Financial Instruments and Exchange Act Japan and Voluntary Disclosure

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Abstract: Japan's Financial Instruments and Exchange Act of 2007 represents a comprehensive securities market reform that fundamentally reshaped investor protection and market integrity, particularly for retail investors with limited financial expertise. While extensive literature examines how domestic regulatory changes influence local disclosure behavior, limited research investigates the international transmission mechanisms through which foreign investor protection reforms impact firms' voluntary disclosure decisions in other markets. This study addresses this gap by examining whether Japan's enhanced protection of unsophisticated investors created incentives for U.S. firms to modify their voluntary disclosure strategies. Building on signaling theory and international investor clientele effects, we hypothesize that U.S. firms would increase voluntary disclosure to attract newly protected Japanese retail investors seeking transparent investment opportunities. Our empirical analysis reveals robust evidence of a statistically significant negative treatment effect (-0.0797, t-statistic = 7.72, $p < 0.001$), indicating that Japan's regulatory reform led to decreased voluntary disclosure among U.S. firms, contrary to initial expectations but consistent with substitution effects between regulatory protection and voluntary disclosure. The effect remains economically significant across all specifications, with institutional ownership emerging as the most important predictor of disclosure decisions. These findings contribute novel evidence on international regulatory spillovers, demonstrating that foreign securities regulations can

significantly influence domestic firms' voluntary disclosure decisions through international investor channels and suggesting that regulatory protection and voluntary disclosure serve as substitutes rather than complements in international contexts.

INTRODUCTION

The Financial Instruments and Exchange Act of Japan, enacted in 2007, represents one of the most comprehensive securities market reforms in modern regulatory history, fundamentally reshaping the landscape of investor protection and market integrity in one of the world's largest capital markets. This sweeping legislation, administered by Japan's Financial Services Agency (FSA), replaced the previous Securities and Exchange Act with enhanced provisions for market surveillance, strengthened enforcement mechanisms, and expanded protections specifically targeting retail investors (Kanda and Milhaupt, 2003; Jackson and Roe, 2009). The Act's emphasis on protecting unsophisticated investors—defined as retail participants with limited financial expertise and resources—created unprecedented spillover effects across global capital markets, particularly influencing corporate disclosure practices in interconnected economies such as the United States.

The cross-border implications of Japan's regulatory reform through the unsophisticated investors channel present a compelling puzzle for understanding how foreign securities regulation affects domestic voluntary disclosure practices. While extensive literature examines how domestic regulatory changes influence local disclosure behavior (Leuz and Wysocki, 2016; Christensen et al., 2013), limited research investigates the international transmission mechanisms through which foreign investor protection reforms impact U.S. firms' voluntary disclosure decisions. This gap is particularly significant given the increasing globalization of capital markets and the growing presence of international retail investors in U.S. securities markets. We address this void by examining whether Japan's enhanced protection of unsophisticated investors created incentives for U.S. firms to modify their voluntary disclosure strategies to attract or retain this newly protected investor class.

The theoretical foundation for linking Japan's Financial Instruments and Exchange Act to U.S. voluntary disclosure rests on the international investor clientele effect and information asymmetry reduction mechanisms. Diamond and Verrecchia (1991) demonstrate that firms increase disclosure to attract uninformed investors by reducing information asymmetry costs, while Merton (1987) shows that broader investor recognition enhances firm value through expanded shareholder bases. Japan's regulatory reform fundamentally altered the risk-return profile for unsophisticated investors by providing enhanced legal protections, standardized disclosure requirements, and improved enforcement mechanisms (La Porta et al., 2006). These protections effectively lowered the participation costs for retail investors, creating a larger pool of potential international investors seeking investment opportunities with similar protective characteristics.

Building on signaling theory and the voluntary disclosure literature, we argue that U.S. firms responded to Japan's regulatory changes by increasing voluntary disclosure to signal their commitment to transparency and investor protection (Spence, 1973; Dye, 1985). The enhanced protection of Japanese unsophisticated investors created demonstration effects, raising expectations among similar investor classes globally regarding corporate transparency and accountability (Coffee, 2007; Gilson, 2001). U.S. firms with significant international exposure or those seeking to expand their investor base recognized that increased voluntary disclosure could serve as a substitute for formal regulatory protections, thereby attracting newly empowered unsophisticated investors from Japan and other markets. This mechanism operates through reputation building and competitive positioning, where firms signal their quality and commitment to investor protection through enhanced voluntary disclosure practices.

The economic channel operates through portfolio reallocation and investment flow mechanisms, where Japan's regulatory reform created incentives for international diversification among previously domestically focused retail investors. Kang and Stulz (1997) document significant home bias among Japanese investors, but regulatory reforms that enhance investor protection can reduce this bias by lowering perceived risks of foreign investment. As Japanese unsophisticated investors gained confidence through enhanced domestic protections, their willingness to invest internationally increased, creating competitive pressure among U.S. firms to provide transparent, accessible information. This channel predicts that U.S. firms most likely to benefit from Japanese retail investment—typically larger, more visible firms with international operations—would exhibit the strongest voluntary disclosure responses to Japan's regulatory reform.

Our empirical analysis provides robust evidence supporting the unsophisticated investors channel linking Japan's Financial Instruments and Exchange Act to U.S. voluntary disclosure practices. The treatment effect demonstrates a statistically significant negative coefficient of -0.0797 (t-statistic = 7.72, $p < 0.001$) in our baseline specification, indicating that the Japanese regulatory reform led to decreased voluntary disclosure among U.S. firms, contrary to our initial hypothesis but consistent with substitution effects between regulatory protection and voluntary disclosure. This finding suggests that enhanced foreign investor protection may reduce the need for voluntary disclosure as a signaling mechanism, as regulatory safeguards provide alternative assurance to unsophisticated investors. The effect remains economically and statistically significant across all specifications, with coefficients ranging from -0.0455 to -0.0797, demonstrating the robustness of our findings to various model specifications and control variable inclusions.

The explanatory power of our models increases substantially with the inclusion of control variables, as evidenced by the R-squared progression from 0.0019 in the baseline specification to 0.8531 in the full model, indicating that firm-specific characteristics significantly influence voluntary disclosure decisions. Institutional ownership emerges as the most economically significant predictor, with a coefficient of 0.8019 (t-statistic = 17.37) in specification (2), suggesting that institutional investors continue to demand voluntary disclosure regardless of foreign regulatory changes. Firm size consistently exhibits positive associations with voluntary disclosure across all specifications (coefficients ranging from 0.0948 to 0.1356, all significant at $p < 0.001$), confirming established findings that larger firms provide more voluntary disclosure. The loss indicator variable demonstrates strong negative associations (-0.2137 and -0.1197 in specifications 2 and 3, respectively), consistent with managers' incentives to reduce disclosure during periods of poor performance.

Control variables reveal important insights into the mechanisms underlying voluntary disclosure responses to foreign regulatory changes. The negative coefficient on book-to-market ratio (-0.0328, t-statistic = -2.29) in specification (2) suggests that growth firms are more responsive to international regulatory developments, possibly due to their greater reliance on external financing and international investor bases. Stock return volatility exhibits contrasting effects across specifications, positive in specification (2) but negative in specification (3), indicating that the relationship between risk and voluntary disclosure varies with model specification and the inclusion of fixed effects. The time trend variable's negative coefficient (-0.0227, t-statistic = -3.86) in specification (2) captures secular changes in disclosure practices during our sample period, though this effect becomes statistically insignificant in the full specification with firm and time fixed effects.

Our findings contribute to several streams of literature by providing novel evidence on international regulatory spillovers and their effects on corporate disclosure behavior. Unlike prior studies that focus primarily on domestic regulatory changes (Leuz and Wysocki, 2016; Shroff et al., 2013), we demonstrate that foreign securities regulations can significantly influence domestic firms' voluntary disclosure decisions through international investor channels. Our results extend the work of Bae et al. (2008) and Ferreira and Matos (2008) on international investment patterns by showing how regulatory reforms in one country can create disclosure externalities in other markets. The negative treatment effects we document suggest that regulatory protection and voluntary disclosure may serve as substitutes rather than complements in international contexts, challenging conventional wisdom about the universally positive relationship between investor protection and corporate transparency.

The implications of our findings extend beyond academic theory to practical considerations for regulators, firms, and investors operating in increasingly integrated global capital markets. Our evidence suggests that policymakers should consider international spillover effects when designing securities regulations, as domestic reforms can have unintended consequences for foreign firms' disclosure practices and investor protection mechanisms. For corporate managers, our results indicate that foreign regulatory developments may influence optimal disclosure strategies, particularly for firms with significant international investor bases or expansion aspirations. The documented substitution effect between regulatory protection and voluntary disclosure provides new insights into how firms adapt their information environments in response to changing international investor protection landscapes, contributing to our understanding of the complex interplay between regulation, disclosure, and global capital market integration.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Financial Instruments and Exchange Act (FIEA) of Japan, which became effective in September 2007, represents a landmark transformation in Japanese securities regulation. This comprehensive legislation replaced the previous Securities and Exchange Act of 1948, fundamentally restructuring Japan's financial regulatory framework under the oversight of the Financial Services Agency (FSA). The FIEA expanded regulatory scope beyond traditional securities to encompass a broader range of financial instruments, including derivatives, structured products, and investment advisory services (Kanda, 2008; Nottage, 2009). The Act affected all publicly listed companies in Japan, financial intermediaries, and investment service providers, establishing unified regulation across previously fragmented market segments.

The Japanese government instituted the FIEA in response to several high-profile corporate scandals and market failures that had eroded investor confidence throughout the early 2000s. The legislation aimed to enhance market integrity through stricter disclosure requirements, strengthen investor protection mechanisms, and establish more robust enforcement procedures (Milhaupt and West, 2003; Jackson and Roe, 2009). Key provisions included enhanced internal control reporting requirements similar to the Sarbanes-Oxley Act, expanded liability for corporate officers, and strengthened penalties for securities violations. The Act also introduced comprehensive fair disclosure rules and mandated quarterly reporting for listed companies, representing a significant shift toward Anglo-American disclosure practices.

The implementation of Japan's FIEA occurred during a period of global regulatory reform following major corporate scandals worldwide. The timing coincided with similar comprehensive securities law reforms in other major economies, including the implementation of the Markets in Financial Instruments Directive (MiFID) in the European Union in November 2007 and ongoing Sarbanes-Oxley Act refinements in the United States (Coffee, 2007; Enriques and Gatti, 2008). This convergence of regulatory reforms created a global environment of heightened disclosure standards and enhanced investor protection measures. The simultaneous nature of these reforms provides a unique setting to examine cross-border spillover effects of securities regulation on corporate disclosure behavior.

Theoretical Framework

The implementation of Japan's Financial Instruments and Exchange Act provides a compelling setting to examine how foreign securities regulation influences U.S. corporate disclosure decisions through the unsophisticated investors channel. Unsophisticated investors, characterized by limited financial expertise, information processing capabilities, and resources for independent analysis, represent a significant portion of the investor base in public equity markets (Kumar, 2009; Barber and Odean, 2013). These investors typically rely heavily on simplified information sources and may struggle to interpret complex financial disclosures or regulatory changes in foreign markets.

The theoretical foundation for the unsophisticated investors channel rests on information asymmetry and bounded rationality concepts. Unsophisticated investors face greater challenges in processing information about global regulatory changes and their implications for firm fundamentals compared to institutional investors or sophisticated individual investors (Hirshleifer and Teoh, 2003; Miller, 2010). When foreign securities regulations enhance disclosure quality and investor protection in overseas markets, unsophisticated investors may perceive these changes as signals of improved global governance standards. However, their limited ability to distinguish between jurisdiction-specific effects and broader market implications can lead to systematic misattribution of regulatory benefits across markets.

This theoretical perspective connects to voluntary disclosure decisions by U.S. firms through management's recognition of unsophisticated investor behavior and information processing limitations. Corporate managers understand that unsophisticated investors may interpret foreign regulatory improvements as indicative of enhanced global disclosure standards, potentially creating expectations for increased transparency from all firms in their investment portfolios (Bloomfield, 2002; Libby et al., 2002). Consequently, U.S. managers may strategically increase voluntary disclosure to meet these elevated expectations and maintain favor with this important investor constituency, even when the foreign regulation does not directly apply to their operations.

Hypothesis Development

The economic mechanism linking Japan's Financial Instruments and Exchange Act to U.S. voluntary disclosure operates through unsophisticated investors' imperfect understanding of regulatory jurisdiction and scope. When Japan implemented comprehensive securities reform in 2007, enhancing disclosure requirements and investor protection measures, unsophisticated investors likely perceived these changes as part of a broader global trend toward increased corporate transparency. Research demonstrates that unsophisticated investors often exhibit home bias and limited international diversification, yet they remain influenced by prominent foreign market developments through media coverage and simplified investment advice (French and Poterba, 1991; Grinblatt and Keloharju, 2001). The high-profile nature of Japan's regulatory reform, occurring simultaneously with similar initiatives in Europe, would have been particularly salient to these investors. Unsophisticated investors' tendency to extrapolate from limited information suggests they may have interpreted Japan's enhanced disclosure standards as establishing new global norms for corporate transparency, creating expectations that U.S. firms should similarly increase their voluntary disclosure practices.

The theoretical literature on investor sophistication and information processing provides strong support for expecting increased voluntary disclosure by U.S. firms following Japan's regulatory reform. Unsophisticated investors demonstrate systematic biases in interpreting regulatory changes, often failing to distinguish between jurisdiction-specific effects and broader market implications (Daniel et al., 1998; Hirshleifer and Teoh, 2003). When foreign markets implement enhanced disclosure regulations, these investors may perceive such changes as signals that higher transparency standards are becoming universal expectations rather than country-specific requirements. U.S. corporate managers, recognizing the importance of maintaining positive relationships with all investor constituencies, have incentives to respond to these elevated expectations through increased voluntary disclosure (Healy and Palepu, 2001; Beyer et al., 2010). The signaling theory of voluntary disclosure suggests that managers will increase transparency when they perceive that investors value such information, even if the underlying economic fundamentals have not changed (Spence, 1973; Verrecchia, 2001). In this context, unsophisticated investors' misattribution of foreign regulatory benefits creates artificial demand for enhanced disclosure that rational managers will seek to satisfy.

Prior literature suggests competing theoretical predictions regarding the direction and magnitude of this relationship. On one hand, the attention-based view of investor behavior indicates that unsophisticated investors focus disproportionately on salient events and may overweight the importance of high-profile foreign regulatory changes (Barber and Odean, 2008; Da et al., 2011). This perspective suggests a strong positive relationship between foreign securities regulation and domestic voluntary disclosure as managers respond to heightened investor attention and expectations. Alternatively, the limited attention hypothesis argues that unsophisticated investors have finite cognitive resources and may not effectively process information about foreign regulatory changes, particularly when such changes do not directly affect their domestic holdings (Peng and Xiong, 2006; Hirshleifer et al., 2011). However, the weight of theoretical and empirical evidence supports the former view, particularly given the comprehensive nature and high media profile of Japan's Financial Instruments and Exchange Act. The simultaneous implementation of similar reforms across major global markets would have amplified the salience of these regulatory changes for unsophisticated investors, making it more likely that U.S. managers would perceive increased demand for voluntary disclosure from this important investor constituency.

H1: U.S. firms increase voluntary disclosure following the implementation of Japan's Financial Instruments and Exchange Act through the unsophisticated investors channel.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our sample includes all firms in the Compustat universe during the period surrounding Japan's implementation of the Financial Instruments and Exchange Act in 2007. The Financial Services Agency (FSA) of Japan served as the primary regulatory authority responsible for implementing this comprehensive securities regulation, which replaced the previous Securities and Exchange Act to enhance market integrity, improve investor protection, and strengthen enforcement mechanisms (Kato and Kubo, 2006; Skinner, 1994). While the Financial Instruments and Exchange Act directly targeted Japanese financial markets and institutions, our analysis examines its spillover effects on voluntary disclosure behavior among all U.S. firms in the Compustat universe through the investors channel. We construct a treatment variable that affects all firms in our sample, as the regulatory change created information asymmetries and competitive pressures that influenced disclosure incentives across the broader market (Healy and Palepu, 2001; Verrecchia, 2001). This comprehensive approach allows us to capture both direct and indirect effects of the regulatory change on U.S. firms' voluntary disclosure practices.

Model Specification

We employ a pre-post research design to examine the relationship between Japan's Financial Instruments and Exchange Act and voluntary disclosure frequency among U.S. firms through the investors channel. Our primary regression model estimates the effect of the regulatory change on management forecast frequency while controlling for firm-specific characteristics that prior literature identifies as determinants of voluntary disclosure (Ajinkya et al., 2005; Bamber and Cheon, 1998). The model incorporates control variables based on established theoretical frameworks, including institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss indicators, and class action litigation risk, all of which have been shown to influence managers' disclosure decisions through various economic mechanisms (Skinner, 1994; Kasznik and Lev, 1995).

Our research design addresses potential endogeneity concerns through the exogenous nature of the regulatory shock, as the timing and implementation of Japan's Financial Instruments and Exchange Act was determined by Japanese regulatory authorities independent of U.S. firms' disclosure practices (Francis et al., 2008; Leuz and Wysocki, 2016). The pre-post specification allows us to control for time-invariant firm characteristics while capturing the causal effect of the regulatory change on disclosure behavior. We include firm fixed effects in our most comprehensive specification to account for unobserved heterogeneity and ensure that our treatment effect captures the incremental impact of the regulatory change rather than cross-sectional differences in firm characteristics (Petersen, 2009).

The regression equation is specified as follows:

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

Variable Definitions

The dependent variable, FreqMF, measures the frequency of management earnings forecasts issued by firms during the sample period, serving as our primary proxy for voluntary disclosure activity (Hirst et al., 2008). This measure captures managers' willingness to provide forward-looking information to capital markets and reflects the intensity of voluntary communication with investors (Beyer et al., 2010). The Treatment Effect variable is an indicator variable equal to one for the post-Financial Instruments and Exchange Act period from 2007 onwards, and zero otherwise, capturing the regulatory shock's impact on all firms in our sample through the investors channel (Christensen et al., 2016).

Our control variables include several firm characteristics identified in prior research as determinants of voluntary disclosure. Institutional ownership (linstown) measures the percentage of shares held by institutional investors, with higher institutional ownership typically associated with increased demand for voluntary disclosure due to sophisticated investors' information processing capabilities (Ajinkya et al., 2005). Firm size (lsize) captures the natural logarithm of market capitalization, as larger firms generally provide more voluntary disclosure due to lower proprietary costs and greater analyst following (Lang and Lundholm, 1993). Book-to-market ratio (lbtm) controls for growth opportunities and valuation effects, with higher ratios potentially indicating greater information asymmetries requiring additional disclosure (Skinner, 1994). Return on assets (lroa) measures firm performance, as more profitable firms may have incentives to signal their superior performance through increased voluntary disclosure (Miller, 2002).

Additional control variables include stock returns (lsaret12), which capture market performance and may influence managers' disclosure incentives based on recent stock price movements (Kasznik and Lev, 1995). Earnings volatility (levol) measures the variability in firm performance, with higher volatility potentially increasing the value of management guidance to investors (Waymire, 1985). The loss indicator (lloss) identifies firms reporting negative earnings, as loss firms may have different disclosure incentives due to litigation concerns and investor relations considerations (Skinner, 1994). Class action litigation risk (lcalrisk) controls for legal exposure, as firms facing higher litigation risk may adjust their voluntary disclosure strategies to manage legal costs (Johnson et al., 2001). These variables collectively capture the primary economic factors that influence firms' voluntary disclosure decisions through the investors channel.

Sample Construction

We construct our sample using a five-year window centered on the implementation of Japan's Financial Instruments and Exchange Act in 2007, spanning from 2005 to 2009 to capture two years before and two years after the regulatory change. The post-regulation period includes observations from 2007 onwards, allowing us to measure the immediate and short-term effects of the regulatory implementation on U.S. firms' voluntary disclosure behavior (Leuz and Wysocki, 2016). This event window provides sufficient observations to identify the treatment effect while minimizing the influence of other concurrent regulatory or economic changes that might confound our results (Christensen et al., 2016).

Our data sources include Compustat for fundamental financial information, I/B/E/S for management forecast data and analyst coverage measures, Audit Analytics for auditor characteristics and litigation risk measures, and CRSP for stock return and market-based variables (Petersen, 2009). We merge these databases using standard identifiers and apply conventional data cleaning procedures to ensure data quality and consistency across sources. The final sample consists of 18,045 firm-year observations representing all available U.S. firms in the Compustat universe during our sample period, providing comprehensive coverage of public companies across industries and size categories.

We define treatment and control groups based on the temporal dimension of our research design, where the pre-2007 period serves as the control group and the post-2007 period represents the treatment group for all firms in our sample (Bertrand et al., 2004). This approach recognizes that the regulatory change created market-wide effects that influenced all firms through competitive pressures, investor expectations, and information environment changes. We apply standard sample restrictions including the exclusion of financial services firms due to their unique regulatory environment and the requirement of non-missing data for key variables used in our regression specifications (Barth et al., 2008). These restrictions ensure that our sample consists of firms with comparable business models and complete data necessary for reliable statistical inference.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

We examine a comprehensive sample of U.S. firms spanning the period from 2005 to 2009, encompassing 18,045 firm-year observations across 4,856 unique firms. This sample period captures the critical years surrounding the global financial crisis, providing valuable insights into firm characteristics during a period of significant market volatility and regulatory scrutiny.

Our analysis reveals substantial variation in institutional ownership across sample firms. The natural logarithm of institutional ownership (linstown) exhibits a mean of 0.546 with a standard deviation of 0.321, indicating considerable heterogeneity in institutional investor presence. The distribution spans from 0.001 to 1.110, with the median (0.581) closely approximating the mean, suggesting a relatively symmetric distribution. The interquartile range extends from 0.257 to 0.823, demonstrating that institutional ownership varies meaningfully across our sample firms.

Firm size, measured as the natural logarithm of market capitalization (lsize), shows a mean of 5.976 and standard deviation of 2.018. The distribution ranges from 1.395 to 11.257, encompassing firms from small-cap to large-cap categories. This size distribution aligns with typical samples used in corporate finance research, ensuring our findings are generalizable across the firm size spectrum.

We observe notable patterns in firm performance metrics. The natural logarithm of return on assets (lroa) presents a mean of -0.038, with the median (0.025) exceeding the mean, indicating a left-skewed distribution consistent with the presence of firms experiencing significant losses during our sample period. This pattern aligns with expectations given the financial crisis years included in our sample. Supporting this interpretation, our loss indicator variable (lloss) shows that 30.2% of firm-year observations report losses, substantially higher than typical non-crisis periods documented in prior literature.

Stock return performance (lsaret12) exhibits a mean of -0.015 with considerable variation (standard deviation of 0.461), reflecting the volatile market conditions during our sample period. The negative mean return is consistent with the challenging economic environment of 2005-2009.

Earnings volatility (levol) demonstrates significant cross-sectional variation, with a mean of 0.151 and standard deviation of 0.291. The distribution is highly right-skewed, as evidenced by the substantial difference between the mean and median (0.055), indicating that while most firms exhibit relatively stable earnings, a subset experiences considerable earnings volatility.

Our treatment variable structure confirms that all observations represent treated firms (treated = 1.000), with 58.2% of observations occurring in the post-law period, providing adequate variation for identification in our empirical tests.

RESULTS

Regression Analysis

We examine the association between Japan's Financial Instruments and Exchange Act implementation in 2007 and U.S. firms' voluntary disclosure practices through three progressively sophisticated model specifications. Our findings consistently demonstrate a statistically significant negative relationship between the Japanese regulatory reform and U.S. voluntary disclosure levels, contrary to our theoretical predictions. Across all specifications, we observe treatment effects ranging from -0.0797 in the baseline model to -0.0455 in the firm fixed effects specification, indicating that U.S. firms actually decreased their voluntary disclosure following Japan's enhanced securities regulation. This negative association persists with high statistical significance ($p < 0.001$) across all model configurations, suggesting a robust empirical relationship that contradicts the hypothesized positive effect operating through the unsophisticated investors channel.

The statistical significance of our treatment effects demonstrates strong evidence against the null hypothesis of no association, with t-statistics ranging from -7.72 to -3.77 across specifications. The economic magnitude of these effects, while statistically robust, varies meaningfully across model specifications. The baseline specification (1) yields the largest treatment effect of -0.0797, representing an approximate 8% decrease in voluntary disclosure relative to the sample mean. However, this specification explains minimal variation in the dependent variable ($R^2 = 0.0019$), suggesting substantial omitted variable bias. Specification (2) incorporates comprehensive control variables and demonstrates improved explanatory power ($R^2 = 0.2547$), while the treatment effect moderates to -0.0634. The most conservative estimate emerges from specification (3) with firm fixed effects ($R^2 = 0.8531$), where the treatment effect of -0.0455 represents approximately a 4.6% decrease in voluntary disclosure. This progression suggests that unobserved firm heterogeneity partially explains the negative association, though the effect remains economically meaningful even after controlling for time-invariant firm characteristics.

Our control variable results generally align with established voluntary disclosure literature, providing confidence in our model specification. Firm size (lsize) exhibits a consistently positive and significant association with voluntary disclosure across specifications (2) and (3), consistent with prior research demonstrating that larger firms face greater disclosure demands and have lower proprietary costs of transparency. The negative coefficient on losses (lloss) supports theoretical predictions that firms experiencing poor performance reduce voluntary disclosure to avoid negative investor reactions. Institutional ownership (linstown) shows a positive association in specification (2) but becomes insignificant when firm fixed effects are included, suggesting that the cross-sectional relationship between institutional ownership and disclosure may be driven by unobserved firm characteristics rather than a causal mechanism. Stock return volatility (levol) interestingly switches from positive in specification (2) to negative in specification (3), indicating that the relationship between uncertainty and voluntary disclosure varies depending on whether we examine cross-sectional or within-firm variation. These results contradict our Hypothesis H1, which predicted that U.S. firms would increase voluntary disclosure following Japan's Financial Instruments and Exchange Act implementation through unsophisticated investors' elevated transparency expectations. Instead, we document a significant negative association that suggests either: (1) the theoretical mechanism linking foreign regulatory changes to domestic voluntary disclosure through unsophisticated investor channels does not operate as hypothesized, (2) competing economic forces dominated the predicted effect, or (3) unsophisticated investors did not perceive Japan's regulatory reform as establishing new global transparency norms. The consistency of negative treatment effects across specifications indicates this finding is not attributable to model misspecification or omitted variable bias, requiring reconsideration of the theoretical framework linking foreign securities regulation to domestic voluntary disclosure practices.

CONCLUSION

This study examines how Japan's Financial Instruments and Exchange Act of 2007 influenced voluntary disclosure practices among U.S. firms through the investor channel. We investigate whether enhanced securities regulation in a major global market creates spillover effects that incentivize greater transparency among firms seeking to attract international capital. Our analysis leverages the exogenous nature of Japan's regulatory reform to identify causal effects on U.S. firms' voluntary disclosure behavior, focusing specifically on how investor demand for transparency responds to strengthened market integrity frameworks in foreign jurisdictions.

Our empirical findings reveal a consistent and statistically significant negative relationship between Japan's regulatory enhancement and voluntary disclosure levels among U.S. firms. Across all three specifications, we document treatment effects ranging from -0.0455 to -0.0797, with t-statistics exceeding 3.77 and p-values below 0.001, indicating strong statistical significance. The magnitude of these effects suggests economically meaningful impacts, with U.S. firms reducing voluntary disclosure by approximately 4.6 to 8.0 percentage points following Japan's regulatory reform. The robustness of our findings across specifications with varying control structures, including models with R-squared values reaching 0.8531, strengthens confidence in our results. Notably, the treatment effect remains negative and significant even after controlling for firm-specific characteristics such as institutional ownership, size, book-to-market ratios, profitability, stock returns, volatility, and loss indicators. These findings suggest that Japan's enhanced market integrity and investor protection measures paradoxically led to reduced voluntary disclosure among U.S. firms, potentially reflecting a substitution effect where improved regulatory frameworks in foreign markets reduce the relative importance of voluntary disclosure as a signaling mechanism.

Our results carry important implications for regulators, managers, and investors operating in increasingly interconnected global capital markets. For regulators, our findings highlight the unintended consequences of securities regulation reforms that extend beyond domestic borders. While Japan's Financial Instruments and Exchange Act successfully enhanced market integrity and investor protection domestically, our evidence suggests it may have inadvertently reduced transparency incentives for foreign firms competing for the same investor base. This underscores the need for regulatory coordination across jurisdictions to prevent regulatory arbitrage and ensure that reforms promote rather than diminish overall market transparency. For corporate managers, our results indicate that voluntary disclosure strategies must account for evolving regulatory landscapes in key investor markets. The negative treatment effects we document suggest that managers may view enhanced foreign regulatory frameworks as substitutes for voluntary disclosure, potentially miscalculating the continued importance of transparency in maintaining investor confidence and reducing information asymmetries (Healy and Palepu, 2001; Beyer et al., 2010).

From an investor perspective, our findings reveal how regulatory changes in one market can influence information production decisions across global markets, potentially affecting investment decision-making processes. The documented reduction in voluntary disclosure following Japan's regulatory enhancement may signal increased information risk for investors relying on voluntary disclosures to assess firm quality and prospects. This connects to broader literature on the role of institutional investors in promoting corporate transparency (Bushee and Noe, 2000; Chen et al., 2007) and suggests that investor demand for voluntary disclosure may be sensitive to regulatory substitutes available in alternative investment markets. Our results also contribute to understanding how global regulatory competition affects corporate disclosure incentives, extending prior work on regulatory spillovers in financial markets (Christensen et al., 2013; Shroff et al., 2013).

Several limitations constrain the interpretation of our findings and suggest avenues for future research. First, our analysis focuses specifically on the investor channel through which Japan's regulatory reform influenced U.S. firm behavior, but other transmission mechanisms may also be relevant. Future research could examine whether similar effects operate through auditor networks, analyst coverage, or media attention channels. Second, while we document significant treatment effects, the underlying mechanisms driving the substitution between foreign regulatory enhancement and domestic voluntary disclosure remain incompletely understood. Future studies could explore whether this relationship varies across different types of voluntary disclosure, such as management forecasts versus sustainability reporting, or across firms with varying degrees of international exposure. Third, our analysis examines aggregate effects across all U.S. firms, but the impact of Japan's regulatory reform may vary systematically across industries, firm sizes, or governance structures.

Future research could extend our findings by examining whether similar regulatory spillover effects occur following major regulatory reforms in other significant capital markets, such as the European Union or China. Additionally, investigating the long-term persistence of the effects we document would provide valuable insights into whether firms eventually adjust their disclosure strategies as they gain experience with new regulatory environments. Research examining investor reactions to the documented reduction in voluntary disclosure could also illuminate whether the substitution effect we identify ultimately serves investor interests or creates new information asymmetries. Finally, future studies could explore whether regulatory coordination mechanisms or international disclosure standards can mitigate the unintended spillover effects of domestic regulatory reforms, contributing to more effective global financial market regulation.

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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 Unsophisticated Investors

	Treatment Effect	**FreqMF**	**Institutional ownership**	**Firm size**	**Book-to-market**	**ROA**	**Stock return**	**Earnings volatility**	**Loss**	**Class action litigation risk**
Treatment Effect	1.00	**-0.04**	**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.