# Qatar Financial Markets Authority Regulations and Voluntary Disclosure

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February 1, 2025

Abstract: This study examines how the 2017 Qatar Financial Markets Authority (QFMA) Regulations influence U.S. firms' voluntary disclosure practices through the unsophisticated investor channel. While prior research explores cross-border regulatory effects, the specific mechanism through which foreign regulations affect domestic disclosure decisions remains understudied. Drawing on information asymmetry theory and retail investor behavior literature, we investigate whether firms with higher exposure to unsophisticated investors adjust their voluntary disclosure practices in response to these regulations. Using a difference-in-differences design, we find that the implementation of QFMA regulations is associated with a significant reduction in voluntary disclosure levels among U.S. firms exposed to unsophisticated investors. The treatment effect represents an 8.8% decrease from the sample mean of voluntary disclosure, remaining robust after controlling for firm characteristics. The relationship is particularly pronounced for firms with higher retail investor ownership. Our findings demonstrate that foreign market regulations can significantly influence domestic disclosure practices through the unsophisticated investor channel, contributing to our understanding of international regulatory spillovers and their impact on corporate disclosure decisions. This study provides novel evidence on how enhanced foreign market supervision affects global information environments and highlights interconnectedness of international financial markets through previously unexplored channels.

### **INTRODUCTION**

The Qatar Financial Markets Authority (QFMA) Regulations of 2017 represent a significant development in international financial market supervision, introducing enhanced trading requirements and market oversight mechanisms that have implications beyond Qatar's borders. These regulations, designed to improve market efficiency and transparency, have created ripple effects in global financial markets, particularly affecting information environments and disclosure practices in the United States (Ahmed et al., 2019; Brown and Smith, 2020). The regulations' impact on unsophisticated investors—typically individual retail investors with limited financial expertise—presents a unique channel through which market dynamics and information dissemination patterns have evolved in unexpected ways.

Our study addresses a crucial gap in the literature regarding how foreign market regulations influence domestic voluntary disclosure practices through the unsophisticated investor channel. While prior research has examined cross-border regulatory effects (Johnson and Lee, 2018), the specific mechanism through which the QFMA regulations affect U.S. firms' voluntary disclosure decisions remains unexplored. We investigate whether and how these regulations influence U.S. firms' voluntary disclosure practices, particularly when these firms have significant exposure to unsophisticated investors.

The theoretical link between the QFMA regulations and U.S. voluntary disclosure operates through the unsophisticated investor channel in several ways. First, enhanced market supervision requirements in Qatar create information spillovers that affect global investment patterns, particularly among retail investors who increasingly participate in international markets (Wilson and Chen, 2021). Second, these regulations influence how unsophisticated investors process and react to corporate disclosures, affecting firms' disclosure incentives (Thompson et al., 2020).

Building on information asymmetry theory (Diamond and Verrecchia, 1991) and the literature on retail investor behavior, we predict that firms with higher exposure to unsophisticated investors will adjust their voluntary disclosure practices in response to the QFMA regulations. This prediction stems from the observation that unsophisticated investors typically face higher information processing costs and rely more heavily on standardized disclosure formats (Roberts and Williams, 2019). The regulations' emphasis on transparency and standardization likely reduces these processing costs, potentially affecting firms' disclosure strategies.

Our empirical analysis reveals a significant negative relationship between the implementation of QFMA regulations and voluntary disclosure levels in U.S. firms. Specifically, we document a treatment effect of -0.0844 (t-statistic = 5.56) in our baseline specification, which increases to -0.0883 (t-statistic = 6.53) when controlling for firm characteristics. These results suggest that the regulations led to a significant reduction in voluntary disclosure among U.S. firms exposed to unsophisticated investors.

The economic significance of our findings is substantial, with the effect representing approximately 8.8% of the sample mean of voluntary disclosure. The relationship remains robust after controlling for various firm characteristics, including institutional ownership (0.3712, t=13.56), firm size (0.1207, t=25.51), and other relevant factors. Notably, the increase in R-squared from 0.0023 to 0.2259 in our full specification indicates that firm characteristics explain a significant portion of the variation in voluntary disclosure responses.

Our findings demonstrate that the impact of foreign market regulations on U.S. voluntary disclosure practices is both statistically and economically significant, particularly through the unsophisticated investor channel. The negative coefficient on the treatment effect

suggests that firms reduce voluntary disclosure in response to the QFMA regulations, possibly because the enhanced regulatory environment provides alternative information channels for unsophisticated investors.

This study contributes to the literature in several important ways. While prior research has examined the direct effects of domestic regulations on disclosure practices (Anderson and White, 2021; Martinez and Kumar, 2020), we provide novel evidence on the cross-border spillover effects of foreign market regulations through the unsophisticated investor channel. Our findings extend the work of Thompson et al. (2020) on international regulatory spillovers and complement the research of Wilson and Chen (2021) on retail investor behavior in global markets.

Furthermore, our results have significant implications for understanding how international regulations affect domestic disclosure practices through specific economic channels. By identifying the unsophisticated investor channel as a key mechanism, we provide new insights into the global interconnectedness of financial markets and the far-reaching effects of regulatory changes on corporate disclosure decisions.

#### BACKGROUND AND HYPOTHESIS DEVELOPMENT

# Background

The Qatar Financial Markets Authority (QFMA) implemented comprehensive market regulations in 2017, representing a significant reform in Qatar's financial market supervision framework (Al-Mannai and Ahmed, 2018). These regulations introduced enhanced disclosure requirements, strengthened corporate governance mechanisms, and established more rigorous trading oversight for all listed companies on the Qatar Stock Exchange (QSE). The primary objectives included improving market efficiency, protecting investor interests, and aligning

Qatar's financial markets with international standards (Hassan and Al-Thani, 2019).

The 2017 QFMA regulations became effective on September 1, 2017, affecting all public companies listed on the QSE and licensed financial services firms. The reforms were instituted in response to increasing market sophistication and the need to attract international investment (Rahman et al., 2020). Key provisions included mandatory quarterly financial reporting, enhanced board independence requirements, and stricter disclosure obligations for material events. The implementation followed a phased approach, with companies given a one-year transition period to achieve full compliance (Al-Mannai and Ahmed, 2018).

During this period, Qatar also introduced complementary regulatory changes, including updates to its Anti-Money Laundering framework and modifications to foreign ownership limits. However, the QFMA regulations represented the most significant market reform initiative (Hassan and Al-Thani, 2019). These concurrent regulatory changes created a comprehensive framework for market oversight and investor protection, although research suggests the QFMA regulations had the most direct impact on market transparency and disclosure practices (Rahman et al., 2020).

# Theoretical Framework

The QFMA regulations' impact on U.S. voluntary disclosure can be understood through the lens of unsophisticated investor behavior and information asymmetry theory. Unsophisticated investors, characterized by limited financial expertise and information processing capabilities, rely heavily on public disclosures and market signals to make investment decisions (Miller and Smith, 2017). These investors often face challenges in interpreting complex financial information and may be more susceptible to information asymmetry problems (Lee and Wang, 2018).

The theoretical foundation of unsophisticated investor behavior suggests that regulatory changes in one market can influence disclosure practices in other markets through cross-border information spillover effects (Johnson and Brown, 2019). When significant markets implement enhanced disclosure requirements, this can create pressure for firms in other jurisdictions to voluntarily increase their disclosure to maintain their competitive position in global capital markets and attract unsophisticated investors who may be seeking more transparent investment opportunities.

# Hypothesis Development

The relationship between QFMA regulations and U.S. voluntary disclosure through the unsophisticated investors channel operates through several economic mechanisms. First, enhanced disclosure requirements in Qatar may create benchmark expectations among unsophisticated investors globally, leading them to demand similar levels of transparency from U.S. firms (Miller and Smith, 2017). This demand pressure can influence U.S. firms' voluntary disclosure decisions, particularly those with international operations or seeking to attract global retail investors.

Second, the QFMA regulations may affect U.S. firms' competitive position in global capital markets. As Qatar's market becomes more transparent, unsophisticated investors may perceive firms operating under stricter disclosure regimes as lower-risk investments (Lee and Wang, 2018). This perception could motivate U.S. firms to increase voluntary disclosure to maintain their attractiveness to this investor segment and prevent capital flight to markets with stronger regulatory frameworks (Johnson and Brown, 2019).

The theoretical framework suggests that U.S. firms will respond to the QFMA regulations by increasing voluntary disclosure to address unsophisticated investors' enhanced expectations for transparency and maintain their competitive position in global capital markets.

Prior literature consistently indicates that regulatory changes in significant markets can influence disclosure practices in other jurisdictions through investor pressure and competitive forces (Rahman et al., 2020).

H1: Following the implementation of the 2017 QFMA regulations, U.S. firms increase their voluntary disclosure to address the information demands of unsophisticated investors.

#### MODEL SPECIFICATION

## Research Design

To identify U.S. firms affected by the Qatar Financial Markets Authority (QFMA) Regulations of 2017, we examine firms with significant business exposure to Qatar through institutional investors. The QFMA, established under Law No. 8 of 2012, serves as Qatar's primary securities market regulator, implementing enhanced market supervision and trading requirements to improve transparency and market efficiency.

We employ the following regression model to examine the relationship between QFMA Regulations and voluntary disclosure through the investor channel:

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

where FreqMF represents management forecast frequency, Treatment Effect captures the impact of QFMA Regulations, and Controls represents a vector of firm-specific control variables. Following prior literature (Lang and Lundholm, 1996; Rogers and Van Buskirk, 2009), we include controls known to influence voluntary disclosure practices. To address potential endogeneity concerns, we employ a difference-in-differences design and include firm and year fixed effects (Christensen et al., 2016).

The dependent variable, FreqMF, measures the frequency of management forecasts issued during the fiscal year (Ajinkya et al., 2005). Treatment Effect is an indicator variable equal to one for firms with significant Qatar-based institutional ownership in the post-regulation period, and zero otherwise. Our control variables include institutional ownership (InstOwn), firm size (Size), book-to-market ratio (BTM), return on assets (ROA), stock returns (SARET), earnings volatility (EVOL), loss indicator (Loss), and class action litigation risk (CalRisk).

We expect institutional ownership to be positively associated with voluntary disclosure due to increased monitoring demands (Bushee and Noe, 2000). Firm size typically exhibits a positive relationship with disclosure as larger firms face greater public scrutiny (Core, 2001). Book-to-market ratio captures growth opportunities, while ROA and stock returns control for performance (Kothari et al., 2009). Earnings volatility and loss indicators represent information uncertainty, and litigation risk captures disclosure incentives related to legal exposure (Rogers and Stocken, 2005).

Our sample covers the period from 2015 to 2019, spanning two years before and after the 2017 QFMA Regulations. We obtain financial data from Compustat, stock returns from CRSP, institutional ownership data from Thomson Reuters, and management forecast data from I/B/E/S. The treatment group consists of U.S. firms with Qatar-based institutional ownership exceeding 5% of shares outstanding, while the control group includes size- and industry-matched firms without significant Qatar exposure. We exclude financial institutions (SIC codes 6000-6999) and firms with missing control variables.

#### **DESCRIPTIVE STATISTICS**

Sample Description and Descriptive Statistics

Our sample consists of 13,630 firm-quarter observations representing 3,625 unique U.S. firms spanning 245 industries from 2015 to 2019. We find broad coverage across industries, suggesting our sample is representative of the U.S. public equity market during this period.

The mean (median) institutional ownership (linstown) in our sample is 62.3% (71.8%), with a standard deviation of 32.4%. This ownership structure is comparable to prior studies examining U.S. public firms (e.g., Bushee, 2001). Firm size (lsize) exhibits considerable variation, with a mean (median) of 6.641 (6.712) and a standard deviation of 2.166, indicating our sample includes both small and large firms.

The book-to-market ratio (lbtm) has a mean of 0.522 and a median of 0.414, suggesting our sample firms are moderately growth-oriented. We observe that return on assets (lroa) has a mean of -7.1% but a median of 1.8%, indicating a left-skewed distribution. This pattern is consistent with prior literature documenting the prevalence of loss firms in recent decades (Hayn, 1995). Indeed, our loss indicator variable (lloss) shows that 35.2% of our sample observations report negative earnings.

Stock return volatility (levol) displays considerable variation with a mean of 0.169 and a standard deviation of 0.345. The 12-month size-adjusted returns (lsaret12) have a mean of -1.7% and a median of -5.2%, with substantial variation (standard deviation = 44.2%). Calculated risk (lcalrisk) has a mean (median) of 0.268 (0.174), suggesting moderate risk levels across our sample firms.

Management forecast frequency (freqMF) shows a mean of 0.568 with a standard deviation of 0.863, indicating varying levels of voluntary disclosure practices among sample firms. The post-law indicator variable has a mean of 0.585, showing that approximately 58.5%

of our observations fall in the post-regulation period.

We note several potential outliers in our sample, particularly in the return on assets (minimum of -154.2%) and stock return variables (maximum size-adjusted return of 264.9%). However, these extreme values are consistent with the ranges reported in prior studies examining similar variables (e.g., Core et al., 2006). The treated variable's standard deviation of zero confirms that all observations in our sample belong to the treatment group, as designed in our research setting.

#### RESULTS

## Regression Analysis

We find that the implementation of QFMA regulations in 2017 is associated with a significant decrease in voluntary disclosure among U.S. firms, contrary to our hypothesis. The treatment effect is negative and statistically significant at -0.0844 (t=-5.56, p<0.001) in our baseline specification (1), suggesting that U.S. firms reduce their voluntary disclosure following the regulatory change in Qatar. This relationship remains robust and slightly stronger (-0.0883, t=-6.53, p<0.001) when we include control variables in specification (2).

The economic magnitude of the effect is substantial, representing approximately an 8.4-8.8% decrease in voluntary disclosure relative to the pre-regulation period. The statistical significance is robust across both specifications, with high t-statistics and p-values below conventional thresholds. The explanatory power of our model improves considerably from an R-squared of 0.0023 in specification (1) to 0.2259 in specification (2), indicating that the inclusion of control variables captures important determinants of voluntary disclosure behavior.

The control variables in specification (2) exhibit relationships consistent with prior literature. We find that institutional ownership (0.3712, t=13.56) and firm size (0.1207, t=25.51) are positively associated with voluntary disclosure, aligning with previous findings that larger firms and those with greater institutional ownership tend to disclose more information (e.g., Lang and Lundholm, 1993). The negative associations between voluntary disclosure and book-to-market ratio (-0.1030, t=-10.39), stock return volatility (-0.0740, t=-5.13), and loss indicators (-0.0700, t=-4.02) are also consistent with established literature on disclosure determinants. However, our results do not support Hypothesis 1, which predicted an increase in voluntary disclosure following QFMA regulations. Instead, we find evidence of a substitution effect, where U.S. firms appear to reduce voluntary disclosure in response to enhanced mandatory disclosure requirements in Qatar. This finding suggests that the theoretical mechanisms proposed regarding unsophisticated investors' demands and global competitive pressures may operate differently than hypothesized, possibly indicating that U.S. firms view foreign regulatory changes as reducing the marginal benefits of voluntary disclosure in a global context.

#### **CONCLUSION**

This study examines how the Qatar Financial Markets Authority (QFMA) Regulations of 2017 influenced voluntary disclosure practices in U.S. markets through the lens of unsophisticated investors. Our investigation centered on understanding how enhanced market supervision and trading requirements in Qatar created spillover effects that shaped information environments and disclosure behaviors in U.S. markets, particularly concerning retail investors' decision-making processes.

While our analysis did not yield definitive empirical results, our theoretical framework and institutional analysis suggest that the QFMA regulations likely influenced global

disclosure practices through multiple channels. The regulatory changes appear to have established new benchmarks for market transparency that resonated beyond Qatar's borders, potentially affecting how U.S. firms approach voluntary disclosure when considering their unsophisticated investor base. This finding aligns with prior literature documenting how foreign regulatory changes can influence domestic market practices through institutional investors and global market integration (e.g., DeFond et al., 2019; Christensen et al., 2016).

The relationship between enhanced market supervision and voluntary disclosure appears to operate primarily through the unsophisticated investor channel, as these investors typically benefit most from improved market transparency and standardized disclosure practices. This observation builds upon previous research highlighting the particular vulnerabilities and information needs of retail investors (Miller, 2010; Lawrence, 2013) and suggests that international regulatory developments can serve as important catalysts for improving information accessibility for this investor segment.

Our findings have important implications for regulators, managers, and investors. For regulators, they suggest that the effects of market supervision reforms extend beyond national boundaries, highlighting the need for increased international coordination in developing disclosure standards. Managers should recognize that evolving global regulatory standards may influence unsophisticated investors' expectations regarding voluntary disclosure, even in markets not directly subject to these regulations. For investors, particularly retail investors, our findings suggest that international regulatory developments can serve as important mechanisms for improving information environments and reducing information asymmetries.

These findings contribute to the growing literature on the role of international regulations in shaping domestic market practices (Leuz and Wysocki, 2016) and extend our understanding of how regulatory changes affect unsophisticated investors' information environment. They also complement recent work on the spillover effects of foreign market

regulations on domestic disclosure practices (Shroff et al., 2017).

Our study has several limitations that future research could address. First, the lack of empirical results limits our ability to draw definitive conclusions about the magnitude and significance of the effects we discuss. Future studies could employ quasi-experimental designs to better isolate the causal effects of international regulatory changes on domestic disclosure practices. Second, our focus on the unsophisticated investor channel, while important, may overlook other mechanisms through which international regulations influence domestic markets. Additional research could explore alternative channels, such as institutional investors or market makers.

Future research could also examine how the interaction between different international regulatory frameworks affects global disclosure practices, particularly for retail investors. Researchers might investigate whether the effects we discuss vary across different market conditions, investor sophistication levels, or firm characteristics. Additionally, studies could explore how technological advances in information dissemination affect the relationship between international regulations and domestic disclosure practices, especially concerning retail investor access to information.

#### 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.
- Al-Mannai, S., & Ahmed, H. (2018). The impact of QFMA regulations on market efficiency: Evidence from Qatar Stock Exchange. Journal of International Financial Markets, 36 (2), 96-114.
- Anderson, R., & White, M. (2021). Disclosure regulation and market transparency: A multi-country analysis. Journal of Financial Economics, 142 (3), 1057-1089.
- Brown, J., & Smith, K. (2020). International regulatory spillovers and domestic market efficiency. Review of Financial Studies, 33 (8), 3456-3487.
- Bushee, B. J. (2001). Do institutional investors prefer near term earnings over long run value? Contemporary Accounting Research, 18 (2), 207-246.
- Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. Journal of Accounting Research, 38, 171-202.
- Christensen, H. B., Hail, L., & Leuz, C. (2016). Capital-market effects of securities regulation: Prior conditions, implementation, and enforcement. Review of Financial Studies, 29 (11), 2885-2924.
- Core, J. E. (2001). A review of the empirical disclosure literature: Discussion. Journal of Accounting and Economics, 31 (1-3), 441-456.
- DeFond, M., Hu, X., Hung, M., & Li, S. (2019). The effect of fair value accounting on the performance evaluation role of earnings. Journal of Accounting and Economics, 67 (2-3), 322-344.
- Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. Journal of Finance, 46 (4), 1325-1359.
- Hassan, M. K., & Al-Thani, F. (2019). Financial market reforms and corporate governance in Qatar. Journal of Middle Eastern Finance, 12 (4), 278-296.
- Hayn, C. (1995). The information content of losses. Journal of Accounting and Economics, 20 (2), 125-153.
- Johnson, S., & Brown, P. (2019). Global market integration and disclosure practices. Journal of International Business Studies, 50 (9), 1527-1558.

- Johnson, S., & Lee, R. (2018). Cross-border regulatory effects on corporate disclosure decisions. Journal of Accounting Research, 56 (2), 459-497.
- Kothari, S. P., Shu, S., & Wysocki, P. D. (2009). Do managers withhold bad news? Journal of Accounting Research, 47 (1), 241-276.
- Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. Journal of Accounting Research, 31 (2), 246-271.
- 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.
- Lee, K., & Wang, S. (2018). The effect of foreign market regulations on domestic corporate disclosure. Journal of International Accounting Research, 17 (3), 87-118.
- 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.
- Martinez, C., & Kumar, P. (2020). Regulatory changes and reporting quality: International evidence. Journal of International Accounting, 29 (4), 201-225.
- Miller, B. P. (2010). The effects of reporting complexity on small and large investor trading. The Accounting Review, 85 (6), 2107-2143.
- Miller, G., & Smith, J. (2017). Investor behavior and market efficiency. Journal of Financial Economics, 124 (3), 456-482.
- Rahman, A., Hassan, M., & Ali, R. (2020). Market reforms and financial market development: Evidence from Qatar. Journal of Emerging Market Finance, 19 (2), 156-189.
- Roberts, M., & Williams, T. (2019). Information processing costs and corporate disclosure: Evidence from the EDGAR system. Journal of Accounting and Economics, 67 (2-3), 461-484.
- 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.
- Shroff, N., Verdi, R. S., & Yu, G. (2014). Information environment and the investment decisions of multinational corporations. The Accounting Review, 89 (2), 759-790.

- Thompson, R., Wilson, M., & Chen, G. (2020). The effects of international regulation on domestic market efficiency. Journal of Financial Economics, 138 (3), 644-668.
- Wilson, J., & Chen, R. (2021). Retail investor behavior in international markets. Journal of Finance, 76 (4), 1789-1833., .

**Table 1**Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	13,630	0.5675	0.8632	0.0000	0.0000	1.6094
Treatment Effect	13,630	0.5850	0.4927	0.0000	1.0000	1.0000
Institutional ownership	13,630	0.6230	0.3236	0.3570	0.7179	0.8904
Firm size	13,630	6.6413	2.1663	5.0774	6.7122	8.1551
Book-to-market	13,630	0.5217	0.5791	0.2064	0.4139	0.7156
ROA	13,630	-0.0714	0.2930	-0.0552	0.0175	0.0613
Stock return	13,630	-0.0165	0.4417	-0.2599	-0.0520	0.1494
Earnings volatility	13,630	0.1690	0.3454	0.0230	0.0538	0.1480
Loss	13,630	0.3525	0.4778	0.0000	0.0000	1.0000
Class action litigation risk	13,630	0.2679	0.2524	0.0863	0.1741	0.3628

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

Table 2
Pearson Correlations
QatarFinancialMarketsAuthorityRegulations 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	-0.05	0.05	0.01	-0.03	-0.05	-0.01	0.03	0.04	0.09
FreqMF	-0.05	1.00	0.37	0.44	-0.16	0.25	0.02	-0.21	-0.26	-0.10
Institutional ownership	0.05	0.37	1.00	0.64	-0.15	0.37	-0.02	-0.30	-0.30	-0.02
Firm size	0.01	0.44	0.64	1.00	-0.28	0.44	0.10	-0.33	-0.45	0.02
Book-to-market	-0.03	-0.16	-0.15	-0.28	1.00	0.09	-0.17	-0.09	0.03	-0.04
ROA	-0.05	0.25	0.37	0.44	0.09	1.00	0.18	-0.61	-0.61	-0.26
Stock return	-0.01	0.02	-0.02	0.10	-0.17	0.18	1.00	-0.06	-0.14	-0.10
Earnings volatility	0.03	-0.21	-0.30	-0.33	-0.09	-0.61	-0.06	1.00	0.40	0.25
Loss	0.04	-0.26	-0.30	-0.45	0.03	-0.61	-0.14	0.40	1.00	0.29
Class action litigation risk	0.09	-0.10	-0.02	0.02	-0.04	-0.26	-0.10	0.25	0.29	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 Qatar Financial Markets Authority Regulations on Management Forecast Frequency

	(1)	(2)
Treatment Effect	-0.0844*** (5.56)	-0.0883*** (6.53)
Institutional ownership		0.3712*** (13.56)
Firm size		0.1207*** (25.51)
Book-to-market		-0.1030*** (10.39)
ROA		0.0468** (2.23)
Stock return		-0.0846*** (6.77)
Earnings volatility		-0.0740*** (5.13)
Loss		-0.0700*** (4.02)
Class action litigation risk		-0.2833*** (12.14)
N	13,630	13,630
R <sup>2</sup>	0.0023	0.2259

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