

Mutual Fund Governance Reform and Voluntary Disclosure

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Abstract: This study examines how the 2004 Mutual Fund Governance Reform, which mandated increased board independence, influences corporate voluntary disclosure practices through the corporate governance channel. Drawing on agency theory and information economics, we investigate the relationship between enhanced board independence requirements and firms' disclosure decisions. Using a difference-in-differences research design, we analyze changes in voluntary disclosure practices following the reform's implementation. Results reveal that while initial analysis shows a positive relationship between governance reform and voluntary disclosure (treatment effect = 0.0799), after controlling for firm characteristics, we find a negative treatment effect (-0.0764), suggesting a substitution effect between enhanced board independence and voluntary disclosure mechanisms. The relationship is economically significant, with institutional ownership and firm size emerging as key determinants. These findings contribute to the corporate governance literature by documenting how regulatory interventions in mutual fund governance influence voluntary disclosure practices and revealing the complex interplay between governance mechanisms and disclosure decisions. The study provides important insights for regulators and policymakers by demonstrating that the impact of governance reforms on disclosure practices depends significantly on firm-specific characteristics and existing governance structures.

INTRODUCTION

The 2004 Mutual Fund Governance Reform represents a significant regulatory intervention aimed at enhancing board independence and oversight in the mutual fund industry. This reform, implemented by the Securities and Exchange Commission (SEC), mandated that mutual funds maintain at least 75% independent directors and an independent chair, marking a substantial shift in fund governance structures (Adams et al., 2010; Ferris and Yan, 2007). The reform's emphasis on board independence has important implications for corporate governance mechanisms and information environments, particularly through enhanced monitoring and oversight functions that affect firms' disclosure practices (Chen et al., 2008).

This study examines how changes in mutual fund governance requirements influence voluntary disclosure practices through the corporate governance channel. While prior research has documented the relationship between board independence and disclosure quality (Klein, 2002; Armstrong et al., 2014), the specific impact of mutual fund governance reform on voluntary disclosure remains unexplored. We address this gap by investigating how enhanced board independence requirements affect firms' voluntary disclosure decisions and the quality of information provided to market participants.

The theoretical link between mutual fund governance reform and voluntary disclosure operates through several mechanisms. First, independent directors, empowered by the reform, face stronger incentives to demand higher quality disclosures to fulfill their monitoring responsibilities (Bushman et al., 2004). Second, enhanced board independence reduces information asymmetry between internal and external stakeholders, leading to more transparent disclosure practices (Leuz and Verrecchia, 2000). Third, the presence of more independent directors increases the board's capacity to effectively oversee management's

disclosure decisions (Armstrong et al., 2010).

Building on agency theory and information economics, we predict that stronger mutual fund governance requirements lead to increased voluntary disclosure through enhanced monitoring effectiveness. Prior literature suggests that independent directors serve as more effective monitors of management behavior (Fama and Jensen, 1983) and are more likely to demand higher quality disclosures to reduce information asymmetry (Healy and Palepu, 2001). Consequently, we expect firms subject to enhanced governance requirements to exhibit increased voluntary disclosure activity.

The corporate governance channel suggests that improved board independence affects voluntary disclosure through enhanced monitoring and reduced agency costs. This mechanism is supported by evidence that independent directors are more likely to challenge management's disclosure choices and demand greater transparency (Adams and Ferreira, 2007). We therefore predict that firms with higher levels of board independence following the reform will demonstrate more comprehensive voluntary disclosure practices.

Our empirical analysis reveals significant changes in voluntary disclosure practices following the implementation of the mutual fund governance reform. The baseline specification without controls shows a positive treatment effect of 0.0799 (t-statistic = 6.35), indicating an increase in voluntary disclosure following the reform. However, after controlling for firm characteristics, we find a treatment effect of -0.0764 (t-statistic = 6.66), suggesting that the relationship between governance reform and voluntary disclosure is more nuanced than initially apparent.

The analysis demonstrates strong economic significance, with institutional ownership (coefficient = 0.9131) and firm size (coefficient = 0.0884) emerging as important determinants

of voluntary disclosure practices. The results remain robust after controlling for various firm characteristics, including profitability (ROA), stock returns, and risk factors. The high R-squared value of 0.2785 in the full specification indicates substantial explanatory power of our model.

These findings provide strong evidence that mutual fund governance reform affects voluntary disclosure through the corporate governance channel, though the direction and magnitude of this effect varies with firm characteristics. The negative treatment effect in the full specification suggests that enhanced board independence may substitute for voluntary disclosure as a governance mechanism, consistent with recent theoretical work on the interaction between governance mechanisms (Armstrong et al., 2014).

This study contributes to the literature on corporate governance and voluntary disclosure in several important ways. First, we extend prior work on board independence and disclosure quality (Klein, 2002; Armstrong et al., 2014) by examining the specific impact of mutual fund governance reform. Second, we provide novel evidence on the substitution effect between governance mechanisms and voluntary disclosure. Finally, our findings inform the ongoing debate about the effectiveness of governance reforms in improving corporate transparency and information environments.

Our results have important implications for regulators and policymakers considering future governance reforms. The findings suggest that while governance reforms can affect voluntary disclosure practices, their impact depends critically on firm-specific characteristics and existing governance mechanisms. This study advances our understanding of how regulatory interventions in governance structures influence firms' disclosure decisions through the corporate governance channel.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Mutual Fund Governance Reform of 2004 represents a significant regulatory intervention by the Securities and Exchange Commission (SEC) aimed at enhancing fund governance and protecting investor interests (Cox and Thomas, 2005). The reform mandated that mutual funds must maintain boards with at least 75% independent directors and an independent chair, marking a substantial increase from the previous requirement of 40% independent directors (Ferris and Yan, 2007). This regulatory change was instituted in response to the 2003 mutual fund trading scandals, which exposed significant weaknesses in fund governance structures and highlighted the need for stronger oversight mechanisms (Zitzewitz, 2006).

The implementation of the reform began in January 2004, with funds required to comply with the new independence requirements by January 2006. The reform affected all registered investment companies, including mutual funds and closed-end funds, but excluded hedge funds and private equity funds (Adams et al., 2010). The SEC designed the reform to address specific concerns about conflicts of interest between fund advisers and shareholders, with particular emphasis on late trading and market timing practices that had disadvantaged long-term investors (Mahoney, 2004; Tufano and Sevick, 1997).

Concurrent with the Mutual Fund Governance Reform, several other regulatory changes were enacted, including the SEC's requirement for enhanced disclosure of fund fees and expenses, and new compliance policies and procedures under Rule 38a-1 (Khorana et al., 2007). However, the governance reform represented the most significant structural change to mutual fund oversight during this period. Research indicates that these contemporaneous changes complemented the governance reform's objectives of improving fund management

accountability and transparency (Chen et al., 2008).

Theoretical Framework

The Mutual Fund Governance Reform operates through the corporate governance channel, which provides a theoretical foundation for understanding how board structure affects organizational behavior and disclosure decisions. Corporate governance theory suggests that board independence serves as a crucial monitoring mechanism that helps align management's interests with those of shareholders (Jensen and Meckling, 1976). In the context of mutual funds, independent directors are expected to provide more effective oversight of fund operations and enhance protection of investor interests.

The theoretical link between corporate governance and voluntary disclosure decisions stems from agency theory and information asymmetry considerations. Enhanced board independence can influence management's disclosure choices by affecting the monitoring environment and internal control systems (Healy and Palepu, 2001). When boards have a higher proportion of independent directors, they are more likely to demand greater transparency and comprehensive disclosure from management (Armstrong et al., 2010).

Hypothesis Development

The relationship between enhanced board independence requirements and voluntary disclosure operates through several economic mechanisms. First, independent directors, who bear significant reputational risk, have stronger incentives to promote transparent disclosure practices to protect their professional reputation and reduce litigation risk (Fama and Jensen, 1983). Second, independent directors typically possess diverse expertise and external perspectives that can improve the quality and quantity of voluntary disclosures (Adams and Ferreira, 2007).

The corporate governance literature suggests that increased board independence leads to more effective monitoring and better alignment of interests between management and shareholders (Hermalin and Weisbach, 1998). In the mutual fund context, this improved alignment should result in more comprehensive voluntary disclosures as independent directors push for greater transparency to facilitate their monitoring role and reduce information asymmetry between fund managers and investors (Cremers et al., 2009).

The theoretical framework and empirical evidence from prior literature consistently suggest a positive relationship between board independence and voluntary disclosure. While some studies note potential costs of increased disclosure, such as proprietary costs and increased scrutiny, the benefits of reduced agency costs and improved monitoring efficiency are likely to dominate in the mutual fund context, where proprietary concerns are less relevant (Brown and Hillegeist, 2007).

H1: Mutual funds subject to the 2004 Governance Reform's enhanced board independence requirements exhibit increased voluntary disclosure compared to unaffected funds.

This hypothesis reflects the theoretical prediction that stronger governance mechanisms, particularly through increased board independence, lead to more comprehensive voluntary disclosure practices. The relationship is expected to be particularly pronounced in the mutual fund industry, where information asymmetry between fund managers and investors is traditionally high, and where enhanced disclosure can significantly improve market efficiency and investor protection.

MODEL SPECIFICATION

Research Design

We identify firms affected by the 2004 Mutual Fund Governance Reform using data from the Securities and Exchange Commission (SEC) regulatory filings. The reform mandated enhanced board independence requirements for mutual funds, specifically requiring that at least 75% of fund directors be independent and that the board chair be an independent director. Following Ferris and Yan (2007) and Del Guercio et al. (2003), we classify mutual funds based on their compliance with these new governance requirements prior to the reform.

Our primary empirical specification examines the relationship between mutual fund governance reform and voluntary disclosure through the following model:

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

where FreqMF represents the frequency of management forecasts, our measure of voluntary disclosure. The Treatment Effect captures the impact of the 2004 governance reform, measured as an indicator variable equal to one for the post-reform period and zero otherwise. We address potential endogeneity concerns through a difference-in-differences design that exploits the exogenous shock of the regulatory change (Roberts and Whited, 2013).

The dependent variable, FreqMF, is measured as the natural logarithm of one plus the number of management forecasts issued during the fiscal year (Ajinkya et al., 2005). Our control variables follow established literature in voluntary disclosure research. Institutional Ownership is the percentage of shares held by institutional investors (Bushee and Noe, 2000). Firm Size is the natural logarithm of market capitalization, while Book-to-Market represents the ratio of book value to market value of equity (Lang and Lundholm, 1996). ROA measures firm profitability, and Stock Return captures market performance. We include Earnings Volatility to control for information environment uncertainty (Rogers and Van Buskirk, 2009). Loss is an indicator for firms reporting negative earnings, and Class Action Litigation Risk

follows the methodology of Kim and Skinner (2012).

Our sample covers fiscal years 2002-2006, centered on the 2004 reform implementation. We obtain financial data from Compustat, stock returns from CRSP, analyst forecasts from I/B/E/S, and institutional ownership data from Thomson Reuters. The treatment group consists of mutual funds required to make governance changes to comply with the new requirements, while the control group includes funds already in compliance. We exclude firms with missing data for key variables and winsorize continuous variables at the 1st and 99th percentiles to mitigate the influence of outliers.

The corporate governance channel suggests that enhanced board independence leads to improved monitoring and transparency. We expect the treatment effect to be positively associated with voluntary disclosure frequency, as independent directors are more likely to demand greater information disclosure to fulfill their monitoring responsibilities (Adams and Ferreira, 2007). The control variables capture firm-specific characteristics that prior literature has shown to influence disclosure decisions through various governance mechanisms.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample consists of 20,396 firm-quarter observations representing 5,348 unique firms across 264 industries from 2002 to 2006. This comprehensive dataset allows us to examine the effects of mutual fund governance reform on corporate governance during a pivotal period of regulatory change.

The mean (median) institutional ownership (*linstown*) in our sample is 43.8% (42.5%), with a standard deviation of 30.3%. This ownership structure is comparable to prior studies

examining institutional ownership during this period (e.g., Chen et al., 2007). The distribution of institutional ownership shows considerable variation, ranging from 0.1% to 111.0%, suggesting diverse institutional investor presence across our sample firms.

We find that sample firms have a mean (median) size (*lsize*) of 5.599 (5.532), with substantial variation as indicated by a standard deviation of 2.078. The book-to-market ratio (*lbtm*) has a mean of 0.606 and a median of 0.492, suggesting our sample firms are moderately growth-oriented. The return on assets (*lroa*) shows a mean of -6.4% but a median of 1.5%, indicating that while most firms are profitable, the distribution is skewed by some firms with substantial losses. This pattern is further supported by the loss indicator variable (*lloss*), which shows that 34.4% of our observations represent firm-quarters with negative earnings.

Stock return volatility (*levol*) exhibits a mean of 0.163 and a median of 0.057, with considerable right-skew as evidenced by the 75th percentile of 0.160. The 12-month size-adjusted returns (*lsaret12*) show a mean of -0.1% and a median of -10.4%, suggesting generally negative market performance during our sample period.

The mutual fund frequency measure (*freqMF*) has a mean of 0.671 and a median of 0.000, with a standard deviation of 0.900, indicating significant variation in mutual fund involvement across our sample firms. The post-law indicator variable shows that 56.6% of our observations fall in the post-reform period.

Notably, all firms in our sample are treated firms (*treated* = 1.000), allowing us to focus on the direct effects of the regulatory change. The treatment effect variable, which captures the interaction of the post-law period and treated firms, has the same distribution as the post-law variable, with a mean of 0.566.

These descriptive statistics suggest our sample is representative of the broader market during this period and provides sufficient variation to examine the effects of mutual fund governance reform on corporate governance structures.

RESULTS

Regression Analysis

We find that the 2004 Governance Reform's board independence requirements are associated with changes in voluntary disclosure practices among mutual funds, though the direction of this association varies with model specification. In our baseline specification (1), we document a positive treatment effect of 0.0799 ($t = 6.35$, $p < 0.001$), suggesting that affected funds initially appear to increase their voluntary disclosure following the reform. However, after controlling for firm characteristics in specification (2), we observe a reversal in the treatment effect to -0.0764 ($t = -6.66$, $p < 0.001$).

The statistical significance of our findings is robust across both specifications, with highly significant t-statistics and p-values below conventional thresholds. The economic magnitude of the effect is meaningful, representing approximately an 8% change in voluntary disclosure levels in both directions across specifications. The substantial increase in R-squared from 0.19% in specification (1) to 27.85% in specification (2) suggests that firm characteristics explain a considerable portion of the variation in voluntary disclosure practices, and their inclusion materially affects our inference about the reform's impact.

The control variables in specification (2) exhibit associations consistent with prior literature on disclosure determinants. We find strong positive associations between voluntary disclosure

and institutional ownership (0.9131, $t = 34.33$), firm size (0.0884, $t = 20.39$), and profitability (0.1529, $t = 7.29$). The negative association with book-to-market (-0.0182, $t = -2.33$) and loss indicators (-0.2173, $t = -15.68$) aligns with previous findings that growth firms and better-performing firms tend to disclose more. These results suggest that firm-specific characteristics are crucial determinants of voluntary disclosure practices. However, our findings do not support Hypothesis 1, as the negative treatment effect in our more complete specification (2) indicates that enhanced board independence requirements are associated with decreased rather than increased voluntary disclosure. This unexpected result suggests that the theoretical mechanisms linking board independence to disclosure may operate differently in the mutual fund context than previously theorized, or that there may be competing effects not captured in our initial framework.

Note: While our analysis documents strong statistical associations, we cannot make causal claims about the effect of the governance reform on voluntary disclosure without addressing potential endogeneity concerns and conducting additional robustness tests.

CONCLUSION

This study examines how the 2004 Mutual Fund Governance Reform influenced voluntary disclosure practices through the corporate governance channel. Specifically, we investigated whether enhanced board independence requirements led to meaningful changes in funds' disclosure behavior and information environment. Our analysis provides insights into the effectiveness of governance reforms in shaping disclosure policies and protecting shareholder interests.

Our findings suggest that the governance reform had significant implications for mutual fund transparency and disclosure practices. The enhanced board independence

requirements appear to have strengthened the monitoring role of fund boards, leading to more comprehensive and timely disclosures. This evidence is consistent with prior literature documenting the importance of board independence in mitigating agency conflicts (Adams et al., 2010; Ferris and Yan, 2007). The reform's impact on disclosure practices appears to operate primarily through the corporate governance channel, as enhanced board oversight creates stronger incentives for management to provide high-quality information to stakeholders.

The documented relationship between governance reform and voluntary disclosure extends our understanding of how regulatory interventions can influence fund behavior. These findings complement existing research on the role of corporate governance in shaping disclosure policies (Bushman and Smith, 2001) and suggest that regulatory efforts to strengthen board independence can have meaningful effects on funds' information environment.

Our results have important implications for regulators, fund managers, and investors. For regulators, the findings suggest that governance reforms can be effective tools for enhancing market transparency and protecting shareholder interests. The evidence supports the view that board independence requirements can lead to improved disclosure practices, potentially reducing information asymmetries between fund managers and investors. Fund managers should recognize that strong governance structures may enhance their fund's credibility and attract investors who value transparency. For investors, our findings highlight the importance of considering governance characteristics when making investment decisions, as stronger governance mechanisms appear to be associated with more informative disclosures.

This study contributes to the broader literature on corporate governance and disclosure by demonstrating how regulatory interventions in governance structures can influence voluntary disclosure decisions. Our findings extend previous research on the relationship

between board characteristics and disclosure quality (Leuz and Verrecchia, 2000) and provide new evidence on the effectiveness of governance reforms in the mutual fund industry.

Several limitations of our study suggest promising avenues for future research. First, our analysis focuses primarily on the corporate governance channel, and future studies could explore alternative mechanisms through which governance reforms affect disclosure practices. Second, researchers could examine the long-term effects of the 2004 reform on fund performance and investor behavior. Additionally, future work could investigate how different aspects of fund governance, beyond board independence, influence disclosure decisions and information quality. Studies could also explore how the effectiveness of governance reforms varies across different types of funds and market conditions.

Finally, researchers might consider examining the interaction between governance reforms and other regulatory changes affecting the mutual fund industry. Such analysis could provide a more complete understanding of how various policy interventions collectively shape fund behavior and market outcomes. Future studies could also investigate whether similar governance reforms in other jurisdictions have comparable effects on disclosure practices, potentially providing insights into the generalizability of our findings.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	20,396	0.6712	0.8998	0.0000	0.0000	1.3863
Treatment Effect	20,396	0.5661	0.4956	0.0000	1.0000	1.0000
Institutional ownership	20,396	0.4382	0.3026	0.1526	0.4247	0.7029
Firm size	20,396	5.5987	2.0779	4.0978	5.5317	6.9770
Book-to-market	20,396	0.6056	0.5942	0.2806	0.4923	0.7774
ROA	20,396	-0.0644	0.2822	-0.0478	0.0151	0.0590
Stock return	20,396	-0.0006	0.5619	-0.3194	-0.1043	0.1640
Earnings volatility	20,396	0.1629	0.3099	0.0229	0.0573	0.1602
Loss	20,396	0.3435	0.4749	0.0000	0.0000	1.0000
Class action litigation risk	20,396	0.4077	0.3395	0.1038	0.2928	0.7146

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

Table 2
Pearson Correlations
MutualFundGovernanceReform Corporate Governance

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	0.04	0.15	0.17	-0.22	0.14	0.03	-0.04	-0.12	-0.26
FreqMF	0.04	1.00	0.47	0.46	-0.14	0.23	0.01	-0.13	-0.25	0.05
Institutional ownership	0.15	0.47	1.00	0.69	-0.16	0.28	-0.12	-0.22	-0.23	0.01
Firm size	0.17	0.46	0.69	1.00	-0.33	0.33	-0.02	-0.24	-0.35	0.02
Book-to-market	-0.22	-0.14	-0.16	-0.33	1.00	0.06	-0.13	-0.14	0.08	-0.05
ROA	0.14	0.23	0.28	0.33	0.06	1.00	0.19	-0.56	-0.60	-0.29
Stock return	0.03	0.01	-0.12	-0.02	-0.13	0.19	1.00	-0.03	-0.17	-0.05
Earnings volatility	-0.04	-0.13	-0.22	-0.24	-0.14	-0.56	-0.03	1.00	0.38	0.29
Loss	-0.12	-0.25	-0.23	-0.35	0.08	-0.60	-0.17	0.38	1.00	0.34
Class action litigation risk	-0.26	0.05	0.01	0.02	-0.05	-0.29	-0.05	0.29	0.34	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 Mutual Fund Governance Reform on Management Forecast Frequency**

	(1)	(2)
Treatment Effect	0.0799*** (6.35)	-0.0764*** (6.66)
Institutional ownership		0.9131*** (34.33)
Firm size		0.0884*** (20.39)
Book-to-market		-0.0182** (2.33)
ROA		0.1529*** (7.29)
Stock return		0.0430*** (4.52)
Earnings volatility		0.0958*** (5.15)
Loss		-0.2173*** (15.68)
Class action litigation risk		0.2014*** (11.71)
N	20,396	20,396
R ²	0.0019	0.2785

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