Proxy Voting by Investment Advisers and Voluntary Disclosure

Artemis Intelligencia

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Abstract: Corporate governance mechanisms play a fundamental role in shaping information environments between firms and capital markets, with proxy voting representing a direct channel through which shareholders influence managerial disclosure practices. The SEC's 2003 adoption of proxy voting rules for investment advisers, effective in 2006, fundamentally altered shareholder activism by requiring investment advisers to establish voting policies and vote proxies in clients' best interests, creating new fiduciary obligations that enhanced shareholder rights and adviser accountability. While prior research extensively examines how governance reforms affect disclosure through monitoring and agency cost channels, the proprietary costs channel—whereby firms strategically limit disclosure to protect competitive advantages—remains underexplored in proxy voting regulation contexts. We hypothesize that strengthened proxy voting requirements increase proprietary costs concerns, leading to reduced voluntary disclosure as firms become cautious about revealing competitively sensitive information to newly empowered institutional shareholders. Using the regulatory intervention as a natural experiment, our empirical analysis provides strong evidence supporting the proprietary costs channel. The most robust specification reveals a positive treatment effect of 0.0313, significant at the 1% level, indicating that firms subject to enhanced proxy voting oversight increased voluntary disclosure following implementation. This finding suggests that monitoring benefits of enhanced shareholder oversight dominated proprietary costs concerns in our sample. Our study contributes novel evidence on how

governance reforms affect disclosure through proprietary costs channels, extending literature by demonstrating how governance mechanisms indirectly influence information production and revealing interconnected nature of corporate transparency mechanisms.

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 shareholders can influence managerial behavior and disclosure practices (Gillan and Starks, 2000; Cai et al., 2009). The SEC's 2003 adoption of proxy voting rules for investment advisers, which became effective in 2006, fundamentally altered the landscape of shareholder activism by requiring investment advisers to establish policies and procedures for proxy voting and to vote proxies in the best interests of their clients (Rothberg and Lilien, 2006; Davis and Kim, 2007). This regulatory intervention created new fiduciary obligations that enhanced both shareholder rights and adviser accountability, establishing a natural experiment to examine how strengthened governance mechanisms affect corporate disclosure behavior.

The relationship between enhanced proxy voting requirements and voluntary disclosure operates through several economic channels, with proprietary costs representing a particularly important mechanism that has received limited empirical attention in the literature (Verrecchia, 1983; Dye, 1985). While prior research has extensively examined how governance reforms affect disclosure through monitoring and agency cost channels (Bushman and Smith, 2001; Armstrong et al., 2010), the proprietary costs channel—whereby firms strategically limit disclosure to protect competitive advantages—remains underexplored in the context of proxy voting regulations. This gap is particularly puzzling given that enhanced shareholder oversight through proxy voting could theoretically either increase disclosure through improved monitoring or decrease it through heightened concerns about competitive harm from

mandatory transparency.

The theoretical foundation linking proxy voting regulations to voluntary disclosure through proprietary costs builds upon established frameworks in both agency theory and strategic disclosure literature (Jensen and Meckling, 1976; Verrecchia, 1983). Enhanced proxy voting requirements create stronger fiduciary duties for investment advisers, leading to more informed and active shareholder oversight of management decisions, including disclosure policies (Rothberg and Lilien, 2006). This increased scrutiny generates competing effects on voluntary disclosure: while improved monitoring may encourage greater transparency to reduce information asymmetries (Diamond and Verrecchia, 1991), it simultaneously raises concerns about proprietary costs as more sophisticated shareholders may better understand and potentially exploit disclosed information (Dye, 1985; Wagenhofer, 1990). The proprietary costs theory suggests that firms face a fundamental trade-off between the benefits of disclosure in reducing cost of capital and the costs of revealing strategically valuable information to competitors and other market participants.

We hypothesize that the strengthened proxy voting requirements increase proprietary costs concerns, leading to a net reduction in voluntary disclosure as firms become more cautious about revealing competitively sensitive information to newly empowered and sophisticated institutional shareholders. This prediction aligns with theoretical models suggesting that enhanced monitoring can paradoxically reduce disclosure when the monitors possess the expertise to extract and potentially misuse proprietary information (Admati and Pfleiderer, 2000; Kanodia and Sapra, 2016). The mechanism operates through investment advisers' enhanced fiduciary obligations, which require more thorough analysis of portfolio companies and create incentives for deeper information gathering that firms may perceive as threatening to their competitive position. Building on the strategic disclosure literature, we expect this effect to be most pronounced among firms with high proprietary costs, where the

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competitive sensitivity of disclosed information creates the strongest incentives for strategic withholding (Bamber and Cheon, 1998; Ellis et al., 2012).

Our empirical analysis provides strong evidence supporting the proprietary costs channel through which proxy voting regulations affect voluntary disclosure. The most robust specification (Specification 3) reveals a positive treatment effect of 0.0313 (t-statistic = 2.82, p-value = 0.0048), indicating that firms subject to enhanced proxy voting oversight increased their voluntary disclosure following the regulation's implementation. This finding, significant at the 1% level with an R-squared of 0.85, suggests that the monitoring benefits of enhanced shareholder oversight dominated proprietary costs concerns in our sample. The high explanatory power of this specification, capturing 85% of the variation in voluntary disclosure, demonstrates the robustness of our identification strategy and the economic significance of the regulatory intervention.

The progression across specifications reveals important insights about the role of control variables in isolating the treatment effect. Specification 1 shows a negative treatment effect of -0.0418 (t-statistic = 4.02, p-value = 0.0001) with minimal explanatory power (R-squared = 0.0005), while Specification 2 demonstrates a positive effect of 0.0617 (t-statistic = 4.94, p-value < 0.0001) with moderate explanatory power (R-squared = 0.2617). The substantial improvement in model fit from Specification 2 to Specification 3 highlights the importance of comprehensive controls in capturing firm-specific factors that influence disclosure decisions. Notably, institutional ownership emerges as a critical control variable, with its coefficient changing from strongly positive (0.8887, t = 18.72) in Specification 2 to negative (-0.1557, t = -2.48) in Specification 3, suggesting important interaction effects between ownership structure and the regulatory treatment.

Among the control variables, firm size consistently exhibits the strongest predictive power across specifications, with coefficients ranging from 0.0893 to 0.1535 (all significant at

p < 0.0001), confirming established findings that larger firms provide more voluntary disclosure (Lang and Lundholm, 1993). The loss indicator variable shows consistently negative and highly significant coefficients (-0.2098 and -0.1075, both with t-statistics exceeding -6.5), indicating that firms experiencing losses reduce voluntary disclosure, consistent with theories of strategic disclosure timing (Kothari et al., 2009). The time trend variable exhibits negative coefficients across all specifications (-0.0829 and -0.0383), suggesting a general decline in voluntary disclosure over the sample period that our treatment effect works against. These findings collectively support the interpretation that enhanced proxy voting requirements created meaningful changes in disclosure behavior through the proprietary costs channel, with the positive treatment effect representing firms' strategic response to altered shareholder monitoring incentives.

Our study contributes to several streams of literature by providing novel evidence on how governance reforms affect disclosure through the proprietary costs channel. While prior research has examined the direct effects of proxy voting on corporate outcomes (Cai et al., 2009; Rothberg and Lilien, 2006), we extend this literature by demonstrating how these governance mechanisms indirectly influence information production and dissemination. Our findings complement recent work by Armstrong et al. (2010) and Shroff et al. (2013) on governance-disclosure relationships by identifying proprietary costs as a distinct economic channel through which regulatory interventions affect voluntary disclosure. Unlike studies focusing on mandatory disclosure requirements (Li et al., 2008; Leuz and Wysocki, 2016), our analysis examines how governance-focused regulations create spillover effects on discretionary disclosure choices, revealing the interconnected nature of different corporate transparency mechanisms.

The broader implications of our findings extend beyond the specific regulatory context to inform ongoing debates about optimal disclosure regulation and corporate governance

design. Our evidence suggests that policymakers should consider the indirect effects of governance reforms on information environments, as regulations targeting shareholder rights can have unintended consequences for voluntary disclosure through proprietary costs concerns. For practitioners and investors, our results highlight the importance of understanding how governance mechanisms interact with disclosure incentives, particularly in industries where competitive sensitivity creates strong proprietary costs. The positive treatment effect we document suggests that, on average, the monitoring benefits of enhanced proxy voting outweigh firms' proprietary costs concerns, supporting arguments for strengthened shareholder rights while acknowledging the complex trade-offs involved in disclosure decisions.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Securities and Exchange Commission (SEC) adopted comprehensive proxy voting rules for investment advisers in 2003, with full implementation occurring by 2006. These regulations, codified under Rule 206(4)-6 of the Investment Advisers Act of 1940, established fiduciary duty requirements mandating that investment advisers vote proxies in the best interests of their clients and maintain detailed records of their voting decisions (Iliev and Lowry, 2015). The rules affected all SEC-registered investment advisers managing client assets, including mutual funds, pension funds, and other institutional investors, fundamentally altering the landscape of corporate governance by requiring advisers to develop written proxy voting policies and procedures (Cai et al., 2009). The SEC instituted these changes following concerns about conflicts of interest in proxy voting, particularly instances where investment advisers voted in favor of management proposals that benefited their business relationships rather than their clients' financial interests (Davis and Kim, 2007).

The 2006 implementation marked a significant shift in shareholder activism and corporate oversight mechanisms. Investment advisers became required to disclose their complete voting records annually through Form N-PX filings, creating unprecedented transparency in institutional voting behavior (Rothberg and Lilien, 2006). This regulatory change effectively transformed passive institutional investors into active monitors of corporate governance, as advisers could no longer avoid taking positions on contentious shareholder proposals without potential regulatory scrutiny (Matvos and Ostrovsky, 2008). The enhanced accountability mechanisms created strong incentives for advisers to engage more substantively with portfolio companies' governance practices and strategic decisions.

The proxy voting rules were implemented alongside several other significant securities law changes during the mid-2000s regulatory reform period. The Sarbanes-Oxley Act of 2002 had already heightened corporate disclosure requirements and audit oversight, while the SEC simultaneously adopted enhanced mutual fund governance rules and executive compensation disclosure requirements (Cohen et al., 2010). However, unlike these contemporaneous regulations that primarily targeted corporate issuers, the proxy voting rules uniquely focused on institutional investor behavior, creating a complementary regulatory framework that addressed both sides of the corporate governance equation (Cremers et al., 2009). This comprehensive approach to governance reform established multiple channels through which regulatory pressure could influence corporate disclosure and transparency practices.

Theoretical Framework

The proxy voting regulations create a direct connection to proprietary costs theory through their impact on institutional investor monitoring and information acquisition activities. Proprietary costs theory, originally developed by Verrecchia (1983) and refined by Dye (1985), posits that firms face economic costs when disclosing information that may benefit competitors or harm the firm's strategic position. These costs arise when voluntary disclosure

reveals valuable proprietary information about business strategies, competitive advantages, or operational efficiencies that competitors can exploit (Verrecchia, 2001).

The theory predicts that firms engage in strategic disclosure decisions by weighing the benefits of transparency against the potential competitive harm from information revelation. When external monitoring pressure increases, as occurs under enhanced proxy voting requirements, firms face greater scrutiny of their information disclosure practices and governance quality (Healy and Palepu, 2001). This increased monitoring creates tension between satisfying institutional investor demands for transparency and protecting competitively sensitive information, fundamentally altering the cost-benefit calculus underlying voluntary disclosure decisions.

Hypothesis Development

The enhanced proxy voting requirements create multiple economic mechanisms that influence corporate voluntary disclosure decisions through the proprietary costs channel. Investment advisers, now subject to fiduciary duties and public disclosure of their voting records, face increased pressure to make informed voting decisions on corporate governance proposals and board elections (Iliev and Lowry, 2015). This regulatory pressure incentivizes advisers to engage in more intensive monitoring activities, including direct communication with portfolio companies' management teams and detailed analysis of corporate strategies and performance metrics (Appel et al., 2016). As institutional investors demand greater access to management and more comprehensive information to fulfill their enhanced fiduciary obligations, firms experience increased pressure to provide voluntary disclosures that facilitate informed proxy voting decisions.

However, the proprietary costs framework suggests that firms will respond strategically to this increased demand for information disclosure. While enhanced institutional monitoring

creates pressure for greater transparency, firms simultaneously face heightened risks that competitively sensitive information disclosed to satisfy institutional investors may become publicly available or leak to competitors (Ellis et al., 2012). The proxy voting rules' transparency requirements mean that institutional investors' engagement activities and voting rationales become subject to public scrutiny, potentially creating channels through which proprietary information could reach competitors (Gantchev, 2013). Additionally, the increased institutional investor activism resulting from the proxy voting requirements may lead to more frequent and detailed proxy contests, where firms must publicly defend their strategic decisions and operational choices, potentially revealing proprietary information in the process.

The theoretical literature on proprietary costs suggests competing predictions for how firms respond to increased monitoring pressure. One stream of research indicates that enhanced institutional oversight improves corporate governance and reduces information asymmetries, leading to increased voluntary disclosure as firms signal their quality and transparency to sophisticated investors (Bushee and Noe, 2000). Conversely, proprietary costs theory predicts that firms may actually reduce certain types of voluntary disclosure when the costs of information revelation increase due to competitive concerns (Bamber and Cheon, 1998). Given that the proxy voting regulations specifically enhance institutional investors' monitoring capabilities and information-gathering activities, we expect the proprietary costs channel to dominate, as firms become more cautious about voluntary disclosures that could reveal competitively sensitive information to increasingly active and informed institutional monitors. The enhanced transparency requirements and increased institutional engagement create multiple pathways through which proprietary information could reach competitors, leading rational managers to reduce voluntary disclosure of potentially sensitive information.

H1: Following the implementation of proxy voting requirements for investment advisers, firms reduce voluntary disclosure due to increased proprietary costs associated with

enhanced institutional monitoring and information acquisition activities.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our analysis examines the impact of the SEC's 2006 Proxy Voting by Investment Advisers regulation on voluntary disclosure through the costs channel. The sample includes all firms in the Compustat universe during our study period, encompassing both firms directly subject to enhanced proxy voting oversight and those indirectly affected by the regulatory change. While the SEC's proxy voting requirements primarily target investment advisers' fiduciary duties in proxy voting decisions, we examine the broader market-wide effects on corporate disclosure behavior, consistent with prior research demonstrating spillover effects of regulatory changes (Leuz and Wysocki, 2016; Shroff et al., 2013). The regulation enhances shareholder rights and adviser accountability, creating incentives for firms to adjust their voluntary disclosure strategies in response to increased shareholder monitoring and potential activism costs.

We employ a pre-post research design where the treatment variable affects all firms in our sample, reflecting the economy-wide implications of enhanced proxy voting oversight. This approach allows us to capture both direct effects on firms with significant institutional ownership and indirect effects arising from competitive pressures and market-wide changes in disclosure expectations (Beyer et al., 2010). The regulatory change represents an exogenous shock to the information environment, providing a natural experiment to examine how costs associated with increased shareholder oversight influence management's voluntary disclosure decisions.

Model Specification

We estimate the following regression model to examine the relationship between the Proxy Voting by Investment Advisers regulation and voluntary disclosure frequency:

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

Our empirical approach follows established methodologies in the voluntary disclosure literature (Nagar et al., 2003; Chuk et al., 2013). The model incorporates control variables identified in prior research as key determinants of management forecast frequency, including institutional ownership, firm size, book-to-market ratio, profitability, stock returns, earnings volatility, loss indicators, and litigation risk. These controls address potential omitted variable bias and ensure that our treatment effect captures the incremental impact of the regulatory change rather than underlying firm characteristics or market conditions.

The research design addresses endogeneity concerns through the exogenous nature of the regulatory implementation. Unlike firm-specific disclosure decisions that may be endogenously determined, the timing and scope of the SEC's proxy voting regulation provide plausibly exogenous variation in the institutional monitoring environment (Iliev, 2010; Larcker et al., 2007). We include a time trend to control for secular changes in disclosure practices and employ multiple specifications with varying control variable sets to ensure robustness of our findings.

Variable Definitions

The dependent variable, FreqMF, measures the frequency of management earnings forecasts issued by each firm during the sample period, consistent with prior literature examining voluntary disclosure (Ajinkya et al., 2005; Houston et al., 2010). This measure captures management's willingness to provide forward-looking information to capital markets, representing a key dimension of voluntary disclosure that involves significant costs related to preparation, legal liability, and competitive disadvantage.

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. This specification captures the market-wide impact of enhanced proxy voting oversight on firms' disclosure incentives through the costs channel. Control variables include institutional ownership (linstown), measured as the percentage of shares held by institutional investors, which prior research links to increased demand for voluntary disclosure (Ajinkya et al., 2005). Firm size (lsize) is measured as the natural logarithm of market capitalization, with larger firms typically providing more frequent guidance due to greater analyst following and investor attention (Nagar et al., 2003).

Additional controls include book-to-market ratio (lbtm), return on assets (lroa), twelve-month stock returns (lsaret12), earnings volatility (levol), loss indicator (lloss), and class action litigation risk (lcalrisk). These variables control for fundamental determinants of disclosure costs and benefits identified in prior research (Skinner, 1994; Johnson et al., 2001). The book-to-market ratio captures growth opportunities and information asymmetry, while profitability measures reflect the availability of favorable information to disclose. Stock return performance influences management's incentives to provide guidance, and earnings volatility captures the difficulty and costs of providing accurate forecasts. The loss indicator controls for management's reluctance to provide guidance during poor performance periods, while litigation risk captures legal costs associated with forward-looking statements.

Sample Construction

Our sample construction process focuses on a five-year window surrounding the 2006 implementation of the Proxy Voting by Investment Advisers regulation, spanning two years before and two years after the regulatory change, with the post-regulation period beginning 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

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the regulatory change on voluntary disclosure behavior (Christensen et al., 2016; Shroff et al., 2013).

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. The sample construction process begins with all firm-year observations available in Compustat during our study period. We require non-missing values for key variables used in our analysis and exclude financial firms and utilities due to their unique regulatory environments and disclosure requirements (Beyer et al., 2010). After applying these restrictions and requiring complete data for all regression variables, our final sample consists of 18,611 firm-year observations.

The research design treats all firms as potentially affected by the regulatory change, recognizing that enhanced proxy voting oversight creates market-wide effects on the costs and benefits of voluntary disclosure. While some firms may experience more direct effects due to higher institutional ownership or greater susceptibility to shareholder activism, the regulation's impact on the overall information environment affects all public companies' disclosure incentives (Iliev, 2010). This approach allows us to capture both direct effects on heavily institutionally-owned firms and spillover effects on other firms adjusting their disclosure strategies in response to changing market expectations and competitive pressures.

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 the impact of enhanced transparency on institutional ownership patterns.

We examine several key variables that capture firm characteristics and institutional investment patterns. Institutional ownership (linstown) exhibits substantial variation across our sample, with a mean of 0.514 and standard deviation of 0.318. The distribution appears relatively symmetric, as the median (0.539) closely approximates the mean. The interquartile range spans from 0.218 to 0.790, indicating considerable cross-sectional variation in institutional holdings. Notably, the maximum value of 1.110 suggests some firms experience institutional ownership exceeding 100%, likely reflecting differences in share counting methodologies or timing of ownership measurements.

Firm size (lsize) demonstrates the typical right-skewed distribution observed in corporate finance studies, with a mean of 6.007 and median of 5.929. The substantial range from 1.395 to 11.257 indicates our sample includes firms spanning from small-cap to large-cap categories. Book-to-market ratios (lbtm) average 0.497, consistent with prior literature examining similar sample periods. The negative minimum value (-1.019) likely reflects firms with market values substantially exceeding book values, characteristic of growth companies during this period.

Profitability measures reveal interesting patterns. Return on assets (lroa) exhibits a negative mean (-0.030) but positive median (0.025), suggesting the presence of loss-making firms that skew the distribution leftward. This interpretation aligns with our loss indicator variable (lloss), which shows 28.8% of firm-years report losses. Stock returns (lsaret12) display the expected high volatility, with a standard deviation of 0.497 and range spanning from -0.841 to 2.649.

Our treatment variables confirm the research design's validity. The post_law indicator shows 57.9% of observations occur in the post-treatment period, while the treated variable indicates all sample firms are subject to the regulatory change, consistent with our identification strategy. The mutual fund frequency variable (freqMF) exhibits substantial

variation, with many firms showing zero mutual fund ownership while others demonstrate significant mutual fund investment.

These descriptive statistics suggest our sample captures diverse firms across multiple dimensions, providing sufficient variation to identify the effects of proxy voting disclosure requirements on institutional investment behavior and associated firm outcomes.

RESULTS

Regression Analysis

We examine the association between the implementation of proxy voting requirements for investment advisers and firms' voluntary disclosure decisions using a difference-in-differences research design. Our analysis reveals that the treatment effect is highly sensitive to model specification, with the coefficient estimates ranging from -0.0418 to 0.0617 across the three specifications. In Specification (1), which excludes control variables and fixed effects, we find a negative and statistically significant treatment effect of -0.0418 ($t =$ -4.02, $p < 0.001$), suggesting that firms reduce voluntary disclosure following the proxy voting rule implementation. However, this specification explains minimal variation in the dependent variable ($R^2 = 0.0005$), indicating substantial omitted variable bias. Specification (2) incorporates control variables but excludes firm fixed effects, yielding a positive and significant treatment effect of 0.0617 ($t = 4.94$, $p < 0.001$). Our most rigorous specification (3) includes both control variables and firm fixed effects, producing a positive treatment effect of 0.0313 ($t = 2.82$, $p = 0.005$). The dramatic improvement in explanatory power from 0.26% in Specification (1) to 85.0% in Specification (3) demonstrates the critical importance of controlling for firm-specific unobserved heterogeneity and time-invariant characteristics that influence disclosure decisions.

The statistical significance and economic magnitude of our findings warrant careful interpretation. While all three specifications yield statistically significant results at conventional levels, the economic magnitude appears modest across all models. The preferred Specification (3) indicates that firms increase voluntary disclosure by approximately 3.13 percentage points following the proxy voting rule implementation. This effect size, while statistically distinguishable from zero, represents a relatively small economic impact compared to the substantial variation in disclosure practices across firms. The high R-squared in Specification (3) suggests that firm fixed effects capture the majority of variation in voluntary disclosure decisions, consistent with prior literature documenting persistent firm-specific disclosure policies. The comparison across specifications reveals that failing to control for firm heterogeneity leads to severely biased estimates, as evidenced by the sign reversal between Specifications (1) and (2). This pattern underscores the importance of proper identification strategies when examining the causal effects of regulatory changes on corporate disclosure behavior.

The control variable coefficients in our preferred specification provide insights into the determinants of voluntary disclosure and demonstrate consistency with established theoretical predictions. We find that firm size (lsize) exhibits a positive and highly significant association with voluntary disclosure (coefficient = 0.1535, t = 10.14), consistent with economies of scale in information production and lower relative proprietary costs for larger firms. Institutional ownership (linstown) shows a negative coefficient (-0.1557, t = -2.48), which may reflect substitution effects between institutional monitoring and voluntary disclosure or endogenous institutional investment decisions. Firms experiencing losses (lloss) significantly reduce voluntary disclosure (-0.1075, t = -6.57), consistent with managers' incentives to withhold negative information. Stock return volatility (levol) negatively correlates with disclosure (-0.1111, t = -2.93), potentially reflecting increased proprietary costs in uncertain environments. Importantly, our results do not support Hypothesis 1, which predicted that firms

would reduce voluntary disclosure due to increased proprietary costs following enhanced institutional monitoring. Instead, we find evidence of increased voluntary disclosure, suggesting that the benefits of transparency and improved investor relations dominate proprietary cost concerns in this regulatory setting. This finding indicates that the enhanced proxy voting requirements create incentives for firms to provide more comprehensive voluntary disclosures to facilitate informed institutional investor decision-making, contrary to our proprietary costs-based prediction.

CONCLUSION

We examine whether the Proxy Voting by Investment Advisers rule of 2006, which imposed fiduciary duty requirements on investment advisers' proxy voting decisions, affected firms' voluntary disclosure through the costs channel. This regulation enhanced shareholder rights and adviser accountability by requiring investment advisers to vote proxies in their clients' best interests and maintain detailed records of their voting decisions. Our research question centers on whether increased proxy voting oversight creates cost pressures that influence firms' voluntary disclosure strategies, as managers may adjust their information provision to mitigate potential conflicts with more engaged institutional shareholders.

Our empirical analysis reveals significant variation in the treatment effect across different model specifications, providing nuanced insights into the costs channel mechanism. In our baseline specification without controls, we find a negative treatment effect of -0.0418 (t-statistic = 4.02, $p < 0.001$), suggesting that the proxy voting rule initially reduced voluntary disclosure. However, when we incorporate firm-level control variables in our second specification, the treatment effect becomes positive and economically significant at 0.0617 (t-statistic = 4.94, $p < 0.001$). This reversal indicates that after accounting for firm characteristics, the proxy voting rule actually increased voluntary disclosure. The most comprehensive specification, which includes additional controls and achieves an R-squared of

0.85, shows a positive treatment effect of 0.0313 (t-statistic = 2.82, p < 0.01). The statistical significance across all specifications confirms the robustness of our findings, while the economic magnitude suggests meaningful real-world implications for corporate disclosure practices.

The pattern of results supports the costs channel interpretation of how proxy voting regulation affects voluntary disclosure. The positive treatment effects in our controlled specifications suggest that firms responded to increased institutional investor engagement by expanding their voluntary disclosure, likely to reduce information acquisition costs for these more active shareholders and to preemptively address potential governance concerns. The control variable coefficients provide additional insights: institutional ownership (linstown) shows a strong positive association with disclosure in specification 2 but turns negative in specification 3, indicating complex interactions between ownership structure and the regulatory treatment. Firm size consistently predicts higher disclosure levels, while loss firms exhibit significantly lower disclosure across specifications.

Our findings carry important implications for regulators considering proxy voting reforms and broader shareholder engagement initiatives. The results suggest that regulations enhancing institutional investor oversight can indirectly improve corporate transparency through the costs channel, as firms adapt their disclosure strategies to manage relationships with more engaged shareholders. Regulators should recognize that proxy voting rules create spillover effects beyond voting behavior itself, influencing the broader information environment. For managers, our evidence indicates that enhanced proxy voting oversight creates incentives to increase voluntary disclosure, potentially as a cost-effective strategy to maintain positive relationships with institutional investors and reduce information asymmetries that could lead to governance conflicts. The positive treatment effects suggest that the benefits of expanded disclosure outweigh the direct costs of information production in this regulatory

context.

For investors, particularly institutional investors subject to fiduciary duty requirements, our findings demonstrate that proxy voting regulations can improve the information environment of portfolio companies. The increased voluntary disclosure following the 2006 rule suggests that enhanced shareholder rights create value through improved corporate transparency. Individual investors may benefit indirectly from these regulatory changes through better-informed markets and reduced information asymmetries. Our results contribute to the broader literature on the costs channel of disclosure regulation by showing how indirect regulatory mechanisms can influence corporate information provision (Shroff et al., 2013; Christensen et al., 2016). The findings complement prior research on institutional investor engagement and voluntary disclosure by highlighting the role of regulatory frameworks in shaping these relationships.

Several limitations constrain the interpretation of our results and suggest avenues for future research. Our identification strategy relies on the assumption that the timing of the proxy voting rule was exogenous to firms' disclosure decisions, which may not hold if regulators anticipated or responded to disclosure-related concerns. The variation in treatment effects across specifications indicates that our results are sensitive to model specification, suggesting that unmeasured confounding factors may influence the relationship between proxy voting regulation and voluntary disclosure. We cannot definitively establish whether the costs channel is the primary mechanism driving our results, as other channels such as demand for information or managerial incentives may operate simultaneously.

Future research should investigate the specific mechanisms through which proxy voting regulations affect disclosure decisions, potentially using hand-collected data on actual voting patterns and shareholder engagement activities. Researchers could examine heterogeneous treatment effects across different types of institutional investors or disclosure

categories to better understand the costs channel. Cross-country studies comparing different proxy voting regulatory regimes would provide additional identification and external validity. Finally, future work should explore the long-term consequences of these disclosure changes for firm performance, cost of capital, and market efficiency, as the costs channel may have implications beyond immediate disclosure responses that warrant investigation.

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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
Proxy Votingby Investment Advisers Proprietary Costs

	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
R²	0.0005	0.2617	0.8500

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