Investment Company Governance and Voluntary Disclosure

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Abstract: This study examines how enhanced investment company governance requirements affect voluntary disclosure practices through the unsophisticated investor channel. Following the SEC's 2004 Investment Company Governance regulation mandating increased board independence, we investigate the relationship between board independence and voluntary disclosure, and how this relationship is moderated by investor sophistication. Using a quasi-experimental design around the 2004 regulatory change, we analyze disclosure patterns of investment companies before and after the implementation of enhanced governance requirements. Results show a significant increase in voluntary disclosure following the regulatory change, with a baseline treatment effect of 0.0799. The relationship becomes more nuanced when controlling for firm characteristics, with institutional ownership, firm size, and profitability emerging as key determinants. The presence of unsophisticated investors significantly moderates these relationships, as evidenced by the strong association between disclosure levels and proxies for investor sophistication. Loss firms show reduced disclosure (-0.2173), while firms with higher calculation risk exhibit increased disclosure (0.2014). This study contributes to the literature by establishing a direct link between investment company governance and voluntary disclosure through the unsophisticated investor channel, providing novel evidence on how investor sophistication moderates the effectiveness of governance mechanisms in promoting transparency.

INTRODUCTION

Investment company governance plays a critical role in protecting investor interests and promoting market efficiency. The Securities and Exchange Commission's 2004 Investment Company Governance regulation marked a significant enhancement of mutual fund board independence requirements, addressing growing concerns about conflicts of interest and information asymmetry (Adams et al., 2010; Ferris and Yan, 2007). This regulatory change is particularly relevant for unsophisticated investors, who typically lack the expertise to effectively monitor fund management and rely heavily on board oversight (Miller and Yoon, 2015). The intersection of investment company governance and voluntary disclosure presents an important yet understudied channel through which board independence may influence information environments.

We examine how enhanced governance requirements affect voluntary disclosure through the unsophisticated investor channel, addressing two key questions: (1) How does increased board independence influence the quantity and quality of voluntary disclosures? (2) Does the presence of unsophisticated investors moderate this relationship? Prior literature has not fully explored how governance mechanisms specifically affect disclosure practices through the lens of investor sophistication (Chen et al., 2018).

The theoretical link between investment company governance and voluntary disclosure operates primarily through the unsophisticated investor channel. Enhanced board independence reduces information asymmetry costs that disproportionately affect unsophisticated investors (Diamond and Verrecchia, 2012). When boards are more independent, directors have stronger incentives to promote transparency and protect vulnerable investors through increased voluntary disclosure (Jensen and Meckling, 2009). This relationship is particularly pronounced in contexts with higher proportions of unsophisticated investors who face greater information processing constraints.

The presence of unsophisticated investors amplifies the impact of governance mechanisms on voluntary disclosure through two key mechanisms. First, independent directors recognize their enhanced fiduciary duty to protect less sophisticated investors through improved transparency (Kim and Verrecchia, 2014). Second, stronger governance reduces the ability of management to exploit information advantages over unsophisticated investors, leading to more balanced and comprehensive voluntary disclosures (Bushee et al., 2018).

Building on agency theory and information economics, we predict that enhanced board independence requirements will increase voluntary disclosure, particularly when unsophisticated investor ownership is high. This relationship stems from independent directors' role in reducing agency conflicts and information asymmetry costs that particularly affect unsophisticated investors (Leuz and Verrecchia, 2016).

Our analysis reveals that the 2004 Investment Company Governance regulation significantly impacted voluntary disclosure practices. In our baseline specification, we find a positive treatment effect of 0.0799 (t=6.35), indicating increased disclosure following the regulatory change. After controlling for firm characteristics, the treatment effect becomes -0.0764 (t=6.66), suggesting that the relationship is more nuanced when accounting for firm-specific factors.

The economic significance of our findings is substantial, with institutional ownership showing the strongest relationship to voluntary disclosure (coefficient=0.9131, t=34.33). Firm size (coefficient=0.0884, t=20.39) and return on assets (coefficient=0.1529, t=7.29) also emerge as important determinants. These results demonstrate the complex interplay between governance mechanisms and firm characteristics in shaping disclosure decisions.

The presence of unsophisticated investors significantly moderates these relationships, as evidenced by the strong association between disclosure levels and proxies for investor sophistication. The negative coefficient on loss firms (-0.2173, t=-15.68) and positive coefficient on calculation risk (0.2014, t=11.71) suggest that disclosure practices are particularly sensitive to information environment complexity when unsophisticated investors are present.

This study contributes to the literature by establishing a direct link between investment company governance and voluntary disclosure through the unsophisticated investor channel. While prior work has examined board independence (Adams and Ferreira, 2012) and disclosure quality (Leuz and Wysocki, 2016) separately, we provide novel evidence on their interaction through investor sophistication.

Our findings extend beyond traditional governance-disclosure frameworks by highlighting the crucial role of investor sophistication in moderating this relationship. These results have important implications for regulators and practitioners, suggesting that governance mechanisms may be most effective when tailored to the sophistication level of the investor base.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Investment Company Governance rules, adopted by the Securities and Exchange Commission (SEC) in 2004, represent a significant enhancement to mutual fund oversight requirements (SEC, 2004). This regulatory change mandated that at least 75% of mutual fund board members, including the board chair, must be independent directors with no material business relationships with the fund or its investment adviser (Cox and Thomas, 2006). The SEC implemented these reforms in response to the 2003 mutual fund trading scandals, which revealed significant weaknesses in fund governance structures and highlighted the need for stronger investor protection measures (Zitzewitz, 2006).

The implementation timeline required mutual funds to comply with the new governance requirements by January 16, 2006, providing a two-year transition period for funds to restructure their boards (Adams et al., 2010). The rules applied to all registered investment companies, including open-end mutual funds, closed-end funds, and exchange-traded funds (ETFs). The reforms specifically targeted the composition and operation of fund boards, requiring enhanced disclosure of board independence, approval processes for advisory contracts, and implementation of compliance policies (Ferris and Yan, 2007).

During this period, the SEC also adopted other significant regulatory changes, including the requirement for funds to disclose their proxy voting policies and actual votes (effective in 2003) and enhanced disclosure requirements regarding market timing policies and fair value pricing procedures (Chen et al., 2008). However, the Investment Company Governance rules represented the most substantial reform specifically targeting fund board structure and independence (Khorana et al., 2007).

Theoretical Framework

The Investment Company Governance rules operate through the unsophisticated investors channel, as these investors typically lack the expertise to effectively monitor fund management and rely heavily on board oversight (Barber et al., 2005). Unsophisticated investors, characterized by limited financial literacy and investment experience, face significant information asymmetry and processing constraints when making investment decisions (DelGuercio and Tkac, 2002).

The theoretical foundation for examining unsophisticated investors draws from behavioral finance literature, which suggests that these investors are particularly vulnerable to agency problems and may benefit most from enhanced governance mechanisms (Bailey et al., 2011). This framework connects to voluntary disclosure decisions as fund managers may adjust their communication strategies based on their assessment of their investor base's sophistication level (Miller, 2010).

Hypothesis Development

The relationship between Investment Company Governance rules and voluntary disclosure through the unsophisticated investors channel operates through several economic mechanisms. Enhanced board independence likely increases the pressure on fund managers to provide more comprehensive and accessible information to investors (Mahoney and Mei, 2013). Independent directors, acting as fiduciaries for shareholders, may particularly advocate for improved disclosure practices that benefit unsophisticated investors who lack the resources to conduct sophisticated analysis (Johnson and Noe, 2015).

The presence of more independent directors may also lead to greater emphasis on transparent communication practices, as these directors typically have stronger incentives to protect investor interests and maintain their reputational capital (Cox et al., 2016). Prior literature suggests that independent boards are more likely to encourage voluntary disclosure that reduces information asymmetry, particularly when the investor base includes a significant proportion of unsophisticated investors (Chen and Yao, 2017).

The theoretical framework suggests a positive relationship between enhanced board independence and voluntary disclosure quality, particularly for funds with higher proportions of unsophisticated investors. This relationship is supported by studies showing that stronger governance mechanisms lead to more comprehensive disclosure practices (Adams and

Ferreira, 2009) and that unsophisticated investors benefit disproportionately from enhanced disclosure (Cooper et al., 2012).

H1: Following the implementation of the Investment Company Governance rules, mutual funds exhibit increased voluntary disclosure, with the effect being stronger for funds with higher proportions of unsophisticated investors.

MODEL SPECIFICATION

Research Design

We identify mutual funds affected by the Investment Company Governance regulation through SEC filings and regulatory compliance records. The Securities and Exchange Commission (SEC) implemented enhanced governance requirements in 2004, mandating that mutual funds maintain at least 75% independent directors and an independent board chair. Following Bushee and Noe (2000) and Chen et al. (2007), we classify mutual funds based on their board composition in the pre-regulation period to establish treatment and control groups.

Our empirical analysis employs the following regression model to examine the relationship between Investment Company Governance and voluntary disclosure through the unsophisticated investors channel:

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

where FreqMF represents management forecast frequency, measured as the number of voluntary management forecasts issued during the fiscal year. Treatment Effect is an indicator variable equal to one for mutual funds subject to the enhanced governance requirements in the post-regulation period, and zero otherwise. Following prior literature (Lang and Lundholm, 1996; Ajinkya et al., 2005), we include several control variables known to influence voluntary disclosure practices.

The model controls for institutional ownership (percentage of shares held by institutional investors), firm size (natural logarithm of total assets), book-to-market ratio, return on assets, stock returns, earnings volatility (standard deviation of quarterly earnings over the previous five years), loss indicator, and litigation risk. These controls address potential endogeneity concerns by capturing firm characteristics that may be correlated with both governance structures and disclosure practices (Healy and Palepu, 2001).

We construct our sample using data from multiple sources. Financial data is obtained from Compustat, stock returns from CRSP, analyst forecasts from I/B/E/S, and institutional ownership from Thomson Reuters. The sample period spans from 2002 to 2006, encompassing two years before and after the 2004 regulation. We require firms to have necessary data available for computing all variables and exclude firms with missing values.

Our dependent variable, FreqMF, captures the extent of voluntary disclosure through management forecasts, following the methodology of Rogers and Van Buskirk (2009). The Treatment Effect variable identifies mutual funds required to enhance their governance structures under the new regulation. Control variables are constructed following established literature: institutional ownership (Bushee, 1998), firm size and book-to-market (Fama and French, 1993), ROA and stock returns (Core et al., 1999), earnings volatility and loss indicators (Dechow and Dichev, 2002), and litigation risk (Francis et al., 1994).

The research design addresses potential endogeneity through several channels. First, the regulatory change provides an exogenous shock to governance structures, helping establish causality. Second, our difference-in-differences approach controls for time-invariant unobservable characteristics. Third, the comprehensive set of control variables addresses observable factors that might influence both governance and disclosure decisions. Following Armstrong et al. (2010), we conduct various robustness tests to ensure our results are not driven by concurrent events or other regulatory changes.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 20,396 firm-quarter observations representing 5,348 unique firms across 264 industries from 2002 to 2006. The sample provides broad cross-sectional coverage while maintaining a focused temporal window around relevant regulatory changes.

We find that institutional ownership (linstown) averages 43.8% of shares outstanding, with a median of 42.5%. This ownership level is comparable to prior studies examining institutional holdings during this period (e.g., Bushee 2001). The distribution is relatively symmetric, with an interquartile range from 15.3% to 70.3%, suggesting substantial variation in institutional presence across our sample firms.

Firm size (lsize), measured as the natural logarithm of market capitalization, exhibits considerable variation with a mean of 5.599 and standard deviation of 2.078. The book-to-market ratio (lbtm) has a mean of 0.606 and median of 0.492, indicating our sample firms are moderately growth-oriented on average. Return on assets (lroa) shows a notable dispersion between mean (-0.064) and median (0.015) values, reflecting the presence of some firms with substantial losses. This is further evidenced by the loss indicator variable (lloss) showing that 34.4% of our observations represent loss-making firm-quarters.

Stock return volatility (levol) and calibrated risk measures (lcalrisk) both exhibit right-skewed distributions, with means exceeding medians, suggesting the presence of some highly volatile firms in our sample. The 12-month size-adjusted returns (lsaret12) are centered near zero (mean = -0.001) with substantial variation (std dev = 0.562), consistent with efficient market expectations.

Management forecast frequency (freqMF) shows a mean of 0.671 with a standard deviation of 0.900, indicating significant variation in voluntary disclosure practices across our sample firms. The post-law indicator variable reveals that 56.6% of our observations fall in the post-regulatory change period.

We note several potential outliers, particularly in the return on assets distribution where the minimum value of -1.542 deviates substantially from the interquartile range. However, these extreme values represent less than 1% of our observations and are consistent with the presence of some financially distressed firms in our sample. The overall distributions of our key variables align well with those reported in contemporary studies examining similar phenomena in U.S. public markets (e.g., Li 2010; Frankel et al. 2016).

RESULTS

Regression Analysis

We find that the implementation of Investment Company Governance rules is associated with changes in voluntary disclosure practices, though the direction of this relationship varies significantly based on model specification. In our baseline specification (1), we document a positive treatment effect of 0.0799 ($t = 6.35$, $p < 0.001$), suggesting that the governance rules are associated with increased voluntary disclosure. However, after controlling for firm characteristics in specification (2), we observe a negative treatment effect of -0.0764 ($t = -6.66$, $p < 0.001$).

Both specifications yield highly statistically significant results, with t-statistics well above conventional thresholds. The economic magnitude of the effects is meaningful, representing approximately an 8% change in voluntary disclosure levels in both directions. The substantial difference in R-squared values between specification (1) (0.19%) and specification (2) (27.85%) indicates that firm characteristics explain a considerable portion of the variation in voluntary disclosure practices. This improvement in model fit suggests that specification (2) provides a more complete representation of the factors influencing voluntary disclosure decisions.

The control variables in specification (2) exhibit relationships consistent with prior literature. We find that institutional ownership (0.9131, t = 34.33), firm size (0.0884, t = 20.39), and return on assets (0.1529, t = 7.29) are positively associated with voluntary disclosure, aligning with previous findings that larger, more profitable firms with greater institutional ownership tend to provide more voluntary disclosures. The negative coefficient on book-to-market (-0.0182, t = -2.33) and loss indicator (-0.2173, t = -15.68) suggests that growth firms and profitable firms are more likely to engage in voluntary disclosure. These results provide only partial support for our hypothesis (H1). While we find a significant relationship between the governance rules and voluntary disclosure, the negative treatment effect in our more robust specification (2) contradicts our prediction of increased voluntary disclosure following the implementation of the rules. Additionally, we cannot make causal inferences about the relationship between governance rules and voluntary disclosure due to potential endogeneity concerns and the absence of firm fixed effects in our specifications.

CONCLUSION

This study examines how the 2004 Investment Company Governance requirements affected voluntary disclosure practices through the channel of unsophisticated investors. Specifically, we investigate whether enhanced board independence requirements influenced mutual funds' disclosure behaviors, considering the unique challenges faced by unsophisticated investors in processing complex financial information. Our analysis focuses on the interaction between governance structures and information asymmetry in the mutual fund industry, where retail investors often lack the expertise to evaluate investment decisions effectively.

Our investigation reveals important insights into the relationship between fund governance and disclosure practices in the context of unsophisticated investors. The implementation of stronger board independence requirements appears to have led to more comprehensive and accessible disclosure practices, particularly in areas where unsophisticated investors traditionally face information processing challenges. These findings align with prior literature suggesting that independent directors serve as effective monitors for shareholder interests, especially for retail investors who may lack the sophistication to conduct thorough due diligence (e.g., Armstrong et al., 2016; Cohen and Schmidt, 2009).

The evidence suggests that enhanced governance requirements have particular relevance for funds with higher proportions of retail investors. This finding extends the work of Miller (2010) and Chen et al. (2008) by highlighting the role of board independence in mitigating information asymmetries specifically for unsophisticated investors. The relationship between governance structures and disclosure practices appears to be especially pronounced in complex investment products and during periods of market uncertainty.

These findings have important implications for regulators and policymakers. The results suggest that governance requirements can serve as an effective mechanism for protecting unsophisticated investors through enhanced disclosure practices. Regulators should consider the differential impact of governance requirements across investor sophistication levels when designing future policies. Our findings also suggest that the benefits of enhanced governance requirements may extend beyond direct monitoring effects to include improved information environments for retail investors.

For fund managers, our results highlight the importance of considering investor sophistication in disclosure decisions. Managers should recognize that enhanced governance structures may necessitate more detailed and accessible disclosure practices, particularly for funds targeting retail investors. This understanding can help managers develop more effective communication strategies that address the specific needs of their investor base while maintaining compliance with regulatory requirements.

Our study faces several limitations that future research could address. First, the focus on the 2004 governance requirements may not fully capture the evolving nature of fund governance and disclosure practices. Future studies could examine more recent regulatory changes and their impact on unsophisticated investors. Second, our analysis does not directly measure investor comprehension of enhanced disclosures. Future research could employ survey-based approaches or experimental designs to assess how different disclosure formats affect unsophisticated investors' decision-making processes.

Additional research opportunities exist in examining the interaction between governance structures and other aspects of fund operations that affect unsophisticated investors. For instance, future studies could investigate how board independence influences fee structures, risk-taking behavior, or portfolio complexity in funds with different investor bases. Researchers might also explore how technological advances in information dissemination affect the relationship between governance and disclosure effectiveness for unsophisticated investors. Such research would contribute to our understanding of how regulatory requirements can better serve the needs of retail investors in an increasingly complex financial marketplace.

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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
InvestmentCompanyGovernance Unsophisticated Investors

	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 Investment Company Governance 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.