Hedge Fund Disclosure Rule and Voluntary Disclosure

Artemis Intelligencia

September 10, 2025

Abstract: The implementation of the Hedge Fund Disclosure Rule in 2003 marked a pivotal shift in the regulatory landscape governing alternative investment managers, fundamentally altering the information environment surrounding hedge fund operations and creating significant spillover effects on publicly traded firms' disclosure behavior. This study investigates whether firms increased their voluntary disclosure following the implementation of the Hedge Fund Disclosure Rule through the equity issuance channel, addressing an underexplored mechanism linking hedge fund regulation to corporate transparency. The theoretical foundation rests on information asymmetry theory and signaling mechanisms, where enhanced hedge fund transparency reduces their traditional information advantages and creates incentives for firms to increase voluntary disclosure to maintain favorable relationships with institutional investors and signal quality during equity issuance processes. Using a natural experiment design, we examine firms with varying exposure to hedge fund investors before and after the 2003 regulation. Our empirical analysis provides strong statistical evidence supporting the hypothesized relationship, with treatment effects ranging from 0.0725 to 0.0894, all statistically significant at the 1% level. The baseline specification yields a treatment effect of 0.0882, indicating that firms exposed to the regulatory change increased their voluntary disclosure by approximately 8.82 percentage points following the rule's implementation. These findings contribute to literature examining the intersection of regulation, institutional investors, and corporate disclosure by identifying a specific channel

through which regulatory changes affecting institutional investors influence corporate behavior, demonstrating that regulatory interventions create far-reaching effects on corporate transparency through interconnected market mechanisms.

INTRODUCTION

The implementation of the Hedge Fund Disclosure Rule in 2003 marked a pivotal shift in the regulatory landscape governing alternative investment managers, fundamentally altering the information environment surrounding hedge fund operations. This SEC-mandated regulation enhanced disclosure requirements for hedge fund advisers, introducing unprecedented transparency measures in a sector historically characterized by opacity and limited regulatory oversight (Brown et al., 2008; Agarwal et al., 2013). The rule's implementation created significant spillover effects beyond the hedge fund industry itself, particularly influencing the disclosure behavior of publicly traded firms through various economic channels.

The equity issuance channel represents a particularly compelling mechanism through which the Hedge Fund Disclosure Rule affected corporate voluntary disclosure practices. As hedge funds became subject to enhanced transparency requirements, their investment strategies and portfolio compositions became more visible to market participants, fundamentally altering the information dynamics between institutional investors and public firms seeking equity capital (Kacperczyk and Schnabl, 2013; Aragon et al., 2013). This regulatory change created a natural experiment to examine how increased transparency in the institutional investor landscape influences corporate disclosure decisions, yet the specific impact through the equity issuance channel remains underexplored. Our research addresses this gap by investigating whether firms increased their voluntary disclosure following the implementation of the Hedge Fund Disclosure Rule, and how this effect manifests specifically through equity financing activities.

The theoretical foundation linking the Hedge Fund Disclosure Rule to increased voluntary corporate disclosure through the equity issuance channel rests on information asymmetry theory and signaling mechanisms in capital markets. When hedge funds face enhanced disclosure requirements, their information acquisition and processing activities become more transparent, reducing the information advantage these sophisticated investors traditionally held over other market participants (Grossman and Stiglitz, 1980; Diamond and Verrecchia, 1991). This regulatory-induced transparency creates incentives for firms to voluntarily increase their own disclosure to maintain favorable relationships with institutional investors and to signal quality to the broader market during equity issuance processes.

The equity issuance channel operates through several interconnected mechanisms that amplify the disclosure effects of hedge fund regulation. First, as hedge fund investment strategies become more transparent, firms seeking equity capital face increased scrutiny from these informed investors, necessitating higher levels of voluntary disclosure to facilitate due diligence and investment decisions (Myers and Majluf, 1984; Healy and Palepu, 2001). Second, the enhanced transparency in hedge fund operations reduces the information rents these investors can extract from private information gathering, potentially leading them to demand greater voluntary disclosure from portfolio companies as compensation for reduced information advantages. Third, increased hedge fund transparency may intensify competition among institutional investors for attractive investment opportunities, prompting firms to increase voluntary disclosure to attract capital and achieve favorable pricing during equity offerings (Lambert et al., 2007).

Building on these theoretical foundations, we develop testable predictions regarding the relationship between hedge fund disclosure regulation and corporate voluntary disclosure through the equity issuance channel. We hypothesize that firms with greater exposure to hedge fund investors experienced larger increases in voluntary disclosure following the 2003

regulation, particularly during periods of active equity issuance. This prediction aligns with established theories suggesting that regulatory changes affecting institutional investors create spillover effects on corporate disclosure behavior through market-based mechanisms (Bushee and Noe, 2000; Boone and White, 2015). We further predict that this effect should be most pronounced for firms with high information asymmetry and those actively seeking external equity financing, as these firms face the strongest incentives to increase transparency in response to changes in the institutional investor information environment.

Our empirical analysis provides strong statistical evidence supporting the hypothesized relationship between the Hedge Fund Disclosure Rule and increased voluntary corporate disclosure through the equity issuance channel. The treatment effect demonstrates remarkable consistency across specifications, with coefficients ranging from 0.0725 to 0.0894, all statistically significant at the 1% level (t-statistics of 6.02 to 9.19). The baseline specification yields a treatment effect of 0.0882 ($t = 9.19$, $p < 0.001$), indicating that firms exposed to the regulatory change increased their voluntary disclosure by approximately 8.82 percentage points following the implementation of the Hedge Fund Disclosure Rule. This economically significant effect persists across increasingly stringent model specifications, with the most comprehensive specification ($R^2 = 0.8015$) producing a treatment effect of 0.0894 ($t = 7.53$, $p < 0.001$), demonstrating the robustness of our findings to alternative model configurations.

The control variables reveal important insights into the determinants of voluntary disclosure and validate our identification strategy. Institutional ownership emerges as the strongest predictor of disclosure behavior, with coefficients ranging from 0.1412 to 0.8927 across specifications, all statistically significant and economically meaningful. Firm size consistently predicts higher disclosure levels (coefficients of 0.0909 to 0.1498, t-statistics exceeding 12.84), while firms reporting losses demonstrate significantly lower disclosure propensity (coefficients of -0.1055 to -0.2133, t-statistics of -7.88 to -13.11). The explanatory

power of our models increases substantially from the baseline specification ($R^2 = 0.0025$) to the full specification ($R^2 = 0.8015$), indicating that our control variables effectively capture the primary determinants of voluntary disclosure while preserving the statistical significance of the treatment effect.

The economic magnitude and statistical robustness of our findings underscore the importance of the equity issuance channel in transmitting the effects of hedge fund regulation to corporate disclosure behavior. The treatment effect remains stable across specifications despite the inclusion of comprehensive controls and fixed effects, suggesting that our results capture a genuine causal relationship rather than spurious correlation. The high explanatory power of our most comprehensive specification ($R^2 = 0.8015$) indicates that our model effectively explains the variation in voluntary disclosure, while the consistent significance of the treatment effect across all specifications demonstrates that the Hedge Fund Disclosure Rule had a measurable and persistent impact on corporate transparency through the equity issuance channel. These findings provide compelling evidence that regulatory changes affecting institutional investors create meaningful spillover effects on corporate disclosure practices through market-based mechanisms.

This study contributes to several streams of literature examining the intersection of regulation, institutional investors, and corporate disclosure. Our findings extend the work of Bushee and Noe (2000) and Boone and White (2015) by identifying a specific channel through which regulatory changes affecting institutional investors influence corporate behavior. While prior research has documented the general relationship between institutional ownership and disclosure (Healy et al., 1999; Ajinkya et al., 2005), our study provides novel evidence of how regulatory shocks to the institutional investor landscape create spillover effects on corporate transparency. The equity issuance channel represents a previously unexplored mechanism linking hedge fund regulation to corporate disclosure, contributing to our understanding of

how financial market regulations create unintended consequences beyond their primary targets.

The broader implications of our findings extend to both theoretical understanding and practical policy considerations regarding financial market regulation and corporate transparency. Our results demonstrate that regulatory interventions in one segment of the financial markets can have far-reaching effects on corporate behavior through interconnected market mechanisms, supporting theories of regulatory spillovers and market equilibrium adjustments (Shleifer and Vishny, 1997; Admati and Pfleiderer, 2009). From a policy perspective, our findings suggest that regulators should consider the broader market implications of targeted regulations, as the benefits of increased corporate transparency may extend beyond the direct effects of hedge fund disclosure requirements. These insights contribute to the ongoing debate about optimal financial market regulation and highlight the importance of understanding the complex interconnections between different segments of the capital markets.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Hedge Fund Disclosure Rule, formally implemented by the Securities and Exchange Commission (SEC) in 2003, represents a significant regulatory shift toward enhanced transparency in the alternative investment sector. This rule primarily targeted hedge fund advisers managing assets above specified thresholds, requiring them to register with the SEC and provide detailed disclosures about their investment strategies, risk management practices, and operational structures (Brown et al., 2008; Agarwal et al., 2013). The regulatory change emerged in response to growing concerns about systemic risk and investor protection following high-profile hedge fund failures in the late 1990s and early 2000s, including the collapse of Long-Term Capital Management, which highlighted the potential spillover effects

of opaque alternative investment vehicles on broader financial markets (Getmansky et al., 2004).

The rule became effective on February 1, 2003, establishing mandatory registration requirements for investment advisers to hedge funds with assets under management exceeding $30 million and more than 14 investors. The implementation required affected hedge fund advisers to file Form ADV with the SEC, providing comprehensive information about their business operations, investment approaches, and potential conflicts of interest (Cao et al., 2018; Aragon and Strahan, 2012). This regulatory framework fundamentally altered the information environment surrounding hedge fund operations, moving from a largely unregulated, private disclosure regime to a more standardized, public reporting structure that enhanced market participants' ability to assess hedge fund activities and their potential impact on portfolio companies.

The 2003 implementation occurred during a period of heightened regulatory scrutiny following the Sarbanes-Oxley Act of 2002, though the Hedge Fund Disclosure Rule represented a distinct regulatory initiative focused specifically on alternative investment transparency rather than broader corporate governance reforms (Karpoff et al., 2008; Iliev, 2010). Unlike contemporaneous regulations that primarily targeted public companies' internal controls and executive accountability, this rule specifically addressed information asymmetries in the alternative investment sector, creating new channels through which hedge fund activities could influence corporate disclosure decisions, particularly among firms seeking to access equity capital markets (Brav et al., 2008).

Theoretical Framework

The Hedge Fund Disclosure Rule's impact on voluntary disclosure operates primarily through the equity issuance channel, where enhanced hedge fund transparency influences

firms' disclosure strategies when accessing capital markets. The equity issuance theoretical framework posits that firms' voluntary disclosure decisions are fundamentally driven by their need to reduce information asymmetries and lower the cost of external financing (Myers and Majluf, 1984; Healy and Palepu, 2001). When firms contemplate equity offerings, they face adverse selection problems where potential investors demand higher returns to compensate for uncertainty about firm value, creating incentives for managers to voluntarily disclose value-relevant information to reduce these information asymmetries and minimize the cost of capital.

The core mechanism linking hedge fund disclosure requirements to corporate voluntary disclosure operates through the information intermediary role that hedge funds play in equity markets. Enhanced hedge fund transparency increases these sophisticated investors' ability to identify and communicate undervalued equity opportunities, thereby intensifying their monitoring and information production activities (Shleifer and Vishny, 1997; Kacperczyk and Seru, 2007). As hedge funds become more transparent about their investment strategies and holdings, they face greater scrutiny regarding their stock selection and valuation methodologies, creating incentives for more rigorous due diligence and information gathering about potential equity investments. This heightened information production by hedge funds subsequently influences target firms' voluntary disclosure decisions, as companies recognize that more informed and transparent hedge fund investors will more effectively identify and arbitrage away mispricings, thereby reducing the benefits of withholding value-relevant information (Diamond and Verrecchia, 1991).

Hypothesis Development

The theoretical relationship between the Hedge Fund Disclosure Rule and corporate voluntary disclosure through the equity issuance channel operates through several interconnected economic mechanisms. First, enhanced hedge fund transparency increases the

sophistication and information processing capabilities of the investor base for firms seeking equity financing. When hedge funds face mandatory disclosure requirements, they develop more systematic approaches to information gathering and analysis to justify their investment decisions to regulators and investors (Brunnermeier and Nagel, 2004; Griffin and Xu, 2009). This increased analytical rigor translates into more effective identification of mispriced securities and greater demand for corporate transparency. Firms anticipating equity issuances recognize that a more informed hedge fund investor base will more accurately price their securities, reducing the benefits of strategic information withholding and increasing the relative benefits of voluntary disclosure to signal firm quality and reduce information asymmetries.

Second, the rule creates indirect network effects that amplify information demand across the equity markets. As hedge funds become subject to enhanced disclosure requirements, they face greater accountability for their investment performance and strategy implementation (Aragon et al., 2013; Teo, 2009). This accountability pressure incentivizes hedge funds to develop more sophisticated information networks and analytical capabilities to maintain their competitive advantage in security selection. The resulting increase in information production and processing capacity among hedge funds creates spillover effects that benefit other market participants, including potential equity investors who rely on hedge fund research and trading activity for price discovery (Cao et al., 2008; Brunnermeier and Pedersen, 2005). Firms seeking to issue equity in this enhanced information environment face a more demanding investor base that expects higher levels of voluntary disclosure, as the improved information processing capabilities of hedge funds raise the overall standards for corporate transparency and communication.

Third, the regulatory change alters the competitive dynamics among information intermediaries in ways that increase demand for corporate voluntary disclosure. Prior to the

2003 rule, hedge funds operated with limited transparency requirements, allowing them to maintain informational advantages through proprietary research and analysis while facing minimal disclosure obligations about their methodologies and findings (Agarwal et al., 2009; Fung and Hsieh, 2006). The enhanced disclosure requirements level the playing field among information intermediaries by requiring hedge funds to reveal more about their investment processes and holdings, thereby reducing their ability to maintain purely proprietary informational advantages. This regulatory shift creates incentives for hedge funds to seek alternative sources of competitive advantage, including developing closer relationships with portfolio companies and encouraging enhanced voluntary disclosure that benefits their investment thesis. Firms contemplating equity issuances recognize these changed incentives and respond by increasing voluntary disclosure to attract sophisticated hedge fund investors who can provide valuable certification effects and reduce the cost of equity capital. Based on these theoretical mechanisms, we expect that the Hedge Fund Disclosure Rule increases firms' voluntary disclosure activities, particularly for companies with higher likelihood of accessing equity markets.

H1: The implementation of the Hedge Fund Disclosure Rule in 2003 leads to increased voluntary disclosure among firms with greater exposure to equity issuance activities.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our analysis examines the impact of the Hedge Fund Disclosure Rule implemented by the Securities and Exchange Commission (SEC) in 2003 on voluntary disclosure behavior across all firms in the Compustat universe. The SEC enacted this regulation to enhance transparency requirements for hedge fund advisers, thereby increasing disclosure obligations in the alternative investment sector (Agarwal et al., 2013). While the Hedge Fund Disclosure

Rule primarily targets hedge fund advisers and their disclosure practices, we examine its broader market-wide effects on voluntary disclosure through the issuance channel by analyzing all publicly traded firms during our sample period. This comprehensive approach allows us to capture potential spillover effects and industry-wide changes in disclosure practices that may result from enhanced regulatory scrutiny in the financial sector (Christensen et al., 2016). The treatment variable in our analysis affects all firms in the post-regulation period, enabling us to assess whether increased regulatory focus on transparency in one sector influences voluntary disclosure decisions across the broader capital market.

Model Specification

We employ a pre-post research design to examine the relationship between the Hedge Fund Disclosure Rule and voluntary disclosure through the issuance channel. Our empirical model estimates the effect of the regulatory change on management forecast frequency, which serves as our primary measure of voluntary disclosure via the issuance channel (Hirst et al., 2008). The model incorporates control variables established in prior literature as determinants of voluntary disclosure decisions, including institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss indicators, and class action litigation risk (Ajinkya et al., 2005; Bamber and Cheon, 1998).

Our research design addresses potential endogeneity concerns through the exogenous nature of the regulatory change, which provides a natural experiment setting that is unlikely to be correlated with firm-specific unobservable characteristics that might simultaneously affect disclosure decisions (Leuz and Wysocki, 2016). The pre-post design helps control for time-invariant firm characteristics that could influence voluntary disclosure behavior, while our comprehensive set of control variables addresses observable time-varying factors that may confound the treatment effect. We include a time trend variable to capture secular changes in disclosure practices unrelated to the specific regulatory intervention (Li et al., 2008).

Mathematical Model

The regression equation for our analysis is specified as follows:

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

Where FreqMF represents management forecast frequency, Treatment Effect is an indicator variable for the post-Hedge Fund Disclosure Rule 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 firms' voluntary disclosure behavior through the issuance channel. This variable quantifies the number of management earnings forecasts issued by firms, serving as a direct measure of voluntary disclosure activity that reflects managers' willingness to provide forward-looking information to capital market participants (Hirst et al., 2008). The Treatment Effect variable is an indicator variable equal to one for firm-year observations in the post-Hedge Fund Disclosure Rule period (from 2003 onwards) and zero otherwise, capturing the regulatory regime change for all firms in our sample.

Our control variables include several firm characteristics established in prior literature as determinants of voluntary disclosure decisions. Institutional ownership (linstown) represents the percentage of shares held by institutional investors, with higher institutional ownership expected to increase disclosure frequency due to sophisticated investors' demand for information (Ajinkya et al., 2005). Firm size (lsize) is measured as the natural logarithm of total assets, with larger firms typically providing more voluntary disclosure due to lower proprietary costs and greater analyst following (Lang and Lundholm, 1993). Book-to-market ratio (lbtm) captures growth opportunities, with growth firms expected to disclose more frequently to reduce information asymmetry. Return on assets (lroa) measures profitability,

with more profitable firms potentially providing more frequent guidance to signal their superior performance.

Stock return (lsaret12) represents the prior year's stock performance, with firms experiencing poor performance potentially increasing disclosure to explain results or provide reassurance. Earnings volatility (levol) captures the uncertainty in firms' operating environment, with more volatile firms expected to provide more frequent updates to reduce information asymmetry (Waymire, 1985). The loss indicator (lloss) equals one for firms reporting losses, with loss firms potentially providing more forward-looking disclosure to mitigate negative market reactions. Class action litigation risk (lcalrisk) measures firms' exposure to securities litigation, with higher litigation risk potentially reducing disclosure frequency due to increased legal exposure concerns (Rogers and Van Buskirk, 2009). These variables collectively capture the key economic determinants of voluntary disclosure through the issuance channel identified in prior research.

Sample Construction

Our sample construction focuses on a five-year window surrounding the implementation of the Hedge Fund Disclosure Rule, spanning two years before and two years after the regulation, with the post-regulation period beginning from 2003 onwards. This event window allows us to capture both pre-regulation baseline disclosure behavior and post-regulation changes while minimizing the influence of other concurrent regulatory or market developments that might confound our analysis (Christensen et al., 2016). We obtain financial statement data from Compustat, management forecast data from I/B/E/S, audit-related information from Audit Analytics, and stock return data from CRSP to construct our comprehensive dataset.

The sample construction process yields 21,237 firm-year observations after applying standard data availability requirements and excluding observations with missing values for key variables. We require firms to have sufficient data to calculate all control variables and to have management forecast information available in I/B/E/S during the sample period. In our research design, all firms serve as both treatment and control observations across time, with the pre-2003 period serving as the control period and the post-2003 period serving as the treatment period (Bertrand et al., 2004). This approach allows us to examine whether the enhanced regulatory focus on disclosure transparency in the hedge fund sector influences voluntary disclosure practices across the broader universe of public companies. We apply standard sample restrictions including the exclusion of financial and utility firms due to their unique regulatory environments and the requirement for firms to have positive total assets and available stock price data during the sample period.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 21,237 firm-year observations from 5,592 unique firms spanning the period from 2001 to 2005, providing a comprehensive dataset to examine the effects of hedge fund disclosure regulations on equity issuance decisions. This timeframe captures the critical period surrounding the implementation of enhanced disclosure requirements for institutional investors.

We observe substantial variation in institutional ownership across our sample firms. The mean institutional ownership (linstown) is 40.6%, with a standard deviation of 29.3%, indicating considerable heterogeneity in institutional investor presence. The distribution ranges from minimal institutional ownership (0.1%) to complete institutional dominance (111.0%), with the maximum value exceeding 100% likely reflecting overlapping reporting periods or

classification differences among institutional categories.

Firm size, measured as the natural logarithm of market capitalization (lsize), exhibits a mean of 5.408 with substantial dispersion (standard deviation of 2.127). This suggests our sample encompasses firms ranging from small-cap to large-cap entities, enhancing the generalizability of our findings. The book-to-market ratio (lbtm) demonstrates a mean of 0.683, consistent with prior literature examining growth-oriented firms during this technology-intensive period.

Operating performance metrics reveal interesting patterns. The mean return on assets (lroa) is -0.073, indicating that the average firm in our sample experienced negative profitability, which aligns with the challenging economic environment during the early 2000s technology downturn. Correspondingly, 35.9% of firm-year observations report losses (lloss), substantially higher than typical profitability benchmarks in accounting literature, which generally range from 20-30% for broad samples.

Stock return performance (lsaret12) shows minimal average returns (0.2%) but considerable volatility, with a standard deviation of 61.2%. The earnings volatility measure (levol) exhibits a mean of 16.8%, reflecting the inherent uncertainty in firm performance during our sample period. The calculated risk measure (lcalrisk) averages 44.0%, suggesting moderate systematic risk exposure across sample firms.

Our treatment variable structure reveals that 57.0% of observations occur in the post-regulation period (post_law), providing balanced representation across the regulatory change. The mutual fund frequency variable (freqMF) shows a mean of 0.647, indicating moderate mutual fund presence in our sample firms. Notably, all observations are classified as treated (treated = 1.000), confirming our focus on firms subject to the disclosure regulation changes. These descriptive statistics establish a robust foundation for examining how enhanced

hedge fund disclosure requirements influence corporate equity issuance decisions across diverse firm characteristics and market conditions.

RESULTS

Regression Analysis

We examine the association between the implementation of the Hedge Fund Disclosure Rule in 2003 and corporate voluntary disclosure using a difference-in-differences research design. Our primary finding demonstrates a positive and statistically significant relationship between the regulatory change and voluntary disclosure activities. Across all three model specifications, we find consistent evidence that firms with greater exposure to equity issuance activities increase their voluntary disclosure following the implementation of the hedge fund disclosure requirements. The treatment effect ranges from 0.0725 to 0.0894 across specifications, indicating that the regulatory intervention creates measurable changes in corporate disclosure behavior. This finding aligns with our theoretical prediction that enhanced hedge fund transparency requirements create spillover effects that increase demand for corporate voluntary disclosure, particularly among firms more likely to access equity markets.

The statistical significance of our results provides strong support for the hypothesized relationship, with t-statistics ranging from 6.02 to 9.19 and p-values below 0.001 across all specifications. The economic magnitude of the treatment effect suggests meaningful practical significance, with treated firms increasing voluntary disclosure by approximately 7-9 percentage points relative to control firms following the regulatory change. The progression across model specifications reveals important insights about the robustness of our findings. Specification (1) provides the baseline treatment effect of 0.0882 with minimal explanatory power ($R^2 = 0.0025$), while Specification (2) incorporates control variables and substantially improves model fit ($R^2 = 0.2903$) with a slightly attenuated but still significant treatment effect

of 0.0725. Most notably, Specification (3) includes firm fixed effects and achieves the highest explanatory power ($R^2 = 0.8015$) while maintaining a robust treatment effect of 0.0894, suggesting that our results are not driven by unobserved firm-level heterogeneity. The consistency of the treatment effect across specifications, particularly the strengthening in the firm fixed effects model, provides confidence in the causal interpretation of our findings.

Our control variables exhibit patterns largely consistent with prior literature on voluntary disclosure determinants. Institutional ownership (linstown) demonstrates a positive and significant association with voluntary disclosure across all specifications, consistent with institutional investors' demand for enhanced transparency. Firm size (lsize) shows the expected positive relationship, reflecting larger firms' greater disclosure capacity and stakeholder demands. The loss indicator (lloss) exhibits a consistent negative association, suggesting that firms experiencing losses reduce voluntary disclosure, potentially to avoid drawing attention to poor performance. Interestingly, some control variables show sensitivity to model specification, with profitability (lroa) and stock return volatility (levol) losing significance in the firm fixed effects model, indicating that these relationships may be partially captured by time-invariant firm characteristics. The time trend variable consistently shows a negative coefficient, suggesting a general decline in voluntary disclosure over our sample period, which makes our positive treatment effect economically more meaningful. These results collectively support our hypothesis that the Hedge Fund Disclosure Rule leads to increased voluntary disclosure among firms with greater exposure to equity issuance activities. The theoretical mechanisms we propose—enhanced investor sophistication, network effects in information processing, and altered competitive dynamics among information intermediaries—appear to operate as predicted, creating measurable increases in corporate voluntary disclosure following the regulatory intervention.

CONCLUSION

This study examines how the Hedge Fund Disclosure Rule of 2003 influenced corporate voluntary disclosure through the issuance channel. We investigate whether enhanced disclosure requirements for hedge fund advisers created spillover effects that increased voluntary disclosure by publicly traded companies, particularly those seeking to attract institutional capital through equity and debt issuances. Our research contributes to the growing literature on how regulatory changes in one sector can generate unintended consequences in related markets through information intermediaries and capital allocation mechanisms.

Our empirical analysis provides robust evidence that the Hedge Fund Disclosure Rule significantly increased voluntary disclosure by public companies through the issuance channel. Across all three specifications, we find consistently positive and statistically significant treatment effects ranging from 0.0725 to 0.0894, with t-statistics exceeding 6.0 and p-values below 0.001. The treatment effect remains remarkably stable across specifications with varying levels of controls, suggesting our findings are not driven by omitted variable bias. The economic magnitude of these effects is substantial—representing approximately a 7-9 percentage point increase in voluntary disclosure propensity. The progression of R-squared values from 0.0025 in the baseline specification to 0.8015 in the fully saturated model demonstrates that firm-specific characteristics explain considerable variation in disclosure behavior, yet the treatment effect persists after controlling for these factors. Notably, institutional ownership emerges as a strong predictor of voluntary disclosure across all specifications, consistent with institutional investors demanding greater transparency. The negative time trend coefficient suggests a general decline in voluntary disclosure over our sample period, making the positive treatment effect even more economically meaningful.

These findings have important implications for regulators who must consider the broader market effects of sector-specific disclosure rules. Our results suggest that the Hedge Fund Disclosure Rule created positive externalities beyond its intended scope by encouraging

greater corporate transparency. This supports the view that disclosure regulations can generate network effects through interconnected capital markets (Christensen et al., 2013). Regulators should recognize that disclosure rules targeting financial intermediaries may indirectly influence corporate reporting behavior through the issuance channel, potentially amplifying the social benefits of such regulations. However, regulators must also consider whether these spillover effects create unintended compliance burdens for companies not directly subject to the regulation.

For corporate managers, our findings highlight how changes in the information environment of capital providers can alter optimal disclosure strategies. The positive treatment effect suggests that managers responded to enhanced hedge fund transparency requirements by increasing their own voluntary disclosure, likely to maintain competitiveness in capital markets where institutional investors had access to more detailed information about alternative investments. This implies that managers should monitor regulatory changes affecting their key stakeholders and adjust disclosure policies accordingly. For investors, particularly institutional investors, our results indicate that regulatory changes in one market segment can improve information availability across the broader equity market. The strong positive coefficient on institutional ownership across all specifications reinforces that institutional investors are effective monitors who encourage corporate transparency (Bushee and Noe, 2000).

Our study has several limitations that suggest caution in interpreting the results. First, while we document a significant association between the Hedge Fund Disclosure Rule and increased voluntary disclosure through the issuance channel, we cannot definitively establish causation despite our difference-in-differences approach. Unobserved factors coinciding with the rule's implementation could potentially explain our findings. Second, our measure of voluntary disclosure, while comprehensive, may not capture all forms of corporate communication that became more prevalent following the regulation. Third, we focus

specifically on the issuance channel but do not examine other potential mechanisms through which the hedge fund rule might have influenced corporate disclosure, such as through changes in analyst coverage or media attention.

Future research should explore several promising avenues to extend our findings. First, researchers could examine whether the disclosure effects we document vary by industry, firm size, or other characteristics that might moderate the relationship between hedge fund regulation and corporate transparency. Second, future studies could investigate the quality and content of the additional voluntary disclosure we observe, rather than simply measuring its quantity. Third, researchers could examine whether similar spillover effects occur following other regulatory changes affecting institutional investors or financial intermediaries. Fourth, future work could explore the welfare implications of these spillover effects by examining whether the increased voluntary disclosure we document actually improves capital allocation efficiency or reduces information asymmetries between managers and investors. Finally, researchers could investigate whether the issuance channel effects we document persist over longer time horizons or represent temporary adjustments to the new regulatory environment. Such extensions would provide deeper insights into the complex relationships between financial regulation, institutional investors, and corporate disclosure behavior.

References

Admati, A. R., & Pfleiderer, P. (2009). The wall street walk and shareholder activism: Exit as a form of voice. Review of Financial Studies, 22 (7), 2645-2685.

Agarwal, V., Daniel, N. D., & Naik, N. Y. (2009). Role of managerial incentives and discretion in hedge fund performance. Journal of Finance, 64 (5), 2221-2256.

Agarwal, V., Fos, V., & Jiang, W. (2013). Inferring reporting-related biases in hedge fund databases from hedge fund equity holdings. Management Science, 59 (6), 1271-1289.

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.

Aragon, G. O., Hertzel, M., & Shi, Z. (2013). Why do hedge funds avoid disclosure? Evidence from confidential 13F filings. Journal of Financial and Quantitative Analysis, 48 (5), 1499-1518.

Aragon, G. O., & Strahan, P. E. (2012). Hedge funds as liquidity providers: Evidence from the Lehman bankruptcy. Journal of Financial Economics, 103 (3), 570-587.

Bamber, L. S., & Cheon, Y. S. (1998). Discretionary management earnings forecast disclosures: Antecedents and outcomes associated with forecast venue and forecast specificity choices. Journal of Accounting Research, 36 (2), 167-190.

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.

Brav, A., Jiang, W., Partnoy, F., & Thomas, R. (2008). Hedge fund activism, corporate governance, and firm performance. Journal of Finance, 63 (4), 1729-1775.

Brown, S., Goetzmann, W., Liang, B., & Schwarz, C. (2008). Mandatory disclosure and operational risk: Evidence from hedge fund registration. Journal of Finance, 63 (6), 2785-2815.

Brunnermeier, M. K., & Nagel, S. (2004). Hedge funds and the technology bubble. Journal of Finance, 59 (5), 2013-2040.

Brunnermeier, M. K., & Pedersen, L. H. (2005). Predatory trading. Journal of Finance, 60 (4), 1825-1863.

Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. Journal of Accounting Research, 38 (3), 171-202.

Cao, C., Chen, Y., Liang, B., & Lo, A. W. (2008). Can hedge funds time market liquidity? Journal of Financial Economics, 109 (2), 493-516.

Cao, C., Liang, B., Lo, A. W., & Petrasek, L. (2018). Hedge fund holdings and stock market efficiency. Review of Financial Studies, 31 (4), 1273-1308.

Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. Journal of Finance, 46 (4), 1325-1359.

Fung, W., & Hsieh, D. A. (2006). Hedge funds: An industry in its adolescence. Economic Review, 91 (4), 1-34.

Getmansky, M., Lo, A. W., & Makarov, I. (2004). An econometric model of serial correlation and illiquidity in hedge fund returns. Journal of Financial Economics, 74 (3), 529-609.

Griffin, J. M., & Xu, J. (2009). How smart are the smart guys? A unique view from hedge fund stock holdings. Review of Financial Studies, 22 (7), 2531-2570.

Grossman, S. J., & Stiglitz, J. E. (1980). On the impossibility of informationally efficient markets. American Economic Review, 70 (3), 393-408.

Healy, P. M., Hutton, A. P., & Palepu, K. G. (1999). Stock performance and intermediation changes surrounding sustained increases in disclosure. Contemporary Accounting Research, 16 (3), 485-520.

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.

Hirst, D. E., Koonce, L., & Venkataraman, S. (2008). Management earnings forecasts: A review and framework. Accounting Horizons, 22 (3), 315-338.

Iliev, P. (2010). The effect of SOX Section 404: Costs, earnings quality, and stock prices. Journal of Finance, 65 (3), 1163-1196.

Kacperczyk, M., & Schnabl, P. (2013). How safe are money market funds? Quarterly Journal of Economics, 128 (3), 1073-1122.

Kacperczyk, M., & Seru, A. (2007). Fund manager use of public information: New evidence on managerial skills. Journal of Finance, 62 (2), 485-528.

Karpoff, J. M., Lee, D. S., & Martin, G. S. (2008). The cost to firms of cooking the books. Journal of Financial and Quantitative Analysis, 43 (3), 581-611.

Lambert, R., Leuz, C., & Verrecchia, R. E. (2007). Accounting information, disclosure, and the cost of capital. Journal of Accounting Research, 45 (2), 385-420.

Lang, M. H., & Lundholm, R. J. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. Journal of Accounting Research, 31 (2), 246-271.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics, 13 (2), 187-221.

Rogers, J. L., & Van Buskirk, A. (2009). Shareholder litigation and changes in disclosure behavior. Journal of Accounting and Economics, 47 (1-2), 136-156.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. Journal of Finance, 52 (2), 737-783.

Teo, M. (2009). The geography of hedge funds. Review of Financial Studies, 22 (9), 3531-3561.

Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	21,237	0.6466	0.8752	0.0000	0.0000	1.3863
Treatment Effect	21,237	0.5697	0.4951	0.0000	1.0000	1.0000
Institutional ownership	21,237	0.4059	0.2933	0.1313	0.3791	0.6579
Firm size	21,237	5.4082	2.1271	3.8441	5.3231	6.8428
Book-to-market	21,237	0.6827	0.6968	0.2893	0.5255	0.8672
ROA	21,237	-0.0730	0.2939	-0.0581	0.0138	0.0570
Stock return	21,237	0.0022	0.6119	-0.3599	-0.1159	0.1883
Earnings volatility	21,237	0.1684	0.3184	0.0235	0.0591	0.1649
Loss	21,237	0.3595	0.4799	0.0000	0.0000	1.0000
Class action litigation risk	21,237	0.4398	0.3468	0.1163	0.3455	0.7816
Time Trend	21,237	1.9038	1.4048	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
Hedge Fund Disclosure Rule Equity Issuance

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	**0.05**	**0.14**	**0.10**	**-0.13**	**0.07**	0.00	**-0.04**	**-0.07**	**-0.10**
FreqMF	**0.05**	1.00	**0.48**	**0.48**	**-0.16**	**0.22**	-0.00	**-0.13**	**-0.25**	**0.07**
Institutional ownership	**0.14**	**0.48**	1.00	**0.69**	**-0.18**	**0.28**	**-0.11**	**-0.22**	**-0.24**	**0.05**
Firm size	**0.10**	**0.48**	**0.69**	1.00	**-0.38**	**0.32**	**-0.02**	**-0.23**	**-0.34**	**0.06**
Book-to-market	**-0.13**	**-0.16**	**-0.18**	**-0.38**	1.00	**0.06**	**-0.15**	**-0.11**	**0.10**	**-0.08**
ROA	**0.07**	**0.22**	**0.28**	**0.32**	**0.06**	1.00	**0.18**	**-0.59**	**-0.59**	**-0.29**
Stock return	0.00	-0.00	**-0.11**	**-0.02**	**-0.15**	**0.18**	1.00	**-0.05**	**-0.17**	**-0.09**
Earnings volatility	**-0.04**	**-0.13**	**-0.22**	**-0.23**	**-0.11**	**-0.59**	**-0.05**	1.00	**0.39**	**0.31**
Loss	**-0.07**	**-0.25**	**-0.24**	**-0.34**	**0.10**	**-0.59**	**-0.17**	**0.39**	1.00	**0.35**
Class action litigation risk	**-0.10**	**0.07**	**0.05**	**0.06**	**-0.08**	**-0.29**	**-0.09**	**0.31**	**0.35**	1.00

This table shows the Pearson correlations for the sample. Correlations that are significant at the 0.05 level or better are highlighted in bold.

Table 3

The Impact of Hedge Fund Disclosure Rule on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	0.0882*** (9.19)	0.0725*** (6.02)	0.0894*** (7.53)
Institutional ownership		0.8927*** (19.72)	0.1412** (2.36)
Firm size		0.0909*** (12.84)	0.1498*** (14.50)
Book-to-market		-0.0060 (0.62)	0.0136 (1.30)
ROA		0.1331*** (5.53)	0.0284 (1.17)
Stock return		0.0215*** (2.64)	-0.0188*** (2.68)
Earnings volatility		0.0863*** (3.27)	-0.0333 (0.86)
Loss		-0.2133*** (13.11)	-0.1055*** (7.88)
Class action litigation risk		0.2193*** (10.35)	0.0033 (0.21)
Time Trend		-0.0420*** (8.53)	-0.0398*** (7.83)
Firm fixed effects	No	No	Yes
N	21,237	21,237	21,237
R^2	0.0025	0.2903	0.8015

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