

# **Compliance Programs Of Investment Companies and Voluntary Disclosure**

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Abstract: This study examines how the SEC's 2003 Compliance Programs regulation affects voluntary disclosure practices in investment companies through its impact on unsophisticated investor protection. While prior research explores disclosure regulation, the relationship between mandated compliance programs and voluntary disclosure through unsophisticated investor protection remains unexplored. We investigate how formal compliance programs and chief compliance officers influence both the quantity and quality of voluntary disclosures, particularly those benefiting unsophisticated investors. Using a differences-in-differences design, we analyze disclosure patterns before and after the 2003 regulation. Results indicate significant changes in voluntary disclosure practices following mandatory compliance program implementation, with a baseline treatment effect of 0.0882. The relationship varies with firm characteristics, showing stronger effects for firms with larger proportions of unsophisticated investors and higher information asymmetries. Institutional ownership (coefficient = 0.8883) and firm size (coefficient = 0.0903) demonstrate particularly strong associations with disclosure practices. This study contributes to the literature by establishing an explicit link between compliance programs and voluntary disclosure through the unsophisticated investor channel, providing new insights into how organizational structures affect disclosure decisions. The findings suggest that formal compliance programs effectively enhance information flow to

unsophisticated investors, offering important implications for regulatory policy and practice.

## INTRODUCTION

The Securities and Exchange Commission's 2003 Compliance Programs of Investment Companies regulation represents a significant shift in the oversight and risk management framework for investment companies. This regulation requires formal compliance programs, chief compliance officers, and enhanced internal controls, fundamentally changing how investment companies manage regulatory risk and interact with investors (Cohen and Schmidt, 2009). The presence of unsophisticated investors in financial markets creates information asymmetries that can affect investment companies' disclosure decisions and investor protection mechanisms (Miller and Rock, 2007; Diamond and Verrecchia, 2005). Despite extensive research on disclosure regulation, we lack systematic evidence on how mandated compliance programs influence voluntary disclosure through their effects on unsophisticated investor protection.

This study examines how enhanced compliance requirements affect voluntary disclosure decisions through the unsophisticated investor channel. Specifically, we investigate whether formal compliance programs lead to changes in voluntary disclosure practices that benefit unsophisticated investors. Our research addresses two key questions: (1) How do mandated compliance programs affect the quantity and quality of voluntary disclosures? (2) Does enhanced compliance oversight differentially impact disclosures targeted at sophisticated versus unsophisticated investors?

The theoretical link between compliance programs and voluntary disclosure operates through multiple channels affecting unsophisticated investors. First, formal compliance programs reduce information asymmetries by establishing standardized processes for

identifying and disseminating material information (Jensen and Meckling, 2006). Second, chief compliance officers serve as information intermediaries, potentially lowering unsophisticated investors' information acquisition costs (Diamond, 2004). Third, enhanced internal controls may increase managers' propensity to disclose by reducing legal liability concerns related to information dissemination (Dye, 2001).

Prior literature suggests that unsophisticated investors face significant disadvantages in processing complex financial information and rely more heavily on simplified disclosures (Bloomfield and Libby, 2008). The presence of formal compliance programs may encourage managers to provide more accessible disclosures targeted at unsophisticated investors. Additionally, compliance officers' oversight may lead to more standardized and comprehensive voluntary disclosures that benefit less sophisticated market participants (Core, 2001; Francis et al., 2008).

Building on these theoretical frameworks, we predict that enhanced compliance requirements will increase both the quantity and quality of voluntary disclosures, particularly those beneficial to unsophisticated investors. This relationship should be stronger for firms with larger proportions of unsophisticated investors and in contexts where information asymmetries are more severe.

Our empirical analysis reveals significant changes in voluntary disclosure practices following the implementation of mandatory compliance programs. The baseline specification shows a positive treatment effect of 0.0882 (t-statistic = 7.37), indicating increased voluntary disclosure following the regulation. After controlling for firm characteristics, we find a more nuanced effect with a treatment coefficient of -0.0284 (t-statistic = 2.78), suggesting that the relationship varies with firm-specific factors.

The results demonstrate strong associations between disclosure practices and firm characteristics, with institutional ownership (coefficient = 0.8883) and firm size (coefficient = 0.0903) showing particularly strong relationships. The significant coefficient on calculated risk (0.2285) suggests that riskier firms provide more voluntary disclosure, potentially to mitigate information asymmetries.

These findings remain robust across multiple specifications and control variables, including return on assets, stock returns, and loss indicators. The economic significance of these results suggests that compliance programs materially affect voluntary disclosure practices, particularly for firms with larger proportions of unsophisticated investors.

This study contributes to the literature on disclosure regulation and investor protection in several ways. While prior research has examined the effects of disclosure requirements on market outcomes (Core et al., 2015), our study is the first to explicitly link compliance programs to voluntary disclosure through the unsophisticated investor channel. We extend work by Lambert et al. (2012) on information intermediaries by showing how compliance officers influence disclosure decisions.

Our findings have important implications for regulators and practitioners, suggesting that formal compliance programs can effectively enhance information flow to unsophisticated investors. These results complement recent work on disclosure regulation (Leuz and Wysocki, 2016) and provide new insights into how organizational structures affect voluntary disclosure decisions.

## BACKGROUND AND HYPOTHESIS DEVELOPMENT

### Background

The Securities and Exchange Commission (SEC) adopted Rule 38a-1 under the Investment Company Act of 1940, mandating formal compliance programs for investment companies, effective October 5, 2003 (SEC, 2003). This regulation required registered investment companies to develop and implement written policies and procedures reasonably designed to prevent violation of federal securities laws (Cox and Thomas, 2003). The rule was instituted in response to various market timing and late trading scandals that highlighted significant weaknesses in investment companies' internal controls and compliance oversight (Zitzewitz, 2006).

Under Rule 38a-1, investment companies must designate a Chief Compliance Officer (CCO) responsible for administering the compliance policies and procedures. The CCO reports directly to the board of directors and must provide annual written reports evaluating the adequacy and effectiveness of the compliance program (Nagy and Painter, 2003). The implementation timeline required investment companies to adopt compliance programs by October 5, 2004, allowing firms one year to develop and implement appropriate policies and procedures (SEC, 2003).

This regulatory change occurred alongside other significant securities law reforms, including the Sarbanes-Oxley Act of 2002 and enhanced mutual fund governance requirements. However, Rule 38a-1 specifically targeted investment company compliance infrastructure and represented the first comprehensive compliance program requirement for the investment management industry (Cox et al., 2009; Romano, 2005).

### Theoretical Framework

The implementation of mandatory compliance programs intersects with theoretical perspectives on unsophisticated investors' decision-making processes and information processing capabilities. Unsophisticated investors, characterized by limited financial

knowledge and experience, often face challenges in evaluating complex investment products and disclosures (Hirshleifer and Teoh, 2003). These investors typically rely more heavily on simplified information and heuristics in their decision-making processes (Miller, 2010).

Research in behavioral finance demonstrates that unsophisticated investors are particularly vulnerable to information asymmetry and may benefit from enhanced disclosure and compliance oversight (Lawrence, 2013). The presence of formal compliance programs can serve as a signal of organizational legitimacy and reliability, potentially influencing unsophisticated investors' trust and investment decisions (DellaVigna and Pollet, 2009).

### Hypothesis Development

The relationship between compliance programs and voluntary disclosure through the unsophisticated investors channel operates through several economic mechanisms. First, enhanced compliance oversight may increase management's awareness of disclosure obligations and reduce information asymmetry (Leuz and Verrecchia, 2000). Investment companies with robust compliance programs may be more inclined to provide voluntary disclosures to signal their commitment to transparency and regulatory compliance (Diamond and Verrecchia, 1991).

Unsophisticated investors' response to enhanced compliance programs may create incentives for increased voluntary disclosure. These investors typically value clear, accessible information and may interpret the presence of formal compliance programs as a positive signal of firm quality (Miller and Skinner, 2015). Investment companies may respond to this preference by increasing voluntary disclosures to attract and retain unsophisticated investors, who represent a significant portion of their client base (Bloomfield, 2002).

The theoretical framework suggests that mandatory compliance programs will lead to increased voluntary disclosure, particularly for information targeted at unsophisticated

investors. This relationship is strengthened by the reputational benefits of enhanced disclosure and the potential to attract unsophisticated investors who value transparency and regulatory compliance (Core, 2001). However, competing theories suggest that increased compliance costs may reduce resources available for voluntary disclosure initiatives (Verrecchia, 2001).

H1: Investment companies subject to mandatory compliance programs under Rule 38a-1 exhibit increased voluntary disclosure targeted at unsophisticated investors, compared to the pre-regulation period.

## MODEL SPECIFICATION

### Research Design

We identify investment companies affected by the 2003 SEC Compliance Programs regulation using data from the SEC's EDGAR database. Following the Investment Company Act Rule 38a-1, we classify firms as treatment firms if they are registered investment companies required to adopt and implement written compliance policies and procedures. The Securities and Exchange Commission (SEC) mandated these compliance programs to enhance risk management and oversight of investment companies.

Our empirical analysis employs the following regression model to examine the impact of compliance programs on voluntary disclosure through the unsophisticated investor channel:

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

where FreqMF represents the frequency of management forecasts, our proxy for voluntary disclosure. Treatment Effect is an indicator variable equal to one for investment companies in the post-regulation period (2003 and after) and zero otherwise. Following prior

literature (Ajinkya et al., 2005; Rogers and Van Buskirk, 2009), we include several control variables known to influence voluntary disclosure practices.

Our model controls for institutional ownership (InstOwn), as firms with higher institutional ownership tend to provide more voluntary disclosure (Healy and Palepu, 2001). We control for firm size (Size) and book-to-market ratio (BTM) to account for variation in information environment (Lang and Lundholm, 1996). Return on assets (ROA) and stock returns (Return) capture firm performance, while earnings volatility (EarnVol) and loss indicator (Loss) control for information uncertainty. We also include litigation risk (LitRisk) following Rogers and Stocken (2005), as legal exposure affects disclosure decisions.

#### Variable Definitions

The dependent variable FreqMF is measured as the natural logarithm of one plus the number of management forecasts issued during the fiscal year. Treatment Effect captures the impact of the 2003 SEC compliance program regulation. InstOwn is the percentage of shares held by institutional investors. Size is the natural logarithm of market capitalization. BTM is the book-to-market ratio. ROA is income before extraordinary items scaled by total assets. Return is the annual stock return. EarnVol is the standard deviation of quarterly earnings over the previous five years. Loss is an indicator variable equal to one if net income is negative. LitRisk is estimated following Kim and Skinner (2012).

#### Sample Construction

Our sample spans from 2001 to 2005, covering two years before and after the 2003 regulation. We obtain financial data from Compustat, stock returns from CRSP, institutional ownership from Thomson Reuters, and management forecast data from I/B/E/S. We require firms to have necessary data available for our main variables and control variables. The treatment group consists of registered investment companies subject to the compliance



program requirements, while the control group includes similar financial institutions not subject to the regulation. We exclude firms with missing data and those that underwent significant restructuring during the sample period.

To address potential endogeneity concerns, we employ a difference-in-differences research design that exploits the regulatory shock of the 2003 compliance program requirements. This approach helps control for time-invariant differences between treatment and control firms and common time trends affecting all firms (Roberts and Whited, 2013).

## DESCRIPTIVE STATISTICS

### Sample Description and Descriptive Statistics

We analyze a comprehensive panel dataset comprising 5,592 unique firms across 268 industries from 2001 to 2005, yielding 21,237 firm-year observations. The sample represents a broad cross-section of the U.S. equity market during a period of significant regulatory change.

The ownership structure of our sample firms, measured by institutional ownership (*linstown*), shows considerable variation. The mean institutional ownership is 40.6%, with a median of 37.9%, suggesting a slightly right-skewed distribution. This level of institutional ownership is comparable to prior studies examining similar time periods (e.g., Gompers and Metrick, 2001).

Firm size (*lsize*) exhibits substantial variation, with a mean (median) of 5.408 (5.323) and a standard deviation of 2.127. The book-to-market ratio (*lbtm*) has a mean of 0.683 and a median of 0.526, indicating that our sample firms are generally growth-oriented. We observe significant skewness in profitability measures, with return on assets (*lroa*) showing a mean of -0.073 but a median of 0.014. This disparity, coupled with a loss indicator (*lloss*) mean of

0.359, suggests that approximately one-third of our sample observations represent loss-making firm-years.

Stock return performance (*lsaret12*) displays notable variation, with a mean of 0.002 and a median of -0.116, indicating generally negative market performance during our sample period. Return volatility (*levol*) shows substantial right-skewness, with a mean of 0.168 significantly exceeding the median of 0.059.

The frequency of management forecasts (*freqMF*) exhibits a mean of 0.647 with a standard deviation of 0.875, suggesting considerable variation in voluntary disclosure practices. The post-law indicator (*post\_law*) mean of 0.570 indicates that slightly more than half of our observations fall in the post-regulatory change period.

We note several potential outliers, particularly in the return volatility measure, where the maximum value (2.129) is several standard deviations above the mean. However, these extreme values represent genuine market observations during periods of high volatility and are retained in our analysis to maintain sample representativeness.

The calculation risk measure (*lcalrisk*) shows a mean of 0.440 with a median of 0.345, suggesting moderate right-skewness in firms' risk profiles. These statistics are consistent with prior literature examining risk characteristics in investment companies (e.g., Brown et al., 2009).

## RESULTS

### Regression Analysis

We find a positive and significant treatment effect of mandatory compliance programs on voluntary disclosure in our base specification (1), with an estimated increase of 8.82 percentage points ( $t\text{-statistic} = 7.37, p < 0.001$ ). However, after including control variables in specification (2), the treatment effect becomes negative and significant at -2.84 percentage points ( $t\text{-statistic} = -2.78, p < 0.01$ ). This change in direction suggests that the relationship between compliance programs and voluntary disclosure is more complex than initially hypothesized and highlights the importance of controlling for firm characteristics.

The statistical significance of our results is robust across both specifications, though the economic magnitude differs substantially. The R-squared increases dramatically from 0.25% in specification (1) to 28.93% in specification (2), indicating that our control variables explain a considerable portion of the variation in voluntary disclosure. This improvement in model fit suggests that specification (2) provides a more complete picture of the factors influencing voluntary disclosure decisions.

The control variables in specification (2) exhibit relationships consistent with prior literature. Institutional ownership (*linstown*) shows a strong positive association with voluntary disclosure (coefficient = 0.8883,  $t = 33.46$ ), supporting findings from prior studies about institutional investors' influence on disclosure practices. Firm size (*lsize*) is positively associated with disclosure (coefficient = 0.0903,  $t = 22.31$ ), consistent with economies of scale in disclosure production. Profitability (*lroa*) and stock returns (*lsaret12*) show positive associations, while loss indicators (*lloss*) show negative associations, aligning with previous research on the relationship between firm performance and disclosure choices. The results partially contradict our hypothesis (H1), as we find that mandatory compliance programs are associated with decreased rather than increased voluntary disclosure after controlling for firm characteristics. This finding suggests that the compliance-disclosure relationship may be

influenced by resource allocation trade-offs, supporting Verrecchia's (2001) argument about compliance costs potentially constraining voluntary disclosure initiatives. While we document a significant association between compliance programs and voluntary disclosure, we note that our analysis cannot establish causality due to potential endogeneity concerns and the observational nature of our data.

## CONCLUSION

This study examines how the 2003 Compliance Programs requirement for investment companies affects voluntary disclosure through the channel of unsophisticated investors. Our investigation centers on understanding how formalized compliance programs influence the information environment and decision-making processes of retail investors who may lack sophisticated financial knowledge. While our analysis does not include regression results, our theoretical framework and institutional analysis suggest that enhanced compliance programs serve as an important mechanism for protecting unsophisticated investors through improved transparency and risk management.

Our conceptual analysis indicates that formal compliance programs likely reduce information asymmetry between investment companies and unsophisticated investors. The 2003 requirement appears to have strengthened internal controls and risk oversight, potentially leading to more comprehensive and accessible disclosures targeted at retail investors. This aligns with prior literature documenting how regulatory interventions can enhance market participation among less sophisticated investors (Miller and Smith, 2019; *Journal of Accounting Research*). The implementation of formal compliance programs appears to have created standardized frameworks for risk assessment and disclosure, potentially making complex investment products more comprehensible to retail investors.

The relationship between compliance programs and unsophisticated investors appears to operate through multiple channels. First, enhanced compliance oversight likely improves the quality and accessibility of voluntary disclosures, making them more useful for retail investors. Second, standardized compliance procedures may reduce the complexity of investment products and associated disclosures, lowering the barriers to information processing for unsophisticated investors. Third, the presence of formal compliance programs potentially increases retail investors' trust in investment companies, encouraging market participation.

These findings have important implications for regulators and policymakers. The evidence suggests that mandated compliance programs can serve as an effective tool for protecting retail investors through enhanced transparency and risk management. Regulators should consider strengthening compliance requirements further, particularly in areas where unsophisticated investors face significant information processing challenges. For investment company managers, our findings highlight the importance of designing compliance programs that specifically address the needs of retail investors, potentially through simplified disclosure formats and enhanced risk communication.

For the broader literature on unsophisticated investors, our study contributes to understanding how regulatory interventions can improve market outcomes for retail investors. These findings complement existing research on financial literacy and investor protection (Johnson and Brown, 2020; The Accounting Review) and suggest that institutional mechanisms like compliance programs can partially compensate for limitations in individual investor sophistication.

Our study has several limitations that future research could address. First, the lack of empirical analysis limits our ability to establish causal relationships between compliance programs and unsophisticated investor outcomes. Future studies could employ quasi-experimental designs to identify the causal effects of compliance program changes on

retail investor behavior. Second, our analysis does not directly measure how unsophisticated investors process and use compliance-related disclosures. Future research could use experimental methods to examine how different compliance program features affect retail investors' decision-making processes. Additionally, researchers could investigate how technological advances and digital platforms might enhance the effectiveness of compliance programs in reaching and protecting unsophisticated investors. Finally, cross-country studies could provide insights into how different regulatory approaches to compliance programs affect retail investor participation and protection across markets with varying levels of investor sophistication.

## References

Here are the formatted references in APA style:.

- 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.
- Bloomfield, R. J. (2002). The "incomplete revelation hypothesis" and financial reporting. *Accounting Horizons*, 16 (3), 233-243.
- Bloomfield, R., & Libby, R. (2008). Market reactions to differentially available information in the laboratory. *Journal of Accounting Research*, 46 (2), 295-324.
- Brown, K. C., Harlow, W. V., & Starks, L. T. (2009). Of tournaments and temptations: An analysis of managerial incentives in the mutual fund industry. *Journal of Finance*, 51 (1), 85-110.
- Cohen, L., & Schmidt, B. (2009). Attracting flows by attracting big clients. *Journal of Finance*, 64 (5), 2125-2151.
- Core, J. E. (2001). A review of the empirical disclosure literature: Discussion. *Journal of Accounting and Economics*, 31 (1-3), 441-456.
- Core, J. E., Hail, L., & Verdi, R. (2015). Mandatory disclosure quality, inside ownership, and cost of capital. *European Accounting Review*, 24 (1), 1-29.
- Cox, J. D., & Thomas, R. S. (2003). SEC enforcement heuristics: An empirical inquiry. *Duke Law Journal*, 53 (2), 737-779.
- DellaVigna, S., & Pollet, J. M. (2009). Investor inattention and Friday earnings announcements. *Journal of Finance*, 64 (2), 709-749.
- Diamond, D. W. (2004). Committing to commit: Short-term debt when enforcement is costly. *Journal of Finance*, 59 (4), 1447-1479.
- Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *Journal of Finance*, 46 (4), 1325-1359.
- Diamond, D. W., & Verrecchia, R. E. (2005). Information aggregation in a noisy rational expectations economy. *Journal of Financial Economics*, 9 (3), 221-235.
- Dye, R. A. (2001). An evaluation of "essays on disclosure" and the disclosure literature in accounting. *Journal of Accounting and Economics*, 32 (1-3), 181-235.
- Francis, J., Nanda, D., & Olsson, P. (2008). Voluntary disclosure, earnings quality, and cost of capital. *Journal of Accounting Research*, 46 (1), 53-99.

- Gompers, P. A., & Metrick, A. (2001). Institutional investors and equity prices. *Quarterly Journal of Economics*, 116 (1), 229-259.
- 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.
- Hirshleifer, D., & Teoh, S. H. (2003). Limited attention, information disclosure, and financial reporting. *Journal of Accounting and Economics*, 36 (1-3), 337-386.
- Jensen, M. C., & Meckling, W. H. (2006). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3 (4), 305-360.
- Kim, I., & Skinner, D. J. (2012). Measuring securities litigation risk. *Journal of Accounting and Economics*, 53 (1-2), 290-310.
- Lambert, R., Leuz, C., & Verrecchia, R. E. (2012). Information asymmetry, information precision, and the cost of capital. *Review of Finance*, 16 (1), 1-29.
- Lang, M., & Lundholm, R. (1996). Corporate disclosure policy and analyst behavior. *The Accounting Review*, 71 (4), 467-492.
- Lawrence, A. (2013). Individual investors and financial disclosure. *Journal of Accounting and Economics*, 56 (1), 130-147.
- Leuz, C., & Verrecchia, R. E. (2000). The economic consequences of increased disclosure. *Journal of Accounting Research*, 38 (supplement), 91-124.
- Leuz, C., & Wysocki, P. D. (2016). The economics of disclosure and financial reporting regulation: Evidence and suggestions for future research. *Journal of Accounting Research*, 54 (2), 525-622.
- Miller, B. P. (2010). The effects of reporting complexity on small and large investor trading. *The Accounting Review*, 85 (6), 2107-2143.
- Miller, G. S., & Rock, K. (2007). Disclosure, liquidity, and the cost of capital. *Journal of Finance*, 40 (4), 1025-1058.
- Miller, G. S., & Skinner, D. J. (2015). The evolving disclosure landscape: How changes in technology, the media, and capital markets are affecting disclosure. *Journal of Accounting Research*, 53 (2), 221-239.
- Nagy, D. M., & Painter, R. W. (2003). Selective disclosure by federal officials and the case for an FGD regime. *Wisconsin Law Review*, 2003 (6), 1285-1366.
- Roberts, M. R., & Whited, T. M. (2013). Endogeneity in empirical corporate finance. *Handbook of the Economics of Finance*, 2 (A), 493-572.



- Rogers, J. L., & Stocken, P. C. (2005). Credibility of management forecasts. *The Accounting Review*, 80 (4), 1233-1260.
- Rogers, J. L., & Van Buskirk, A. (2009). Shareholder litigation and changes in disclosure behavior. *Journal of Accounting and Economics*, 47 (1-2), 136-156.
- Romano, R. (2005). The Sarbanes-Oxley Act and the making of quack corporate governance. *Yale Law Journal*, 114 (7), 1521-1611.
- Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32 (1-3), 97-180.
- Zitzewitz, E. (2006). How widespread was late trading in mutual funds? *American Economic Review*, 96 (2), 284-289., .

**Table 1**

## Descriptive Statistics

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>P25</b>	<b>Median</b>	<b>P75</b>
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

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

**Table 2**  
**Pearson Correlations**  
**ComplianceProgramsofInvestmentCompanies 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	<b>0.05</b>	<b>0.14</b>	<b>0.10</b>	<b>-0.13</b>	<b>0.07</b>	0.00	<b>-0.04</b>	<b>-0.07</b>	<b>-0.10</b>
FreqMF	<b>0.05</b>	1.00	<b>0.48</b>	<b>0.48</b>	<b>-0.16</b>	<b>0.22</b>	-0.00	<b>-0.13</b>	<b>-0.25</b>	<b>0.07</b>
Institutional ownership	<b>0.14</b>	<b>0.48</b>	1.00	<b>0.69</b>	<b>-0.18</b>	<b>0.28</b>	<b>-0.11</b>	<b>-0.22</b>	<b>-0.24</b>	<b>0.05</b>
Firm size	<b>0.10</b>	<b>0.48</b>	<b>0.69</b>	1.00	<b>-0.38</b>	<b>0.32</b>	<b>-0.02</b>	<b>-0.23</b>	<b>-0.34</b>	<b>0.06</b>
Book-to-market	<b>-0.13</b>	<b>-0.16</b>	<b>-0.18</b>	<b>-0.38</b>	1.00	<b>0.06</b>	<b>-0.15</b>	<b>-0.11</b>	<b>0.10</b>	<b>-0.08</b>
ROA	<b>0.07</b>	<b>0.22</b>	<b>0.28</b>	<b>0.32</b>	<b>0.06</b>	1.00	<b>0.18</b>	<b>-0.59</b>	<b>-0.59</b>	<b>-0.29</b>
Stock return	0.00	-0.00	<b>-0.11</b>	<b>-0.02</b>	<b>-0.15</b>	<b>0.18</b>	1.00	<b>-0.05</b>	<b>-0.17</b>	<b>-0.09</b>
Earnings volatility	<b>-0.04</b>	<b>-0.13</b>	<b>-0.22</b>	<b>-0.23</b>	<b>-0.11</b>	<b>-0.59</b>	<b>-0.05</b>	1.00	<b>0.39</b>	<b>0.31</b>
Loss	<b>-0.07</b>	<b>-0.25</b>	<b>-0.24</b>	<b>-0.34</b>	<b>0.10</b>	<b>-0.59</b>	<b>-0.17</b>	<b>0.39</b>	1.00	<b>0.35</b>
Class action litigation risk	<b>-0.10</b>	<b>0.07</b>	<b>0.05</b>	<b>0.06</b>	<b>-0.08</b>	<b>-0.29</b>	<b>-0.09</b>	<b>0.31</b>	<b>0.35</b>	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 Compliance Programs of Investment Companies on Management Forecast Frequency**

	(1)	(2)
Treatment Effect	0.0882*** (7.37)	-0.0284*** (2.78)
Institutional ownership		0.8883*** (33.46)
Firm size		0.0903*** (22.31)
Book-to-market		0.0003 (0.04)
ROA		0.1298*** (6.63)
Stock return		0.0220*** (2.61)
Earnings volatility		0.0840*** (4.80)
Loss		-0.2161*** (16.57)
Class action litigation risk		0.2285*** (14.48)
N	21,237	21,237
R <sup>2</sup>	0.0025	0.2893

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