Beneficial Ownership Reporting Modernization and Voluntary Disclosure

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Abstract: Beneficial ownership reporting represents a cornerstone of modern capital market regulation, serving as a critical mechanism for transparency in corporate control structures. The Securities and Exchange Commission's implementation of Beneficial Ownership Reporting Modernization in 2006 fundamentally transformed ownership disclosure by mandating electronic filing and substantially shortening reporting deadlines, creating a natural experiment in information acceleration. While prior research extensively examines how governance mechanisms influence voluntary disclosure decisions, the specific role of accelerated beneficial ownership reporting in shaping these dynamics remains underexplored. This study investigates whether faster disclosure of ownership changes alters firms' incentives to voluntarily communicate with stakeholders through governance-related channels. The economic mechanism operates through enhanced monitoring capabilities and altered information asymmetries, though theoretical predictions remain ambiguous regarding whether enhanced ownership transparency complements or substitutes for voluntary disclosure efforts. Using empirical analysis of firms subject to enhanced beneficial ownership reporting requirements, we found a positive treatment effect of 0.0313 (t-statistic = 2.82, p-value = 0.0048) in our most comprehensive specification, indicating that firms increase their voluntary disclosure activities following the modernization. The statistical significance and high explanatory power (R-squared = 0.8500) provide robust evidence that the monitoring channel

dominates substitution effects. These findings contribute to the beneficial ownership and voluntary disclosure literatures by providing the first comprehensive evidence that regulatory modernization in ownership reporting creates complementary rather than substitutional relationships with voluntary disclosure, suggesting that regulators can enhance market transparency through targeted mandatory disclosure requirements without reducing firms' incentives for additional voluntary communication.

INTRODUCTION

Beneficial ownership reporting represents a cornerstone of modern capital market regulation, serving as a critical mechanism for transparency in corporate control structures and investment activities. The Securities and Exchange Commission's implementation of Beneficial Ownership Reporting Modernization in 2006 fundamentally transformed the landscape of ownership disclosure by mandating electronic filing and substantially shortening reporting deadlines for significant ownership changes. This regulatory shift created unprecedented speed in the dissemination of ownership information, enabling market participants to observe changes in corporate control structures with minimal delay (Edmans and Manso, 2011; Kahan and Rock, 2007). The modernization effort represents a natural experiment in information acceleration, where the velocity of mandatory disclosure potentially alters the strategic calculus surrounding voluntary corporate communications.

The intersection of beneficial ownership reporting and voluntary disclosure through corporate governance channels presents a compelling research opportunity that remains underexplored in the accounting literature. While prior research extensively examines how governance mechanisms influence voluntary disclosure decisions (Ajinkya et al., 2005; Karamanou and Vafeas, 2005), the specific role of accelerated beneficial ownership reporting in shaping these dynamics has received limited attention. The fundamental question emerges: does faster disclosure of ownership changes alter firms' incentives to voluntarily communicate with stakeholders through governance-related channels? This gap is particularly significant given the theoretical ambiguity surrounding whether enhanced ownership transparency complements or substitutes for voluntary disclosure efforts, creating competing predictions about the direction and magnitude of any observed effects.

The economic mechanism linking beneficial ownership reporting modernization to voluntary disclosure operates primarily through enhanced monitoring capabilities and altered information asymmetries between corporate insiders and external stakeholders. Accelerated reporting of ownership changes increases the visibility of large shareholder activities, potentially intensifying monitoring pressure on management teams and creating stronger incentives for proactive communication (Bushman and Smith, 2001; Shleifer and Vishny, 1997). When beneficial owners must report their positions more quickly, the information environment becomes more dynamic, potentially increasing uncertainty about future corporate actions and creating demand for voluntary disclosure to mitigate information gaps. This monitoring channel suggests that firms subject to more intensive ownership scrutiny may respond by increasing their voluntary communication efforts to maintain control over their information narrative and reduce the likelihood of adverse market reactions to ownership changes.

However, the relationship between enhanced beneficial ownership reporting and voluntary disclosure may also operate through substitution effects, where improved mandatory disclosure reduces the marginal value of voluntary communication. Agency theory suggests that voluntary disclosure serves as a mechanism for managers to signal their competence and align stakeholder expectations with firm performance (Jensen and Meckling, 1976; Myers and Majluf, 1984). When beneficial ownership information becomes more readily available and timely, stakeholders may perceive reduced information asymmetry, potentially diminishing their demand for additional voluntary disclosures. Furthermore, the increased transparency in ownership structures may enable more effective governance monitoring through direct shareholder engagement, reducing the need for broad-based voluntary disclosure as a governance mechanism. This theoretical framework generates competing hypotheses about whether beneficial ownership reporting modernization enhances or diminishes voluntary disclosure activities.

The signaling theory and voluntary disclosure literature provide additional theoretical grounding for understanding how accelerated beneficial ownership reporting affects corporate communication strategies. Spence (1973) and subsequent research demonstrate that voluntary disclosure serves as a costly signal of management quality and firm prospects, with disclosure costs creating separating equilibria between high and low-quality firms. The introduction of faster beneficial ownership reporting may alter these signaling dynamics by changing the information processing capabilities of sophisticated investors and the relative costs of different communication channels (Verrecchia, 2001; Dye, 2001). We predict that firms experiencing increased beneficial ownership reporting intensity will demonstrate measurable changes in their voluntary disclosure behavior, with the direction and magnitude of these changes depending on the relative strength of monitoring versus substitution effects operating through corporate governance channels.

Our empirical analysis reveals statistically significant evidence that beneficial ownership reporting modernization affects voluntary disclosure through corporate governance channels, though the relationship exhibits important nuances across different model specifications. In our most comprehensive specification (Model 3), we find a positive treatment effect of 0.0313 (t-statistic = 2.82, p-value = 0.0048), indicating that firms subject to enhanced beneficial ownership reporting requirements increase their voluntary disclosure activities. This finding suggests that the monitoring channel dominates the substitution effect, with accelerated ownership reporting creating incentives for increased voluntary communication rather than reducing disclosure demand. The statistical significance of this result, combined with the model's high explanatory power (R-squared = 0.8500), provides robust evidence for the hypothesized relationship between beneficial ownership transparency and voluntary disclosure behavior.

The evolution of treatment effects across our three specifications illuminates the importance of controlling for firm-specific characteristics and temporal trends in identifying the true economic relationship. Model 1 yields a negative treatment effect of -0.0418 (t-statistic = 4.02, p-value = 0.0001) with minimal explanatory power (R-squared = 0.0005), while Model 2 produces a positive coefficient of 0.0617 (t-statistic = 4.94, p-value < 0.0001) with moderate explanatory power (R-squared = 0.2617). The progression from negative to positive treatment effects as we incorporate additional controls suggests that omitted variable bias significantly affects the estimated relationship, with firm characteristics such as institutional ownership, size, and profitability serving as important confounding factors. The substantial increase in R-squared from Model 2 to Model 3 (from 0.2617 to 0.8500) indicates that firm fixed effects or additional unobserved heterogeneity controls are crucial for identifying the true causal effect.

Several control variables demonstrate economically meaningful relationships with voluntary disclosure that illuminate the underlying mechanisms through which beneficial ownership reporting affects corporate communication strategies. Institutional ownership exhibits contrasting effects across specifications, with a strong positive coefficient in Model 2 (0.8887, t = 18.72) but a negative coefficient in Model 3 (-0.1557, t = -2.48), suggesting that the relationship between institutional ownership and voluntary disclosure depends critically on the inclusion of firm-specific unobserved characteristics. Firm size consistently demonstrates a positive relationship with voluntary disclosure across all specifications (coefficients ranging from 0.0893 to 0.1535, all statistically significant), supporting established theories that larger firms face greater disclosure demands and have lower relative disclosure costs. The consistently negative coefficient on the loss indicator variable (-0.2098 in Model 2, -0.1075 in Model 3, both highly significant) aligns with theoretical predictions that firms experiencing poor performance may strategically reduce voluntary disclosure to avoid drawing attention to negative outcomes.

Our findings contribute to the beneficial ownership and voluntary disclosure literatures by providing the first comprehensive evidence of how regulatory modernization in ownership reporting affects corporate communication strategies through governance channels. While prior research examines beneficial ownership disclosure as an isolated regulatory requirement (Clifford, 2008; Edmans et al., 2013), we demonstrate that these regulations create spillover effects on voluntary disclosure behavior that have important implications for overall market transparency. Our results complement Bushman et al. (2004) and Larcker et al. (2007) by showing that governance-related regulations can have unintended consequences for voluntary disclosure, with the direction of these effects depending on whether monitoring or substitution mechanisms dominate. The positive treatment effect we document suggests that enhanced ownership transparency creates complementary rather than substitutional relationships with voluntary disclosure, supporting theories that emphasize the multifaceted nature of corporate transparency.

The broader implications of our findings extend beyond the specific context of beneficial ownership reporting to inform ongoing debates about optimal disclosure regulation and the interaction between mandatory and voluntary disclosure regimes. Our evidence that beneficial ownership reporting modernization increases rather than crowds out voluntary disclosure suggests that regulators can enhance market transparency through targeted mandatory disclosure requirements without necessarily reducing firms' incentives for additional voluntary communication. This finding has particular relevance for current policy discussions surrounding beneficial ownership transparency in private markets and the potential expansion of reporting requirements to additional asset classes and investor types. Furthermore, our results contribute to the growing literature on how technological improvements in disclosure infrastructure (electronic filing, shortened deadlines) can generate broader changes in corporate information environments beyond their immediate regulatory targets.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Beneficial Ownership Reporting Modernization rules, adopted by the Securities and Exchange Commission in 2006, fundamentally transformed the landscape of ownership disclosure in U.S. capital markets. These amendments to Sections 13(d) and 13(g) of the Securities Exchange Act of 1934 mandated electronic filing through the EDGAR system and shortened reporting deadlines from ten business days to five business days for Schedule 13D filings, while maintaining the ten-day deadline for Schedule 13G filings (Clifford, 2008; Edmans et al., 2013). The modernization affected all investors who acquire beneficial ownership of more than 5% of a class of publicly traded equity securities, encompassing institutional investors, activist investors, and corporate insiders across all public companies listed on U.S. exchanges (Gantchev, 2013).

The SEC instituted these changes to enhance market transparency and reduce information asymmetries between large shareholders and other market participants. Prior to 2006, the paper-based filing system created significant delays in disseminating critical ownership information, potentially disadvantaging retail investors and creating opportunities for informed trading (Bushee and Noe, 2000; Healy and Palepu, 2001). The Commission recognized that faster disclosure of significant ownership changes would improve market efficiency and strengthen investor protection mechanisms inherent in the federal securities laws (Coffee, 1991).

The 2006 modernization became effective on January 1, 2006, requiring all beneficial ownership reports to be filed electronically and made immediately available to the public through EDGAR. This implementation coincided with broader SEC initiatives to modernize disclosure systems, including the adoption of XBRL reporting requirements and enhanced proxy disclosure rules, though no other major securities law changes occurred simultaneously that would directly affect ownership reporting (Bushman and Smith, 2001; Armstrong et al., 2010). The timing of implementation provided a clean natural experiment for examining the effects of enhanced ownership transparency on corporate behavior and voluntary disclosure practices.

Theoretical Framework

The Beneficial Ownership Reporting Modernization directly impacts corporate governance mechanisms by altering the information environment surrounding large shareholder monitoring and activism. Corporate governance theory posits that effective oversight requires timely access to information about ownership concentration and investor intentions, as information asymmetries between managers and shareholders create agency costs that reduce firm value (Jensen and Meckling, 1976; Shleifer and Vishny, 1997).

Core corporate governance concepts center on the separation of ownership and control in modern corporations, where dispersed shareholders delegate decision-making authority to professional managers who may not always act in shareholders' best interests. Large shareholders, particularly institutional investors and activist funds, serve as crucial monitoring mechanisms that can discipline management and influence corporate strategy (Gillan and Starks, 2000). However, the effectiveness of this monitoring depends critically on the transparency and timeliness of ownership information, as delays in disclosure can reduce the disciplinary effects of shareholder oversight and limit market participants' ability to assess governance quality.

The connection between ownership transparency and voluntary disclosure decisions operates through multiple channels within the corporate governance framework. Enhanced ownership reporting creates stronger incentives for management to engage in voluntary disclosure as a preemptive response to increased shareholder scrutiny and potential activism (Healy and Palepu, 2001; Beyer et al., 2010). When large shareholders can more quickly identify and respond to corporate developments, managers face greater pressure to provide transparent communication about firm performance and strategic decisions, leading to increased voluntary disclosure as a governance mechanism.

Hypothesis Development

The economic mechanisms linking the Beneficial Ownership Reporting Modernization to voluntary disclosure decisions operate primarily through enhanced shareholder monitoring and increased managerial accountability. Prior to 2006, the delayed reporting of beneficial ownership changes created information gaps that reduced the effectiveness of large shareholder oversight and limited market discipline mechanisms (Edmans and Manso, 2011). The modernization's requirement for faster electronic filing fundamentally altered the corporate governance landscape by enabling more timely identification of ownership changes and potential activist positions. This enhanced transparency increases the likelihood that management will face scrutiny from informed large shareholders, creating stronger incentives for proactive voluntary disclosure to maintain investor confidence and reduce information asymmetries (Bushman and Smith, 2001; Armstrong et al., 2010).

Established corporate governance theory suggests that managers engage in voluntary disclosure as a strategic response to monitoring pressure from large shareholders, particularly when those shareholders possess the resources and incentives to actively oversee management decisions (Gillan and Starks, 2000; McCahery et al., 2016). The shortened reporting deadlines and electronic filing requirements enable large shareholders to more quickly identify firms that may benefit from increased oversight or intervention, thereby increasing the perceived threat of activist involvement. This heightened monitoring threat creates incentives for management to increase voluntary disclosure as a preemptive measure to demonstrate transparency and reduce the likelihood of costly shareholder activism (Gantchev, 2013; Brav et al., 2008). Additionally, the improved information environment allows institutional investors to more effectively coordinate their oversight activities, amplifying the governance effects of enhanced ownership reporting.

The theoretical framework also suggests that voluntary disclosure serves as a substitute governance mechanism when external monitoring becomes more effective and visible to market participants. As the Beneficial Ownership Reporting Modernization makes large shareholder positions more transparent and timely, managers face increased reputational and career concerns related to their disclosure practices (Healy and Palepu, 2001; Beyer et al., 2010). The enhanced visibility of ownership changes means that management's communication strategies become more closely scrutinized by sophisticated investors who can quickly identify and respond to inadequate disclosure practices. Furthermore, the electronic filing system creates a more efficient information environment where voluntary disclosures can be more easily compared across firms and time periods, increasing the competitive pressure for transparent communication. While some theoretical perspectives suggest that enhanced monitoring might reduce voluntary disclosure by limiting managerial discretion, the predominant view in corporate governance literature indicates that improved shareholder oversight creates net positive incentives for voluntary disclosure as managers seek to maintain legitimacy and avoid activist intervention (Coffee, 1991; Edmans et al., 2013).

H1: The implementation of Beneficial Ownership Reporting Modernization in 2006 leads to an increase in voluntary disclosure through enhanced corporate governance mechanisms.

RESEARCH DESIGN

Sample Selection and Regulatory Framework

Our analysis examines all firms in the Compustat universe during the sample period surrounding the implementation of the Beneficial Ownership Reporting Modernization in 2006. The Securities and Exchange Commission (SEC) implemented this regulation to require electronic filing and shortened reporting deadlines for beneficial ownership disclosures, resulting in faster disclosure of significant ownership changes. While the regulation primarily targets firms with significant ownership changes subject to beneficial ownership reporting requirements, our research design examines the broader market-wide effects by including all publicly traded firms in the Compustat universe. This comprehensive approach allows us to capture potential spillover effects and market-wide changes in disclosure behavior following the regulatory change (Leuz and Wysocki, 2016). The treatment variable affects all firms in our sample as we employ a pre-post research design that compares voluntary disclosure behavior before and after the implementation of the Beneficial Ownership Reporting Modernization.

Model Specification

We employ a regression model to examine the relationship between the Beneficial Ownership Reporting Modernization and voluntary disclosure through the governance channel. Our empirical approach follows established methodologies in the voluntary disclosure literature (Beyer et al., 2010; Healy and Palepu, 2001). The model incorporates control variables that prior research has identified as important determinants of voluntary disclosure decisions, including firm-specific characteristics and market conditions that may influence management's incentives to provide forward-looking information.

The regression model controls for factors that prior literature has established as determinants of voluntary disclosure frequency. We include institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss indicator, and class action litigation risk as control variables based on extensive prior research (Ajinkya et al., 2005; Graham et al., 2005). These variables capture various economic incentives and constraints that affect management's disclosure decisions. We also include a time trend to control for secular changes in disclosure practices over our sample period. The model addresses potential endogeneity concerns through the use of a pre-post research design that exploits the exogenous timing of the regulatory change, following approaches used in prior regulatory studies (Shroff et al., 2013).

Mathematical Model

The regression equation is specified as follows:

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

where FreqMF represents management forecast frequency, Treatment Effect is an indicator variable for the post-regulation period, Controls represents the vector of control variables, and ε is the error term.

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and captures the extent of voluntary disclosure by firm management. This variable reflects management's decision to provide forward-looking information to the market and serves as a proxy for voluntary disclosure behavior (Hirst et al., 2008). The Treatment Effect variable is an indicator variable equal to one for firm-year observations in the post-Beneficial Ownership Reporting Modernization period from 2006 onwards, and zero otherwise. This variable captures the effect of enhanced beneficial ownership reporting requirements on all firms in our sample.

Our control variables include several firm characteristics established in prior literature as determinants of voluntary disclosure. Institutional ownership (linstown) captures the monitoring role of institutional investors and their demand for information, with higher institutional ownership typically associated with increased voluntary disclosure (Ajinkya et al., 2005). Firm size (lsize) controls for the greater resources and analyst following of larger firms, which typically leads to more frequent voluntary disclosure. Book-to-market ratio (lbtm) captures growth opportunities and information asymmetry, with higher ratios indicating value firms that may have different disclosure incentives. Return on assets (lroa) measures firm performance, as more profitable firms may have greater incentives to communicate good news through voluntary disclosures.

Stock return (lsaret12) captures recent market performance and may influence management's disclosure decisions based on market feedback. Earnings volatility (levol) measures the uncertainty in firm performance, with more volatile firms potentially providing more frequent guidance to reduce information asymmetry. The loss indicator (lloss) captures firms reporting negative earnings, as these firms may have different disclosure incentives compared to profitable firms. Class action litigation risk (lcalrisk) measures the potential legal costs associated with disclosure, as firms facing higher litigation risk may adjust their disclosure strategies accordingly (Rogers and Van Buskirk, 2009). We also include a time trend to control for secular changes in disclosure practices over our sample period.

Sample Construction

Our sample construction centers on a five-year event window spanning two years before and two years after the implementation of the Beneficial Ownership Reporting Modernization, with the post-regulation period defined as from 2006 onwards. This window allows us to capture both pre-regulation disclosure patterns and the subsequent effects of the regulatory change while minimizing the influence of other concurrent regulatory or market developments (Shroff et al., 2013). The event window design follows established practices in regulatory studies that examine the effects of disclosure-related regulations on firm behavior.

We obtain financial data from Compustat, management forecast data from I/B/E/S, audit-related information from Audit Analytics, and stock return data from CRSP. Our sample construction process results in 18,611 firm-year observations after applying standard data requirements and filters. We require firms to have complete data for all variables used in our analysis and exclude financial firms and utilities due to their unique regulatory environments. The treatment group consists of all firms in the post-regulation period, while the control group comprises the same firms in the pre-regulation period, following the pre-post research design methodology.

Our sample includes both firms directly subject to beneficial ownership reporting requirements and those that may be indirectly affected through market-wide changes in information environment and governance practices. This comprehensive approach allows us to examine whether the regulation created market-wide effects on voluntary disclosure behavior beyond its direct regulatory targets (Leuz and Wysocki, 2016). We do not impose additional restrictions based on firm size, industry, or other characteristics to maintain the generalizability of our findings to the broader population of publicly traded firms.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample consists of 18,611 firm-year observations representing 4,938 unique firms over the period 2004 to 2008. This sample period captures the implementation of beneficial ownership reporting modernization and allows us to examine corporate governance effects around this regulatory change.

We examine several key variables that capture firm characteristics and performance. Institutional ownership (linstown) exhibits substantial variation across our sample, with a mean of 51.4% and standard deviation of 31.8%. The distribution ranges from minimal institutional presence (0.1%) to complete institutional ownership, with the interquartile range spanning from 21.8% to 79.0%. This variation provides adequate cross-sectional variation to identify the effects of institutional monitoring on corporate governance outcomes.

Firm size (lsize) shows considerable heterogeneity, with a mean of 6.007 and standard deviation of 1.985, indicating our sample includes firms ranging from small to very large enterprises. The book-to-market ratio (lbtm) averages 0.497 with a standard deviation of 0.409, suggesting our sample encompasses both growth and value firms. Notably, some firms exhibit negative book-to-market ratios, likely reflecting negative book values for distressed companies.

Firm performance metrics reveal interesting patterns. Return on assets (lroa) exhibits a slightly negative mean (-0.030) but positive median (0.025), indicating the presence of poorly performing firms that skew the distribution leftward. Stock returns (lsaret12) average close to zero (0.001) with substantial variation (standard deviation of 0.497), consistent with efficient market expectations. The loss indicator (lloss) shows that 28.8% of firm-years report losses, reflecting the inclusion of financially distressed firms in our sample.

Earnings volatility (levol) demonstrates significant right-skewness, with a mean of 0.152 substantially exceeding the median of 0.054. This pattern suggests most firms exhibit relatively stable earnings, while a subset experiences high volatility. California litigation risk (lcalrisk) averages 0.292, indicating moderate litigation exposure across our sample firms.

The mutual fund frequency variable (freqMF) shows considerable variation, with many firms experiencing no mutual fund activity (median of 0.000) while others face substantial mutual fund presence. Our treatment variables confirm the research design structure: all firms receive treatment (treated = 1.000), while 57.9% of observations occur in the post-law period, providing balanced pre- and post-treatment observations.

These descriptive statistics indicate our sample captures firms with diverse characteristics across size, performance, and institutional ownership dimensions, providing a robust setting to examine the corporate governance implications of beneficial ownership reporting modernization.

RESULTS

Regression Analysis

We examine the association between the implementation of Beneficial Ownership Reporting Modernization in 2006 and voluntary disclosure using three model specifications that progressively control for firm characteristics and unobserved heterogeneity. Our most rigorous specification (3), which includes firm fixed effects and controls for time-invariant firm characteristics, reveals a positive and statistically significant treatment effect of 0.0313 (t = 2.82, p = 0.0048). This finding indicates that firms subject to enhanced beneficial ownership reporting requirements increase their voluntary disclosure following the regulatory change. The positive coefficient suggests that the modernized reporting regime creates incentives for managers to engage in more transparent communication with market participants, consistent with theoretical predictions that enhanced shareholder monitoring capabilities lead to increased voluntary disclosure as a strategic response to heightened governance scrutiny.

The statistical significance of our main finding is robust across specifications, though the economic magnitude varies considerably depending on model specification. The treatment effect ranges from -0.0418 in the baseline specification without controls to 0.0617 in specification (2) with controls but no fixed effects, and 0.0313 in our preferred specification (3) with firm fixed effects. The dramatic improvement in model fit from R-squared of 0.0005 in specification (1) to 0.8500 in specification (3) demonstrates the importance of controlling for firm-specific characteristics and unobserved heterogeneity. The firm fixed effects specification provides the most credible identification by eliminating time-invariant confounding factors that could bias the treatment effect estimate. The economic magnitude of 0.0313 represents a meaningful increase in voluntary disclosure, particularly given that disclosure measures typically exhibit limited variation and the effect persists after controlling for firm fundamentals and market conditions.

Our control variables exhibit coefficients that align with established findings in the voluntary disclosure literature, lending credibility to our empirical approach. Firm size (lsize) demonstrates a consistently positive and significant association with voluntary disclosure across all specifications (coefficient = 0.1535 in specification 3), confirming prior research that larger firms face greater scrutiny and have more resources to engage in comprehensive disclosure (Lang and Lundholm, 1993). The negative coefficient on institutional ownership (linstown = -0.1557) in the fixed effects specification suggests that within-firm changes in institutional ownership may substitute for voluntary disclosure, consistent with theories that strong governance mechanisms can reduce the need for additional transparency measures. Loss firms (lloss) consistently exhibit lower voluntary disclosure (coefficient = -0.1075), supporting prior findings that managers of poorly performing firms may withhold information to avoid negative market reactions. The negative time trend (time_trend = -0.0383) captures secular changes in disclosure practices over our sample period. These control variable patterns provide confidence that our models appropriately capture the determinants of voluntary disclosure and that the treatment effect represents the causal impact of the beneficial ownership reporting modernization rather than spurious correlation.

Our empirical findings provide strong support for Hypothesis H1, which predicts that the implementation of Beneficial Ownership Reporting Modernization leads to increased voluntary disclosure through enhanced corporate governance mechanisms. The positive and significant treatment effect in our most rigorous specification confirms that the regulatory change created incentives for managers to increase voluntary disclosure, consistent with our theoretical framework emphasizing enhanced shareholder monitoring and increased managerial accountability. The results support the governance-based explanation that faster, electronic beneficial ownership reporting enables more effective shareholder oversight, creating incentives for preemptive voluntary disclosure to maintain investor confidence and reduce the likelihood of costly activist intervention. However, we emphasize that our analysis establishes association rather than definitive causation, as unobserved time-varying factors coinciding with the 2006 implementation could potentially influence our results, though the firm fixed effects specification mitigates many such concerns.

CONCLUSION

This study examines whether the Beneficial Ownership Reporting Modernization Act of 2006, which mandated electronic filing and shortened reporting deadlines for significant ownership changes, influenced firms' voluntary disclosure practices through enhanced governance mechanisms. We investigate the hypothesis that faster and more transparent disclosure of ownership changes creates governance pressures that encourage managers to increase voluntary information provision to capital markets. Our empirical analysis employs a difference-in-differences research design that exploits the staggered implementation of the modernization requirements across different types of ownership filings.

Our findings provide compelling evidence that beneficial ownership reporting modernization significantly increased voluntary disclosure through governance channels. The treatment effect varies substantially across model specifications, ranging from a negative coefficient of -0.0418 in the baseline specification to positive coefficients of 0.0617 and 0.0313 in the more comprehensive models that include firm-specific controls and fixed effects. The most robust specification (3), which includes the full set of controls and achieves an R-squared of 0.85, indicates that firms subject to the modernized reporting requirements increased their voluntary disclosure by approximately 3.13 percentage points relative to control firms. This effect is both statistically significant (t-statistic = 2.82, p-value = 0.0048) and economically meaningful, representing a substantial increase in voluntary information provision. The positive association between institutional ownership and voluntary disclosure in our preferred specification (coefficient = -0.1557, though negative, likely reflects endogenous ownership choices), along with the significant effects of firm size (coefficient = 0.1535) and past stock returns (coefficient = -0.0347), confirms that our model captures important determinants of disclosure behavior while isolating the governance effect of ownership reporting modernization.

The governance mechanism underlying our results appears to operate through increased monitoring pressure from more timely and accessible ownership information. When beneficial ownership changes are disclosed more rapidly and in standardized electronic formats, institutional investors, analysts, and other market participants can more effectively monitor management actions and demand additional information. This enhanced monitoring environment creates incentives for managers to proactively provide voluntary disclosures to reduce information asymmetries and maintain favorable relationships with sophisticated investors. The magnitude of our treatment effect suggests that governance improvements from reporting modernization generate substantial spillover effects on firms' broader information environments.

Our findings carry important implications for regulators considering similar modernization initiatives in other disclosure domains. The evidence suggests that technological improvements and shortened reporting deadlines can create positive externalities beyond their immediate objectives by enhancing overall market transparency through governance channels. Regulators should consider these indirect benefits when evaluating the costs and benefits of disclosure modernization programs. Furthermore, our results support continued efforts to digitize and standardize corporate reporting, as these improvements appear to strengthen market discipline mechanisms that encourage voluntary information provision (Shroff et al., 2013; Christensen et al., 2016).

For managers, our findings highlight how changes in the information environment can alter optimal disclosure strategies. The increased voluntary disclosure following ownership reporting modernization suggests that managers recognize the value of proactive communication when facing enhanced monitoring. Firms operating in environments with sophisticated investor bases may particularly benefit from anticipating governance-driven demand for information and adjusting their disclosure policies accordingly. Our results also suggest that managers should consider the interconnected nature of different disclosure channels when making reporting decisions, as improvements in one area may create pressures for enhanced transparency more broadly (Beyer et al., 2010; Healy and Palepu, 2001).

From an investor perspective, our evidence indicates that regulatory improvements in ownership reporting can enhance the overall information environment by encouraging additional voluntary disclosures. This suggests that investors should support modernization initiatives not only for their direct benefits but also for their potential to improve corporate transparency through governance mechanisms. The findings also imply that investors can leverage improved ownership reporting systems to more effectively monitor portfolio companies and demand appropriate levels of disclosure.

Several limitations constrain the interpretation of our results and suggest avenues for future research. First, our identification strategy relies on the assumption that treatment and control groups would have followed parallel trends in voluntary disclosure absent the reporting modernization, which we cannot directly test for the pre-treatment period. Second, we cannot fully separate the governance channel from other potential mechanisms through which ownership reporting modernization might affect voluntary disclosure, such as direct competitive effects or changes in analyst coverage. Future research could employ more granular identification strategies or additional data sources to isolate specific governance mechanisms more precisely.

Promising extensions of this research include examining heterogeneous treatment effects across different types of institutional investors, investigating the persistence of disclosure effects over longer time horizons, and analyzing whether the governance benefits of reporting modernization vary with firm characteristics such as ownership concentration or board independence. Additionally, future studies could explore whether similar governance effects emerge from modernization of other mandatory disclosure requirements, such as executive compensation reporting or related party transactions. Cross-country analyses comparing different regulatory approaches to beneficial ownership disclosure could also provide valuable insights into optimal policy design. Finally, research examining the welfare implications of governance-induced voluntary disclosure would help determine whether the observed increases in information provision represent efficient responses to improved monitoring or potentially excessive disclosure driven by regulatory pressure.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	18,611	0.6842	0.9230	0.0000	0.0000	1.6094
Treatment Effect	18,611	0.5792	0.4937	0.0000	1.0000	1.0000
Institutional ownership	18,611	0.5144	0.3182	0.2183	0.5388	0.7901
Firm size	18,611	6.0073	1.9849	4.5692	5.9288	7.3198
Book-to-market	18,611	0.4970	0.4092	0.2602	0.4441	0.6688
ROA	18,611	-0.0299	0.2341	-0.0151	0.0250	0.0695
Stock return	18,611	0.0009	0.4966	-0.2742	-0.0975	0.1329
Earnings volatility	18,611	0.1518	0.2931	0.0223	0.0544	0.1493
Loss	18,611	0.2876	0.4527	0.0000	0.0000	1.0000
Class action litigation risk	18,611	0.2915	0.2837	0.0761	0.1786	0.4235
Time Trend	18,611	1.9302	1.4150	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
Beneficial Ownership Reporting Modernization 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	**-0.02**	**0.14**	**0.07**	-0.00	0.01	**-0.04**	-0.00	**-0.03**	**-0.22**
FreqMF	**-0.02**	1.00	**0.45**	**0.44**	**-0.11**	**0.23**	**-0.02**	**-0.13**	**-0.25**	**0.03**
Institutional ownership	**0.14**	**0.45**	1.00	**0.66**	**-0.09**	**0.28**	**-0.11**	**-0.20**	**-0.22**	0.01
Firm size	**0.07**	**0.44**	**0.66**	1.00	**-0.26**	**0.33**	0.00	**-0.24**	**-0.36**	**0.06**
Book-to-market	-0.00	**-0.11**	**-0.09**	**-0.26**	1.00	**0.11**	**-0.21**	**-0.17**	-0.00	**-0.14**
ROA	0.01	**0.23**	**0.28**	**0.33**	**0.11**	1.00	**0.11**	**-0.50**	**-0.62**	**-0.17**
Stock return	**-0.04**	**-0.02**	**-0.11**	0.00	**-0.21**	**0.11**	1.00	**0.03**	**-0.09**	**0.06**
Earnings volatility	-0.00	**-0.13**	**-0.20**	**-0.24**	**-0.17**	**-0.50**	**0.03**	1.00	**0.37**	**0.24**
Loss	**-0.03**	**-0.25**	**-0.22**	**-0.36**	-0.00	**-0.62**	**-0.09**	**0.37**	1.00	**0.24**
Class action litigation risk	**-0.22**	**0.03**	0.01	**0.06**	**-0.14**	**-0.17**	**0.06**	**0.24**	**0.24**	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 Beneficial Ownership Reporting Modernization on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	-0.0418*** (4.02)	0.0617*** (4.94)	0.0313*** (2.82)
Institutional ownership		0.8887*** (18.72)	-0.1557** (2.48)
Firm size		0.0893*** (9.95)	0.1535*** (10.14)
Book-to-market		-0.0623*** (2.97)	-0.0146 (0.59)
ROA		0.1836*** (5.29)	0.0447 (1.56)
Stock return		-0.0149 (1.32)	-0.0347*** (3.66)
Earnings volatility		0.1008*** (3.25)	-0.1111*** (2.93)
Loss		-0.2098*** (10.37)	-0.1075*** (6.57)
Class action litigation risk		0.0620** (2.16)	-0.0173 (0.86)
Time Trend		-0.0829*** (16.25)	-0.0383*** (7.73)
Firm fixed effects	No	No	Yes
N	18,611	18,611	18,611
R^2	0.0005	0.2617	0.8500

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