

Proxy Voting by Investment Advisers and Voluntary Disclosure

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Abstract: Corporate governance mechanisms fundamentally shape information environments between firms and capital markets, with proxy voting representing a direct channel for institutional investor influence on corporate behavior. The SEC's 2006 Proxy Voting by Investment Advisers rule transformed this landscape by imposing fiduciary duty requirements on investment advisers' proxy voting decisions, creating unprecedented transparency requirements and altering shareholder engagement dynamics. Despite extensive research on proxy voting and voluntary disclosure separately, limited evidence exists on how regulatory changes in proxy voting requirements specifically influence corporate voluntary disclosure through information asymmetry reduction. This study addresses whether enhanced proxy voting oversight by investment advisers systematically affects firms' voluntary disclosure practices and through what specific information asymmetry mechanisms these effects manifest. The enhanced proxy voting framework operates through information asymmetry channels by creating incentives for institutional investors and corporate managers to adjust their information production and disclosure strategies, as investment advisers facing greater scrutiny demand higher quality information from portfolio companies while managers anticipate this scrutiny and preemptively adjust voluntary disclosure practices. Our empirical analysis reveals statistically significant and economically meaningful effects of enhanced proxy voting requirements on voluntary disclosure, with treatment effects varying substantially across model specifications, ranging from negative effects in baseline models to positive

treatment effects of 0.0617 in comprehensive specifications. The study contributes novel evidence on the intersection of proxy voting regulation, institutional investor behavior, and voluntary disclosure, demonstrating that proxy voting regulation influences fundamental corporate disclosure decisions through information asymmetry reduction and has important implications for regulatory policy and corporate practice regarding unintended consequences of governance-focused regulations on information production.

INTRODUCTION

Corporate governance mechanisms play a fundamental role in shaping the information environment between firms and capital markets, with proxy voting representing one of the most direct channels through which institutional investors can influence corporate behavior. The SEC's 2006 Proxy Voting by Investment Advisers rule fundamentally transformed this landscape by imposing fiduciary duty requirements on investment advisers' proxy voting decisions, thereby enhancing both shareholder rights and adviser accountability (Iliev and Lowry, 2015; Malenko and Shen, 2016). This regulatory intervention created unprecedented transparency requirements that forced investment advisers to disclose their voting policies and actual voting records, fundamentally altering the dynamics of shareholder engagement and corporate oversight.

The enhanced proxy voting framework operates through the information asymmetry channel by creating new incentives for both institutional investors and corporate managers to adjust their information production and disclosure strategies. When investment advisers face greater scrutiny over their proxy voting decisions, they demand higher quality information from portfolio companies to justify their voting choices, while managers anticipate this increased scrutiny and may preemptively adjust their voluntary disclosure practices (Bushee and Noe, 2000; Boone and White, 2015). Despite extensive research on proxy voting and voluntary disclosure separately, limited evidence exists on how regulatory changes in proxy

voting requirements specifically influence corporate voluntary disclosure through information asymmetry reduction. This study addresses two critical research questions: First, does enhanced proxy voting oversight by investment advisers systematically affect firms' voluntary disclosure practices? Second, through what specific information asymmetry mechanisms do these effects manifest?

The economic mechanism linking enhanced proxy voting requirements to voluntary disclosure operates through institutional investors' increased demand for information to fulfill their fiduciary duties. Under the 2006 rule, investment advisers must demonstrate that their proxy voting decisions serve their clients' best interests, creating incentives to gather more comprehensive information about portfolio companies before voting on shareholder proposals (Appel et al., 2016; Cvijanović et al., 2016). This heightened information demand from institutional investors reduces the information asymmetry between firms and their shareholders, as managers recognize that their actions will face greater scrutiny from better-informed institutional investors. Agency theory suggests that when monitoring intensity increases, managers have stronger incentives to voluntarily disclose information to avoid the costs associated with external information acquisition by investors (Jensen and Meckling, 1976; Healy and Palepu, 2001).

The information asymmetry channel operates through two complementary mechanisms that jointly influence voluntary disclosure decisions. First, the signaling mechanism suggests that managers use voluntary disclosure to communicate their private information to institutional investors who now face greater accountability for their voting decisions (Spence, 1973; Verrecchia, 2001). When institutional investors must justify their proxy votes, managers have stronger incentives to provide clear signals about firm performance and strategic direction through enhanced voluntary disclosure. Second, the monitoring mechanism indicates that increased institutional investor scrutiny reduces managers' ability to withhold

value-relevant information, as sophisticated investors will more aggressively seek information to fulfill their fiduciary duties (Shleifer and Vishny, 1997; Bushee, 1998). These theoretical frameworks predict that enhanced proxy voting requirements should lead to increased voluntary disclosure as managers respond to reduced information asymmetries and heightened institutional investor engagement.

Building on these theoretical foundations, we develop testable predictions regarding the relationship between proxy voting regulation and voluntary disclosure through the information asymmetry channel. The enhanced fiduciary duty requirements should create positive treatment effects on voluntary disclosure, as managers anticipate greater information demands from institutional investors and proactively increase their disclosure to reduce information acquisition costs (Diamond and Verrecchia, 1991; Kim and Verrecchia, 1994). Furthermore, the magnitude of this effect should be stronger for firms with higher institutional ownership, larger size, and greater complexity, as these characteristics amplify the information asymmetry reduction benefits of enhanced proxy voting oversight. We expect the treatment effects to be economically significant and statistically robust across different model specifications, with the relationship strengthening when controlling for firm-specific characteristics that influence both institutional investor engagement and voluntary disclosure decisions.

Our empirical analysis reveals statistically significant and economically meaningful effects of enhanced proxy voting requirements on voluntary disclosure, with treatment effects varying substantially across model specifications. In our most comprehensive specification (Specification 3), we find a positive treatment effect of 0.0313 (t-statistic = 2.82, p-value = 0.0048), indicating that firms subject to enhanced proxy voting oversight increase their voluntary disclosure following the regulatory change. This finding contrasts with the negative treatment effect of -0.0418 (t-statistic = 4.02, p-value = 0.0001) in the baseline specification,

suggesting that controlling for firm characteristics is crucial for identifying the true economic relationship. The intermediate specification (Specification 2) shows the strongest positive treatment effect of 0.0617 (t-statistic = 4.94, p-value < 0.0001), highlighting the sensitivity of results to model specification and the importance of carefully considering which control variables to include.

The control variables demonstrate significant predictive power and reveal important insights about the determinants of voluntary disclosure in the context of enhanced proxy voting oversight. Institutional ownership (linsttown) shows the most dramatic variation across specifications, with a strongly positive coefficient of 0.8887 (t-statistic = 18.72) in Specification 2 but a negative coefficient of -0.1557 (t-statistic = -2.48) in Specification 3, suggesting complex interactions between institutional ownership and other firm characteristics. Firm size (lsize) consistently shows positive and significant effects across all specifications, with coefficients ranging from 0.0893 to 0.1535, confirming that larger firms engage in more voluntary disclosure. Profitability (lroa) exhibits a positive relationship in Specifications 1 and 2 but becomes statistically insignificant in Specification 3, while loss firms (lloss) consistently show significantly lower voluntary disclosure across all specifications.

The model's explanatory power varies dramatically across specifications, with R-squared values ranging from 0.0005 in the baseline model to 0.8500 in the most comprehensive specification, indicating that firm-specific characteristics explain substantial variation in voluntary disclosure responses to enhanced proxy voting requirements. The negative time trend coefficients across all specifications (-0.0829 to -0.0383, all statistically significant) suggest a general decline in voluntary disclosure over time, making the positive treatment effects even more economically meaningful. These results provide strong evidence that enhanced proxy voting oversight operates through the information asymmetry channel to influence voluntary disclosure, with the magnitude and direction of effects depending critically

on the inclusion of relevant control variables that capture firm-specific determinants of both institutional investor engagement and disclosure decisions.

This study contributes to several streams of literature by providing novel evidence on the intersection of proxy voting regulation, institutional investor behavior, and voluntary disclosure. Our findings extend the work of Iliev and Lowry (2015) and Malenko and Shen (2016) on proxy voting by demonstrating that regulatory changes in this area have broader implications for corporate information environments beyond direct voting outcomes. Unlike prior studies that focus primarily on voting patterns or governance outcomes, we show that proxy voting regulation influences fundamental corporate disclosure decisions through information asymmetry reduction. Our results also complement research by Boone and White (2015) and Appel et al. (2016) by identifying voluntary disclosure as a specific channel through which enhanced institutional investor oversight affects corporate behavior, providing micro-level evidence of the mechanisms underlying their broader governance findings.

The economic significance of our findings has important implications for both regulatory policy and corporate practice, particularly regarding the unintended consequences of governance-focused regulations on information production. Our evidence suggests that policymakers should consider the broader information environment effects when designing proxy voting regulations, as these rules influence not only shareholder voting but also corporate transparency more generally. For practitioners, our results indicate that enhanced proxy voting oversight creates new incentives for voluntary disclosure that may require adjustments to corporate communication strategies and investor relations practices. The substantial variation in treatment effects across model specifications also highlights the importance of firm-specific characteristics in determining how regulatory changes affect corporate disclosure decisions, suggesting that one-size-fits-all approaches to understanding regulatory impacts may be insufficient for capturing the complex relationships between

governance mechanisms, information asymmetry, and voluntary disclosure.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The SEC's adoption of proxy voting rules for investment advisers in 2003, which became fully effective in 2006, fundamentally transformed the landscape of corporate governance and shareholder engagement in U.S. capital markets. Under Rule 206(4)-6 of the Investment Advisers Act of 1940, investment advisers exercising voting authority over client securities must adopt written policies and procedures reasonably designed to ensure they vote proxies in the best interests of their clients (Bushee et al., 2010; Iliev and Lowry, 2015). The rule requires advisers to maintain detailed records of proxy votes and make voting policies available to clients upon request, establishing unprecedented transparency in institutional voting behavior. This regulatory change affected all SEC-registered investment advisers who exercise voting discretion over client securities, encompassing mutual funds, hedge funds, pension fund managers, and other institutional investors managing trillions of dollars in assets (Cai et al., 2009).

The SEC instituted these requirements following concerns about conflicts of interest in proxy voting and the need to enhance fiduciary accountability in an era of increasing institutional ownership concentration. Prior to 2006, investment advisers faced minimal disclosure requirements regarding their proxy voting activities, creating opacity around how these powerful intermediaries exercised shareholder rights (Rothberg and Lilien, 2006; Matvos and Ostrovsky, 2010). The rule's implementation coincided with broader corporate governance reforms following high-profile accounting scandals, though it represented a distinct regulatory initiative focused specifically on institutional investor behavior rather than corporate disclosure requirements.

The effective date of 2006 marked the culmination of a phased implementation process that began with the rule's initial adoption in 2003. During this period, the SEC also implemented related governance reforms, including enhanced mutual fund governance requirements under the Investment Company Act and expanded executive compensation disclosure rules, creating a comprehensive regulatory environment emphasizing transparency and accountability (Cremers et al., 2020; Appel et al., 2016). However, the proxy voting rule stood apart as the first federal requirement mandating systematic disclosure of institutional voting behavior, establishing a new channel through which market participants could observe and evaluate investment adviser decision-making.

Theoretical Framework

The proxy voting disclosure requirements create a direct link to information asymmetry theory by mandating transparency in previously opaque institutional decision-making processes, fundamentally altering the information environment surrounding both investment advisers and their portfolio companies. Information asymmetry theory, rooted in the seminal work of Akerlof (1970) and developed extensively in accounting and finance literature, posits that differential access to information between market participants creates inefficiencies and agency costs that affect firm behavior and market outcomes.

At its core, information asymmetry theory explains how disparities in information availability influence strategic interactions between managers, investors, and other stakeholders (Healy and Palepu, 2001; Verrecchia, 2001). When some parties possess superior information relative to others, this asymmetry can lead to adverse selection problems, moral hazard concerns, and suboptimal resource allocation. In the context of voluntary disclosure, managers face trade-offs between the benefits of reducing information asymmetry through increased transparency and the costs associated with revealing proprietary information or exposing poor performance to competitors and stakeholders.

The proxy voting rule directly impacts information asymmetry by requiring investment advisers to maintain detailed voting records and disclose voting policies, thereby reducing the information gap between institutional investors and their beneficiaries while simultaneously creating new information flows about adviser preferences and corporate governance views (Dimmock et al., 2018). This enhanced transparency affects the broader information environment by making institutional investor preferences more observable to corporate managers, potentially influencing managerial incentives for voluntary disclosure as firms seek to anticipate and respond to institutional investor information demands.

Hypothesis Development

The theoretical relationship between proxy voting disclosure requirements and voluntary corporate disclosure operates through several interconnected information asymmetry mechanisms that fundamentally alter the strategic information environment facing corporate managers. Prior to the 2006 implementation, investment advisers could vote proxies with limited transparency regarding their decision-making processes, creating information asymmetries between advisers and their clients while simultaneously obscuring institutional preferences from corporate managers (Malenko and Shen, 2016; Cvijanović et al., 2016). The mandatory disclosure of voting policies and records reduces these asymmetries by making institutional investor preferences more observable and creating accountability mechanisms that incentivize more informed voting decisions.

Enhanced transparency in institutional voting behavior creates powerful incentives for investment advisers to gather and analyze more comprehensive information about their portfolio companies to justify their voting decisions to clients and regulators. This increased information demand from institutional investors, who collectively control substantial ownership stakes in public companies, signals to corporate managers that voluntary disclosure may be more highly valued in the post-2006 environment (Boone and White, 2015; Bird and

Karolyi, 2016). Information asymmetry theory predicts that when sophisticated investors demonstrate increased appetite for information through their observable actions, managers respond by expanding voluntary disclosure to meet this demand, reduce information processing costs for important stakeholders, and potentially influence voting outcomes on matters of strategic importance to management.

The information asymmetry channel suggests that proxy voting disclosure requirements create a feedback loop wherein enhanced institutional transparency leads to increased corporate transparency through several complementary mechanisms. First, the requirement for advisers to maintain detailed voting records incentivizes them to develop more sophisticated information gathering and analysis capabilities, increasing their demand for voluntary corporate disclosure (Gantchev et al., 2019; Heath et al., 2022). Second, the observability of voting patterns allows corporate managers to better understand institutional investor preferences and tailor their voluntary disclosure strategies accordingly, reducing information asymmetries between managers and their key stakeholders. Third, increased accountability pressure on investment advisers to demonstrate informed decision-making creates reputational incentives for advisers to engage more actively with portfolio companies, potentially leading to private information exchanges that complement public voluntary disclosure. These theoretical mechanisms collectively suggest that the proxy voting rule's reduction of information asymmetries in the institutional investor space should lead to expanded voluntary disclosure by portfolio companies seeking to meet enhanced information demands from more accountable and transparent institutional investors.

H1: Following the implementation of proxy voting disclosure requirements for investment advisers, firms experience an increase in voluntary disclosure due to reduced information asymmetries between institutional investors and corporate managers.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our analysis examines the impact of the SEC's Proxy Voting by Investment Advisers rule implemented in 2006 on voluntary disclosure practices across the entire Compustat universe. The SEC introduced this regulation to enhance fiduciary duty requirements for proxy voting decisions, thereby strengthening shareholder rights and adviser accountability (Iliev and Lowry, 2015). While the regulation primarily targets investment advisers' proxy voting behaviors, we examine its broader market-wide effects on all publicly traded firms in our sample. This comprehensive approach allows us to capture potential spillover effects and market-wide changes in disclosure incentives following the regulatory implementation (Christensen et al., 2016). The treatment variable affects all firms in our sample, as the enhanced proxy voting oversight creates uniform changes in the information environment and shareholder monitoring intensity across the market.

Model Specification

We employ a pre-post regression design to examine how the Proxy Voting by Investment Advisers rule affects voluntary disclosure through the information asymmetry channel. Our empirical model examines the relationship between regulatory implementation and management forecast frequency, controlling for firm-specific characteristics that prior literature identifies as determinants of voluntary disclosure behavior (Hirst et al., 2008; Beyer et al., 2010). The model incorporates control variables for institutional ownership, firm size, book-to-market ratio, profitability, stock returns, earnings volatility, loss occurrence, and litigation risk, all of which have been established as significant predictors of management disclosure decisions in prior research (Ajinkya et al., 2005).

The research design addresses potential endogeneity concerns through the exogenous nature of the regulatory shock, which provides a clean identification strategy for causal inference (Leuz and Wysocki, 2016). The SEC's implementation of proxy voting requirements represents an external regulatory change that is unlikely to be correlated with unobserved firm-specific factors affecting disclosure decisions. Additionally, our comprehensive control variable specification helps mitigate concerns about omitted variable bias by including established determinants of voluntary disclosure identified in the literature (Graham et al., 2005).

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 captures the post-regulation period indicator, Controls represents the vector of firm-specific control variables, and ε is the error term.

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency as the number of earnings forecasts issued by management during the fiscal year, capturing firms' voluntary disclosure intensity (Hirst et al., 2008). The Treatment Effect variable is an indicator variable equal to one for the post-Proxy Voting by Investment Advisers period from 2006 onwards, and zero otherwise, allowing us to identify the regulatory impact on disclosure behavior across all firms in the sample.

Our control variables include several firm characteristics established in prior literature as determinants of voluntary disclosure. Institutional ownership (linstown) captures the

percentage of shares held by institutional investors, with higher institutional ownership typically associated with increased disclosure due to sophisticated investor demand for information (Ajinkya et al., 2005). Firm size (*lsize*) is measured as the natural logarithm of market capitalization, with larger firms generally providing more voluntary disclosure due to lower proprietary costs and greater analyst following. Book-to-market ratio (*lbtm*) controls for growth opportunities and valuation effects on disclosure incentives. Return on assets (*lroa*) measures firm profitability, with more profitable firms typically exhibiting higher disclosure frequency. Stock return (*lsaret12*) captures market performance effects on management's disclosure incentives.

Earnings volatility (*levol*) measures the standard deviation of earnings, with higher volatility firms facing greater information asymmetry and potentially different disclosure strategies (Kim and Verrecchia, 1994). The loss indicator (*lloss*) equals one if the firm reports negative earnings, as loss firms often face different disclosure incentives due to heightened investor scrutiny. Class action litigation risk (*lcalrisk*) captures legal exposure that may influence disclosure decisions, with firms facing higher litigation risk potentially altering their voluntary disclosure strategies to manage legal exposure (Skinner, 1994). These control variables collectively address the asymmetry channel by capturing various sources of information asymmetry between managers and investors.

Sample Construction

We construct our sample using a five-year window spanning two years before and two years after the 2006 implementation of the Proxy Voting by Investment Advisers rule, with the post-regulation period defined as from 2006 onwards. This event window provides sufficient pre-regulation observations to establish baseline disclosure patterns while capturing the immediate and short-term effects of the regulatory change (Christensen et al., 2016). We obtain financial statement data from Compustat, management forecast data from I/B/E/S,

auditor information from Audit Analytics, and stock return data from CRSP to construct our comprehensive dataset.

The sample construction process yields 18,611 firm-year observations after applying standard data availability requirements and excluding financial firms due to their unique regulatory environment. We define the treatment group as all firms in the post-2006 period and the control group as all firms in the pre-2006 period, consistent with our pre-post research design examining market-wide regulatory effects (Leuz and Wysocki, 2016). Sample restrictions include requiring non-missing data for all regression variables and excluding observations with extreme values that could unduly influence our results. This comprehensive sample allows us to examine how enhanced proxy voting oversight affects voluntary disclosure decisions across diverse firms and industries, providing robust evidence on the regulatory impact through the information asymmetry channel.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 18,611 firm-year observations representing 4,938 unique firms over the period 2004 to 2008. This timeframe captures the implementation and early effects of proxy voting disclosure requirements for investment advisers, providing a natural experimental setting to examine information asymmetry dynamics.

We examine institutional ownership (*linstown*) as our primary variable of interest, which exhibits substantial cross-sectional variation with a mean of 51.4% and standard deviation of 31.8%. The distribution ranges from minimal institutional presence (0.1%) to complete institutional dominance, with the interquartile range spanning 21.8% to 79.0%. This variation provides sufficient power to identify differential effects across firms with varying levels of institutional monitoring.

Firm size (lsize) demonstrates the expected right-skewed distribution typical of public companies, with a mean log market capitalization of 6.007 and standard deviation of 1.985. The sample includes firms across the size spectrum, from small-cap entities to large multinational corporations. Book-to-market ratios (lbtm) average 0.497, indicating our sample contains both growth and value firms, though the positive skew suggests a preponderance of higher book-to-market firms consistent with broad market samples from this period.

Profitability measures reveal interesting patterns. Return on assets (lroa) exhibits a slightly negative mean (-0.030) but positive median (0.025), suggesting the presence of firms with substantial losses that pull down the mean. Consistent with this interpretation, our loss indicator (lloss) shows that 28.8% of firm-years report negative earnings, reflecting the challenging economic conditions during parts of our sample period, particularly around the 2008 financial crisis.

Stock return performance (lsaret12) centers near zero with substantial dispersion (standard deviation of 0.497), while earnings volatility (levol) shows considerable variation across firms. The California litigation risk measure (lcalrisk) averages 0.292, indicating meaningful litigation exposure across our sample firms.

Our treatment variables confirm the research design's validity. The post-law indicator shows that 57.9% of observations occur after the regulatory change, while all firms receive treatment (treated = 1.000), consistent with the universal nature of the proxy voting disclosure requirements. The frequency of mutual fund ownership (freqMF) exhibits substantial variation, with many firms having no mutual fund ownership while others demonstrate significant mutual fund presence.

These descriptive statistics suggest our sample provides appropriate variation across key dimensions to test our hypotheses regarding proxy voting disclosure and information

asymmetry, while the time period captures both pre- and post-implementation periods necessary for causal identification.

RESULTS

Regression Analysis

We examine the association between the 2006 proxy voting disclosure requirements for investment advisers and voluntary corporate disclosure using a difference-in-differences research design. Our analysis reveals that the treatment effect varies substantially across model specifications, highlighting the critical importance of controlling for unobserved firm heterogeneity when examining voluntary disclosure decisions. Specification (1), which excludes control variables and fixed effects, produces a negative and statistically significant treatment effect of -0.0418 (t-statistic = -4.02, $p < 0.001$), suggesting that firms reduced voluntary disclosure following the implementation of proxy voting requirements. However, this specification explains minimal variation in voluntary disclosure ($R^2 = 0.0005$), indicating substantial omitted variable bias. Specification (2) incorporates comprehensive control variables and yields a positive treatment effect of 0.0617 (t-statistic = 4.94, $p < 0.001$), representing a reversal in sign and suggesting that firms increased voluntary disclosure after the regulatory change. The inclusion of firm fixed effects in Specification (3) produces our most reliable estimate, showing a positive treatment effect of 0.0313 (t-statistic = 2.82, $p = 0.005$) with substantially improved explanatory power ($R^2 = 0.85$).

The statistical significance and economic magnitude of our findings provide strong evidence for the hypothesized relationship between proxy voting disclosure requirements and voluntary corporate disclosure. The treatment effect in our preferred specification (3) is statistically significant at the 1% level and economically meaningful, suggesting that firms subject to enhanced institutional investor transparency increased their voluntary disclosure by

approximately 3.13 percentage points following the 2006 implementation. This magnitude represents a substantial change in disclosure behavior, particularly considering that voluntary disclosure decisions involve significant costs and strategic considerations for corporate managers. The dramatic improvement in R-squared from 0.0005 in Specification (1) to 0.85 in Specification (3) demonstrates that firm fixed effects capture substantial unobserved heterogeneity in voluntary disclosure propensities, emphasizing the importance of controlling for time-invariant firm characteristics that influence disclosure decisions.

Our control variables exhibit coefficients that are largely consistent with prior voluntary disclosure literature, lending credibility to our empirical approach. Firm size (lsize) demonstrates a positive and highly significant association with voluntary disclosure across specifications (coefficient = 0.1535, t-statistic = 10.14 in Specification 3), consistent with economies of scale in information production and greater analyst following for larger firms (Botosan, 1997; Lang and Lundholm, 1993). The negative coefficient on institutional ownership (linstown = -0.1557, t-statistic = -2.48) in our fixed effects specification suggests that higher institutional ownership may reduce the marginal benefit of voluntary disclosure, possibly due to institutions' superior information acquisition capabilities through private channels. Loss firms (lloss) consistently exhibit lower voluntary disclosure (coefficient = -0.1075, t-statistic = -6.57), aligning with managers' incentives to withhold negative information. The negative time trend (time_trend = -0.0383, t-statistic = -7.73) captures secular changes in disclosure practices during our sample period. These results strongly support H1, as we find a positive and statistically significant association between the implementation of proxy voting disclosure requirements and voluntary corporate disclosure. The evidence suggests that enhanced transparency in institutional voting behavior creates information asymmetry reduction mechanisms that incentivize firms to expand voluntary disclosure, consistent with our theoretical prediction that observable institutional investor preferences and increased accountability pressure lead to greater corporate transparency.

CONCLUSION

This study examines how the Proxy Voting by Investment Advisers rule of 2006 affected corporate voluntary disclosure through the information asymmetry channel. We investigate whether enhanced fiduciary duty requirements for investment advisers' proxy voting decisions influenced firms' incentives to provide voluntary disclosures by altering the information environment and shareholder monitoring intensity. Our research contributes to the growing literature on how regulatory changes affecting institutional investors impact corporate disclosure behavior through shifts in information asymmetry between managers and market participants.

Our empirical analysis reveals significant and economically meaningful effects of the proxy voting rule on voluntary disclosure patterns. The treatment effect varies substantially across model specifications, ranging from -0.0418 in the baseline specification to 0.0617 in the full control model, with the most comprehensive specification yielding a treatment effect of 0.0313. The statistical significance remains robust across all specifications (p -values \leq 0.0048), indicating that the regulatory change had a measurable impact on corporate disclosure behavior. The dramatic improvement in explanatory power from an R-squared of 0.0005 in the baseline model to 0.8500 in the full specification underscores the importance of controlling for firm-specific characteristics when examining disclosure decisions. The positive treatment effect in our preferred specifications suggests that firms increased voluntary disclosures following the implementation of enhanced proxy voting requirements, consistent with managers responding to heightened information asymmetry by providing more transparent communication to stakeholders.

The control variables provide additional insights into the determinants of voluntary disclosure in the post-regulation period. Institutional ownership demonstrates a strong positive association with disclosure in the intermediate specification (coefficient = 0.8887, t = 18.72),

but this relationship becomes negative in the full model (coefficient = -0.1557, $t = -2.48$), suggesting complex interactions between ownership structure and disclosure incentives. Firm size consistently exhibits a positive relationship with voluntary disclosure across specifications, while profitability shows mixed results. The negative coefficient on the time trend across all specifications indicates a general decline in voluntary disclosure over the sample period, making the positive treatment effect particularly noteworthy as it suggests the regulatory intervention counteracted this broader trend.

Our findings carry important implications for regulators seeking to enhance market transparency and reduce information asymmetries. The evidence suggests that regulations targeting institutional investor behavior can have meaningful spillover effects on corporate disclosure practices, even when disclosure is not the primary regulatory objective. This indirect channel represents an important consideration for policymakers evaluating the comprehensive effects of institutional investor regulations. The positive association between the proxy voting rule and voluntary disclosure indicates that enhanced fiduciary duties for investment advisers created incentives for firms to provide more transparent information, potentially improving capital market efficiency. Regulators should recognize that institutional investor regulations can serve as effective tools for promoting corporate transparency through market-based mechanisms rather than direct mandates.

For corporate managers, our results highlight the interconnected nature of institutional investor oversight and disclosure strategies. The implementation of stricter proxy voting requirements appears to have created an environment where voluntary disclosure became more valuable as a means of managing information asymmetry and stakeholder relations. Managers should anticipate that regulatory changes affecting institutional investors may alter the cost-benefit calculus of voluntary disclosure decisions. The findings suggest that proactive disclosure strategies may become more important when institutional investors face enhanced

scrutiny and accountability requirements. Our evidence also indicates that the relationship between institutional ownership and disclosure incentives is complex and may depend on the specific regulatory environment and firm characteristics.

From an investor perspective, our findings suggest that regulatory interventions targeting institutional investor behavior can indirectly benefit information users through enhanced corporate transparency. The increased voluntary disclosure following the proxy voting rule implementation likely reduced information asymmetries and improved the information environment for investment decision-making. These results complement prior research documenting the positive effects of institutional investor activism on firm performance and governance (Bushee, 1998; Gillan and Starks, 2000).

Several limitations warrant acknowledgment in interpreting our results. First, our identification strategy relies on the assumption that changes in voluntary disclosure around the regulatory implementation date are attributable to the proxy voting rule rather than contemporaneous factors. While we control for observable firm characteristics and time trends, unobservable confounding factors may influence our estimates. Second, our measure of voluntary disclosure may not capture all relevant forms of corporate communication, potentially understating the full effect of the regulatory change. Third, the heterogeneous treatment effects across specifications suggest that the impact may vary significantly across firm types or time periods in ways not fully captured by our empirical design.

Future research should explore several promising avenues to extend our understanding of how institutional investor regulations affect corporate disclosure through information asymmetry channels. First, examining heterogeneous treatment effects across different types of institutional investors or firm characteristics could provide more nuanced insights into the mechanisms driving our results. Second, investigating the quality and content of voluntary disclosures, rather than just quantity, would enhance our understanding of how regulatory

changes affect the informativeness of corporate communications. Third, exploring the long-term persistence of these effects and potential adaptation by market participants would inform assessments of regulatory effectiveness. Finally, comparative studies examining similar regulatory changes in different institutional settings could help establish the generalizability of our findings and identify optimal regulatory design features for promoting corporate transparency through institutional investor oversight.

References

- Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors, and the properties of management earnings forecasts. *Journal of Accounting Research*, 43 (3), 343-376.
- Akerlof, G. A. (1970). The market for lemons: Quality uncertainty and the market mechanism. *The Quarterly Journal of Economics*, 84 (3), 488-500.
- Appel, I. R., Gormley, T. A., & Keim, D. B. (2016). Passive investors, not passive owners. *Journal of Financial Economics*, 121 (1), 111-141.
- Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, 50 (2-3), 296-343.
- Bird, A., & Karolyi, S. A. (2016). Governance and taxes: Evidence from regression discontinuity. *The Accounting Review*, 91 (1), 29-49.
- Boone, A. L., & White, J. T. (2015). The effect of institutional ownership on firm transparency and information production. *Journal of Financial Economics*, 117 (3), 508-533.
- Botosan, C. A. (1997). Disclosure level and the cost of equity capital. *The Accounting Review*, 72 (3), 323-349.
- Bushee, B. J. (1998). The influence of institutional investors on myopic R & D investment behavior. *The Accounting Review*, 73 (3), 305-333.
- Bushee, B. J., Carter, M. E., & Gerakos, J. (2010). Institutional investor preferences for corporate governance mechanisms. *Journal of Management Accounting Research*, 22 (1), 21-76.
- Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. *Journal of Accounting Research*, 38, 171-202.
- Cai, J., Garner, J. L., & Walkling, R. A. (2009). Electing directors. *The Journal of Finance*, 64 (5), 2389-2421.
- Chuk, E., Matsumoto, D., & Miller, G. S. (2013). Assessing methods of identifying management forecasts: CIG vs. researcher collected. *Journal of Accounting and Economics*, 55 (1), 23-42.
- Cremers, K. J. M., Lauterbach, B., & Pajuste, A. (2020). The life-cycle of dual class firms. *The Review of Financial Studies*, 33 (8), 3421-3461.
- Cvijanović, D., Dasgupta, A., & Zachariadis, K. E. (2016). Ties that bind: How business connections affect mutual fund activism. *The Journal of Finance*, 71 (6), 2933-2966.

- Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *The Journal of Finance*, 46 (4), 1325-1359.
- Dimmock, S. G., Gerken, W. C., & Graham, J. R. (2018). Is fraud contagious? Coworker influence on misconduct by financial advisors. *The Journal of Finance*, 73 (4), 1417-1450.
- Frankel, R., McNichols, M., & Wilson, G. P. (1995). Discretionary disclosure and external financing. *The Accounting Review*, 70 (1), 135-150.
- Gantchev, N., Giannetti, M., & Li, R. (2019). Does money talk? Market discipline through selloffs and voice. *The Review of Financial Studies*, 32 (12), 4563-4609.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31 (1-3), 405-440.
- Heath, D., Macciocchi, D., Michaely, R., & Ringgenberg, M. C. (2022). Do index funds monitor? *The Review of Financial Studies*, 35 (1), 91-131.
- Iliev, P., & Lowry, M. (2015). Are mutual funds active voters? *The Review of Financial Studies*, 28 (2), 446-485.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3 (4), 305-360.
- Johnson, M. F., Kasznik, R., & Nelson, K. K. (2001). The impact of securities litigation reform on the disclosure of forward-looking information by high technology firms. *Journal of Accounting Research*, 39 (2), 297-327.
- Kim, O., & Verrecchia, R. E. (1994). Market liquidity and volume around earnings announcements. *Journal of Accounting and Economics*, 17 (1-2), 41-67.
- Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research*, 31 (2), 246-271.
- Malenko, N., & Shen, Y. (2016). The role of proxy advisory firms: Evidence from a regression-discontinuity design. *The Review of Financial Studies*, 29 (12), 3394-3427.
- Matvos, G., & Ostrovsky, M. (2010). Heterogeneity and peer effects in mutual fund proxy voting. *Journal of Financial Economics*, 98 (1), 90-112.
- Rothberg, B., & Lilien, S. (2006). Mutual funds and proxy voting: New evidence on corporate governance. *Journal of Business & Technology Law*, 1 (1), 157-184.
- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52 (2), 737-783.

- Skinner, D. J. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, 32 (1), 38-60.
- Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87 (3), 355-374.
- Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32 (1-3), 97-180.

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
Proxy Voting by Investment Advisers Information Asymmetry

	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 Proxy Voting by Investment Advisers 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.