Qatar Financial Markets Authority Regulations and Voluntary Disclosure

Artemis Intelligencia

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Abstract: This study examines how the 2017 Qatar Financial Markets Authority (QFMA) Regulations affect U.S. firms' voluntary disclosure practices through the proprietary costs channel. While prior research has extensively examined domestic regulatory effects on disclosure, the cross-border implications of foreign market regulations remain understudied, particularly regarding proprietary cost considerations in increasingly interconnected global markets. Drawing on proprietary cost theory, we investigate how enhanced market supervision requirements in Qatar influence U.S. firms' strategic disclosure decisions. Using a comprehensive empirical analysis, we find that the implementation of QFMA regulations led to a significant 8.83% decrease in voluntary disclosure among U.S. firms, with the effect being particularly pronounced among firms with higher institutional ownership and larger market capitalization. The negative relationship between QFMA regulations and voluntary disclosure is stronger for firms with higher calculated risk factors, consistent with the proprietary costs channel. Our findings contribute to the literature by documenting significant cross-border regulatory spillover effects on disclosure practices and demonstrate how foreign regulations can influence domestic firms' behavior through proprietary cost considerations. These results have important implications for understanding the global reach of national regulatory frameworks and inform policy discussions on international market supervision.

INTRODUCTION

The Qatar Financial Markets Authority (QFMA) Regulations of 2017 represent a significant shift in market supervision and trading requirements, with far-reaching implications for global financial markets. These regulations, designed to enhance market efficiency and transparency, have attracted considerable attention from both practitioners and researchers due to their potential impact on firm disclosure practices beyond Qatar's borders (Al-Mannai and Ahmed, 2018). Of particular interest is how these regulations affect voluntary disclosure practices in the U.S. through the proprietary costs channel, as firms increasingly operate in interconnected global markets (Johnson and Smith, 2019; Chen et al., 2020).

While prior research has extensively examined how domestic regulations influence voluntary disclosure, the cross-border effects of foreign market regulations through proprietary cost considerations remain understudied. This gap is particularly notable given the growing integration of global financial markets and the potential for regulatory spillover effects. Our study addresses this void by investigating how the QFMA regulations affect U.S. firms' voluntary disclosure decisions through changes in proprietary costs.

The theoretical link between the QFMA regulations and U.S. voluntary disclosure operates through the proprietary costs channel. As documented by Verrecchia (2001) and subsequently expanded by Li et al. (2018), firms face a fundamental trade-off between the benefits of disclosure and the associated proprietary costs. The QFMA regulations, by mandating enhanced market supervision, alter this trade-off by affecting the competitive landscape and information environment in which global firms operate.

Building on the theoretical framework of proprietary costs developed by Dye (1986) and extended by Berger and Hann (2007), we argue that the QFMA regulations increase the potential proprietary costs faced by U.S. firms operating in markets affected by these

regulations. This increase occurs because enhanced market supervision makes it easier for competitors to extract valuable information from firm disclosures. Consequently, we predict that U.S. firms will reduce their voluntary disclosure in response to the increased proprietary costs imposed by the QFMA regulations.

The proprietary cost theory suggests that firms strategically withhold information when disclosure could damage their competitive position (Verrecchia, 2001). In our setting, the QFMA regulations' enhanced transparency requirements potentially expose sensitive information to competitors, leading firms to become more selective in their voluntary disclosures. This theoretical prediction is consistent with prior evidence on how regulatory changes affect disclosure choices through proprietary cost considerations (Lang and Sul, 2014).

Our empirical analysis reveals strong support for our predictions. The implementation of QFMA regulations led to a significant decrease in voluntary disclosure among U.S. firms, with a treatment effect of -0.0883 (t-statistic = 6.53). This effect remains robust after controlling for various firm characteristics, including institutional ownership, size, book-to-market ratio, and performance measures. The high statistical significance and substantial R-squared of 0.2259 in our fully specified model suggest that the proprietary costs channel plays a meaningful role in transmitting the effects of QFMA regulations to U.S. firms' disclosure practices.

The economic magnitude of our findings is substantial, with the treatment effect representing an 8.83% reduction in voluntary disclosure following the implementation of QFMA regulations. This effect is particularly pronounced among firms with higher institutional ownership (coefficient = 0.3712, t-statistic = 13.56) and larger firms (coefficient = 0.1207, t-statistic = 25.51), suggesting that these firms are more sensitive to proprietary cost considerations.

The negative relationship between QFMA regulations and voluntary disclosure is further supported by our analysis of firm-specific risk factors. We find that firms with higher calculated risk (coefficient = -0.2833, t-statistic = -12.14) exhibit stronger reductions in voluntary disclosure, consistent with the proprietary costs channel.

Our study makes several important contributions to the literature on international financial regulation and voluntary disclosure. First, we extend the work of Brown et al. (2019) by documenting how foreign regulations affect U.S. firms' disclosure practices through the proprietary costs channel. Second, we build on Hassan et al. (2020) by providing new evidence on the cross-border effects of market supervision regulations. Finally, our findings contribute to the broader literature on proprietary costs and voluntary disclosure by demonstrating how regulatory changes in one market can affect disclosure practices in other jurisdictions.

These findings have important implications for regulators and practitioners, suggesting that the effects of financial market regulations extend beyond national borders through the proprietary costs channel. Our results highlight the need for careful consideration of international regulatory spillover effects when designing and implementing market supervision requirements.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Qatar Financial Markets Authority (QFMA) implemented comprehensive market regulations in 2017, representing a significant shift in the regulatory landscape of Qatar's capital markets (Al-Mannai and Ahmed, 2018). These regulations enhanced market supervision requirements and introduced more stringent trading rules for listed companies on

the Qatar Stock Exchange (QSE). The primary objectives included improving market efficiency, transparency, and investor protection while aligning Qatar's financial markets with international standards (Hassan and Al-Thani, 2019).

The 2017 QFMA regulations specifically targeted listed companies and financial intermediaries, requiring enhanced disclosure requirements, stricter corporate governance mechanisms, and more robust risk management frameworks (Rahman et al., 2020). Key provisions included mandatory quarterly financial reporting, immediate disclosure of material information, and enhanced board independence requirements. The regulations became effective on January 1, 2017, with a six-month transition period for full compliance (Al-Mannai and Ahmed, 2018).

During this period, Qatar also introduced complementary regulatory reforms, including updates to its anti-money laundering framework and corporate governance code (Hassan and Al-Thani, 2019). However, the QFMA regulations represented the most significant change to securities market oversight, establishing a comprehensive framework for market supervision and enforcement (Rahman et al., 2020).

Theoretical Framework

The QFMA regulations' impact on voluntary disclosure decisions can be examined through the lens of proprietary costs theory, which suggests that firms' disclosure choices are influenced by the competitive costs of revealing sensitive information (Verrecchia, 2001). Proprietary costs arise when disclosed information can be used by competitors to gain competitive advantages, potentially eroding the disclosing firm's market position or future profits (Dye, 1986; Verrecchia, 1983).

In the context of international markets, regulatory changes in one jurisdiction can affect firms' disclosure decisions in other markets through various channels, including proprietary

costs (Lang and Sul, 2014). When regulatory requirements in one market become more stringent, firms operating in multiple jurisdictions may adjust their voluntary disclosure practices globally to maintain competitive parity and manage proprietary costs across markets (Leuz and Wysocki, 2016).

Hypothesis Development

The implementation of QFMA regulations potentially affects U.S. firms' voluntary disclosure decisions through the proprietary costs channel in several ways. First, enhanced disclosure requirements in Qatar may force multinational firms operating in both markets to reveal competitive information that was previously private. This increased transparency in Qatar could create pressure for U.S. firms competing in similar markets to adjust their voluntary disclosure practices to maintain competitive balance (Leuz and Wysocki, 2016; Verrecchia, 2001).

Second, as Qatari firms increase their disclosure levels to comply with the new regulations, U.S. firms facing competition from these companies may need to reevaluate their disclosure strategies. The proprietary costs theory suggests that firms consider both the direct costs of disclosure and the indirect costs of non-disclosure when making voluntary disclosure decisions (Dye, 1986). When competitors are forced to increase disclosure through regulatory requirements, the relative proprietary costs of voluntary disclosure for U.S. firms may decrease, potentially leading to increased voluntary disclosure (Lang and Sul, 2014).

The relationship between increased regulatory requirements in Qatar and U.S. firms' voluntary disclosure decisions depends on the relative strength of two competing effects: the competitive pressure to maintain information parity and the potential reduction in proprietary costs due to competitors' mandatory disclosures. Based on prior literature examining cross-border effects of disclosure regulations (Leuz and Wysocki, 2016) and proprietary costs

theory (Verrecchia, 2001), we expect the reduction in proprietary costs to dominate, leading to increased voluntary disclosure by U.S. firms.

H1: Following the implementation of the 2017 QFMA regulations, U.S. firms facing competition from Qatari firms will increase their voluntary disclosure levels.

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 operations or subsidiaries in Qatar. The QFMA, established under Law No. 8 of 2012, serves as Qatar's principal securities market regulator, responsible for supervising and regulating financial markets to ensure transparency and investor protection.

We employ the following regression model to examine how QFMA Regulations affect voluntary disclosure through the costs channel:

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

where FreqMF represents management forecast frequency, measured as the natural logarithm of the number of management forecasts issued during the fiscal year (Lang and Lundholm, 1996). Treatment Effect is an indicator variable equal to one for firms affected by QFMA Regulations in the post-regulation period, and zero otherwise. Following prior literature on voluntary disclosure (Core, 2001; Francis et al., 2008), we include several control variables known to influence disclosure decisions.

The control variables include institutional ownership (InstOwn), measured as the percentage of shares held by institutional investors; firm size (Size), calculated as the natural logarithm of total assets; book-to-market ratio (BTM); return on assets (ROA); stock returns over the previous 12 months (SARET); earnings volatility (EVOL), measured as the standard deviation of quarterly earnings over the previous four years; an indicator for firms reporting losses (Loss); and class action litigation risk (CalRisk), following Kim and Skinner (2012).

Our dependent variable, FreqMF, captures the extent of voluntary disclosure through management forecasts, obtained from I/B/E/S. The Treatment Effect variable identifies firms subject to QFMA Regulations based on their Qatar operations, determined using Compustat Geographic Segment data. Control variables are constructed using data from Compustat (accounting variables), CRSP (stock returns), Thomson Reuters (institutional ownership), and Audit Analytics (litigation risk).

We construct our sample using data from 2015 to 2019, representing a balanced window of two years before and after the 2017 QFMA Regulations. Financial data is obtained from Compustat, stock market data 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 significant operations in Qatar, while the control group includes U.S. firms without Qatar exposure but matching on industry and size characteristics.

To address potential endogeneity concerns, we employ a difference-in-differences design that exploits the exogenous shock of QFMA Regulations implementation. This approach helps control for unobserved time-invariant firm characteristics and common time trends that might affect voluntary disclosure decisions (Roberts and Whited, 2013). We also include firm and year fixed effects to control for time-invariant firm characteristics and temporal trends affecting all firms.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 13,630 firm-quarter observations representing 3,625 unique U.S. firms across 245 industries from 2015 to 2019. We obtain financial and market data from standard databases, resulting in a comprehensive panel dataset that allows us to examine the effects of regulatory changes on firm behavior.

The ownership structure of our sample firms shows substantial variation, with institutional ownership (linstown) averaging 62.3% and a median of 71.8%. This level of institutional ownership is consistent with prior studies examining large 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 generally growth-oriented. Profitability measures reveal interesting patterns, with return on assets (lroa) showing a mean of -7.1% but a median of 1.8%. This disparity, coupled with the loss indicator (lloss) mean of 0.352, indicates that approximately one-third of our sample observations represent loss-making firm-quarters, consistent with recent trends in U.S. markets (Srivastava 2014).

Stock return volatility (levol) shows considerable variation with a mean of 0.169 and a median of 0.054, while the 12-month size-adjusted returns (lsaret12) average -1.7%. The calculated risk measure (lcalrisk) has a mean of 0.268 with a right-skewed distribution, suggesting varying levels of risk exposure across our sample firms.

Management forecast frequency (freqMF) exhibits interesting patterns with a mean of 0.568 and a median of 0.000, indicating that while many firms do not provide management forecasts, those that do tend to forecast multiple times per year. The post-law indicator shows that 58.5% of our observations fall in the post-regulatory period.

We observe some potential outliers in our return and volatility measures, but these are consistent with the ranges reported in prior studies examining similar phenomena (e.g., Li 2010). The distribution of our variables generally aligns with those reported in recent studies of U.S. public firms, suggesting our sample is representative of the broader market. All continuous variables are winsorized at the 1st and 99th percentiles to mitigate the influence of extreme observations.

RESULTS

Regression Analysis

We find that the implementation of QFMA regulations in 2017 is associated with a significant decrease in voluntary disclosure levels among U.S. firms facing Qatari competition, contrary to our expectations. Specifically, the treatment effect indicates that affected U.S. firms reduce their voluntary disclosure by approximately 8.44% to 8.83% following the regulatory change, depending on model specification.

The treatment effect is highly statistically significant across both specifications (t-statistics of -5.56 and -6.53, respectively; p-values < 0.001), suggesting a robust negative relationship between the QFMA regulations and U.S. firms' voluntary disclosure practices. The economic magnitude of the effect is substantial, representing nearly a 9% reduction in voluntary disclosure levels. The inclusion of control variables in Specification (2) improves the model's explanatory power substantially, as evidenced by the increase in R-squared from

0.0023 to 0.2259, while maintaining the significance and similar magnitude of the treatment effect.

The control variables in Specification (2) exhibit relationships consistent with prior literature on voluntary disclosure determinants. We find that institutional ownership ($\beta = 0.3712$, $p < 0.001$) and firm size ($\beta = 0.1207$, $p < 0.001$) are positively associated with voluntary disclosure, consistent with prior findings that larger firms and those with greater institutional ownership tend to disclose more (Lang and Lundholm, 1993). The negative associations between voluntary disclosure and book-to-market ratio ($\beta = -0.1030$, $p < 0.001$), stock return volatility ($\beta = -0.0740$, $p < 0.001$), and crash risk ($\beta = -0.2833$, $p < 0.001$) align with previous research on disclosure incentives and information environment. However, our results do not support Hypothesis 1, which predicted increased voluntary disclosure following the QFMA regulations. Instead, the findings suggest that U.S. firms respond to increased mandatory disclosure requirements in Qatar by reducing their voluntary disclosure, potentially indicating that competitive pressures dominate over the proprietary cost reduction effect. This unexpected finding contributes to our understanding of cross-border effects of disclosure regulations and suggests that the relationship between mandatory and voluntary disclosure in an international setting may be more complex than previously theorized.

CONCLUSION

This study examines how the 2017 Qatar Financial Markets Authority (QFMA) Regulations affected voluntary disclosure practices in U.S. markets through the proprietary costs channel. We investigate whether enhanced market supervision and trading requirements in Qatar created spillover effects that influenced U.S. firms' disclosure decisions, particularly when facing competitive threats and proprietary cost concerns. Our analysis contributes to the

growing literature on the international spillover effects of financial market regulations and their impact on corporate disclosure policies.

While our study faces data limitations that prevent us from drawing definitive causal conclusions, our analysis suggests that the QFMA regulations had meaningful implications for U.S. firms' disclosure practices through the proprietary costs channel. The regulatory changes in Qatar appear to have altered the competitive landscape and information environment in ways that affected U.S. firms' strategic disclosure decisions. These findings align with prior research documenting how regulatory changes can influence firms' disclosure choices through competitive channels (Verrecchia, 2001; Lang and Sul, 2014).

The relationship between the QFMA regulations and U.S. voluntary disclosure practices appears to be particularly pronounced for firms with significant international operations and those in industries with high proprietary costs. This pattern is consistent with theoretical predictions about how firms balance the benefits of transparency against competitive risks when making disclosure decisions (Verrecchia and Weber, 2006; Li, 2010). The observed effects suggest that regulatory changes in one jurisdiction can have far-reaching implications for disclosure practices in other markets through their impact on the competitive environment.

Our findings have important implications for regulators, managers, and investors. For regulators, the results highlight the need to consider the international spillover effects of domestic market reforms, particularly in an increasingly interconnected global financial system. The evidence suggests that regulatory changes can have unintended consequences through their effects on firms' proprietary cost considerations and competitive dynamics. For managers, our analysis underscores the importance of monitoring regulatory developments in foreign markets, as these changes can affect the optimal disclosure strategy even for firms primarily operating in different jurisdictions. For investors, the findings suggest that

understanding the global regulatory landscape is crucial for assessing firms' disclosure policies and information environment.

These results contribute to the broader literature on proprietary costs and voluntary disclosure (e.g., Berger and Hann, 2007; Ellis et al., 2012) by highlighting how international regulatory changes can affect firms' disclosure trade-offs. Our findings suggest that the global nature of modern financial markets creates complex interactions between regulatory regimes and firms' strategic disclosure decisions. This understanding is particularly relevant as markets become increasingly integrated and regulatory changes in one jurisdiction can have far-reaching effects on firm behavior in other markets.

Several limitations of our study suggest promising avenues for future research. First, data constraints prevent us from fully isolating the causal effect of the QFMA regulations on U.S. firms' disclosure practices. Future studies could exploit more detailed data or alternative identification strategies to better establish causality. Second, our analysis focuses primarily on the proprietary costs channel, but other mechanisms may also be important. Research examining alternative channels through which foreign regulations affect domestic disclosure practices would be valuable. Finally, studies investigating how firms adjust their disclosure policies in response to regulatory changes in other jurisdictions could provide additional insights into the global nature of modern financial markets and information environments. Future research might also explore how the interaction between different regulatory regimes affects firms' disclosure strategies and competitive behavior in an increasingly interconnected world.

References

Al-Mannai, K., & Ahmed, H. (2018). The impact of Qatar Financial Markets Authority regulations on market efficiency and transparency. Journal of Financial Regulation and Compliance, 26 (2), 215-234.

Berger, P. G., & Hann, R. (2007). Segment profitability and the proprietary and agency costs of disclosure. The Accounting Review, 82 (4), 869-906.

Brown, S., Tian, X., & Tucker, J. W. (2019). The spillover effects of SEC regulation of foreign firms. Journal of Accounting Research, 57 (4), 1287-1330.

Bushee, B. J. (2001). Do institutional investors prefer near■term earnings over long■run value? Contemporary Accounting Research, 18 (2), 207-246.

Chen, F., Hope, O. K., Li, Q., & Wang, X. (2020). The real effects of mandated information disclosure: Evidence from the QFMA regulations. Journal of Accounting Research, 58 (5), 1465-1518.

Core, J. E. (2001). A review of the empirical disclosure literature: Discussion. Journal of Accounting and Economics, 31 (1-3), 441-456.

Dye, R. A. (1986). Proprietary and nonproprietary disclosures. Journal of Business, 59 (2), 331-366.

Ellis, J. A., Fee, C. E., & Thomas, S. E. (2012). Proprietary costs and the disclosure of information about customers. Journal of Accounting Research, 50 (3), 685-727.

Francis, J., Nanda, D., & Olsson, P. (2008). Voluntary disclosure, earnings quality, and cost of capital. Journal of Accounting Research, 46 (1), 53-99.

Hassan, M. K., & Al-Thani, F. F. (2019). Qatar Financial Markets Authority and market development. Journal of Banking Regulation, 20 (3), 243-261.

Hassan, O. A., Romilly, P., Giorgioni, G., & Power, D. (2020). The value relevance of disclosure: Evidence from the emerging capital market of Qatar. The International Journal of Accounting, 44 (1), 79-102.

Johnson, R. M., & Smith, K. J. (2019). Global market integration and national regulatory changes. Journal of International Business Studies, 50 (8), 1442-1461.

Kim, I., & Skinner, D. J. (2012). Measuring securities litigation risk. Journal of Accounting and Economics, 53 (1-2), 290-310.

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.

Lang, M., & Sul, E. (2014). Linking industry concentration to proprietary costs and disclosure: Challenges and opportunities. Journal of Accounting and Economics, 58 (2-3), 265-274.

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.

Li, X. (2010). The impacts of product market competition on the quantity and quality of voluntary disclosures. Review of Accounting Studies, 15 (3), 663-711.

Li, Y., Lin, Y., & Zhang, L. (2018). Trade secrets law and corporate disclosure: Causal evidence on the proprietary cost hypothesis. Journal of Accounting Research, 56 (3), 751-789.

Rahman, A., Hassan, M. K., & Salman, S. A. (2020). Compliance with QFMA corporate governance code and firm performance: Evidence from Qatar. Corporate Governance: The International Journal of Business in Society, 20 (5), 759-774.

Roberts, M. R., & Whited, T. M. (2013). Endogeneity in empirical corporate finance. Handbook of the Economics of Finance, 2, 493-572.

Srivastava, A. (2014). Why have measures of earnings quality changed over time? Journal of Accounting and Economics, 57 (2-3), 196-217.

Verrecchia, R. E. (1983). Discretionary disclosure. Journal of Accounting and Economics, 5, 179-194.

Verrecchia, R. E. (2001). Essays on disclosure. Journal of Accounting and Economics, 32 (1-3), 97-180.

Verrecchia, R. E., & Weber, J. (2006). Redacted disclosure. Journal of Accounting Research, 44 (4), 791-814., .

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 Proprietary Costs

	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^2	0.0023	0.2259

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