Proxy Disclosure Enhancements and Voluntary Disclosure

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Abstract: Corporate governance mechanisms fundamentally shape information environments and disclosure practices within public corporations, with the Securities and Exchange Commission's 2007 Proxy Disclosure Enhancements representing a pivotal regulatory intervention designed to strengthen shareholder oversight through enhanced transparency in executive compensation reporting. While extensive literature examines direct effects of disclosure regulations on compliance behavior, limited research explores how enhanced proxy disclosures affect firms' voluntary disclosure incentives through corporate governance mechanisms. This study investigates whether the Proxy Disclosure Enhancements regulation influenced voluntary disclosure practices by altering the corporate governance environment, specifically examining how enhanced shareholder monitoring capabilities affect management's disclosure strategies. The theoretical foundation rests on agency theory, suggesting that enhanced proxy disclosures provide shareholders with superior information to evaluate management performance, thereby strengthening monitoring mechanisms and creating incentives for management to proactively manage information flows. The empirical analysis exploits the regulatory implementation to identify causal effects on voluntary disclosure practices, controlling for firm-specific characteristics and temporal trends. Results reveal statistically significant negative treatment effects, with baseline specifications demonstrating treatment effects of -0.0797 ($p < 0.001$), indicating that firms subject to enhanced proxy disclosure requirements reduced voluntary disclosure levels following

regulatory implementation. These findings remain robust across multiple specifications and suggest that enhanced proxy disclosures create substitution effects rather than complementary disclosure incentives through corporate governance channels, contributing new evidence on how targeted regulatory interventions produce unintended consequences in corporate information environments.

INTRODUCTION

Corporate governance mechanisms play a fundamental role in shaping information environments and disclosure practices within public corporations. The Securities and Exchange Commission's implementation of Proxy Disclosure Enhancements in 2007 represents a pivotal regulatory intervention designed to strengthen shareholder oversight through enhanced transparency in executive compensation reporting. This regulation mandated comprehensive disclosure requirements in proxy statements, fundamentally altering the information landscape available to shareholders and creating new dynamics in corporate governance structures (Larcker and Tayan, 2011; Armstrong et al., 2010). The enhanced disclosure requirements established clearer channels for shareholder monitoring and evaluation of management performance, positioning proxy disclosures as critical components of the broader corporate governance framework.

The intersection between mandatory proxy disclosures and voluntary disclosure decisions presents a compelling research opportunity to examine how regulatory interventions influence corporate transparency strategies through governance channels. While extensive literature examines the direct effects of disclosure regulations on compliance behavior, limited research explores how enhanced proxy disclosures affect firms' voluntary disclosure incentives through corporate governance mechanisms (Beyer et al., 2010; Healy and Palepu, 2001). We investigate whether the Proxy Disclosure Enhancements regulation influenced voluntary disclosure practices by altering the corporate governance environment, specifically examining how enhanced shareholder monitoring capabilities affect management's disclosure strategies. This research addresses a critical gap in understanding the spillover effects of targeted regulatory interventions on broader corporate disclosure behavior through governance channels.

The theoretical foundation for linking proxy disclosure enhancements to voluntary disclosure rests on agency theory and the role of information asymmetry in corporate governance relationships. Enhanced proxy disclosures provide shareholders with superior information to evaluate management performance and compensation structures, thereby strengthening monitoring mechanisms and reducing information asymmetries between principals and agents (Jensen and Meckling, 1976; Fama and Jensen, 1983). When shareholders possess enhanced information about executive compensation and performance metrics, their ability to exercise effective oversight increases, creating incentives for management to proactively manage information flows to maintain favorable stakeholder relationships. This theoretical framework suggests that improved corporate governance through enhanced proxy disclosures should influence management's voluntary disclosure decisions as a strategic response to heightened monitoring intensity.

The corporate governance channel operates through multiple interconnected mechanisms that link mandatory proxy disclosures to voluntary disclosure behavior. Stronger shareholder monitoring capabilities, facilitated by enhanced proxy information, increase the potential costs of information withholding and create incentives for proactive disclosure strategies (Bushman and Smith, 2001; Core et al., 2008). Additionally, enhanced proxy disclosures may alter the composition and engagement levels of institutional investors, who typically demand higher levels of corporate transparency and possess sophisticated capabilities to process and utilize disclosed information (Bushee and Noe, 2000). The governance channel also encompasses board oversight functions, as enhanced compensation disclosures provide directors with better benchmarking information and create pressures for improved oversight of management disclosure practices.

Building on these theoretical foundations, we develop testable predictions regarding the relationship between proxy disclosure enhancements and voluntary disclosure through corporate governance mechanisms. We hypothesize that firms subject to enhanced proxy disclosure requirements will exhibit changes in voluntary disclosure behavior as management responds to altered governance dynamics and monitoring intensities. The direction of this relationship depends on whether enhanced governance creates complementary incentives for increased voluntary disclosure or substitution effects where mandatory disclosures reduce the marginal benefits of voluntary transparency. Our empirical approach exploits the regulatory implementation of Proxy Disclosure Enhancements to identify causal effects on voluntary disclosure practices, controlling for firm-specific characteristics and temporal trends that might confound the governance channel relationships.

Our empirical analysis reveals statistically significant negative treatment effects of the Proxy Disclosure Enhancements regulation on voluntary disclosure practices. The baseline specification demonstrates a treatment effect of -0.0797 with a t-statistic of 7.72 ($p < 0.001$), indicating that firms subject to enhanced proxy disclosure requirements reduced their voluntary disclosure levels following the regulatory implementation. This finding remains robust across multiple specifications, with treatment effects of -0.0634 ($t = 4.89$, $p < 0.001$) and -0.0455 ($t = 3.77$, $p < 0.001$) in models with increasing levels of control variables and fixed effects. The consistency of negative treatment effects across specifications suggests that enhanced proxy disclosures create substitution effects rather than complementary disclosure incentives through the corporate governance channel.

The control variables provide important insights into the determinants of voluntary disclosure and the robustness of our treatment effect estimates. Institutional ownership emerges as the strongest predictor of voluntary disclosure in our second specification, with a coefficient of 0.8019 ($t = 17.37$, $p < 0.001$), highlighting the critical role of sophisticated investors in demanding corporate transparency. Firm size consistently exhibits positive associations with voluntary disclosure across specifications, with coefficients ranging from 0.0948 to 0.1356 ($p < 0.001$), consistent with established literature on economies of scale in disclosure production. Loss-making firms demonstrate significantly lower voluntary disclosure levels, with coefficients of -0.2137 and -0.1197 ($p < 0.001$), suggesting that poor performance creates incentives for information withholding despite enhanced governance monitoring.

The progression of R-squared values across specifications, from 0.0019 to 0.8531, demonstrates the importance of controlling for firm characteristics and unobserved heterogeneity in disclosure studies. The substantial improvement in explanatory power indicates that firm-specific factors and fixed effects account for the majority of variation in voluntary disclosure practices, while the persistent significance of treatment effects across all specifications confirms the robustness of our corporate governance channel findings. The negative coefficients on stock return volatility in the most comprehensive specification (-0.1197, $t = -3.19$, $p < 0.01$) suggest that firms facing higher uncertainty may reduce voluntary disclosure when governance monitoring intensifies, consistent with strategic disclosure theories that predict selective information release under enhanced scrutiny.

Our findings contribute to several streams of literature examining regulatory effects on corporate disclosure and governance mechanisms. Unlike prior studies that focus primarily on direct compliance effects of disclosure regulations, we demonstrate significant spillover effects on voluntary disclosure practices through corporate governance channels (Leuz and Wysocki, 2016; Christensen et al., 2016). Our results contrast with theoretical predictions from agency theory that suggest enhanced monitoring should increase voluntary disclosure, instead supporting substitution theories where mandatory disclosures reduce incentives for additional transparency. The negative treatment effects we document provide new evidence on how targeted regulatory interventions can produce unintended consequences in corporate information environments through governance mechanisms.

The broader implications of our findings extend to regulatory design and corporate governance theory, suggesting that policymakers must consider indirect effects of disclosure regulations on voluntary transparency practices. Our evidence indicates that enhanced proxy disclosures may reduce overall information production if substitution effects dominate complementary disclosure incentives, potentially limiting the intended benefits of regulatory interventions. These findings contribute to ongoing debates about optimal disclosure regulation and highlight the complex relationships between mandatory and voluntary disclosure practices in modern corporate governance systems (Dye, 2001; Verrecchia, 2001). The corporate governance channel we identify provides a mechanism for understanding how regulatory changes propagate through corporate information systems and affect stakeholder information environments beyond direct compliance requirements.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Proxy Disclosure Enhancements, adopted by the Securities and Exchange Commission (SEC) in 2006 and effective for proxy statements filed after December 15, 2006 (covering fiscal years ending on or after December 15, 2006), represented a comprehensive overhaul of executive compensation disclosure requirements (Larcker et al., 2011). The rule amendments significantly expanded the scope and detail of compensation disclosures in proxy statements, requiring public companies to provide clearer, more comprehensive information about executive pay arrangements, including a new Compensation Discussion and Analysis (CD&A;) section and enhanced tabular presentations of compensation data (Armstrong et al., 2013). These changes affected all publicly traded companies subject to SEC proxy disclosure requirements, fundamentally altering the information landscape available to shareholders regarding executive compensation decisions (Conyon and He, 2016).

The SEC instituted these changes in response to growing concerns about executive compensation levels and the perceived lack of transparency in existing disclosure requirements (Bebchuk and Fried, 2004; Core et al., 2008). Prior to 2007, executive compensation disclosures were often fragmented and difficult for shareholders to interpret, limiting their ability to make informed voting decisions on compensation-related matters. The enhanced disclosure requirements aimed to provide shareholders with more meaningful information to evaluate executive pay practices and exercise their governance rights more effectively (Larcker and Tayan, 2011). The rule changes were part of broader regulatory efforts to strengthen corporate governance mechanisms and improve market transparency following high-profile corporate scandals of the early 2000s.

The implementation of Proxy Disclosure Enhancements occurred during a period of relatively limited contemporaneous securities law changes, providing a relatively clean setting for empirical analysis (Armstrong et al., 2013). While the Sarbanes-Oxley Act had been implemented several years earlier (2002-2004), and Regulation FD had taken effect in 2000, the 2007 proxy disclosure changes represented one of the most significant standalone regulatory modifications to corporate disclosure requirements during this period (Larcker et al., 2011). This timing allows researchers to isolate the effects of enhanced proxy disclosures from other major regulatory interventions, though we acknowledge that ongoing implementation of SOX provisions may have created some contemporaneous effects on corporate governance practices.

Theoretical Framework

The Proxy Disclosure Enhancements operate through corporate governance mechanisms by fundamentally altering the information environment in which shareholders exercise their oversight responsibilities. Corporate governance theory posits that effective monitoring of management requires access to relevant, reliable information about managerial actions and performance (Jensen and Meckling, 1976; Fama and Jensen, 1983). The enhanced proxy disclosure requirements directly address information asymmetries between managers and shareholders, particularly regarding executive compensation arrangements that may reflect agency conflicts.

Core concepts of corporate governance theory emphasize the importance of transparency and accountability in mitigating agency problems between managers and shareholders (Shleifer and Vishny, 1997). Effective governance systems require mechanisms that enable shareholders to monitor management performance and make informed decisions about director elections, executive compensation, and other corporate matters (Gillan and Starks, 2000). Enhanced disclosure serves as a fundamental governance mechanism by reducing information asymmetries and enabling more effective shareholder oversight of managerial decisions (Healy and Palepu, 2001).

Corporate governance theory connects to voluntary disclosure decisions through multiple channels, as managers' disclosure choices reflect their incentives to communicate with stakeholders and manage their reputational capital (Beyer et al., 2010). When mandatory disclosure requirements enhance the overall governance environment, managers may respond by adjusting their voluntary disclosure strategies to maintain their preferred level of information asymmetry or to signal their commitment to transparency (Dye, 2001). The governance improvements resulting from enhanced proxy disclosures may therefore create spillover effects on managers' broader communication strategies with capital market participants.

Hypothesis Development

We develop our hypothesis by examining how enhanced proxy disclosure requirements influence managers' voluntary disclosure decisions through corporate governance channels. The Proxy Disclosure Enhancements fundamentally altered the governance landscape by providing shareholders with substantially more detailed information about executive compensation arrangements, thereby strengthening their ability to monitor and evaluate management performance (Larcker et al., 2011). This enhanced monitoring capacity creates new incentives for managers to adjust their overall disclosure strategies, as the increased scrutiny of compensation practices may extend to broader evaluation of managerial performance and corporate transparency (Armstrong et al., 2013). When shareholders possess better information about executive pay arrangements, they become more effective monitors of management, potentially leading managers to increase voluntary disclosures to maintain favorable stakeholder relationships and reduce the likelihood of shareholder activism or other governance interventions (Core et al., 2008).

The theoretical literature on corporate governance and disclosure suggests that enhanced mandatory disclosure requirements can create complementary effects on voluntary disclosure through several mechanisms. First, improved governance environments may increase managers' incentives to provide voluntary information as a means of demonstrating their commitment to transparency and building trust with stakeholders (Healy and Palepu, 2001). Second, when mandatory disclosures enhance shareholders' ability to monitor management, managers may strategically increase voluntary disclosures to influence how shareholders interpret and respond to the mandatory information (Dye, 2001). Third, enhanced governance mechanisms may reduce managers' ability to extract private benefits from information asymmetries, leading them to adopt more transparent communication strategies overall (Bushman and Smith, 2001). The corporate governance improvements resulting from enhanced proxy disclosures may therefore create a governance environment that encourages rather than substitutes for voluntary disclosure.

However, we acknowledge that competing theoretical predictions exist regarding the relationship between mandatory and voluntary disclosure. Some theoretical models suggest that mandatory and voluntary disclosures may serve as substitutes, with increased mandatory requirements potentially reducing managers' incentives to provide voluntary information (Dye, 1985; Verrecchia, 1983). Additionally, if enhanced proxy disclosures satisfy shareholders' information demands or if the increased scrutiny creates costs that outweigh the benefits of voluntary disclosure, managers might reduce their voluntary communication efforts. Nevertheless, we argue that the corporate governance channel provides a compelling theoretical foundation for expecting a positive relationship between proxy disclosure enhancements and voluntary disclosure, as the governance improvements create incentives for managers to maintain or enhance their overall transparency to preserve stakeholder relationships and avoid governance interventions. The empirical evidence on governance improvements and disclosure practices generally supports the complementary rather than substitutive relationship between enhanced governance mechanisms and voluntary disclosure (Karamanou and Vafeas, 2005; Ajinkya et al., 2005).

H1: The implementation of Proxy Disclosure Enhancements increases firms' voluntary disclosure through improved corporate governance mechanisms.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our analysis examines all firms in the Compustat universe during the sample period surrounding the implementation of the Proxy Disclosure Enhancements regulation in 2007. The Securities and Exchange Commission (SEC) enacted these enhanced disclosure requirements to improve transparency in proxy statements regarding executive compensation, thereby providing shareholders with better information for voting decisions. While the Proxy Disclosure Enhancements may have more direct implications for certain firms or industries with complex compensation structures, our research design examines the broader market-wide effects by including all firms in the Compustat universe. This comprehensive approach allows us to capture potential spillover effects and economy-wide changes in disclosure behavior following the regulatory change. The treatment variable in our analysis affects all firms in the post-regulation period, reflecting the systematic nature of regulatory changes on market-wide disclosure practices and investor expectations.

Model Specification

We employ a pre-post regression design to examine the relationship between the Proxy Disclosure Enhancements and voluntary disclosure through the governance channel. Our empirical model builds on established frameworks in the voluntary disclosure literature (Healy and Palepu, 2001; Beyer et al., 2010) and governance research (Core et al., 2006). The model captures how enhanced mandatory disclosure requirements in proxy statements may influence managers' incentives to provide voluntary forward-looking information through management forecasts. We expect that improved governance monitoring resulting from enhanced proxy disclosures may reduce managers' propensity to issue voluntary forecasts, as the governance mechanism provides alternative channels for information transmission and oversight.

Our regression model includes control variables established in prior voluntary disclosure research. Following Ajinkya et al. (2005) and Rogers and Stocken (2005), we control for institutional ownership, firm size, book-to-market ratio, profitability, stock returns, earnings volatility, loss occurrence, and litigation risk. These variables capture fundamental determinants of voluntary disclosure decisions, including information asymmetry, proprietary costs, and managerial incentives. The model addresses potential endogeneity concerns through the exogenous nature of the regulatory change, which provides a quasi-experimental setting that is less susceptible to omitted variable bias than cross-sectional designs (Leuz and Wysocki, 2016).

The complete regression equation is specified as follows:

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

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency, capturing the extent of voluntary forward-looking disclosure provided by firm management. This variable represents our proxy for voluntary disclosure behavior and reflects managerial decisions to communicate private information to capital market participants (Hirst et al., 2008). The Treatment Effect variable is an indicator variable equal to one for the post-Proxy Disclosure Enhancements period from 2007 onwards, and zero otherwise. This variable captures the systematic effect of enhanced proxy disclosure requirements on all firms' voluntary disclosure behavior.

Our control variables follow established voluntary disclosure literature and include several key determinants. Institutional Ownership (linstown) represents the percentage of shares held by institutional investors, which prior research suggests increases demand for voluntary disclosure (Ajinkya et al., 2005). Firm Size (lsize) is measured as the natural logarithm of market capitalization, with larger firms typically providing more voluntary disclosure due to greater analyst following and investor attention. Book-to-Market (lbtm) captures growth opportunities and information asymmetry, while ROA (lroa) measures firm profitability and managers' incentives to communicate good news. Stock Return (lsaret12) controls for recent performance effects on disclosure decisions, and Earnings Volatility (levol) captures the uncertainty of firm operations. Loss (lloss) is an indicator for firms reporting negative earnings, as loss firms face different disclosure incentives. Class Action Litigation Risk (lcalrisk) controls for potential legal costs associated with voluntary disclosure, following the framework established by Rogers and Stocken (2005) in the Journal of Accounting Research.

Sample Construction

We construct our sample using a five-year window centered on the 2007 implementation of the Proxy Disclosure Enhancements, spanning two years before and two years after the regulation. The post-regulation period includes 2007 onwards, allowing us to capture both immediate and longer-term effects of the regulatory change. Our data sources include Compustat for financial statement information, I/B/E/S for management forecast data, Audit Analytics for audit-related variables, and CRSP for stock return and market data. This multi-database approach ensures comprehensive coverage of firm characteristics and disclosure behavior necessary for our analysis.

The sample construction process yields 18,045 firm-year observations across all firms in the Compustat universe during our sample period. We apply standard data filters to ensure data quality, including requirements for non-missing financial data and stock return information. In our research design, all firms serve as treated observations in the post-regulation period, reflecting the economy-wide nature of regulatory changes and their impact on disclosure environments. The control group consists of the same firms in the pre-regulation period, providing a within-firm comparison that controls for time-invariant firm characteristics. This approach allows us to isolate the effect of the regulatory change while controlling for firm-specific factors that influence voluntary disclosure decisions.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 18,045 firm-year observations representing 4,856 unique firms over the period 2005 to 2009. This timeframe captures the implementation and effects of proxy disclosure enhancements, providing a balanced representation of pre- and post-regulation periods as evidenced by the post_law variable mean of 0.582.

We examine several key firm characteristics that prior literature identifies as determinants of corporate governance and disclosure quality. Institutional ownership (linstown) exhibits substantial variation with a mean of 54.6% and standard deviation of 32.1%, ranging from minimal institutional presence to complete institutional ownership. The distribution appears relatively symmetric given the proximity of mean and median values (54.6% versus 58.1%). Firm size (lsize) demonstrates considerable heterogeneity, with the natural logarithm of market capitalization averaging 5.976 and spanning from 1.395 to 11.257, indicating our sample includes firms across the entire size spectrum from small-cap to mega-cap entities.

Book-to-market ratios (lbtm) average 0.579 with notable right skewness, as the mean exceeds the median (0.477), suggesting the presence of high book-to-market value firms that may face financial distress or represent deep value opportunities. Consistent with this interpretation, we observe that 30.2% of firm-years report losses (lloss), substantially higher than typical profitability benchmarks in accounting research. Return on assets (lroa) averages -0.038, with the negative mean contrasting sharply with the positive median of 0.025, further confirming the influence of loss-making firms on our sample composition.

Stock return performance (lsaret12) exhibits high volatility with a standard deviation of 0.461 and a mean of -0.015, reflecting the challenging economic conditions during our sample period, which encompasses the 2008 financial crisis. Earnings volatility (levol) shows substantial cross-sectional variation with a mean of 0.151 and maximum value of 2.129, indicating significant differences in earnings stability across firms.

Management forecast frequency (freqMF) averages 0.644 with considerable variation (standard deviation of 0.910), suggesting heterogeneous voluntary disclosure practices across firms. California litigation risk (lcalrisk) exhibits a mean of 0.256, consistent with prior studies examining litigation exposure in governance research.

The time_trend variable confirms balanced temporal coverage with a mean of 1.945, while the treatment_effect variable mirrors post_law statistics, validating our research design structure. These descriptive statistics collectively indicate a comprehensive sample that captures diverse firm characteristics during a critical period of regulatory change in corporate governance.

RESULTS

Regression Analysis

We examine the association between the implementation of Proxy Disclosure Enhancements and firms' voluntary disclosure using a series of regression specifications that progressively control for firm characteristics and unobserved heterogeneity. Our primary finding contradicts our stated hypothesis, as we document a consistently negative and statistically significant association between the proxy disclosure requirements and voluntary disclosure across all model specifications. The treatment effect ranges from -0.0797 in the baseline specification without controls to -0.0455 in our most restrictive specification with firm fixed effects, indicating that firms subject to the enhanced proxy disclosure requirements reduce their voluntary disclosure relative to control firms. This negative association suggests that mandatory and voluntary disclosures operate as substitutes rather than complements in this setting, contrary to our theoretical prediction that improved corporate governance mechanisms would encourage increased voluntary disclosure.

The statistical significance of our findings remains robust across all specifications, with t-statistics ranging from -7.72 to -3.77 and p-values consistently below 0.001, providing strong evidence against the null hypothesis of no association. The economic magnitude of the effect, while statistically significant, appears modest in absolute terms, representing approximately a 4.6 to 8.0 percentage point decrease in voluntary disclosure following the implementation of enhanced proxy disclosure requirements. The substantial improvement in model fit as we move from specification (1) to specification (3), with R-squared increasing from 0.0019 to 0.8531, demonstrates the importance of controlling for firm-specific characteristics and unobserved heterogeneity. The inclusion of firm fixed effects in specification (3) addresses concerns about time-invariant omitted variables that might correlate with both treatment assignment and voluntary disclosure propensity, though the persistence of the negative treatment effect suggests our finding is not driven by such confounding factors. The control variables generally behave consistently with prior literature expectations: institutional ownership (linstown) exhibits a positive association with voluntary disclosure in specification (2), consistent with institutional investors demanding greater transparency, though this effect becomes insignificant when firm fixed effects are included. Firm size (lsize) demonstrates a consistently positive and significant association across specifications (2) and (3), supporting the established finding that larger firms engage in more voluntary disclosure. The negative coefficient on loss indicator (lloss) aligns with prior research suggesting that firms experiencing losses tend to reduce voluntary disclosure, potentially to avoid drawing attention to poor performance.

Our results fail to support H1, which predicted that Proxy Disclosure Enhancements would increase voluntary disclosure through improved corporate governance mechanisms. Instead, we find evidence consistent with a substitution effect, where enhanced mandatory disclosure requirements reduce managers' incentives to provide voluntary information. This finding suggests that the theoretical mechanisms we proposed—whereby improved governance environments encourage complementary voluntary disclosure—may be dominated by alternative economic forces in this setting. The negative association may reflect managers' assessment that enhanced proxy disclosures satisfy shareholders' incremental information demands, reducing the marginal benefits of voluntary disclosure. Alternatively, the increased scrutiny and potential costs associated with enhanced mandatory disclosure may lead managers to adopt more conservative communication strategies overall. The robustness of our findings across specifications, particularly the persistence of the negative effect when controlling for firm fixed effects, strengthens our confidence that we are capturing a genuine substitution relationship rather than spurious correlation driven by unobserved firm characteristics. These results contribute to the broader literature on the interaction between mandatory and voluntary disclosure by providing evidence that governance-enhancing mandatory disclosure requirements can reduce rather than encourage voluntary disclosure, highlighting the complex nature of firms' overall disclosure strategies and the need for more nuanced theoretical models that account for potential substitution effects in disclosure decisions.

CONCLUSION

This study examines how the 2007 Proxy Disclosure Enhancements affected firms' voluntary disclosure practices through the governance channel. We investigate whether enhanced mandatory disclosure requirements regarding executive compensation in proxy statements influenced managers' incentives to provide voluntary information to capital markets. Our empirical analysis reveals a consistent and statistically significant negative relationship between the implementation of proxy disclosure enhancements and voluntary disclosure levels across all model specifications. The treatment effect ranges from -0.0455 to -0.0797, with t-statistics between 3.77 and 7.72, indicating strong statistical significance at conventional levels. These findings suggest that enhanced mandatory disclosure requirements create a substitution effect, whereby firms reduce their voluntary disclosure when regulatory requirements increase the mandated information flow to shareholders.

The economic magnitude of our findings demonstrates meaningful practical significance beyond statistical significance. The negative treatment effects indicate that firms subject to enhanced proxy disclosure requirements reduced their voluntary disclosure by approximately 4.6 to 8.0 percentage points relative to the control group. This substitution effect operates through the governance channel, as enhanced proxy disclosures improve shareholders' ability to monitor executive compensation decisions and overall firm performance, potentially reducing managers' incentives to voluntarily communicate with investors. Our results remain robust across specifications with varying levels of control variables, with R-squared values ranging from 0.0019 in the baseline specification to 0.8531 in the most comprehensive model. The consistency of the negative treatment effect across specifications strengthens our confidence in the causal interpretation of these findings, suggesting that the Proxy Disclosure Enhancements fundamentally altered the disclosure equilibrium through improved governance mechanisms.

Our findings carry important implications for regulators designing disclosure policies aimed at enhancing corporate governance. The documented substitution effect suggests that policymakers should carefully consider the unintended consequences of mandatory disclosure requirements on firms' overall information environment. While enhanced proxy disclosures improve shareholders' access to compensation-related information, they may simultaneously reduce the flow of other voluntary information that could be valuable for investment decisions. Regulators should recognize that disclosure policies operate within an interconnected system where changes in mandatory requirements can alter managers' voluntary communication strategies (Leuz and Wysocki, 2016). This finding aligns with broader research on disclosure regulation showing that mandatory and voluntary disclosures can serve as substitutes rather than complements (Christensen et al., 2013).

For corporate managers, our results highlight the strategic nature of disclosure decisions within the governance framework. The negative relationship between enhanced proxy requirements and voluntary disclosure suggests that managers view different types of disclosures as substitutable means of communicating with stakeholders. When regulatory requirements increase the mandated information flow, managers may perceive reduced benefits from additional voluntary disclosure, particularly if enhanced governance mechanisms limit their discretion or increase scrutiny of their actions. For investors, these findings underscore the importance of understanding how regulatory changes affect the overall information environment rather than focusing solely on the specific disclosures mandated by new requirements. While enhanced proxy disclosures provide valuable compensation-related information, investors should be aware that such requirements may coincide with reductions in other forms of voluntary communication.

We acknowledge several limitations that provide context for interpreting our results and suggest avenues for future research. First, our analysis focuses on the aggregate level of voluntary disclosure without distinguishing between different types of voluntary information that firms might provide. Future research could examine whether the substitution effect varies across different categories of voluntary disclosure, such as forward-looking information, segment reporting, or management forecasts. Second, while we interpret our findings through the governance channel, the mechanisms underlying the substitution effect could be more complex and multifaceted. Enhanced proxy disclosures might affect voluntary disclosure through channels beyond governance, including litigation risk, proprietary costs, or competitive considerations (Shroff et al., 2013; Li et al., 2018).

Future research could extend our findings by examining the long-term effects of proxy disclosure enhancements on firm performance and capital market outcomes. While we document a substitution effect between mandatory and voluntary disclosure, the net effect on information quality and market efficiency remains an open empirical question. Additionally, researchers could investigate whether the substitution effect varies across firms with different governance structures, ownership patterns, or information environments. Cross-country studies could provide valuable insights into how institutional factors moderate the relationship between mandatory disclosure requirements and voluntary communication strategies. Finally, future work could examine whether similar substitution effects occur following other regulatory changes that enhance governance mechanisms, such as board independence requirements or audit committee mandates, thereby contributing to our broader understanding of how governance reforms shape corporate disclosure practices.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	18,045	0.6445	0.9100	0.0000	0.0000	1.6094
Treatment Effect	18,045	0.5823	0.4932	0.0000	1.0000	1.0000
Institutional ownership	18,045	0.5465	0.3208	0.2574	0.5809	0.8228
Firm size	18,045	5.9763	2.0179	4.5194	5.9058	7.3195
Book-to-market	18,045	0.5791	0.5635	0.2750	0.4769	0.7395
ROA	18,045	-0.0382	0.2507	-0.0220	0.0248	0.0702
Stock return	18,045	-0.0145	0.4614	-0.2780	-0.0879	0.1438
Earnings volatility	18,045	0.1509	0.2914	0.0227	0.0552	0.1498
Loss	18,045	0.3024	0.4593	0.0000	0.0000	1.0000
Class action litigation risk	18,045	0.2560	0.2575	0.0701	0.1561	0.3481
Time Trend	18,045	1.9447	1.4164	1.0000	2.0000	3.0000

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

Table 2
Pearson Correlations
Proxy Disclosure Enhancements 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	**-0.04**	**0.12**	-0.01	**0.16**	**-0.05**	**-0.03**	0.01	**0.06**	**-0.15**
FreqMF	**-0.04**	1.00	**0.44**	**0.44**	**-0.13**	**0.23**	**-0.02**	**-0.14**	**-0.26**	0.00
Institutional ownership	**0.12**	**0.44**	1.00	**0.63**	**-0.07**	**0.26**	**-0.13**	**-0.20**	**-0.20**	0.01
Firm size	-0.01	**0.44**	**0.63**	1.00	**-0.30**	**0.35**	**0.02**	**-0.25**	**-0.38**	**0.07**
Book-to-market	**0.16**	**-0.13**	**-0.07**	**-0.30**	1.00	**0.03**	**-0.21**	**-0.12**	**0.12**	**-0.14**
ROA	**-0.05**	**0.23**	**0.26**	**0.35**	**0.03**	1.00	**0.19**	**-0.52**	**-0.62**	**-0.15**
Stock return	**-0.03**	**-0.02**	**-0.13**	**0.02**	**-0.21**	**0.19**	1.00	**-0.04**	**-0.20**	**-0.06**
Earnings volatility	0.01	**-0.14**	**-0.20**	**-0.25**	**-0.12**	**-0.52**	**-0.04**	1.00	**0.36**	**0.23**
Loss	**0.06**	**-0.26**	**-0.20**	**-0.38**	**0.12**	**-0.62**	**-0.20**	**0.36**	1.00	**0.18**
Class action litigation risk	**-0.15**	0.00	0.01	**0.07**	**-0.14**	**-0.15**	**-0.06**	**0.23**	**0.18**	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 Proxy Disclosure Enhancements on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	-0.0797*** (7.72)	-0.0634*** (4.89)	-0.0455*** (3.77)
Institutional ownership		0.8019*** (17.37)	-0.0587 (0.93)
Firm size		0.0948*** (10.65)	0.1356*** (10.91)
Book-to-market		-0.0328** (2.29)	-0.0204 (1.51)
ROA		0.1178*** (3.68)	0.0275 (0.97)
Stock return		-0.0423*** (3.47)	-0.0376*** (4.06)
Earnings volatility		0.0816*** (2.66)	-0.1197*** (3.19)
Loss		-0.2137*** (10.74)	-0.1197*** (8.31)
Class action litigation risk		-0.0311 (1.04)	-0.0227 (1.16)
Time Trend		-0.0227*** (3.86)	-0.0016 (0.28)
Firm fixed effects	No	No	Yes
N	18,045	18,045	18,045
R^2	0.0019	0.2547	0.8531

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