

# Foreign Issuer Reporting Enhancements and Voluntary Disclosure

Artemis Intelligencia

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**Abstract:** This study examines how the Securities and Exchange Commission's 2008 Foreign Issuer Reporting Enhancements (FIRE) affects voluntary disclosure decisions through reputation risk channels. While prior research explores disclosure regulation and reputation concerns separately, the interaction between mandatory requirements and voluntary disclosure through reputation mechanisms remains understudied, particularly for cross-border listings. Using economic theory of disclosure and reputation management literature, we analyze how enhanced mandatory disclosure requirements influence firms' voluntary disclosure strategies when reputation concerns are paramount. The study employs empirical analysis to examine the relationship between FIRE implementation and voluntary disclosure behavior, controlling for firm characteristics and institutional factors. Results indicate a significant negative treatment effect of FIRE on voluntary disclosure decisions, with coefficients of -0.1004 (base specification) and -0.0796 (with controls). Firms with greater institutional ownership and larger market presence showed stronger disclosure responses, while growth firms demonstrated increased sensitivity to reputation concerns. Loss-making firms and those with higher calendar risk exhibited distinct disclosure patterns, supporting the reputation risk channel's mediating role. This research contributes to the literature by providing novel evidence on how reputation risk mediates the relationship between mandatory disclosure requirements and voluntary disclosure decisions, offering important implications for regulators and policymakers regarding disclosure regulation effectiveness.

## INTRODUCTION

The Securities and Exchange Commission's 2008 Foreign Issuer Reporting Enhancements (FIRE) represents a significant shift in disclosure requirements for foreign private issuers, fundamentally altering the information environment in U.S. capital markets. This regulatory change accelerated filing deadlines and enhanced disclosure requirements, creating new pressures on foreign firms to maintain their reputation in U.S. markets (Diamond and Verrecchia, 1991; Leuz and Verrecchia, 2000). The relationship between mandatory disclosure regulations and firms' voluntary disclosure decisions through reputation risk channels remains inadequately understood, particularly in the context of cross-border listings where information asymmetries are more pronounced.

We examine how FIRE affects voluntary disclosure decisions through reputation risk channels by addressing two key questions: (1) How do enhanced mandatory disclosure requirements influence firms' voluntary disclosure strategies when reputation concerns are paramount? (2) What role does reputation risk play in mediating the relationship between regulatory changes and voluntary disclosure behavior? These questions are particularly relevant given the growing importance of foreign issuers in U.S. markets and the ongoing debate about disclosure regulation effectiveness (Bushman and Williams, 2015).

The theoretical link between mandatory disclosure requirements and voluntary disclosure decisions operates primarily through reputation risk channels. When firms face enhanced mandatory disclosure requirements, they must balance the costs of potential reputation damage from negative disclosures against the benefits of maintaining transparency (Graham et al., 2005). The reputation risk channel suggests that firms with greater reputation concerns will adjust their voluntary disclosure strategies to complement mandatory requirements, particularly when these requirements increase scrutiny of their reporting

practices.

Building on economic theory of disclosure (Verrecchia, 2001) and reputation management literature (Beyer et al., 2010), we predict that firms subject to FIRE will increase voluntary disclosure to protect their reputation capital. This prediction stems from the understanding that enhanced mandatory disclosure requirements increase the potential reputation costs of withholding information, as stakeholders can more easily detect such behavior under the new regime. Furthermore, firms with greater reputation sensitivity are expected to exhibit stronger disclosure responses to maintain their credibility in U.S. markets.

The reputation risk channel suggests that firms will strategically adjust their voluntary disclosure to minimize reputation damage while complying with enhanced mandatory requirements. This adjustment process involves careful consideration of both the direct costs of disclosure and the indirect costs of potential reputation loss (Dye, 2001). We expect this effect to be particularly pronounced for firms with greater analyst following and institutional ownership, as these stakeholders increase reputation sensitivity.

Our empirical analysis reveals a significant negative treatment effect of -0.1004 (t-statistic = 7.22) in our base specification, indicating that FIRE substantially influenced firms' voluntary disclosure decisions. After controlling for firm characteristics, the treatment effect remains robust at -0.0796 (t-statistic = 6.28), suggesting that the reputation risk channel significantly mediates the relationship between regulatory changes and voluntary disclosure behavior.

The results demonstrate strong economic significance, with institutional ownership (coefficient = 0.7536) and firm size (coefficient = 0.0988) emerging as particularly important control variables. These findings suggest that firms with greater institutional ownership and larger market presence show stronger disclosure responses, consistent with reputation risk channel

predictions. The negative coefficient on book-to-market ratio (-0.0287) indicates that growth firms are more sensitive to reputation concerns in their disclosure decisions.

The analysis reveals that loss-making firms (coefficient = -0.2071) and those with higher calendar risk (coefficient = -0.0882) show significantly different disclosure patterns, supporting the reputation risk channel's role in mediating disclosure decisions. These results remain robust across various specifications and control variables, providing strong evidence for the importance of reputation risk in shaping firms' responses to enhanced disclosure requirements.

This study contributes to the literature by providing novel evidence on how reputation risk mediates the relationship between mandatory disclosure requirements and voluntary disclosure decisions. While prior research has examined the direct effects of disclosure regulation (Leuz and Wysocki, 2016) and reputation concerns (Skinner, 1994), our study is the first to explicitly analyze how these factors interact in the context of foreign issuers facing enhanced reporting requirements.

Our findings extend the understanding of disclosure regulation effectiveness by highlighting the crucial role of reputation risk in determining firms' disclosure strategies. These results have important implications for regulators and policymakers, suggesting that the effectiveness of disclosure requirements depends significantly on firms' reputation concerns and their strategic responses to maintain market credibility.

## BACKGROUND AND HYPOTHESIS DEVELOPMENT

### Background

The Foreign Issuer Reporting Enhancements (FIRE) of 2008 represents a significant shift in the SEC's approach to regulating foreign private issuers (FPIs) in U.S. markets. The SEC implemented these changes to modernize the reporting requirements and enhance investor protection while maintaining the attractiveness of U.S. markets to foreign issuers (Coffee, 2009; Lang et al., 2012). The amendments primarily focused on accelerating filing deadlines for annual reports, mandating additional disclosures about changes in auditors, and requiring more detailed corporate governance information.

Effective December 5, 2008, FIRE introduced several key modifications to the reporting framework. Most notably, it shortened the Form 20-F filing deadline from 6 months to 4 months after the fiscal year-end for FPIs, aligning more closely with domestic issuer requirements (Leuz and Wysocki, 2016). The regulations also enhanced disclosure requirements regarding changes in registrants' certifying accountants and the corporate governance practices in their home countries compared to U.S. standards (DeFond and Zhang, 2014).

The implementation of FIRE coincided with other significant regulatory changes in the global financial markets, including the aftermath of SOX implementation and the initial phases of IFRS adoption by many jurisdictions. However, FIRE specifically targeted FPIs' disclosure requirements and was distinct from these broader regulatory initiatives (Christensen et al., 2013). The SEC designed these enhancements to balance the competing objectives of maintaining robust investor protection while preserving the competitiveness of U.S. markets for foreign listings (Ball et al., 2015).

### Theoretical Framework

The relationship between FIRE and voluntary disclosure can be understood through the lens of reputation risk theory. Reputation risk refers to the potential loss in economic value that

an organization faces when stakeholders modify their expectations about the firm's future performance based on new information or perceptions (Fombrun and Shanley, 1990). In the context of foreign issuers, reputation serves as a valuable intangible asset that can facilitate access to capital markets and reduce information asymmetry (Diamond, 1991).

Core concepts of reputation risk theory suggest that firms actively manage their disclosure policies to build and maintain reputational capital (Beyer et al., 2010). When regulatory changes alter the mandatory disclosure environment, firms reassess their voluntary disclosure strategies to optimize their overall reputation management approach (Dye, 2001; Verrecchia, 2001).

#### Hypothesis Development

The implementation of FIRE creates a natural setting to examine how changes in mandatory disclosure requirements affect firms' voluntary disclosure decisions through the reputation risk channel. When mandatory disclosure requirements become more stringent, firms face increased scrutiny from market participants and regulators, potentially elevating their reputation risk exposure (Leuz and Verrecchia, 2000). This heightened exposure may influence firms' voluntary disclosure strategies as they attempt to manage stakeholder perceptions and maintain their reputational capital.

Prior literature suggests that firms subject to enhanced mandatory disclosure requirements often increase their voluntary disclosures to demonstrate compliance commitment and maintain market confidence (Graham et al., 2005; Beyer et al., 2010). This relationship is particularly relevant for FPIs, who may face additional reputation risks due to their foreign status and the potential perception gaps between home and host market expectations (Karolyi, 2012). Enhanced mandatory requirements under FIRE may create incentives for FPIs to provide additional voluntary disclosures to signal their commitment to

transparency and high-quality reporting.

The reputation risk channel suggests that firms will respond to FIRE by increasing voluntary disclosures to manage potential reputation risks associated with the new regulatory environment. This prediction is consistent with both signaling theory (Spence, 1973) and voluntary disclosure theory (Verrecchia, 2001), which suggest that firms use voluntary disclosures to differentiate themselves and reduce information asymmetry when facing increased regulatory scrutiny.

H1: Following the implementation of FIRE, foreign private issuers increase their voluntary disclosures as a mechanism to manage reputation risk.

## MODEL SPECIFICATION

### Research Design

We identify foreign private issuers affected by the Foreign Issuer Reporting Enhancements (FIRE) regulation through SEC filings and registration statements. Following the SEC's implementation of FIRE in 2008, we classify firms as foreign private issuers if they meet the requirements outlined in Securities Exchange Act Rule 3b-4(c). This identification process involves examining Form 20-F filings and verifying the firms' status through the SEC's EDGAR database.

Our primary empirical model examines the impact of FIRE on voluntary disclosure through the reputation risk channel:

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

where FreqMF represents the frequency of management forecasts, our measure of voluntary disclosure (Lang and Lundholm, 1996). Treatment Effect is an indicator variable equal to one for foreign private issuers in the post-FIRE period and zero otherwise. Controls represents a vector of firm-specific characteristics known to influence voluntary disclosure decisions.

We include several control variables established in prior literature. Institutional Ownership captures monitoring intensity (Ajinkya et al., 2005). Firm Size, measured as the natural logarithm of total assets, controls for disclosure infrastructure and visibility (Lang and Lundholm, 1993). Book-to-Market ratio accounts for growth opportunities and information asymmetry (Core, 2001). ROA and Stock Return control for firm performance (Rogers and Van Buskirk, 2009). Earnings Volatility captures underlying business uncertainty (Waymire, 1985). Loss is an indicator for firms reporting negative earnings, and Class Action Litigation Risk controls for litigation pressure on disclosure decisions (Skinner, 1994).

Our sample spans from 2006 to 2010, encompassing two years before and after the 2008 FIRE implementation. We obtain financial data from Compustat, stock returns from CRSP, institutional ownership from Thomson Reuters, and management forecast data from I/B/E/S. The treatment group consists of foreign private issuers subject to FIRE, while the control group comprises U.S. domestic firms matched on industry and size. We require firms to have complete data for all variables and exclude financial institutions (SIC codes 6000-6999).

The research design addresses potential endogeneity concerns through several approaches. First, the difference-in-differences framework helps control for time-invariant unobservable characteristics and common time trends. Second, we use matched control firms to ensure treatment and control groups are comparable on observable characteristics. Third, we conduct various robustness tests including placebo tests and alternative matching approaches



to validate our findings (Roberts and Whited, 2013).

Our model specification allows us to examine how enhanced reporting requirements affect voluntary disclosure decisions through reputation risk considerations. The coefficient  $\beta_1$  captures the incremental effect of FIRE on management forecast frequency, while controlling for other determinants of voluntary disclosure identified in prior literature.

## DESCRIPTIVE STATISTICS

### Sample Description and Descriptive Statistics

Our sample comprises 17,508 firm-quarter observations representing 4,659 unique firms across 257 industries from 2006 to 2010. The sample spans a period of significant regulatory change, including the implementation of enhanced reporting requirements for foreign issuers.

We find that institutional ownership (*linstown*) averages 56.1% with a median of 60.3%, suggesting a relatively high level of institutional presence in our sample firms. The distribution is slightly left-skewed, with the interquartile range spanning from 27.6% to 83.4%. These ownership levels are comparable to those reported in prior studies (e.g., Bushee and Miller, 2012).

Firm size (*lsize*), measured as the natural logarithm of market capitalization, exhibits a mean of 5.967 and a median of 5.908, indicating a relatively symmetric distribution. The book-to-market ratio (*lbtm*) shows a mean of 0.628 and a median of 0.505, suggesting our sample firms are moderately growth-oriented. Return on assets (*lroa*) displays a mean of -4.5% but a median of 2.1%, indicating that while most firms are profitable, some firms experience substantial losses that skew the distribution.

Stock return volatility (levol) shows considerable variation with a mean of 0.150 and a standard deviation of 0.290, while the presence of loss-making firms (lloss) affects 33% of our sample. Calendar-based risk (lcalrisk) exhibits a mean of 0.273 with substantial variation across firms (standard deviation = 0.261).

Management forecast frequency (freqMF) averages 0.624 with a median of zero, suggesting that while many firms do not issue forecasts, those that do tend to forecast multiple times per year. The post-law indicator shows that 58.3% of our observations occur after the regulatory change.

We observe that all firms in our sample are treated firms (treated = 1), and the treatment effect variable mirrors the post-law distribution, consistent with our difference-in-differences research design. The size distribution and profitability metrics are broadly consistent with those reported in contemporary studies of foreign issuers (e.g., Lang et al., 2003).

Notable patterns include the substantial variation in institutional ownership and the relatively high proportion of loss-making firms. The presence of extreme values in return volatility (maximum of 2.129) and book-to-market ratios (maximum of 3.676) suggests some firms experience significant financial distress or unusual circumstances during our sample period. However, these outliers represent a small portion of our sample and are consistent with the nature of our research setting.

## RESULTS

### Regression Analysis

We find a negative and significant association between FIRE implementation and voluntary disclosure levels, with the treatment effect indicating a reduction in voluntary disclosure by foreign private issuers. This result contradicts our initial prediction that firms would increase voluntary disclosure following enhanced mandatory requirements. Specifically, the baseline specification shows that FIRE implementation correlates with a 10.04% decrease in voluntary disclosure activities.

The treatment effect is highly statistically significant across both specifications (t-statistics of -7.22 and -6.28, respectively; p-values  $< 0.001$ ), suggesting a robust relationship between FIRE implementation and voluntary disclosure behavior. The economic magnitude of the effect remains substantial even after including control variables, with the treatment effect moderating slightly to -7.96% in the second specification. The increase in R-squared from 0.30% to 25.04% between specifications indicates that the inclusion of control variables substantially improves the model's explanatory power.

The control variables exhibit relationships consistent with prior literature on voluntary disclosure determinants. We find that institutional ownership (coefficient = 0.7536,  $p < 0.001$ ) and firm size (coefficient = 0.0988,  $p < 0.001$ ) are positively associated with voluntary disclosure, aligning with previous findings that larger firms and those with greater institutional ownership tend to disclose more voluntarily. The negative association between book-to-market ratio (coefficient = -0.0287,  $p < 0.001$ ) and voluntary disclosure suggests that growth firms provide more voluntary information. The negative coefficient on loss indicators (coefficient = -0.2071,  $p < 0.001$ ) is consistent with prior evidence that poorly performing firms tend to reduce voluntary disclosure. Contrary to our hypothesis (H1), which predicted an increase in voluntary disclosure following FIRE implementation through the reputation risk channel, our results suggest that foreign private issuers actually reduce their voluntary disclosure activities. This finding may indicate that enhanced mandatory disclosure requirements serve as a

substitute rather than a complement to voluntary disclosure, possibly because firms view the increased mandatory requirements as sufficient for managing reputation risk.

## CONCLUSION

This study examines how the 2008 Foreign Issuer Reporting Enhancements (FIRE) influenced voluntary disclosure practices through the reputation risk channel. We investigate whether enhanced mandatory disclosure requirements led foreign private issuers to modify their voluntary disclosure behavior as a mechanism to manage reputation risk in U.S. capital markets. Our analysis focuses on the interplay between mandatory and voluntary disclosure, particularly how firms balance transparency demands with reputation management in response to regulatory changes.

The theoretical framework we develop suggests that FIRE's accelerated reporting requirements and enhanced disclosure mandates created additional reputation risk considerations for foreign private issuers. As firms faced shorter filing deadlines and increased scrutiny, they needed to carefully manage their disclosure practices to maintain their reputation in U.S. markets. This relationship between mandatory requirements and voluntary disclosure decisions reflects firms' strategic responses to reputation risk management in an evolving regulatory environment.

Our analysis contributes to the growing literature on the interaction between mandatory and voluntary disclosure (e.g., Beyer et al., 2010; Leuz and Wysocki, 2016). The findings extend prior work on reputation effects in international markets (Coffee, 1999; Stulz, 2009) by highlighting how regulatory changes influence firms' disclosure strategies through reputation risk considerations. The results suggest that foreign private issuers actively manage their disclosure practices to maintain their reputation capital in U.S. markets.

These findings have important implications for regulators, managers, and investors. For regulators, our results suggest that changes in mandatory disclosure requirements can have spillover effects on voluntary disclosure practices through reputation risk channels. This highlights the need to consider the broader implications of disclosure regulation beyond direct compliance effects. For managers, our study emphasizes the importance of strategic disclosure management in maintaining firm reputation, particularly in foreign markets with different institutional environments. For investors, the findings suggest that regulatory changes can affect the information environment through both direct and indirect channels, potentially influencing their ability to evaluate foreign firms.

Our study connects to the broader literature on reputation risk in accounting and finance. Prior research has documented the importance of reputation in determining firms' disclosure choices (Graham et al., 2005) and the value of reputation capital in international markets (Gelos and Wei, 2005). Our findings extend this literature by showing how regulatory changes can affect firms' reputation management strategies through their disclosure choices.

Several limitations of our study suggest promising avenues for future research. First, our analysis focuses on the U.S. market context, and future studies could examine how similar regulatory changes affect reputation risk management in other institutional settings. Second, researchers could explore additional channels through which regulatory changes influence voluntary disclosure beyond reputation risk. Third, future work could investigate the long-term consequences of disclosure regulation on firms' reputation capital and market outcomes. Finally, studies could examine how the interaction between mandatory and voluntary disclosure varies across different types of reputation risk and firm characteristics.

In conclusion, our study provides important insights into how regulatory changes affect voluntary disclosure through reputation risk considerations. The findings contribute to our understanding of the complex relationships between mandatory requirements, voluntary

disclosure choices, and reputation management in international markets. These results have significant implications for regulators designing disclosure requirements, managers making disclosure decisions, and investors evaluating foreign firms in U.S. markets.

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**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	17,508	0.6236	0.9035	0.0000	0.0000	1.6094
Treatment Effect	17,508	0.5829	0.4931	0.0000	1.0000	1.0000
Institutional ownership	17,508	0.5607	0.3199	0.2763	0.6025	0.8339
Firm size	17,508	5.9668	2.0398	4.4862	5.9079	7.3340
Book-to-market	17,508	0.6280	0.6192	0.2848	0.5053	0.8047
ROA	17,508	-0.0449	0.2564	-0.0332	0.0211	0.0671
Stock return	17,508	-0.0202	0.4957	-0.3097	-0.1052	0.1429
Earnings volatility	17,508	0.1498	0.2895	0.0229	0.0564	0.1500
Loss	17,508	0.3298	0.4702	0.0000	0.0000	1.0000
Class action litigation risk	17,508	0.2729	0.2608	0.0770	0.1750	0.3885

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

**Table 2**  
**Pearson Correlations**  
**ForeignIssuerReportingEnhancements Reputation Risk**

	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>0.08</b>	<b>-0.06</b>	<b>0.22</b>	<b>-0.06</b>	-0.01	0.00	<b>0.10</b>	<b>0.09</b>
FreqMF	<b>-0.05</b>	1.00	<b>0.43</b>	<b>0.44</b>	<b>-0.14</b>	<b>0.23</b>	-0.01	<b>-0.14</b>	<b>-0.27</b>	-0.00
Institutional ownership	<b>0.08</b>	<b>0.43</b>	1.00	<b>0.63</b>	<b>-0.11</b>	<b>0.27</b>	<b>-0.11</b>	<b>-0.21</b>	<b>-0.22</b>	<b>0.06</b>
Firm size	<b>-0.06</b>	<b>0.44</b>	<b>0.63</b>	1.00	<b>-0.33</b>	<b>0.36</b>	<b>0.03</b>	<b>-0.25</b>	<b>-0.40</b>	<b>0.12</b>
Book-to-market	<b>0.22</b>	<b>-0.14</b>	<b>-0.11</b>	<b>-0.33</b>	1.00	<b>0.04</b>	<b>-0.21</b>	<b>-0.13</b>	<b>0.14</b>	<b>-0.09</b>
ROA	<b>-0.06</b>	<b>0.23</b>	<b>0.27</b>	<b>0.36</b>	<b>0.04</b>	1.00	<b>0.14</b>	<b>-0.53</b>	<b>-0.60</b>	<b>-0.11</b>
Stock return	-0.01	-0.01	<b>-0.11</b>	<b>0.03</b>	<b>-0.21</b>	<b>0.14</b>	1.00	-0.00	<b>-0.15</b>	0.00
Earnings volatility	0.00	<b>-0.14</b>	<b>-0.21</b>	<b>-0.25</b>	<b>-0.13</b>	<b>-0.53</b>	-0.00	1.00	<b>0.33</b>	<b>0.16</b>
Loss	<b>0.10</b>	<b>-0.27</b>	<b>-0.22</b>	<b>-0.40</b>	<b>0.14</b>	<b>-0.60</b>	<b>-0.15</b>	<b>0.33</b>	1.00	<b>0.16</b>
Class action litigation risk	<b>0.09</b>	-0.00	<b>0.06</b>	<b>0.12</b>	<b>-0.09</b>	<b>-0.11</b>	0.00	<b>0.16</b>	<b>0.16</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 Foreign Issuer Reporting Enhancements on Management Forecast Frequency**

	(1)	(2)
Treatment Effect	-0.1004*** (7.22)	-0.0796*** (6.28)
Institutional ownership		0.7536*** (29.83)
Firm size		0.0988*** (20.86)
Book-to-market		-0.0287*** (3.40)
ROA		0.0709*** (3.14)
Stock return		-0.0238** (2.12)
Earnings volatility		0.0557*** (2.88)
Loss		-0.2071*** (13.69)
Class action litigation risk		-0.0882*** (3.98)
N	17,508	17,508
R <sup>2</sup>	0.0030	0.2504

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