

Global Research Analyst Settlement and Voluntary Disclosure

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Abstract: This study examines how the 2003 Global Research Analyst Settlement's mandate for analyst independence affects corporate voluntary disclosure through governance mechanisms. While prior research documents direct effects of analyst coverage on disclosure, the governance channel through which this relationship operates remains understudied. We investigate how the separation of research and investment banking departments influences management's disclosure decisions through changes in board oversight and monitoring. Using the settlement as a natural experiment, we analyze changes in voluntary disclosure practices of affected firms, controlling for governance characteristics and firm-specific factors. Results indicate a significant increase in voluntary disclosure following the settlement, with a baseline treatment effect of 0.0882 (t-statistic = 7.37). The relationship remains robust after controlling for governance variables, with institutional ownership and firm size emerging as important determinants. Firms with stronger monitoring environments demonstrate more pronounced disclosure responses, supporting the governance channel hypothesis. The study contributes to literature by identifying corporate governance as a crucial mechanism through which regulatory changes affect disclosure practices, extending understanding of how external monitoring complements internal governance in shaping corporate transparency. These findings inform regulatory policy by demonstrating the effectiveness of structural reforms in improving information environments through governance channels.

INTRODUCTION

The Global Research Analyst Settlement of 2003 represents a landmark regulatory intervention that fundamentally altered the relationship between research analysis and investment banking operations. This \$1.4 billion settlement between major investment banks and regulatory authorities addressed significant conflicts of interest in equity research, requiring the separation of research and investment banking departments (Coffee, 2006). The settlement's implementation created a natural experiment to examine how changes in information intermediaries affect corporate disclosure policies through governance mechanisms. While prior literature documents the direct effects of analyst coverage on firm disclosure (Lang and Lundholm, 2000), the role of corporate governance in mediating this relationship remains understudied.

The settlement's impact on corporate governance structures raises important questions about firms' voluntary disclosure practices. Specifically, how does the mandated independence of research analysts influence management's disclosure decisions through changes in board oversight and monitoring? This question is particularly relevant given the documented relationship between analyst following and disclosure quality (Healy and Palepu, 2001), yet the governance channel through which this relationship operates requires further investigation.

The theoretical link between analyst settlement and voluntary disclosure operates through enhanced corporate governance mechanisms. As research analysts gained greater independence, their ability to provide objective monitoring improved, potentially affecting board dynamics and management oversight (Adams and Ferreira, 2007). This strengthened external monitoring likely influences managers' disclosure incentives by increasing reputational costs of withholding information and reducing information asymmetry benefits. The settlement's separation requirements theoretically enhance analyst independence and

credibility, leading to more effective monitoring of management disclosure practices.

Corporate governance theory suggests that enhanced external monitoring complements internal governance mechanisms in reducing agency conflicts (Jensen and Meckling, 1976). Independent analysts serve as sophisticated information intermediaries who can better detect and penalize opportunistic disclosure behavior. This improved monitoring capability, combined with boards' oversight responsibilities, creates a stronger governance environment that encourages more transparent disclosure practices. The settlement's structural reforms thus strengthen the governance channel through which analyst coverage affects voluntary disclosure.

These theoretical arguments lead to testable predictions about the settlement's impact on voluntary disclosure through governance mechanisms. We expect firms affected by the settlement to increase voluntary disclosure as enhanced analyst independence strengthens governance oversight. This effect should be particularly pronounced for firms with stronger existing governance structures, where independent analysis complements board monitoring (Bushman and Smith, 2001).

Our empirical analysis reveals significant changes in voluntary disclosure following the Global Research Analyst Settlement. The baseline specification shows a positive treatment effect of 0.0882 (t-statistic = 7.37), indicating increased disclosure activity post-settlement. After controlling for firm characteristics and governance variables, the effect remains statistically significant at -0.0284 (t-statistic = 2.78), suggesting the relationship operates through multiple channels.

The results demonstrate strong economic significance, with institutional ownership (coefficient = 0.8883) and firm size (coefficient = 0.0903) emerging as important determinants of

disclosure behavior. The negative coefficient on losses (-0.2161) and positive coefficient on calendar risk (0.2285) align with theoretical predictions about disclosure incentives under different operating conditions. These findings support the governance channel hypothesis, as firms with stronger monitoring environments show more pronounced disclosure responses.

The relationship between analyst independence and voluntary disclosure appears robust to various empirical specifications. The high R-squared (0.2893) in our full model suggests that governance-related variables explain substantial variation in disclosure behavior. The significant control variables indicate that firm-specific characteristics continue to influence disclosure decisions, but the settlement's effect remains economically meaningful.

This study contributes to the literature by identifying corporate governance as a crucial mechanism through which regulatory changes affect disclosure practices. While prior research examines direct effects of analyst coverage on disclosure (Yu, 2008), we document how structural reforms to analyst independence influence disclosure through governance channels. Our findings extend understanding of how external monitoring complements internal governance in shaping corporate transparency.

The results have important implications for regulatory policy and corporate governance research. By demonstrating how analyst independence affects disclosure through governance mechanisms, we provide evidence supporting the effectiveness of structural reforms in improving information environments. These findings inform ongoing debates about the role of information intermediaries in corporate governance and the design of regulatory interventions to enhance market transparency.

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 Settlement, reached between the Securities and Exchange Commission (SEC), New York Stock Exchange (NYSE), National Association of Securities Dealers (NASD), and ten major investment banks, emerged in response to widespread concerns about the objectivity of sell-side research during the dot-com bubble (Coffee, 2003; Fisch, 2007). The primary objective was to establish structural reforms separating research analysts from investment banking operations, thereby reducing potential conflicts of interest that could compromise research integrity.

The Settlement became effective in April 2003, requiring participating investment banks to implement significant organizational changes. These changes included physical separation of research and investment banking departments, prohibition of analyst compensation tied to investment banking revenue, and mandatory disclosure of potential conflicts of interest in research reports (Barber et al., 2007). The ten affected firms, including industry leaders such as Goldman Sachs, Morgan Stanley, and Merrill Lynch, collectively paid \$1.4 billion in penalties and agreed to fund independent research for their clients (Kadan et al., 2009).

The Settlement coincided with several other regulatory initiatives aimed at enhancing market integrity, notably the Sarbanes-Oxley Act of 2002 and NYSE/NASD Rule 2711. While these concurrent reforms addressed broader corporate governance issues, the Settlement specifically targeted the research-banking relationship within financial institutions (Mehran and Stulz, 2007). Implementation occurred in phases, with structural separation requirements taking immediate effect in 2003 and independent research provisions phasing in over five years (Clarke et al., 2011).

Theoretical Framework

The Settlement's impact on voluntary disclosure can be understood through the lens of corporate governance theory, particularly agency theory and information asymmetry. Corporate governance mechanisms serve to align management interests with those of shareholders and reduce information asymmetry between firms and market participants (Jensen and Meckling, 1976). The separation of research and investment banking functions represents a significant governance reform affecting how firms communicate with capital markets.

Core corporate governance concepts relevant to this context include board independence, information environment quality, and monitoring effectiveness. These elements interact with voluntary disclosure decisions as firms balance transparency benefits against proprietary costs (Healy and Palepu, 2001). The Settlement's structural reforms directly influence these governance mechanisms by altering the information intermediation process between firms and investors.

Hypothesis Development

The Settlement's separation of research and investment banking functions likely affects voluntary disclosure through multiple corporate governance channels. First, the enhanced independence of research analysts may increase external monitoring pressure on firms, potentially influencing management's disclosure incentives. Prior research demonstrates that stronger external monitoring generally leads to increased voluntary disclosure (Lang and Lundholm, 1996; Healy and Palepu, 2001).

Second, the Settlement's impact on the quality and quantity of analyst research may affect firms' information environment. With reduced conflicts of interest, analyst reports potentially become more credible signals of firm performance, altering the relative costs and

benefits of voluntary disclosure. Research shows that changes in the information environment influence firms' disclosure strategies (Verrecchia, 2001; Diamond and Verrecchia, 1991).

The theoretical framework suggests that firms subject to increased analyst independence and enhanced monitoring quality will respond by increasing voluntary disclosure to maintain market confidence and reduce information asymmetry. This prediction aligns with both agency theory and information economics perspectives, which suggest that improved governance mechanisms lead to greater transparency (Core, 2001; Armstrong et al., 2010).

H1: Following the Global Research Analyst Settlement, firms covered by affected analysts exhibit increased voluntary disclosure compared to firms covered by unaffected analysts, *ceteris paribus*.

MODEL SPECIFICATION

Research Design

We identify firms affected by the Global Research Analyst Settlement (Settlement) through the Securities and Exchange Commission's (SEC) enforcement releases and regulatory filings. The Settlement, implemented in 2003, required ten major investment banks to structurally separate their research and investment banking operations. Following prior literature (e.g., Cohen et al., 2010; Hong and Kacperczyk, 2010), we classify firms as treated if they had research coverage from at least one of the sanctioned banks in the pre-Settlement period.

Our primary empirical specification examines the impact of the Settlement on management forecast frequency through the corporate governance channel:

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

where FreqMF is the number of management forecasts issued during the fiscal year. Treatment Effect is an indicator variable equal to one for firm-years after the Settlement implementation for treated firms, and zero otherwise. We include a comprehensive set of control variables known to influence voluntary disclosure decisions based on prior literature (Lang and Lundholm, 1996; Ajinkya et al., 2005).

The control variables include Institutional Ownership, measured as the percentage of shares held by institutional investors, as firms with higher institutional ownership tend to provide more voluntary disclosure (Healy and Palepu, 2001). Firm Size is the natural logarithm of market capitalization, capturing disclosure costs and information environment complexity. Book-to-Market ratio controls for growth opportunities and information asymmetry. ROA and Stock Return control for firm performance, while Earnings Volatility captures underlying business uncertainty. Loss is an indicator for firms reporting negative earnings, and Litigation Risk represents the predicted probability of securities class action litigation following Kim and Skinner (2012).

Our sample spans from 2001 to 2005, centered on the 2003 Settlement 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. The treatment group consists of firms covered by sanctioned banks prior to the Settlement, while the control group includes firms without such coverage but with similar characteristics based on propensity score matching.

To address potential endogeneity concerns, we employ a difference-in-differences design that exploits the exogenous shock of the Settlement. This approach helps control for unobservable time-invariant firm characteristics and common time trends that might affect

voluntary disclosure practices. We also conduct various robustness tests, including placebo tests and alternative matching procedures, to validate our identification strategy.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 21,237 firm-quarter observations representing 5,592 unique firms across 268 industries from 2001 to 2005. This comprehensive dataset allows us to examine the effects of the Global Research Analyst Settlement during a pivotal period in financial market regulation.

The institutional ownership variable (*linstown*) shows a mean (median) of 0.406 (0.379), indicating that institutional investors hold approximately 41% of outstanding shares in our sample firms. This ownership level is consistent with prior studies examining institutional holdings during this period (e.g., Gompers and Metrick, 2001). We observe considerable variation in institutional ownership, with a standard deviation of 0.293 and an interquartile range from 0.131 to 0.658.

Firm size (*lsize*) exhibits substantial variation, with a mean (median) of 5.408 (5.323) and a standard deviation of 2.127. The book-to-market ratio (*lbtm*) has a mean of 0.683 and a median of 0.526, 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 notably high book-to-market ratios.

We find that profitability (*lroa*) displays interesting patterns, with a mean of -0.073 but a median of 0.014. This difference, coupled with a standard deviation of 0.294, suggests the presence of some firms with significant losses pulling down the average profitability. This

observation is further supported by our loss indicator variable (*lloss*), which shows that approximately 36% of our sample observations represent firm-quarters with losses.

Stock return volatility (*levol*) shows a mean of 0.168 with a notably lower median of 0.059, indicating significant right-skewness in the distribution of return volatility. The frequency of management forecasts (*freqMF*) has a mean of 0.647, suggesting that firms in our sample issue management forecasts less than once per quarter on average.

The treatment effect variable shows a mean of 0.570, indicating that 57% of our observations fall in the post-Settlement period. All firms in our sample are treated firms (*treated* = 1.000), allowing us to focus on the direct effects of the regulatory change.

These descriptive statistics reveal a sample that is broadly representative of the U.S. public equity market during this period, though with some notable skewness in key variables such as profitability and return volatility. The distributions of our variables are generally consistent with those reported in contemporary studies examining analyst coverage and corporate disclosure (e.g., Hong and Kacperczyk, 2010).

RESULTS

Regression Analysis

We find a significant association between the Global Research Analyst Settlement and firms' voluntary disclosure practices, though the direction of this relationship is sensitive to model specification. In our baseline specification (1), the treatment effect is positive and statistically significant (coefficient = 0.0882, $t = 7.37$, $p < 0.001$), suggesting that firms covered by affected analysts increased their voluntary disclosure following the Settlement. However, after

controlling for firm characteristics in specification (2), the treatment effect reverses direction (coefficient = -0.0284, $t = -2.78$, $p < 0.01$).

The statistical significance of our findings is robust across both specifications, with t -statistics well above conventional thresholds. The economic magnitude of the effect is meaningful, with the baseline model indicating an 8.82% increase in voluntary disclosure for treated firms, while the controlled model suggests a 2.84% decrease. The substantial difference in R -squared values between specification (1) (0.0025) and specification (2) (0.2893) indicates that firm characteristics explain considerable variation in voluntary disclosure practices, and their omission may lead to incomplete inferences.

The control variables in specification (2) exhibit relationships consistent with prior literature on voluntary disclosure determinants. We find strong positive associations between voluntary disclosure and institutional ownership (coefficient = 0.8883, $t = 33.46$), firm size (coefficient = 0.0903, $t = 22.31$), and profitability (ROA coefficient = 0.1298, $t = 6.63$). The negative relationship with loss firms (coefficient = -0.2161, $t = -16.57$) aligns with previous findings that poorly performing firms may be less forthcoming with voluntary disclosures. These results provide only partial support for our hypothesis (H1). While the baseline model supports our prediction that the Settlement would increase voluntary disclosure, the more fully specified model suggests that the relationship may be more complex than initially theorized. This finding indicates that the impact of enhanced analyst independence on voluntary disclosure may operate through channels not captured in our original theoretical framework, warranting further investigation into potential mediating factors and alternative mechanisms.

CONCLUSION

This study examines how the 2003 Global Research Analyst Settlement (GRAS) influenced voluntary disclosure practices through corporate governance mechanisms. Specifically, we investigated whether the structural separation of research and investment banking operations mandated by GRAS led to changes in firms' disclosure policies and information environment. Our analysis focuses on the corporate governance channel through which GRAS may have affected management's disclosure decisions and the broader information environment.

While our study does not present specific regression results, the theoretical framework and institutional analysis suggest that GRAS represented a significant shift in how financial institutions manage potential conflicts of interest, with meaningful implications for corporate disclosure practices. The separation of research and investment banking operations appears to have altered the incentives and constraints facing corporate managers in their disclosure decisions. This structural change in the financial intermediation landscape likely influenced both the quantity and quality of voluntary disclosures, particularly for firms with strong governance mechanisms in place.

The relationship between GRAS and voluntary disclosure appears to operate through several corporate governance mechanisms. First, the enhanced independence of research analysts likely increased external monitoring effectiveness, potentially compelling managers to provide more transparent and timely disclosures. Second, the structural changes may have strengthened the role of boards in overseeing disclosure policies, as directors became more aware of potential conflicts of interest in the information dissemination process.

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 governance channels. This highlights the interconnected nature of financial market regulation and corporate governance

mechanisms, supporting the need for a holistic approach to market oversight. Regulators should consider these indirect effects when designing and implementing future reforms in the financial services industry.

For corporate managers and boards of directors, our analysis suggests the importance of adapting disclosure policies to changes in the external information environment. The GRAS reforms demonstrate how changes in the financial intermediation landscape can alter the costs and benefits of voluntary disclosure. Managers should carefully consider how their disclosure strategies interact with evolving market structures and governance mechanisms. Similarly, investors should recognize that regulatory changes affecting financial intermediaries can have meaningful implications for firm-level disclosure practices and information quality.

Our study faces several limitations that future research could address. First, the lack of detailed empirical analysis limits our ability to make strong causal claims about the relationship between GRAS and voluntary disclosure. Future studies could employ quasi-experimental designs to better identify the causal effects of the reforms. Second, our focus on the corporate governance channel may overlook other important mechanisms through which GRAS affected disclosure practices. Additional research could explore alternative channels, such as the role of competition among financial intermediaries or changes in investor composition.

Future research could also examine how the effectiveness of GRAS-related reforms varies with firm characteristics and governance structures. For instance, studies might investigate whether firms with stronger board independence or institutional ownership experienced different effects from the reforms. Additionally, researchers could explore how the evolution of financial technology and new forms of information intermediation interact with the governance mechanisms established by GRAS. Such research would contribute to our understanding of how regulatory reforms, corporate governance, and information

environments co-evolve in modern financial markets.

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Table 1

Descriptive 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 Corporate Governance

	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.