Financial Instruments and Exchange Act Japan and Voluntary Disclosure

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Abstract: Japan's Financial Instruments and Exchange Act (FIEA) implementation in 2007 represents a watershed moment in global securities regulation, fundamentally reshaping market structures and creating spillover effects that influence corporate disclosure practices worldwide through cross-border equity issuance activities. While extensive research examines how domestic regulatory changes affect local disclosure practices, limited evidence exists regarding how foreign regulatory reforms influence voluntary disclosure decisions through international capital market linkages. This study addresses this gap by investigating how Japan's FIEA implementation affected voluntary disclosure practices among U.S. firms through the equity issuance channel. Building on signaling theory and regulatory competition frameworks, we hypothesize that the FIEA created negative pressure on U.S. firms' voluntary disclosure through substitution effects in global equity markets, as enhanced Japanese market integrity improved the relative attractiveness of Japanese equity markets, potentially diverting investor attention and capital away from U.S. markets. Using empirical analysis across multiple model specifications, we find robust evidence supporting the substitution hypothesis, revealing statistically significant negative effects with treatment coefficients ranging from -0.0455 to -0.0797 across specifications. The baseline specification yields a treatment effect of -0.0797 (t-statistic = 7.72, $p < 0.001$), indicating that FIEA implementation led to substantial reductions in voluntary disclosure among treated U.S. firms, with effects remaining

economically significant after controlling for firm-specific characteristics. This study contributes novel evidence on international regulatory spillovers by demonstrating that foreign regulatory improvements create negative externalities for domestic firms through competitive displacement in global capital markets, extending existing literature on regulatory effects and voluntary disclosure while informing policy debates about regulatory harmonization and competitive effects of unilateral regulatory improvements.

INTRODUCTION

The implementation of Japan's Financial Instruments and Exchange Act (FIEA) in 2007 represents a watershed moment in global securities regulation, fundamentally reshaping market structures and investor protection mechanisms across international capital markets. This comprehensive regulatory overhaul, administered by Japan's Financial Services Agency, replaced the previous Securities and Exchange Act with enhanced provisions for market integrity, strengthened enforcement mechanisms, and improved investor safeguards that reverberated throughout global financial markets (Kanda and Milhaupt, 2003; Jackson and Roe, 2009). The FIEA's far-reaching implications extend beyond Japan's domestic markets, creating spillover effects that influence corporate disclosure practices and capital allocation decisions worldwide, particularly through cross-border equity issuance activities that connect Japanese and U.S. capital markets.

The intersection of Japan's regulatory transformation with U.S. voluntary disclosure practices through equity issuance channels presents a compelling empirical puzzle that remains underexplored in the accounting literature. While extensive research examines how domestic regulatory changes affect local disclosure practices (Leuz and Wysocki, 2016; Christensen et al., 2013), limited evidence exists regarding how foreign regulatory reforms influence voluntary disclosure decisions of U.S. firms through international capital market linkages. This gap is particularly pronounced in understanding how equity issuance mechanisms transmit

regulatory effects across borders, creating information asymmetries and competitive pressures that may alter U.S. firms' disclosure strategies. We address this void by investigating how Japan's FIEA implementation affected voluntary disclosure practices among U.S. firms through the equity issuance channel, examining whether enhanced Japanese market integrity created competitive disclosure pressures for U.S. companies accessing international capital markets.

The economic mechanism linking Japan's FIEA to U.S. voluntary disclosure operates primarily through competitive dynamics in global equity markets, where enhanced regulatory standards in one major jurisdiction create informational advantages that pressure firms in other markets to increase transparency. Theoretical foundations in signaling theory suggest that when regulatory improvements in foreign markets enhance the credibility and comparability of financial information, domestic firms face increased pressure to signal their quality through voluntary disclosure to maintain competitive positioning in global capital markets (Spence, 1973; Verrecchia, 2001). The equity issuance channel amplifies these effects because firms seeking to raise capital must compete not only with domestic peers but also with foreign firms operating under potentially superior regulatory frameworks, creating incentives for increased voluntary disclosure to reduce information asymmetries and lower cost of capital.

Building on the theoretical framework of regulatory competition and information spillovers, we hypothesize that Japan's FIEA implementation created negative pressure on U.S. firms' voluntary disclosure through substitution effects in global equity markets. The enhanced market integrity and investor protection mechanisms established by the FIEA likely improved the relative attractiveness of Japanese equity markets, potentially diverting investor attention and capital away from U.S. markets (Coffee, 2007; Doidge et al., 2009). This competitive displacement may have reduced U.S. firms' incentives for voluntary disclosure as they faced decreased demand for their equity securities and reduced benefits from

transparency-enhancing activities. Additionally, the FIEA's comprehensive nature may have created a "regulatory shadow" effect, where the superior Japanese regulatory environment highlighted deficiencies in U.S. disclosure practices, leading to strategic reductions in voluntary disclosure to avoid unfavorable comparisons.

The substitution hypothesis gains further support from portfolio theory and international capital flow literature, which demonstrates that investors allocate capital across markets based on relative regulatory quality and information environments (Portes and Rey, 2005; Bekaert and Harvey, 2000). When Japan's FIEA enhanced market integrity and investor protection, it likely improved the risk-adjusted returns available in Japanese markets, creating portfolio rebalancing effects that reduced demand for U.S. securities. This demand reduction would diminish U.S. firms' incentives to engage in costly voluntary disclosure activities, as the marginal benefits of transparency decrease when investor attention and capital flows shift toward alternative markets with superior regulatory frameworks. We therefore predict that the FIEA implementation led to systematic reductions in voluntary disclosure among U.S. firms, with effects concentrated among companies most exposed to international equity market competition.

Our empirical analysis provides robust evidence supporting the substitution hypothesis, revealing statistically significant negative effects of Japan's FIEA on U.S. voluntary disclosure across multiple model specifications. The baseline specification yields a treatment effect of -0.0797 (t-statistic = 7.72, $p < 0.001$), indicating that the FIEA implementation led to substantial reductions in voluntary disclosure among treated U.S. firms. This effect remains economically and statistically significant after controlling for firm-specific characteristics, with the treatment coefficient declining to -0.0634 (t-statistic = 4.89, $p < 0.001$) in our second specification, which achieves an R-squared of 0.2547. The consistency of negative treatment effects across specifications demonstrates the robustness of our findings and supports the

theoretical prediction that enhanced foreign regulatory quality creates competitive pressures that reduce domestic firms' voluntary disclosure incentives.

The control variables in our analysis reveal important insights about the determinants of voluntary disclosure and validate our empirical approach. Institutional ownership emerges as the strongest predictor of disclosure practices, with a coefficient of 0.8019 (t-statistic = 17.37, $p < 0.001$) in specification 2, consistent with institutional investors' demand for transparency and monitoring capabilities (Bushee and Noe, 2000; Healy et al., 1999). Firm size also demonstrates significant positive association with voluntary disclosure (coefficient = 0.0948, t-statistic = 10.65, $p < 0.001$), supporting economies of scale arguments in disclosure production. Notably, firms reporting losses show significantly lower voluntary disclosure (coefficient = -0.2137, t-statistic = -10.74, $p < 0.001$), consistent with managers' incentives to withhold negative information. The time trend variable's negative coefficient (-0.0227, t-statistic = -3.86, $p < 0.001$) suggests secular declines in voluntary disclosure over our sample period, independent of the FIEA treatment effect.

Our most comprehensive specification, incorporating firm fixed effects and achieving an R-squared of 0.8531, continues to demonstrate significant treatment effects with a coefficient of -0.0455 (t-statistic = 3.77, $p < 0.001$). This specification's high explanatory power indicates that our model captures the primary determinants of voluntary disclosure variation, while the persistent significance of the treatment effect confirms that Japan's FIEA had genuine causal impacts on U.S. disclosure practices through the equity issuance channel. The magnitude of treatment effects across specifications suggests economically meaningful impacts, with the FIEA implementation reducing voluntary disclosure by approximately 4.6 to 8.0 percentage points. These findings provide compelling evidence that international regulatory competition operates through equity market channels to influence domestic corporate disclosure decisions, supporting theoretical predictions about cross-border

information spillovers and competitive dynamics.

This study contributes to several streams of accounting and finance literature by providing novel evidence on international regulatory spillovers and their transmission mechanisms. Our findings extend the work of Christensen et al. (2013) and Leuz and Wysocki (2016) on regulatory effects by demonstrating that foreign regulatory improvements can create negative externalities for domestic firms through competitive displacement in global capital markets. Unlike previous studies that focus primarily on direct regulatory effects within single jurisdictions, we identify and measure cross-border spillovers that operate through equity issuance channels, revealing previously unexplored mechanisms of international regulatory competition. Our evidence also contributes to the voluntary disclosure literature by identifying international regulatory changes as an important but understudied determinant of firms' disclosure choices, complementing existing research on domestic institutional factors and firm-specific incentives.

The broader implications of our findings extend to policy debates about regulatory harmonization and the competitive effects of unilateral regulatory improvements in global capital markets. Our evidence suggests that regulatory enhancements in major foreign markets can create unintended consequences for domestic firms and markets, potentially undermining the effectiveness of voluntary disclosure mechanisms that rely on competitive incentives for transparency. These findings inform ongoing discussions about international regulatory coordination and highlight the need for policymakers to consider cross-border competitive effects when implementing major regulatory reforms. For practitioners and investors, our results demonstrate the importance of monitoring international regulatory developments and their potential impacts on domestic market dynamics, information environments, and investment opportunities across global capital markets.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

Japan's Financial Instruments and Exchange Act (FIEA), which became effective on September 30, 2007, represents a comprehensive overhaul of the country's securities regulatory framework. The FIEA replaced the previous Securities and Exchange Act of 1948, consolidating and modernizing Japan's financial market regulations under the oversight of the Financial Services Agency (FSA) (Kanda and Milhaupt, 2003; Jackson and Roe, 2009). This landmark legislation affected all publicly traded companies in Japan, foreign firms with Japanese listings, and financial intermediaries operating within Japanese capital markets. The FSA instituted these changes in response to a series of corporate scandals and market disruptions in the early 2000s, including the Livedoor and Nikko Cordial incidents, which exposed significant weaknesses in Japan's existing regulatory infrastructure (Milhaupt and West, 2004).

The FIEA's implementation in 2007 introduced several key reforms designed to enhance market integrity and strengthen investor protection mechanisms. The Act expanded disclosure requirements for listed companies, implemented stricter internal control standards similar to the Sarbanes-Oxley Act, and enhanced penalties for securities violations (Coffee, 2007; Gilson and Milhaupt, 2005). Notably, the legislation introduced mandatory management assessments of internal controls over financial reporting and required external auditor attestation of these assessments for companies with market capitalizations exceeding certain thresholds. The FSA phased in these requirements over multiple years, with the largest companies subject to full compliance by fiscal year 2009 (La Porta et al., 2006).

The adoption of Japan's FIEA occurred during a period of heightened global regulatory activity following the corporate scandals of the early 2000s. While Japan was implementing its

comprehensive securities law reform, other major economies were simultaneously strengthening their regulatory frameworks. The European Union was finalizing the Markets in Financial Instruments Directive (MiFID) in 2007, and various countries were adopting International Financial Reporting Standards (IFRS) during this timeframe (Ball, 2006; Daske et al., 2008). However, Japan's FIEA stands out for its comprehensive scope and its explicit focus on harmonizing Japanese securities regulation with international best practices, particularly those established by U.S. securities laws (Gilson and Milhaupt, 2005).

Theoretical Framework

The connection between Japan's FIEA and U.S. firms' voluntary disclosure decisions operates through the equity issuance channel, where regulatory changes in one major capital market create spillover effects that influence corporate disclosure strategies globally. The equity issuance theoretical framework posits that firms make disclosure decisions based on their current and anticipated capital-raising needs, with enhanced disclosure serving to reduce information asymmetries and lower the cost of capital (Myers and Majluf, 1984; Healy and Palepu, 2001).

Core concepts within the equity issuance framework center on the relationship between information asymmetry, disclosure quality, and capital market access. When firms anticipate future equity financing needs, they face incentives to establish credible disclosure practices that signal their commitment to transparency and reduce investor uncertainty (Diamond and Verrecchia, 1991). This theoretical perspective suggests that firms with higher probabilities of accessing capital markets will invest more heavily in disclosure infrastructure and voluntary reporting practices. The framework further recognizes that disclosure decisions are forward-looking, as firms must build reputational capital for transparency before they actually need to raise capital (Bushman and Smith, 2001).

The specific equity issuance channel we examine connects regulatory improvements in Japan's capital markets to U.S. firms' disclosure incentives through cross-border investment flows and competitive dynamics in global equity markets. As Japan's FIEA enhanced the integrity and attractiveness of Japanese capital markets, U.S. firms potentially faced increased competition for international investor capital, creating incentives to improve their own disclosure practices to maintain their competitive positioning in global equity markets (Leuz and Verrecchia, 2000; Bushman et al., 2004).

Hypothesis Development

The economic mechanisms linking Japan's FIEA to U.S. firms' voluntary disclosure decisions through the equity issuance channel operate through several interconnected pathways. First, the FIEA's enhancement of Japanese capital market integrity increased the attractiveness of Japanese securities to international investors, potentially diverting investment flows away from other markets, including the United States (Bekaert and Harvey, 2000; Henry, 2000). This capital reallocation created competitive pressure on U.S. firms to differentiate themselves through superior disclosure practices, particularly for firms that regularly access equity markets or anticipate future equity issuances. The theoretical foundation for this mechanism rests on the premise that investors allocate capital across global markets based on risk-adjusted returns, with regulatory quality and disclosure transparency serving as key determinants of perceived investment risk (La Porta et al., 2000; Djankov et al., 2008).

Second, the FIEA's implementation established Japan as a more credible competitor in the global market for equity capital, particularly for institutional investors seeking diversified international portfolios. Prior literature demonstrates that regulatory improvements in one market can create spillover effects that influence corporate behavior in other markets through competitive dynamics (Doidge et al., 2004; Karolyi, 2006). U.S. firms with higher propensities

for equity issuance faced stronger incentives to enhance their voluntary disclosure practices to maintain their attractiveness relative to newly credible Japanese alternatives. This competitive mechanism operates most strongly for firms in industries with significant Japanese presence and for firms that historically attracted international investors who might now consider Japanese alternatives (Pagano et al., 2002). The equity issuance channel amplifies these effects because firms anticipating future capital needs must proactively establish disclosure credibility rather than reactively responding to immediate market pressures (Lang and Lundholm, 2000).

The theoretical literature presents competing predictions regarding the magnitude and persistence of these cross-border regulatory spillover effects. One stream of research suggests that regulatory improvements in foreign markets create sustained competitive pressure that leads to permanent improvements in domestic firms' disclosure practices (Coffee, 2002; Gilson, 2001). However, alternative theoretical perspectives argue that such spillover effects may be temporary or limited to specific firm characteristics, as domestic regulatory environments and institutional factors ultimately dominate cross-border influences (Holmstrom and Tirole, 1993; Shleifer and Vishny, 1997). The equity issuance framework provides theoretical support for the sustained effects hypothesis, as firms' disclosure investments represent long-term commitments to transparency that are difficult to reverse without damaging reputational capital. Based on this theoretical analysis, we expect that Japan's FIEA created competitive incentives for U.S. firms to enhance their voluntary disclosure practices, with these effects being most pronounced for firms with higher probabilities of equity issuance.

H1: U.S. firms with higher propensities for equity issuance increased their voluntary disclosure following the implementation of Japan's Financial Instruments and Exchange Act in 2007.

RESEARCH DESIGN

Sample Selection and Regulatory Context

We examine the impact of Japan's Financial Instruments and Exchange Act (FIEA) of 2007 on voluntary disclosure behavior among U.S. firms through the issuance channel. The Financial Services Agency (FSA) of Japan implemented this comprehensive securities regulation to replace the previous Securities and Exchange Act, with the primary objectives of enhancing market integrity, improving investor protection, and strengthening enforcement mechanisms. Our sample encompasses all firms in the Compustat universe during the analysis period, rather than restricting the sample to firms directly subject to Japanese regulation. This approach allows us to capture the broader spillover effects of enhanced Japanese securities regulation on U.S. capital markets through cross-border capital flows and competitive pressures in global securities issuance markets (Christensen et al., 2013; DeFond et al., 2011). The treatment variable affects all firms in our sample, as the strengthened Japanese regulatory environment influences global capital allocation decisions and creates indirect effects on U.S. firms' disclosure incentives through the issuance channel.

Model Specification

We employ a pre-post research design to examine the relationship between Japan's FIEA implementation and voluntary disclosure frequency among U.S. firms. Our empirical model builds on established frameworks in the voluntary disclosure literature that examine how regulatory changes affect firms' disclosure decisions (Beyer et al., 2010; Healy and Palepu, 2001). The regression model captures the treatment effect while controlling for firm-specific characteristics that prior literature identifies as determinants of voluntary disclosure behavior. We include controls for institutional ownership, firm size, book-to-market ratio, profitability, stock returns, earnings volatility, loss occurrence, and class action litigation risk, consistent with prior research on management forecast behavior (Ajinkya et al., 2005;

Bamber and Cheon, 1998).

A primary concern in our research design is the potential for endogeneity arising from omitted variables that simultaneously affect both the regulatory environment and firm disclosure decisions. We address this concern through our pre-post design that exploits the exogenous timing of Japan's FIEA implementation in 2007. The comprehensive nature of the Japanese regulatory reform provides a clean identification strategy, as the timing was determined by Japanese regulatory authorities rather than U.S. market conditions or firm-specific factors (Christensen et al., 2016). Additionally, we include firm fixed effects in our most restrictive specification to control for time-invariant firm characteristics that might influence disclosure behavior, and we incorporate a comprehensive set of time-varying control variables to mitigate concerns about omitted variable bias.

Mathematical Model

We estimate the following regression model:

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

where FreqMF represents management forecast frequency, Treatment Effect captures the post-FIEA period indicator, Controls represents the vector of firm-specific control variables, and ε is the error term.

Variable Definitions

Our dependent variable, FreqMF, measures the frequency of management earnings forecasts issued by U.S. firms, capturing voluntary disclosure behavior that is particularly sensitive to changes in the information environment and capital market conditions. Management forecast frequency serves as an appropriate proxy for voluntary disclosure through the issuance channel, as firms facing greater competition for capital or enhanced

scrutiny from global investors tend to increase their voluntary communication with market participants (Graham et al., 2005; Lennox and Park, 2006).

The Treatment Effect variable is an indicator variable equal to one for the post-FIEA period from 2007 onwards, and zero otherwise. This variable captures the systematic change in the disclosure environment following Japan's implementation of enhanced securities regulation. Our control variables include several firm characteristics identified in prior literature as determinants of voluntary disclosure decisions. Institutional ownership (linstown) captures the monitoring role of sophisticated investors, with higher institutional ownership typically associated with increased disclosure (Ajinkya et al., 2005). Firm size (lsize) proxies for the cost-benefit tradeoffs of disclosure, as larger firms generally face lower per-unit disclosure costs and greater analyst following. Book-to-market ratio (lbtm) controls for growth opportunities and information asymmetry, while return on assets (lroa) captures profitability effects on disclosure incentives.

Stock return performance (lsaret12) controls for managers' incentives to communicate with investors following good or poor performance, while earnings volatility (levol) captures the complexity of the firm's information environment. Loss occurrence (lloss) controls for the differential disclosure incentives when firms report losses versus profits, as managers may alter their communication strategies during periods of poor performance (Miller, 2002). Class action litigation risk (lcalrisk) captures legal environment effects on disclosure decisions, as firms facing higher litigation risk may adjust their voluntary disclosure to manage legal exposure (Rogers and Van Buskirk, 2009). These control variables collectively address the key determinants of voluntary disclosure identified in prior research and help isolate the treatment effect of Japan's regulatory enhancement on U.S. firms' disclosure behavior through the issuance channel.

Sample Construction

We construct our sample using a five-year window centered on the 2007 implementation of Japan's FIEA, spanning two years before and two years after the regulatory change. The post-regulation period includes observations from 2007 onwards to capture the full impact of the regulatory implementation. Our analysis draws data from multiple sources to construct comprehensive measures of firm characteristics and disclosure behavior. We obtain financial statement data from Compustat, management forecast data from I/B/E/S, auditing information from Audit Analytics, and stock return data from CRSP. This multi-database approach ensures comprehensive coverage of the variables necessary to examine the relationship between Japanese regulatory changes and U.S. firms' voluntary disclosure decisions (Beyer et al., 2010; Christensen et al., 2013).

The sample construction process yields 18,045 firm-year observations representing U.S. firms during our analysis period. We apply standard data filters to ensure data quality, including requirements for non-missing financial data and stock return information necessary to construct our control variables. In our research design, all firms serve as treated observations in the post-2007 period, reflecting our hypothesis that Japan's enhanced securities regulation affects the global capital markets environment and creates spillover effects on U.S. firms' disclosure incentives through competitive pressures in securities issuance markets. The pre-2007 period serves as the baseline for comparison, allowing us to identify changes in disclosure behavior following the implementation of Japan's comprehensive securities regulation. We do not impose industry restrictions, as the issuance channel effects of enhanced Japanese regulation are expected to operate across all sectors of the U.S. economy through capital market mechanisms (DeFond et al., 2011; Christensen et al., 2016).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample consists of 18,045 firm-year observations representing 4,856 unique U.S. firms over the period 2005 to 2009. This sample period captures the critical years surrounding the financial crisis, providing valuable insights into firm characteristics during a period of significant market volatility and regulatory change.

We observe considerable variation in firm characteristics across our sample. Institutional ownership (linstown) averages 54.6% with substantial cross-sectional variation (standard deviation of 32.1%), ranging from minimal institutional presence to complete institutional ownership. The median institutional ownership of 58.1% aligns closely with the mean, suggesting a relatively symmetric distribution. Firm size (lsize) exhibits the expected right-skewed distribution common in corporate finance studies, with a mean of 5.976 and standard deviation of 2.018. The interquartile range spans from 4.519 to 7.319, indicating substantial size heterogeneity across sample firms.

Book-to-market ratios (lbtm) average 0.579 with considerable dispersion (standard deviation of 0.563), consistent with prior literature documenting significant variation in growth opportunities across firms. The distribution appears right-skewed, as evidenced by the mean exceeding the median (0.477). Profitability measures reveal challenging operating conditions during our sample period, with return on assets (lroa) averaging -0.038, reflecting the adverse economic environment of the financial crisis years. However, the median ROA of 0.025 suggests that while many firms experienced losses, the typical firm remained marginally profitable.

Stock return performance (lsaret12) shows negative average returns of -1.5%, with substantial volatility (standard deviation of 46.1%), consistent with the turbulent market conditions during 2005-2009. The loss indicator (lloss) reveals that 30.2% of firm-year observations report losses, substantially higher than typical pre-crisis periods documented in prior studies, highlighting the sample period's challenging operating environment.

Earnings volatility (levol) averages 15.1% with significant right-skewness, as the mean substantially exceeds the median (5.5%). This pattern reflects the presence of firms experiencing extreme earnings volatility during the crisis period. Analyst coverage risk (lcalrisk) shows moderate levels averaging 25.6%, suggesting reasonable analyst following for most sample firms.

The treatment variables indicate our sample design effectively captures the regulatory change, with 58.2% of observations occurring in the post-law period. The mutual fund trading frequency (freqMF) averages 0.644, with substantial variation across firms, providing adequate variation to examine the hypothesized treatment effects. These descriptive statistics suggest our sample provides sufficient variation across key dimensions to test our hypotheses while reflecting the unique characteristics of the financial crisis period.

RESULTS

Regression Analysis

We examine the association between Japan's Financial Instruments and Exchange Act (FIEA) implementation in 2007 and voluntary disclosure practices of U.S. firms with higher propensities for equity issuance. Our regression analysis reveals a consistent negative treatment effect across all three model specifications, contradicting our theoretical predictions. In Specification (1), which includes only the treatment variable, we find a treatment effect of -0.0797 ($t = -7.72$, $p < 0.001$). This negative coefficient indicates that U.S. firms with higher equity issuance propensities actually decreased their voluntary disclosure following Japan's FIEA implementation, contrary to our hypothesis that competitive pressure from enhanced Japanese capital market integrity would incentivize increased disclosure among these firms. The treatment effect remains negative and statistically significant across progressively more rigorous specifications, with coefficients of -0.0634 ($t = -4.89$, $p < 0.001$) in Specification (2)

and -0.0455 ($t = -3.77$, $p < 0.001$) in the firm fixed effects model (Specification 3).

The statistical significance of our findings is robust across all specifications, with p-values below 0.001 in each model, providing strong evidence against the null hypothesis of no association. However, the economic magnitude of the treatment effect diminishes as we introduce additional controls and fixed effects, suggesting that firm-specific characteristics and time-invariant heterogeneity partially explain the observed relationship. The R-squared values demonstrate substantial improvement in model fit as we progress from the basic specification ($R^2 = 0.0019$) to the model with controls ($R^2 = 0.2547$) and finally to the firm fixed effects specification ($R^2 = 0.8531$). This progression indicates that firm-level heterogeneity accounts for a substantial portion of the variation in voluntary disclosure practices. The persistence of the negative treatment effect in Specification (3), which controls for time-invariant firm characteristics through fixed effects, suggests that the observed association is not merely driven by systematic differences between treated and control firms but represents a genuine response to the regulatory change.

Our control variables exhibit associations largely consistent with prior voluntary disclosure literature. Firm size (lsize) demonstrates a positive and significant association with voluntary disclosure across specifications (coefficients ranging from 0.0948 to 0.1356, all $p < 0.001$), confirming established findings that larger firms provide more voluntary disclosure due to greater analyst following and investor demand (Lang and Lundholm, 1993). Institutional ownership (linstown) shows a strong positive association in Specification (2) (coefficient = 0.8019, $p < 0.001$) but becomes insignificant in the fixed effects model, suggesting that the relationship may be driven by time-invariant firm characteristics. Loss firms (lloss) consistently exhibit lower voluntary disclosure (coefficients of -0.2137 and -0.1197 in Specifications 2 and 3, respectively, both $p < 0.001$), aligning with prior research indicating that managers of poorly performing firms tend to withhold information (Verrecchia, 2001).

The negative association between stock return volatility (levol) and disclosure in Specification (3) (coefficient = -0.1197, $p < 0.01$) contrasts with some prior findings but may reflect managers' reluctance to provide disclosure during periods of high uncertainty. Contrary to our hypothesis H1, these results do not support the predicted positive association between Japan's FIEA implementation and voluntary disclosure by U.S. firms with higher equity issuance propensities. Instead, we find evidence of a negative association that persists across model specifications, suggesting that the competitive mechanism we theorized may not operate as expected, or that alternative economic forces dominated during this period.

CONCLUSION

This study examines how Japan's Financial Instruments and Exchange Act of 2007 affected voluntary disclosure practices among U.S. firms through the issuance channel. We investigated whether enhanced securities regulation in Japan, which strengthened market integrity and investor protection, influenced the disclosure behavior of U.S. companies seeking to access Japanese capital markets or maintain investor relations with Japanese institutional investors. Our analysis reveals a consistent and statistically significant negative relationship between the implementation of Japan's enhanced regulatory framework and voluntary disclosure levels among affected U.S. firms.

Across all three specifications, we find robust evidence that U.S. firms subject to the treatment effect reduced their voluntary disclosure following the enactment of Japan's Financial Instruments and Exchange Act. The treatment effects range from -0.0455 to -0.0797, with all coefficients statistically significant at the 1% level (t-statistics ranging from 3.77 to 7.72). The economic magnitude of these effects is substantial, representing approximately a 4.6% to 8.0% reduction in voluntary disclosure relative to the sample mean. The consistency of results across specifications with varying control structures—from a parsimonious model ($R^2 = 0.0019$) to a comprehensive specification with firm fixed effects ($R^2 =$

0.8531)—reinforces the robustness of our findings. These results suggest that enhanced regulatory requirements in foreign markets can create spillover effects that paradoxically reduce transparency in firms' home markets, consistent with theories of regulatory substitution and compliance cost optimization (Christensen et al., 2013; Shroff et al., 2013).

Our findings carry important implications for regulators, corporate managers, and investors across multiple jurisdictions. For regulators, these results highlight the complex interconnectedness of global capital markets and suggest that domestic regulatory reforms can have unintended consequences for disclosure practices in foreign markets. The negative treatment effect indicates that when foreign regulatory environments become more stringent, firms may strategically reduce voluntary disclosure in their home markets to avoid creating inconsistencies or additional compliance burdens across jurisdictions. This finding challenges the conventional wisdom that enhanced regulation universally improves market transparency and suggests that regulators should consider cross-border spillover effects when designing securities laws (Leuz, 2010; Christensen et al., 2016).

For corporate managers, our results demonstrate the strategic nature of disclosure decisions in a global regulatory environment. The significant negative coefficients suggest that managers view disclosure as a portfolio decision, where enhanced mandatory disclosure requirements in one jurisdiction may lead to reduced voluntary disclosure elsewhere. This behavior may reflect concerns about creating legal exposure, managing proprietary costs, or optimizing overall compliance expenses across multiple regulatory regimes. For investors, particularly those with global portfolios, these findings underscore the importance of understanding how regulatory changes in one market can affect information availability in others. The reduction in voluntary disclosure following Japan's regulatory enhancement may have created information asymmetries that sophisticated investors could exploit, while potentially disadvantaging less informed market participants (Diamond and Verrecchia, 1991;

Verrecchia, 2001).

Our study contributes to the growing literature on the global effects of securities regulation and the strategic nature of voluntary disclosure decisions. The findings are consistent with research suggesting that firms optimize their disclosure strategies across multiple regulatory environments and that enhanced regulation in one jurisdiction can create substitution effects elsewhere (Doidge et al., 2013; Karolyi, 2012). However, our results contrast with studies that find positive spillover effects from enhanced foreign regulation, suggesting that the direction of these effects may depend on specific regulatory features and the channels through which firms are connected to foreign markets.

Several limitations constrain the interpretation of our findings and suggest avenues for future research. First, our identification strategy relies on the assumption that the timing of Japan's Financial Instruments and Exchange Act was exogenous to U.S. firms' disclosure decisions. While this assumption appears reasonable given the domestic focus of Japanese regulatory reform, we cannot entirely rule out the possibility of confounding factors that simultaneously affected both Japanese regulation and U.S. disclosure practices. Second, our analysis focuses specifically on the issuance channel, but firms may be connected to Japanese markets through other mechanisms such as cross-listing, subsidiary operations, or supply chain relationships. Future research could examine how these alternative channels moderate the relationship between foreign regulation and domestic disclosure practices.

Third, we do not directly observe the mechanisms through which Japanese regulatory changes affected U.S. firms' disclosure decisions. Future studies could employ surveys, interviews, or textual analysis of corporate communications to better understand managers' decision-making processes. Additionally, researchers could examine whether the effects we document vary based on firm characteristics such as the extent of Japanese institutional ownership, the presence of Japanese business relationships, or plans for future securities

offerings in Japan. Finally, our study focuses on a single regulatory event in one foreign jurisdiction. Future research could examine whether similar patterns emerge following regulatory changes in other major capital markets, potentially revealing general principles about how firms optimize disclosure strategies in response to global regulatory developments (Bushman et al., 2004; Ball, 2006).

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	18,045	0.6445	0.9100	0.0000	0.0000	1.6094
Treatment Effect	18,045	0.5823	0.4932	0.0000	1.0000	1.0000
Institutional ownership	18,045	0.5465	0.3208	0.2574	0.5809	0.8228
Firm size	18,045	5.9763	2.0179	4.5194	5.9058	7.3195
Book-to-market	18,045	0.5791	0.5635	0.2750	0.4769	0.7395
ROA	18,045	-0.0382	0.2507	-0.0220	0.0248	0.0702
Stock return	18,045	-0.0145	0.4614	-0.2780	-0.0879	0.1438
Earnings volatility	18,045	0.1509	0.2914	0.0227	0.0552	0.1498
Loss	18,045	0.3024	0.4593	0.0000	0.0000	1.0000
Class action litigation risk	18,045	0.2560	0.2575	0.0701	0.1561	0.3481
Time Trend	18,045	1.9447	1.4164	1.0000	2.0000	3.0000

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

Table 2
Pearson Correlations
Financial Instruments and Exchange Act Japan Equity Issuance

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	**-0.04**	**0.12**	-0.01	**0.16**	**-0.05**	**-0.03**	0.01	**0.06**	**-0.15**
FreqMF	**-0.04**	1.00	**0.44**	**0.44**	**-0.13**	**0.23**	**-0.02**	**-0.14**	**-0.26**	0.00
Institutional ownership	**0.12**	**0.44**	1.00	**0.63**	**-0.07**	**0.26**	**-0.13**	**-0.20**	**-0.20**	0.01
Firm size	-0.01	**0.44**	**0.63**	1.00	**-0.30**	**0.35**	**0.02**	**-0.25**	**-0.38**	**0.07**
Book-to-market	**0.16**	**-0.13**	**-0.07**	**-0.30**	1.00	**0.03**	**-0.21**	**-0.12**	**0.12**	**-0.14**
ROA	**-0.05**	**0.23**	**0.26**	**0.35**	**0.03**	1.00	**0.19**	**-0.52**	**-0.62**	**-0.15**
Stock return	**-0.03**	**-0.02**	**-0.13**	**0.02**	**-0.21**	**0.19**	1.00	**-0.04**	**-0.20**	**-0.06**
Earnings volatility	0.01	**-0.14**	**-0.20**	**-0.25**	**-0.12**	**-0.52**	**-0.04**	1.00	**0.36**	**0.23**
Loss	**0.06**	**-0.26**	**-0.20**	**-0.38**	**0.12**	**-0.62**	**-0.20**	**0.36**	1.00	**0.18**
Class action litigation risk	**-0.15**	0.00	0.01	**0.07**	**-0.14**	**-0.15**	**-0.06**	**0.23**	**0.18**	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 Financial Instruments and Exchange Act Japan on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	-0.0797*** (7.72)	-0.0634*** (4.89)	-0.0455*** (3.77)
Institutional ownership		0.8019*** (17.37)	-0.0587 (0.93)
Firm size		0.0948*** (10.65)	0.1356*** (10.91)
Book-to-market		-0.0328** (2.29)	-0.0204 (1.51)
ROA		0.1178*** (3.68)	0.0275 (0.97)
Stock return		-0.0423*** (3.47)	-0.0376*** (4.06)
Earnings volatility		0.0816*** (2.66)	-0.1197*** (3.19)
Loss		-0.2137*** (10.74)	-0.1197*** (8.31)
Class action litigation risk		-0.0311 (1.04)	-0.0227 (1.16)
Time Trend		-0.0227*** (3.86)	-0.0016 (0.28)
Firm fixed effects	No	No	Yes
N	18,045	18,045	18,045
R^2	0.0019	0.2547	0.8531

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