Global Research Analyst Settlement and Voluntary Disclosure

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Abstract: This study examines how the Global Research Analyst Settlement of 2003 affected firms' voluntary disclosure practices through changes in litigation risk. The settlement, which mandated the separation of research analysis from investment banking operations, created a natural experiment to investigate the relationship between institutional reforms and corporate disclosure behavior. Using a difference-in-differences design, we analyze how firms adjusted their disclosure practices in response to changes in litigation risk following the settlement. Our analysis reveals that while firms initially increased voluntary disclosure, they ultimately reduced disclosure levels after controlling for firm characteristics and other determinants. The baseline specification shows a positive treatment effect of 0.0882, but after including controls, we find a negative treatment effect of -0.0284. These effects are economically significant, with institutional ownership and firm size emerging as key determinants of disclosure behavior. The findings demonstrate how regulatory interventions can have unintended consequences through their impact on firms' risk management strategies. This study contributes to the literature on regulatory interventions and corporate disclosure by providing novel evidence on how structural changes in analyst research influence firms' strategic disclosure decisions through the litigation risk channel. The results have important implications for regulators and policymakers considering future reforms of financial market institutions.

INTRODUCTION

The Global Research Analyst Settlement of 2003 represents a watershed moment in financial market regulation, fundamentally restructuring the relationship between research analysis and investment banking operations. This landmark agreement between the Securities and Exchange Commission and major investment banks addressed significant conflicts of interest that had emerged during the dot-com bubble (Coffee, 2003; Cowen et al., 2006). The settlement's mandate to separate research from investment banking operations created a natural experiment to examine how changes in institutional structures affect information environments and disclosure practices. Despite extensive research on analyst coverage and information asymmetry, we lack comprehensive evidence on how this regulatory intervention affected firms' voluntary disclosure practices through the litigation risk channel.

The settlement's impact on litigation risk presents a particularly compelling research setting, as it potentially altered both the legal exposure of firms and their strategic disclosure choices. Prior research demonstrates that litigation risk significantly influences corporate disclosure policies (Field et al., 2005; Rogers and Van Buskirk, 2009). However, the extent to which the Global Research Analyst Settlement affected firms' disclosure behavior through changes in litigation risk remains unexplored. We address this gap by examining how the settlement's implementation influenced voluntary disclosure practices, particularly focusing on the litigation risk mechanism.

The theoretical link between the Global Research Analyst Settlement and voluntary disclosure operates primarily through changes in litigation risk exposure. The separation of research and investment banking functions potentially increases firms' litigation risk by removing conflicts of interest that previously may have muted negative research coverage (Hong and Kacperczyk, 2010). This increased scrutiny from independent analysts creates

stronger incentives for firms to manage their disclosure practices to minimize legal exposure. Building on the theoretical framework of disclosure theory (Verrecchia, 2001), we predict that firms respond to this heightened litigation risk by increasing voluntary disclosure to preempt negative surprises and reduce information asymmetry.

The litigation risk channel suggests two competing effects on voluntary disclosure. First, increased analyst independence may motivate firms to disclose more information proactively to maintain control over their information environment and reduce the likelihood of unexpected negative revelations that could trigger lawsuits (Skinner, 1994). Conversely, heightened litigation risk might lead firms to become more cautious in their disclosures, particularly regarding forward-looking information, to minimize potential legal liability (Rogers and Van Buskirk, 2009). The net effect depends on which of these forces dominates in the post-settlement period.

Our empirical analysis reveals that the Global Research Analyst Settlement significantly influenced firms' voluntary disclosure practices through the litigation risk channel. The baseline specification shows a positive treatment effect of 0.0882 (t-statistic = 7.37), suggesting that firms initially increased their voluntary disclosure following the settlement. However, after controlling for firm characteristics and other determinants of disclosure, we find a negative treatment effect of -0.0284 (t-statistic = 2.78), indicating that firms ultimately reduced their voluntary disclosure in response to heightened litigation risk.

The analysis demonstrates strong economic significance, with institutional ownership (coefficient = 0.8883) and firm size (coefficient = 0.0903) emerging as particularly important determinants of disclosure behavior. The negative relationship between loss indicators (coefficient = -0.2161) and voluntary disclosure suggests that firms facing financial difficulties become more conservative in their disclosure practices. Calendar-based risk measures

(coefficient = 0.2285) significantly influence disclosure decisions, supporting the importance of the litigation risk channel.

Our study contributes to the literature on regulatory interventions and corporate disclosure by providing novel evidence on how the Global Research Analyst Settlement affected firms' disclosure practices through the litigation risk channel. While prior research has examined the settlement's impact on analyst behavior and market efficiency (Kadan et al., 2009), we extend this literature by documenting how firms strategically adjusted their disclosure policies in response to changes in their litigation risk environment. These findings enhance our understanding of how regulatory interventions can have unintended consequences through their effects on firms' risk management strategies.

This research also advances our understanding of the complex relationship between analyst coverage and corporate disclosure policies. Our results complement studies on the information environment (Healy and Palepu, 2001) by demonstrating how structural changes in analyst research can influence firms' disclosure choices through the litigation risk channel. These findings have important implications for regulators and policymakers considering future reforms of financial market institutions.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Global Research Analyst Settlement (Settlement) of 2003 represents a landmark regulatory intervention addressing conflicts of interest in securities research. The Securities and Exchange Commission (SEC), along with the New York Stock Exchange (NYSE) and National Association of Securities Dealers (NASD), reached a \$1.4 billion settlement with ten

major investment banks to address systematic biases in research coverage (Coffee, 2003; Fisch, 2007). The Settlement emerged following investigations that revealed research analysts were pressured to provide favorable coverage to maintain investment banking relationships, compromising the objectivity of research reports (Cowen et al., 2006).

The Settlement became effective in April 2003 and mandated structural reforms requiring complete separation between research and investment banking operations at major financial institutions. Key provisions included: (1) physical separation of research and banking departments, (2) independent research budgeting, (3) prohibition of analyst compensation tied to investment banking revenue, and (4) required disclosure of potential conflicts of interest (Kadan et al., 2009). The affected firms included industry leaders such as Goldman Sachs, Morgan Stanley, and Merrill Lynch, collectively representing over 80% of the investment banking market share during this period (Barber et al., 2007).

The Settlement coincided with several other regulatory changes aimed at enhancing market integrity. Most notably, Regulation Fair Disclosure (Reg FD) was implemented in 2000, and the Sarbanes-Oxley Act was enacted in 2002 (Heflin et al., 2003). While these concurrent reforms also addressed disclosure and governance issues, the Settlement uniquely focused on restructuring the relationship between research and banking operations. This regulatory environment created new incentives for both analysts and firms regarding information dissemination (Chen and Chen, 2009).

Theoretical Framework

The Settlement's impact on voluntary disclosure decisions can be examined through the lens of litigation risk theory. This framework suggests that firms' disclosure choices are significantly influenced by their exposure to legal liability (Skinner, 1994; Field et al., 2005). The core premise of litigation risk theory posits that managers balance the costs and benefits of

disclosure while considering potential legal consequences of their disclosure decisions.

Litigation risk theory identifies several key factors affecting disclosure choices: (1) the probability of litigation, (2) the expected costs of litigation, and (3) the effectiveness of disclosure as a deterrent to litigation (Francis et al., 1994). The Settlement altered these factors by changing the information environment and creating new potential sources of legal liability for firms and their research coverage providers.

Hypothesis Development

The Settlement's structural separation of research and banking operations likely influences firms' voluntary disclosure decisions through multiple litigation risk channels. First, the enhanced independence of research analysts may increase the scrutiny of firm disclosures, potentially exposing firms to greater litigation risk for incomplete or misleading disclosures (Healy and Palepu, 2001). The separation of research and banking operations may lead analysts to be more critical in their assessment of firm disclosures, increasing the likelihood that discrepancies or omissions are identified and potentially litigated.

Second, the Settlement's requirement for independent research budgeting and analyst compensation structures may affect the quantity and quality of analyst coverage, thereby influencing firms' disclosure strategies. Firms facing reduced or more objective analyst coverage may increase voluntary disclosure to fill information gaps and manage litigation risk (Lang and Lundholm, 1996). This response would be consistent with theoretical predictions that firms use voluntary disclosure as a mechanism to reduce information asymmetry and associated litigation risk (Verrecchia, 2001).

The combination of increased analyst independence and altered information environment suggests that firms affected by the Settlement would likely increase voluntary disclosure as a defensive mechanism against litigation risk. This prediction is supported by

prior literature showing that firms tend to increase voluntary disclosure when facing higher litigation risk (Rogers and Van Buskirk, 2009). The enhanced scrutiny from independent analysts and the potential for more critical research coverage create incentives for firms to provide more comprehensive voluntary disclosures to reduce litigation exposure.

H1: Following the implementation of the Global Research Analyst Settlement, firms increase their voluntary disclosure as a response to heightened litigation risk arising from enhanced analyst independence and scrutiny.

MODEL SPECIFICATION

Research Design

We identify firms affected by the Global Research Analyst Settlement (Settlement) through the Securities and Exchange Commission's (SEC) enforcement actions database. The Settlement, implemented in 2003, involved ten major investment banks and was jointly enforced by the SEC, NYSE, and NASD. We classify firms as treated if they had research coverage from any of the ten sanctioned investment banks in the pre-Settlement period, following the methodology of Bradshaw et al. (2014) and Chan et al. (2018).

To examine the impact of the Settlement on voluntary disclosure through the litigation risk channel, we employ the following regression model:

FreqMF = $\beta_0 + \beta_1$ Treatment Effect + γ Controls + ϵ

where FreqMF represents the frequency of management forecasts, measured as the natural logarithm of one plus the number of management forecasts issued during the fiscal year (Rogers and Van Buskirk, 2013). Treatment Effect is an indicator variable that equals one for

firm-years in the post-Settlement period for treated firms, and zero otherwise. Controls represents a vector of control variables known to affect voluntary disclosure decisions.

We include several control variables established in prior literature. Institutional Ownership controls for sophisticated investor demand for information (Ajinkya et al., 2005). Firm Size, measured as the natural logarithm of market capitalization, captures disclosure costs and information environment complexity (Lang and Lundholm, 1996). Book-to-Market ratio controls for growth opportunities and proprietary costs. ROA and Stock Return control for firm performance, while Earnings Volatility captures underlying business uncertainty (Waymire, 1985). Loss is an indicator for firms reporting negative earnings, and Class Action Litigation Risk is estimated following Kim and Skinner (2012).

Our sample covers fiscal years 2001-2005, centered around the 2003 Settlement implementation. We obtain financial data from Compustat, stock returns from CRSP, analyst coverage from I/B/E/S, and institutional ownership from Thomson Reuters. Management forecast data comes from First Call's Company Issued Guidance database. We require firms to have necessary data available for computing all variables and restrict our sample to firms with December fiscal year-ends to ensure alignment in the pre- and post-Settlement periods.

The treatment group consists of firms covered by sanctioned banks in the pre-Settlement period, while the control group includes firms without such coverage. To address potential endogeneity concerns arising from selection bias, we employ a difference-in-differences design and include firm and year fixed effects. This approach controls for time-invariant firm characteristics and common time trends that might affect voluntary disclosure decisions (Roberts and Whited, 2013).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 21,237 firm-quarter observations representing 5,592 unique firms across 268 industries from 2001 to 2005. This comprehensive dataset allows us to examine the period surrounding the Global Research Analyst Settlement, providing sufficient observations both pre- and post-regulation.

The institutional ownership variable (linstown) shows a mean (median) of 0.406 (0.379), indicating that institutional investors hold approximately 41% of sample firms' shares on average. The distribution of institutional ownership exhibits moderate dispersion, with an interquartile range of 0.527 (from 0.131 to 0.658), consistent with prior studies examining institutional ownership patterns in U.S. public firms (e.g., Bushee, 1998).

Firm size (lsize) displays considerable variation, with a mean (median) of 5.408 (5.323) and a standard deviation of 2.127. The return on assets (lroa) shows a mean of -0.073 and a median of 0.014, suggesting that our sample includes a substantial number of loss-making firms. This observation is further supported by the loss indicator variable (lloss), which shows that approximately 36% of our sample observations report negative earnings.

The book-to-market ratio (lbtm) has a mean (median) of 0.683 (0.526), with substantial variation as evidenced by a standard deviation of 0.697. Stock return volatility (levol) exhibits a right-skewed distribution with a mean of 0.168 and a median of 0.059, indicating the presence of some highly volatile firms in our sample.

We find that management forecast frequency (freqMF) has a mean of 0.647 and a median of 0.000, with substantial right-skewing (standard deviation = 0.875). This pattern suggests that while many firms do not provide management forecasts, some firms are quite active in their voluntary disclosure practices.

The post-law indicator variable shows that 57% of our observations fall in the post-regulation period, providing a balanced sample for analyzing the effects of the Global Research Analyst Settlement. The calculated litigation risk measure (lcalrisk) has a mean (median) of 0.440 (0.345), indicating varying levels of litigation exposure across our sample firms.

Notable patterns include the significant spread between mean and median values for several variables, particularly lroa and levol, suggesting the presence of influential observations. However, these patterns are consistent with prior research examining similar constructs in the accounting literature (e.g., Rogers and Stocken, 2005), and our subsequent analyses include appropriate controls for these distributional characteristics.

RESULTS

Regression Analysis

We find evidence of a significant relationship between the Global Research Analyst Settlement and firms' voluntary disclosure practices, though the direction of this relationship is sensitive to model specification. In our base specification (1), we document a positive treatment effect of 0.0882 (t=7.37, p<0.001), suggesting that firms increased their voluntary disclosure following the Settlement. However, after controlling for firm characteristics in specification (2), the treatment effect becomes negative (-0.0284) and remains statistically significant (t=-2.78, p<0.01).

The economic magnitude of these effects is meaningful. The initial positive effect represents an 8.82% increase in voluntary disclosure, while the controlled specification indicates a 2.84% decrease. The substantial change in R-squared from 0.25% in specification

(1) to 28.93% in specification (2) suggests that firm characteristics explain a considerable portion of the variation in voluntary disclosure behavior. This dramatic shift in both the magnitude and direction of the treatment effect highlights the importance of controlling for firm-specific factors when examining disclosure decisions.

The control variables in specification (2) exhibit relationships consistent with prior literature. We find that institutional ownership (coefficient=0.8883, t=33.46) and firm size (coefficient=0.0903, t=22.31) are positively associated with voluntary disclosure, aligning with prior findings that larger firms and those with greater institutional ownership tend to disclose more (Healy and Palepu, 2001). The positive associations with ROA (coefficient=0.1298, t=6.63) and stock returns (coefficient=0.0220, t=2.61) suggest that better-performing firms provide more voluntary disclosure. The negative coefficient on loss firms (coefficient=-0.2161, t=-16.57) is consistent with prior evidence that poorly performing firms may be more reluctant to disclose information voluntarily. Interestingly, our results do not support our initial hypothesis (H1). While we predicted an increase in voluntary disclosure following the Settlement due to heightened litigation risk, our more robust specification (2) suggests that firms actually reduced their voluntary disclosure, potentially indicating that firms responded to the enhanced analyst independence by becoming more conservative in their disclosure practices rather than more transparent.

CONCLUSION

This study examines how the 2003 Global Research Analyst Settlement affected firms' voluntary disclosure practices through the litigation risk channel. Specifically, we investigated whether the structural separation of research and investment banking operations mandated by the Settlement influenced managers' disclosure decisions by altering their perceived litigation

risk environment. Our analysis contributes to the broader literature on the relationship between regulatory changes and corporate disclosure behavior.

While our study does not present specific regression results, the theoretical framework and institutional analysis suggest that the Settlement likely had significant implications for corporate disclosure practices through multiple mechanisms. The separation of research and investment banking functions appears to have altered the information environment in which firms operate, potentially affecting both the quantity and quality of voluntary disclosures. This finding aligns with prior research documenting the importance of intermediary institutions in shaping corporate disclosure choices (Healy and Palepu, 2001; Rogers and Van Buskirk, 2009).

The Settlement's impact on litigation risk appears to operate through two primary channels. First, the enhanced independence of research analysts likely increased scrutiny of corporate disclosures, potentially raising litigation risk for firms making misleading or incomplete disclosures. Second, the structural changes in the investment banking industry may have altered the nature of information verification and dissemination, affecting firms' disclosure strategies in response to changed litigation risk calculations.

Our findings have important implications for regulators and policymakers. The evidence suggests that structural reforms targeting financial intermediaries can have significant spillover effects on corporate disclosure practices through the litigation risk channel. This highlights the need for regulators to consider these indirect effects when designing and implementing financial market reforms. The results also suggest that the effectiveness of disclosure regulation may depend critically on the institutional environment in which firms operate.

For corporate managers, our analysis suggests the importance of carefully considering how changes in the external information environment affect their disclosure strategies. The Settlement's impact on litigation risk implies that managers may need to adjust their voluntary disclosure practices in response to structural changes in financial markets, even when such changes do not directly target corporate disclosure requirements. For investors, our findings highlight the complex interplay between financial market structure, litigation risk, and information quality.

Several limitations of our study warrant mention and suggest promising directions for future research. First, the absence of specific regression results limits our ability to make strong causal claims about the Settlement's impact. Future research could employ more rigorous identification strategies to isolate the causal effect of the Settlement on voluntary disclosure through the litigation risk channel. Second, our analysis focuses primarily on the U.S. market, and future studies could examine how similar reforms affect disclosure practices in other institutional contexts. Additionally, researchers could investigate how technological changes and the evolution of information intermediaries affect the relationship between litigation risk and voluntary disclosure.

Looking forward, our findings suggest several promising avenues for future research. Scholars could examine how subsequent regulatory changes have interacted with the Settlement's effects on litigation risk and disclosure practices. Future work might also investigate how firms' disclosure strategies have evolved in response to changes in the litigation environment, particularly in light of recent developments in securities law and enforcement practices. Such research would further enhance our understanding of how institutional changes affect corporate disclosure through the litigation risk channel.

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Table 1Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	21,237	0.6466	0.8752	0.0000	0.0000	1.3863
Treatment Effect	21,237	0.5697	0.4951	0.0000	1.0000	1.0000
Institutional ownership	21,237	0.4059	0.2933	0.1313	0.3791	0.6579
Firm size	21,237	5.4082	2.1271	3.8441	5.3231	6.8428
Book-to-market	21,237	0.6827	0.6968	0.2893	0.5255	0.8672
ROA	21,237	-0.0730	0.2939	-0.0581	0.0138	0.0570
Stock return	21,237	0.0022	0.6119	-0.3599	-0.1159	0.1883
Earnings volatility	21,237	0.1684	0.3184	0.0235	0.0591	0.1649
Loss	21,237	0.3595	0.4799	0.0000	0.0000	1.0000
Class action litigation risk	21,237	0.4398	0.3468	0.1163	0.3455	0.7816

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

Table 2
Pearson Correlations
GlobalResearchAnalystSettlement Litigation Risk

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	0.05	0.14	0.10	-0.13	0.07	0.00	-0.04	-0.07	-0.10
FreqMF	0.05	1.00	0.48	0.48	-0.16	0.22	-0.00	-0.13	-0.25	0.07
Institutional ownership	0.14	0.48	1.00	0.69	-0.18	0.28	-0.11	-0.22	-0.24	0.05
Firm size	0.10	0.48	0.69	1.00	-0.38	0.32	-0.02	-0.23	-0.34	0.06
Book-to-market	-0.13	-0.16	-0.18	-0.38	1.00	0.06	-0.15	-0.11	0.10	-0.08
ROA	0.07	0.22	0.28	0.32	0.06	1.00	0.18	-0.59	-0.59	-0.29
Stock return	0.00	-0.00	-0.11	-0.02	-0.15	0.18	1.00	-0.05	-0.17	-0.09
Earnings volatility	-0.04	-0.13	-0.22	-0.23	-0.11	-0.59	-0.05	1.00	0.39	0.31
Loss	-0.07	-0.25	-0.24	-0.34	0.10	-0.59	-0.17	0.39	1.00	0.35
Class action litigation risk	-0.10	0.07	0.05	0.06	-0.08	-0.29	-0.09	0.31	0.35	1.00

This table shows the Pearson correlations for the sample. Correlations that are significant at the 0.05 level or better are highlighted in bold.

Table 3

The Impact of Global Research Analyst Settlement on Management Forecast Frequency

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

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