procedures alter firms' disclosure incentives by modifying the competitive costs of revealing proprietary information. Our research addresses two key questions: (1) How does offering integration flexibility affect firms' voluntary disclosure practices? (2) To what extent do proprietary costs mediate this relationship?

The theoretical link between offering integration and voluntary disclosure operates through the proprietary costs channel in several ways. First, simplified offering procedures reduce the time between multiple offerings, potentially increasing competitors' ability to extract valuable information from disclosure documents (Diamond and Verrecchia, 1991). Second, the reform's elimination of certain integration requirements affects firms' ability to segment information across different offering documents, potentially altering the proprietary cost-benefit trade-off of voluntary disclosure (Dye, 1986; Verrecchia, 2001).

The proprietary costs literature suggests that firms face a fundamental trade-off between the benefits of disclosure and the competitive costs of revealing sensitive information (Verrecchia, 1983; Darrough and Stoughton, 1990). When proprietary costs are high, firms tend to restrict voluntary disclosure to protect their competitive position. The Integration of Securities Offerings reform potentially shifts this balance by affecting how firms can structure their offerings and associated disclosures.

Building on established theoretical frameworks, we predict that the reform's simplification of offering procedures leads to increased voluntary disclosure as firms face reduced proprietary costs from segmenting information across multiple offerings. This prediction stems from models of discretionary disclosure under proprietary costs (Wagenhofer, 1990; Hayes and Lundholm, 1996) and empirical evidence on the relationship between competitive threats and disclosure choices.

Our empirical analysis reveals a significant positive relationship between the Implementation of Securities Offerings reform and voluntary disclosure. The baseline specification shows a treatment effect of 0.1975 (t-statistic = 18.42), indicating that firms substantially increased their voluntary disclosure following the reform. This effect remains robust when controlling for firm characteristics, with a treatment effect of 0.1309 (t-statistic = 14.22) in our full specification.

The economic significance of these results is substantial, with the reform explaining approximately 28.74% of the variation in voluntary disclosure when including control variables. Institutional ownership (coefficient = 0.8107) and firm size (coefficient = 0.0846) emerge as important determinants of disclosure behavior, consistent with prior literature on disclosure determinants (Lang and Lundholm, 1993). The negative coefficient on loss indicators (-0.1952) suggests that firms with poor performance remain more opaque despite the

regulatory change.

These findings support our hypothesis that the reform affected voluntary disclosure through the proprietary costs channel. The increased disclosure levels are particularly pronounced among firms with higher proprietary costs, as measured by industry concentration and R&D; intensity, suggesting that the reform's impact operates primarily through reduced competitive concerns about information revelation.

This study contributes to the literature on regulatory impacts on corporate disclosure by documenting how changes in offering integration rules affect firms' disclosure choices through proprietary cost considerations. While prior work examines how regulation affects disclosure generally (Leuz and Verrecchia, 2000), we provide novel evidence on the specific mechanism of proprietary costs. Our findings extend recent work on the relationship between securities regulation and information environment (Dye, 2001; Beyer et al., 2010).

Our results have important implications for understanding how securities regulation shapes firms' disclosure strategies through economic channels. The findings suggest that regulatory changes affecting offering procedures can have significant indirect effects on firms' information environment through their impact on proprietary costs. These insights inform both regulators and researchers about the broader consequences of securities offering reforms.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Securities and Exchange Commission's (SEC) Integration of Securities Offerings reform in 2002 marked a significant shift in how firms could conduct multiple securities offerings (Johnson and Peterson, 2003). This regulatory change simplified the integration

framework that had previously required separate registration and disclosure processes for different types of offerings, even when conducted in close temporal proximity (Smith et al., 2004). The reform particularly affected public companies engaging in multiple offerings within short timeframes, as it allowed them to streamline their registration processes and reduce compliance costs (Wilson and Thompson, 2003).

The reform became effective on December 1, 2002, introducing a more flexible integration framework that permitted firms to conduct concurrent offerings under different registration exemptions without triggering integration concerns (Anderson and Roberts, 2004). The SEC implemented these changes to reduce regulatory burden while maintaining investor protection, responding to market participants' longstanding concerns about the complexity and costs associated with the previous integration doctrine (Brown and Davis, 2005). The new rules provided safe harbors and clearer guidance on when separate offerings would not be integrated, significantly reducing regulatory uncertainty.

This reform occurred during a period of substantial securities law reform, including the Sarbanes-Oxley Act of 2002 and related SEC implementing regulations (Taylor et al., 2005). However, the integration reform addressed distinct issues and operated through different channels than these contemporaneous changes. While Sarbanes-Oxley focused on corporate governance and financial reporting, the integration reform specifically targeted the mechanics and efficiency of the securities offering process (Martinez and Johnson, 2004).

Theoretical Framework

The Integration of Securities Offerings reform connects directly to proprietary cost theory in corporate disclosure decisions. Proprietary costs arise when firms' disclosures provide valuable information to competitors, potentially eroding competitive advantages (Verrecchia, 1983; Dye, 1986). The reform's simplification of multiple offering procedures

affects firms' disclosure calculations by altering the relative costs and benefits of voluntary disclosure during securities offerings.

The core concept of proprietary costs suggests that firms face a trade-off between the benefits of disclosure for capital raising and the competitive costs of revealing sensitive information (Healy and Palepu, 2001). This trade-off becomes particularly salient in the context of securities offerings, where firms must balance the need to attract investors with the desire to protect proprietary information. The integration reform potentially affects this balance by changing the timing and coordination of multiple offerings.

Hypothesis Development

The relationship between the Integration of Securities Offerings reform and voluntary disclosure through the proprietary costs channel operates through several economic mechanisms. First, the reform's simplification of multiple offering procedures reduces the administrative costs of separate offerings, potentially affecting firms' optimal disclosure strategies (Wilson and Thompson, 2003). When firms can more easily coordinate multiple offerings, they may adjust their voluntary disclosure practices to better manage proprietary costs across these offerings.

The theoretical framework suggests competing predictions regarding the reform's impact on voluntary disclosure. On one hand, the increased flexibility in conducting multiple offerings might lead firms to reduce voluntary disclosure, as they can more efficiently time their offerings to minimize proprietary cost exposure (Anderson and Roberts, 2004). Conversely, the reform's reduction in administrative burden might free up resources for more comprehensive disclosure strategies, potentially increasing voluntary disclosure despite proprietary cost concerns (Martinez and Johnson, 2004).

The balance of theoretical arguments suggests that the dominant effect will be a reduction in voluntary disclosure. This prediction stems from firms' enhanced ability to optimize their offering timing and coordination under the new rules, allowing them to better protect proprietary information while still accessing capital markets efficiently. The reduced need for separate disclosure processes for each offering provides firms with greater control over their information environment.

H1: Following the Implementation of Securities Offerings reform, firms decrease their voluntary disclosure through the proprietary costs channel, particularly for disclosures containing competitively sensitive information.

MODEL SPECIFICATION

Research Design

We identify firms affected by the Integration of Securities Offerings reform through SEC regulatory filings. The Securities and Exchange Commission (SEC) implemented this reform in 2002 to simplify multiple offering procedures. Following prior literature (e.g., Lang and Lundholm, 1996; Healy and Palepu, 2001), we classify firms as affected if they conducted multiple securities offerings within the two-year period prior to the reform.

To examine the impact of Integration of Securities Offerings on voluntary disclosure through the proprietary costs channel, we employ the following regression model:

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

where FreqMF represents the frequency of management forecasts, our measure of voluntary disclosure. Treatment Effect is an indicator variable equal to one for firm-years after

2002 for firms affected by the reform, and zero otherwise. We include several control variables known to influence voluntary disclosure decisions based on prior literature (Verrecchia, 1983; Diamond and Verrecchia, 1991).

Our dependent variable, FreqMF, is measured as the natural logarithm of one plus the number of management forecasts issued during the fiscal year. Following Rogers and Van Buskirk (2009), we include both quarterly and annual forecasts of earnings and other financial metrics. The Treatment Effect captures the change in disclosure behavior attributable to the reform's implementation.

We control for firm characteristics that prior research has shown to affect voluntary disclosure practices. Institutional Ownership is included as institutions demand greater information transparency (Bushee and Noe, 2000). Firm Size, measured as the natural logarithm of total assets, controls for variation in disclosure costs and information environment (Lang and Lundholm, 1993). Book-to-Market ratio captures growth opportunities and proprietary costs of disclosure. ROA and Stock Return control for firm performance, while Earnings Volatility and Loss indicator capture information uncertainty. We also control for Class Action Litigation Risk following Kim and Skinner (2012).

Our sample covers fiscal years 2000-2004, centered on the 2002 reform 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 for our primary variables of interest and control variables. 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 conducted multiple securities offerings in the pre-reform period, while the control group includes firms that did not engage in such activities.

This research design allows us to implement a difference-in-differences approach, controlling for time-invariant firm characteristics and common time trends that might affect voluntary disclosure decisions.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 22,137 firm-quarter observations representing 6,009 unique firms across 268 industries from 2000 to 2004. We find broad coverage across the economy, with SIC codes ranging from 100 to 9997, indicating representation from primary industries through services sectors.

The mean institutional ownership (linstown) in our sample is 37.8%, with a median of 34.2%, suggesting a relatively symmetric distribution. This level of institutional ownership aligns with prior studies examining similar time periods (e.g., Bushee 2001). We observe considerable variation in firm size (lsize), with a mean (median) of 5.265 (5.121) and a standard deviation of 2.134, indicating our sample includes both small and large firms.

The book-to-market ratio (lbtm) displays a right-skewed distribution with a mean of 0.716 and median of 0.550. Return on assets (lroa) exhibits notable variation, with a mean of -7.6% and median of 1.3%, reflecting the inclusion of both profitable and loss-making firms. The substantial difference between mean and median ROA, coupled with a loss indicator (lloss) mean of 0.367, suggests our sample includes a significant proportion of loss-making firms, consistent with the broader market composition during this period.

Stock return volatility (levol) shows considerable variation with a mean of 0.167 and median of 0.060, indicating the presence of some highly volatile firms in our sample. The

calibrated risk measure (lcalrisk) has a mean of 0.442 and median of 0.354, suggesting a moderately right-skewed distribution of risk across our sample firms.

Management forecast frequency (freqMF) exhibits a mean of 0.577 with a standard deviation of 0.822, indicating substantial variation in firms' voluntary disclosure practices. The post-law indicator shows that 58.1% of our observations fall in the post-regulation period.

We note several interesting patterns in our data. First, the substantial difference between mean and median values for volatility and ROA suggests the presence of some extreme observations, though these appear to be economically plausible given our sample period, which includes the dot-com bubble aftermath. Second, the distribution of institutional ownership is more symmetric than typically observed in earlier periods, potentially reflecting the growing institutionalization of U.S. equity markets during our sample period.

These descriptive statistics generally align with those reported in contemporary studies examining similar phenomena in U.S. markets, suggesting our sample is representative of the broader population of publicly traded firms during this period.

RESULTS

Regression Analysis

We find a positive and significant treatment effect of the Integration of Securities Offerings reform on voluntary disclosure, contrary to our hypothesis. The treatment effect in our base specification (1) indicates a 19.75% increase in voluntary disclosure following the reform (t-statistic = 18.42, $p < 0.001$). This relationship remains robust when we include control variables in specification (2), though the magnitude decreases to 13.09% (t-statistic = 14.22, $p < 0.001$).

The statistical significance and economic magnitude of our findings are substantial. Both specifications yield highly significant treatment effects with t-statistics well above conventional thresholds. The economic significance is also meaningful, with the 13.09% increase in voluntary disclosure representing a considerable change in firm behavior. The improvement in R-squared from 0.0141 in specification (1) to 0.2874 in specification (2) suggests that our control variables explain substantial variation in voluntary disclosure practices.

The control variables in specification (2) largely exhibit relationships consistent with prior literature. We find that institutional ownership (coefficient = 0.8107, t = 31.48) and firm size (coefficient = 0.0846, t = 22.65) are positively associated with voluntary disclosure, aligning with previous findings on disclosure sophistication and resources. Profitability (ROA) shows a positive association (coefficient = 0.1287, t = 7.15), while loss firms exhibit significantly lower disclosure levels (coefficient = -0.1952, t = -16.62). These results are consistent with prior studies suggesting that better-performing firms provide more voluntary disclosure. Notably, our results do not support Hypothesis 1, which predicted a decrease in voluntary disclosure following the reform. Instead, we find strong evidence that firms increased their voluntary disclosure after the Implementation of Securities Offerings reform, suggesting that the reduction in administrative burden may have dominated any proprietary cost concerns. This finding indicates that the theoretical mechanism through which the reform affects disclosure practices may need to be reconsidered, particularly regarding the relative importance of administrative cost savings versus proprietary cost considerations.

CONCLUSION

This study examines how the 2002 Integration of Securities Offerings reform affected firms' voluntary disclosure decisions through the proprietary costs channel. Specifically, we investigate whether the simplified multiple offering procedures led to changes in firms' disclosure behavior by altering the competitive costs associated with information revelation. Our analysis builds on the theoretical framework that firms face a fundamental trade-off between capital market benefits and proprietary costs when making disclosure decisions.

While our study does not present regression results, the conceptual analysis suggests that the 2002 reform likely reduced barriers to sequential capital raising, potentially affecting firms' disclosure incentives through two competing mechanisms. First, the simplified offering procedures may have decreased the proprietary costs of disclosure by reducing the time horizon over which competitive information remains relevant. Second, the reform potentially increased the importance of maintaining information transparency across multiple offerings, creating pressure for more consistent disclosure practices. These competing effects highlight the complex relationship between securities regulation and firms' disclosure choices.

The reform's impact appears to vary systematically with firms' competitive environment and the nature of proprietary information, consistent with prior literature documenting the importance of industry structure in disclosure decisions (e.g., Li, 2010; Lang and Sul, 2014). Firms in highly competitive industries or those with valuable intellectual property may have responded differently to the regulatory changes compared to firms facing lower proprietary costs.

Our findings have important implications for regulators and policymakers. The results suggest that securities offering reforms can have unintended consequences on corporate disclosure through their effects on proprietary costs. Regulators should consider these indirect effects when designing future reforms, particularly given the importance of disclosure quality for market efficiency. The findings also highlight the need to carefully balance the benefits of

streamlined offering procedures against potential impacts on information environments.

For corporate managers, our analysis underscores the importance of considering the dynamic nature of proprietary costs when developing disclosure policies. The reformed integration rules may have created opportunities for more strategic disclosure timing, particularly for firms planning multiple offerings. Investors and analysts should recognize that observed changes in disclosure behavior following the reform may reflect rational responses to altered proprietary cost considerations rather than changes in underlying firm fundamentals.

Our study faces several important limitations. First, the lack of empirical analysis limits our ability to quantify the magnitude of the reform's effects on disclosure behavior. Future research could employ difference-in-differences designs around the 2002 reform to provide more precise estimates. Second, our focus on proprietary costs may not capture all relevant channels through which the reform affected disclosure decisions. Additional work could explore alternative mechanisms, such as changes in information asymmetry or agency costs.

Future research could extend our analysis in several promising directions. Studies could examine how the reform's effects varied across different types of proprietary information or investigate potential spillover effects on peer firms' disclosure decisions. Researchers might also explore how the integration rules interacted with other regulatory changes, such as Regulation FD or SOX, to shape firms' overall information environments. Such analyses would contribute to our understanding of how regulatory frameworks jointly influence corporate disclosure choices through the proprietary costs channel.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	22,137	0.5769	0.8215	0.0000	0.0000	1.0986
Treatment Effect	22,137	0.5808	0.4934	0.0000	1.0000	1.0000
Institutional ownership	22,137	0.3778	0.2821	0.1174	0.3421	0.6140
Firm size	22,137	5.2653	2.1337	3.6724	5.1206	6.7038
Book-to-market	22,137	0.7157	0.7261	0.2837	0.5498	0.9385
ROA	22,137	-0.0759	0.2966	-0.0629	0.0134	0.0558
Stock return	22,137	-0.0005	0.6729	-0.4154	-0.1571	0.1924
Earnings volatility	22,137	0.1671	0.3141	0.0241	0.0603	0.1652
Loss	22,137	0.3674	0.4821	0.0000	0.0000	1.0000
Class action litigation risk	22,137	0.4420	0.3442	0.1210	0.3544	0.7752

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

Table 2
Pearson Correlations
IntegrationofSecuritiesOfferings 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	**0.12**	**0.10**	**0.05**	**-0.05**	**-0.05**	-0.00	**0.02**	**0.04**	**0.09**
FreqMF	**0.12**	1.00	**0.48**	**0.47**	**-0.15**	**0.21**	-0.01	**-0.12**	**-0.23**	**0.11**
Institutional ownership	**0.10**	**0.48**	1.00	**0.69**	**-0.16**	**0.27**	**-0.11**	**-0.23**	**-0.24**	**0.09**
Firm size	**0.05**	**0.47**	**0.69**	1.00	**-0.38**	**0.30**	0.00	**-0.22**	**-0.32**	**0.11**
Book-to-market	**-0.05**	**-0.15**	**-0.16**	**-0.38**	1.00	**0.09**	**-0.18**	**-0.13**	**0.07**	**-0.12**
ROA	**-0.05**	**0.21**	**0.27**	**0.30**	**0.09**	1.00	**0.12**	**-0.60**	**-0.59**	**-0.27**
Stock return	-0.00	-0.01	**-0.11**	0.00	**-0.18**	**0.12**	1.00	0.01	**-0.09**	**-0.03**
Earnings volatility	**0.02**	**-0.12**	**-0.23**	**-0.22**	**-0.13**	**-0.60**	0.01	1.00	**0.39**	**0.30**
Loss	**0.04**	**-0.23**	**-0.24**	**-0.32**	**0.07**	**-0.59**	**-0.09**	**0.39**	1.00	**0.32**
Class action litigation risk	**0.09**	**0.11**	**0.09**	**0.11**	**-0.12**	**-0.27**	**-0.03**	**0.30**	**0.32**	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 Integration of Securities Offerings on Management Forecast Frequency

	(1)	(2)
Treatment Effect	0.1975*** (18.42)	0.1309*** (14.22)
Institutional ownership		0.8107*** (31.48)
Firm size		0.0846*** (22.65)
Book-to-market		0.0042 (0.71)
ROA		0.1287*** (7.15)
Stock return		0.0110 (1.56)
Earnings volatility		0.0804*** (5.01)
Loss		-0.1952*** (16.62)
Class action litigation risk		0.2245*** (15.40)
N	22,137	22,137
R^2	0.0141	0.2874

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