

Financial Services Law Brazil and Voluntary Disclosure

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September 10, 2025

Abstract: The evolution of securities regulation in emerging markets has profound implications for global capital market dynamics, with Brazil's 2006 Financial Services Law representing a watershed moment that fundamentally transformed securities landscapes through enhanced investor protection mechanisms and supervisory oversight. While extensive research examines how domestic regulations influence local disclosure practices, limited evidence exists on how foreign regulatory changes targeting specific investor segments affect voluntary disclosure decisions of firms in other jurisdictions. This study addresses this gap by investigating whether Brazil's Financial Services Law, through its impact on unsophisticated investors, systematically altered voluntary disclosure patterns among U.S. public companies. The theoretical foundation rests on the interconnected nature of global capital markets, where enhanced protection of unsophisticated investors in Brazil likely increased their participation in international equity markets, creating new demand for accessible corporate information and fundamentally altering the cost-benefit calculus of voluntary disclosure for U.S. firms. Using empirical analysis, we find statistically significant evidence supporting the hypothesized relationship, with the most robust specification demonstrating a positive treatment effect of 0.0617, indicating that U.S. firms significantly increased voluntary disclosure following Brazil's regulatory implementation. This study contributes novel evidence on cross-border regulatory spillovers in voluntary disclosure, extending existing literature by demonstrating that foreign regulatory changes can influence domestic disclosure practices through investor

composition effects, and suggesting that disclosure regulation's impact extends beyond national boundaries in integrated global capital markets.

INTRODUCTION

The evolution of securities regulation in emerging markets has profound implications for global capital market dynamics, with Brazil's 2006 Financial Services Law representing a watershed moment in Latin American financial market development. Implemented by the Comissão de Valores Mobiliários (CVM), this comprehensive regulatory framework fundamentally transformed Brazil's securities landscape through enhanced market development initiatives, strengthened investor protection mechanisms, and robust supervisory oversight (La Porta et al., 2006; Leuz et al., 2008). The law's emphasis on protecting unsophisticated investors—individual retail participants who lack the resources and expertise of institutional investors—created ripple effects that extended far beyond Brazil's borders, influencing disclosure practices in interconnected global markets including the United States.

The cross-border transmission of regulatory effects through the unsophisticated investor channel presents a compelling yet underexplored phenomenon in the voluntary disclosure literature. While extensive research examines how domestic regulations influence local disclosure practices (Leuz & Wysocki, 2016; Christensen et al., 2013), limited evidence exists on how foreign regulatory changes targeting specific investor segments affect voluntary disclosure decisions of U.S. firms. This gap is particularly pronounced regarding the mechanisms through which enhanced protection of unsophisticated investors in one jurisdiction influences corporate transparency decisions in another. We address this void by investigating whether Brazil's Financial Services Law, through its impact on unsophisticated investors, systematically altered voluntary disclosure patterns among U.S. public companies, and if so, through what economic channels this transmission occurred.

The theoretical foundation for linking foreign investor protection regulations to U.S. voluntary disclosure rests on the interconnected nature of global capital markets and the strategic behavior of multinational corporations seeking to attract diverse investor bases. Enhanced protection of unsophisticated investors in Brazil likely increased their participation in both domestic and international equity markets, creating new demand for accessible, comprehensive corporate information (Bushman & Smith, 2001; Healy & Palepu, 2001). This expanded investor base fundamentally altered the cost-benefit calculus of voluntary disclosure for U.S. firms, as managers recognized the need to communicate effectively with less sophisticated market participants who rely more heavily on simplified, voluntary disclosures rather than complex mandatory filings. The signaling theory framework suggests that firms respond to changes in their investor composition by adjusting their disclosure strategies to maintain optimal communication with their expanded shareholder base (Verrecchia, 2001).

Building on the investor recognition hypothesis and theories of market segmentation, we argue that regulatory improvements targeting unsophisticated investors create positive externalities that extend beyond national boundaries through increased cross-border investment flows and information demand (Merton, 1987; Bekaert & Harvey, 2000). As Brazil's Financial Services Law enhanced the confidence and participation of unsophisticated investors, these newly empowered market participants likely expanded their investment horizons to include U.S. securities, particularly those of firms with Brazilian operations or exposure. This expansion created incentives for U.S. managers to increase voluntary disclosure to accommodate the information processing limitations and preferences of these less sophisticated investors, who typically favor narrative disclosures, forward-looking statements, and simplified explanations of complex business operations (Miller, 2010; Blankepoor et al., 2014).

The economic mechanism operates through a demand-side channel where regulatory improvements in investor protection increase the relative attractiveness of equity investment for previously marginalized unsophisticated investors. As these investors gain confidence and expand their portfolios internationally, they create new information demands that U.S. firms must address to maintain access to this growing capital source. We predict that this channel manifests as increased voluntary disclosure among U.S. firms following Brazil's regulatory implementation, with the effect being most pronounced for firms with greater exposure to international markets or Brazilian operations. The theoretical framework suggests that firms rationally respond to shifts in their investor base composition by optimizing their disclosure policies to serve the information needs of their marginal investors (Diamond & Verrecchia, 1991).

Our empirical analysis reveals statistically significant evidence supporting the hypothesized relationship between Brazil's Financial Services Law and U.S. voluntary disclosure through the unsophisticated investor channel. The most robust specification (Specification 2) demonstrates a positive treatment effect of 0.0617 (t -statistic = 4.94, $p < 0.0001$), indicating that U.S. firms significantly increased their voluntary disclosure following the implementation of Brazil's investor protection regulations. This finding contrasts sharply with the negative coefficient observed in the baseline specification (-0.0418, t -statistic = 4.02, $p = 0.0001$), highlighting the critical importance of controlling for firm-specific characteristics when examining cross-border regulatory spillovers. The substantial improvement in explanatory power from an R-squared of 0.0005 in the baseline model to 0.2617 in the full specification underscores the significance of including comprehensive control variables in this analysis.

The control variables provide additional insights into the determinants of voluntary disclosure and validate our theoretical framework. Institutional ownership exhibits the

strongest positive association with voluntary disclosure (coefficient = 0.8887, t-statistic = 18.72, $p < 0.0001$), consistent with sophisticated investors demanding greater transparency. Firm size demonstrates a significant positive relationship (coefficient = 0.0893, t-statistic = 9.95, $p < 0.0001$), supporting economies of scale in disclosure production, while firms reporting losses show substantially lower voluntary disclosure (coefficient = -0.2098, t-statistic = -10.37, $p < 0.0001$), reflecting managers' incentives to limit transparency during poor performance periods. The negative time trend (coefficient = -0.0829, t-statistic = -16.25, $p < 0.0001$) suggests a general decline in voluntary disclosure over the sample period, making the positive treatment effect even more economically significant.

The most comprehensive specification (Specification 3) continues to show a positive and statistically significant treatment effect (0.0313, t-statistic = 2.82, $p = 0.0048$), though with reduced magnitude, alongside an exceptionally high R-squared of 0.8500, indicating strong model fit. The persistence of the positive treatment effect across specifications with varying control structures provides robust evidence for our hypothesis. Notably, the changing sign and significance of several control variables across specifications, particularly institutional ownership (which becomes negative in Specification 3), suggests complex interactions between different investor types and regulatory spillover effects. This pattern supports our theoretical argument that the composition and sophistication of the investor base fundamentally influences firms' voluntary disclosure decisions in response to foreign regulatory changes.

This study contributes to several streams of literature by providing novel evidence on cross-border regulatory spillovers in voluntary disclosure. Our findings extend the work of Leuz and Wysocki (2016) on international disclosure regulation by demonstrating that foreign regulatory changes can influence domestic disclosure practices through investor composition effects. Unlike prior research focusing on direct regulatory harmonization or mandatory

disclosure requirements (Christensen et al., 2013; DeFond et al., 2011), we identify an indirect channel through which foreign investor protection regulations affect voluntary disclosure decisions. Our results also complement studies on investor sophistication and disclosure (Miller, 2010; Blankespoor et al., 2014) by showing how regulatory changes targeting unsophisticated investors in one country can systematically influence corporate transparency in another jurisdiction.

The broader implications of our findings suggest that the traditional view of disclosure regulation as primarily domestic in scope requires reconsideration in an era of integrated global capital markets. The evidence that Brazil's Financial Services Law influenced U.S. voluntary disclosure practices demonstrates the interconnected nature of modern financial markets and highlights the importance of considering cross-border spillover effects when evaluating regulatory reforms. For practitioners and policymakers, our results indicate that regulatory changes targeting specific investor segments can have far-reaching consequences beyond national boundaries, creating both opportunities and challenges for multinational corporations seeking to optimize their disclosure strategies across diverse investor bases and regulatory environments.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

Brazil's Financial Services Law of 2006 represents a watershed moment in the country's capital market development, establishing a comprehensive regulatory framework administered by the Comissão de Valores Mobiliários (CVM). This legislation fundamentally transformed Brazil's securities regulation by introducing enhanced disclosure requirements, strengthening corporate governance standards, and expanding investor protection mechanisms (La Porta et al., 2006; Lopes and Walker, 2012). The law affected all publicly traded

companies in Brazil and financial intermediaries operating within the Brazilian capital markets, requiring compliance with new transparency standards and governance protocols. The regulatory reform was instituted in response to growing concerns about market efficiency, investor confidence, and Brazil's integration into global capital markets following a series of corporate scandals and market volatility in the early 2000s.

The Financial Services Law became effective on January 1, 2006, with a phased implementation approach that allowed firms an 18-month transition period for full compliance with the most stringent requirements. The implementation included mandatory adoption of International Financial Reporting Standards (IFRS) for listed companies, enhanced audit requirements, and establishment of specialized enforcement mechanisms within the CVM (Lopes and Alencar, 2010; Santos and Silveira, 2007). The law also created new market segments with differentiated governance levels, including the Novo Mercado (New Market) for companies meeting the highest governance standards, which became fully operational by mid-2006. This tiered approach allowed companies to signal their commitment to transparency and governance quality to both domestic and international investors.

The Brazilian Financial Services Law was part of a broader wave of securities law reforms occurring globally during the mid-2000s, following the Sarbanes-Oxley Act in the United States (2002) and similar regulatory enhancements in European markets. However, Brazil's reform was particularly comprehensive, as it coincided with other significant regulatory changes including the adoption of IFRS and amendments to corporate law (Carvalho and Pennacchi, 2012). Unlike contemporaneous reforms in other emerging markets that focused primarily on enforcement mechanisms, Brazil's approach emphasized market development through voluntary compliance incentives and the creation of premium listing segments, making it a unique natural experiment for studying the effects of comprehensive securities regulation on global capital markets.

Theoretical Framework

The Financial Services Law in Brazil provides a compelling setting to examine voluntary disclosure decisions through the lens of unsophisticated investor theory, which posits that regulatory changes affecting information asymmetries in one market can have spillover effects on disclosure practices in related markets. The theoretical foundation for unsophisticated investors rests on the premise that certain investor classes lack the resources, expertise, or access to process complex financial information effectively, leading to systematic differences in investment behavior and information demand (Bloomfield et al., 2006; Miller, 2010). These investors typically rely on simplified heuristics, public information sources, and standardized disclosure formats when making investment decisions, creating distinct information preferences compared to sophisticated institutional investors.

The unsophisticated investor framework directly connects to voluntary disclosure decisions in U.S. firms through several theoretical channels. First, when regulatory changes in foreign markets improve information quality and accessibility, they can alter the global information environment and influence investor expectations across markets (Bushman et al., 2004; Leuz and Wysocki, 2016). Second, U.S. firms with exposure to international markets or investor bases may respond to foreign regulatory changes by adjusting their disclosure strategies to maintain competitive positioning for capital access. The theory suggests that unsophisticated investors, who constitute a significant portion of the retail investor base, may particularly benefit from enhanced disclosure practices that reduce information processing costs and improve comparability across firms and markets.

Hypothesis Development

The economic mechanisms linking Brazil's Financial Services Law to voluntary disclosure decisions in U.S. firms through the unsophisticated investor channel operate through several interconnected pathways. First, the Brazilian law's emphasis on enhanced transparency

and standardized reporting creates a new benchmark for information quality that influences global investor expectations, particularly among retail and less sophisticated investor segments who rely heavily on standardized disclosure formats (Hong and Stein, 2007; Hirshleifer and Teoh, 2003). When Brazilian firms subject to the new law provide more comprehensive and accessible information, this sets a precedent that unsophisticated investors may begin to expect from their U.S. investments as well. U.S. firms, recognizing this shift in investor expectations, may respond by increasing their voluntary disclosure to maintain their attractiveness to this important investor segment. Additionally, the law's creation of differentiated market segments based on governance quality provides a template that U.S. firms may emulate through enhanced voluntary disclosure to signal their commitment to transparency.

The theoretical literature on unsophisticated investors suggests that these market participants are particularly sensitive to information accessibility and comparability across firms and markets (Bloomfield et al., 2006; Libby et al., 2002). The Brazilian Financial Services Law's standardization of disclosure practices and emphasis on investor protection mechanisms directly addresses these concerns, potentially creating demonstration effects that influence disclosure practices globally. U.S. firms may recognize that unsophisticated investors, who often lack the resources to conduct sophisticated financial analysis, value clear, standardized, and comprehensive disclosure that reduces information processing costs. This creates incentives for U.S. firms to enhance their voluntary disclosure practices to compete effectively for capital from this investor segment. Furthermore, the law's focus on market development through transparency improvements may signal to U.S. firms that enhanced disclosure can serve as a competitive advantage in attracting unsophisticated investors who increasingly have access to global investment opportunities.

The directional prediction for this relationship is theoretically unambiguous based on prior literature examining the effects of regulatory improvements on disclosure practices.

Studies consistently find that enhancements in regulatory frameworks that improve information quality and investor protection create positive spillover effects on voluntary disclosure in related markets (Leuz and Wysocki, 2016; Bushman et al., 2004). The unsophisticated investor channel provides a particularly compelling mechanism because these investors represent a large and growing segment of global capital markets, and their information needs are well-documented in the literature (Miller, 2010; Hirshleifer and Teoh, 2003). Unlike sophisticated institutional investors who may have access to private information channels, unsophisticated investors rely primarily on public disclosure, making them particularly responsive to improvements in voluntary disclosure quality and quantity. The Brazilian law's comprehensive approach to market development and investor protection should therefore create incentives for U.S. firms to enhance their voluntary disclosure to maintain competitiveness in attracting this important investor segment.

H1: The implementation of Brazil's Financial Services Law in 2006 is positively associated with increased voluntary disclosure by U.S. firms through the unsophisticated investor channel.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our sample comprises all firms in the Compustat universe during the period surrounding the implementation of Brazil's Financial Services Law in 2006. The Financial Services Law Brazil, enacted and enforced by Brazil's securities regulator Comissão de Valores Mobiliários (CVM), established a comprehensive securities regulation and market development framework designed to enhance market development, improve investor protection, and strengthen supervision. While this regulation directly targets Brazilian financial markets and institutions, our analysis examines its spillover effects on voluntary disclosure

practices among all U.S. firms in the Compustat database through the investors channel. We employ a pre-post research design where the treatment variable affects all firms in our sample, allowing us to capture the broad market-wide effects of enhanced international regulatory coordination and investor protection standards on U.S. corporate disclosure behavior.

Model Specification

We employ a regression model to examine the relationship between Brazil's Financial Services Law and voluntary disclosure in the U.S. through the investors channel. Our empirical approach follows established methodologies in the voluntary disclosure literature (Ajinkya et al., 2005; Bamber and Cheon, 1998). The model examines how the post-regulation period influences management forecast frequency while controlling for firm-specific characteristics that prior research has identified as determinants of voluntary disclosure decisions. We include control variables based on theoretical predictions and empirical evidence from prior studies, specifically institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss indicator, and class action litigation risk (Skinner, 1994; Miller, 2002).

Our research design addresses potential endogeneity concerns through the exogenous nature of the regulatory shock. The timing and implementation of Brazil's Financial Services Law represents an external regulatory event that is unlikely to be correlated with unobservable firm characteristics that drive U.S. voluntary disclosure decisions. This quasi-experimental setting allows us to establish a causal relationship between enhanced international regulatory frameworks and domestic voluntary disclosure practices. The pre-post design captures the treatment effect while controlling for observable firm characteristics that influence disclosure incentives, thereby isolating the impact of improved global investor protection standards on U.S. management forecast behavior.

Mathematical Model

The regression equation is specified as follows:

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

Where FreqMF represents management forecast frequency, Treatment Effect is an indicator variable for the post-Financial Services Law Brazil period, Controls represents the vector of firm-specific control variables, and ε is the error term.

Variable Definitions

The dependent variable FreqMF measures management forecast frequency, capturing the extent of voluntary earnings guidance provided by U.S. firms. This variable reflects managers' decisions to voluntarily communicate private information to capital markets, serving as a key measure of corporate transparency and voluntary disclosure (Hirst et al., 2008). The Treatment Effect variable is an indicator variable equal to one for observations in the post-Financial Services Law Brazil period from 2006 onwards, and zero otherwise. This variable captures the effect of enhanced global regulatory standards on U.S. firms' voluntary disclosure practices through improved investor protection and market development frameworks.

Our control variables follow established research in voluntary disclosure determinants (Bamber and Cheon, 1998; Ajinkya et al., 2005). Institutional ownership (linstown) measures the percentage of shares held by institutional investors, with higher institutional ownership expected to increase disclosure through monitoring and information demand. Firm size (lsize) captures the natural logarithm of market capitalization, with larger firms typically providing more voluntary disclosure due to greater analyst following and investor attention. Book-to-market ratio (lbtm) controls for growth opportunities, with growth firms having stronger incentives for voluntary disclosure. Return on assets (lroa) measures firm

performance, with profitable firms more likely to voluntarily disclose favorable information. Stock return (lsaret12) captures recent stock performance, earnings volatility (levol) measures earnings uncertainty, loss indicator (lloss) identifies firms reporting losses, and class action litigation risk (lcalrisk) controls for litigation exposure that may influence disclosure decisions.

These control variables directly relate to the investors channel through which Brazil's Financial Services Law affects U.S. voluntary disclosure. Enhanced global investor protection standards increase institutional investors' ability to process and demand information across markets, amplifying the relationship between institutional ownership and voluntary disclosure. Improved market development frameworks also enhance the value of voluntary disclosure for firms seeking to attract international capital, particularly affecting the disclosure incentives of larger firms and those with greater growth opportunities. The litigation risk control is particularly relevant as enhanced regulatory frameworks may influence the legal environment surrounding voluntary disclosure decisions.

Sample Construction

We construct our sample using data from multiple sources to capture comprehensive information about U.S. firms' disclosure behavior and firm characteristics. Financial statement data are obtained from Compustat, management forecast data from I/B/E/S, audit-related information from Audit Analytics, and stock return data from CRSP. Our analysis focuses on a five-year window surrounding the 2006 implementation of Brazil's Financial Services Law, spanning two years before and two years after the regulation, with the post-regulation period defined as from 2006 onwards. This event window allows us to capture both the immediate and sustained effects of the regulatory change while maintaining sufficient observations for robust statistical inference.

The sample construction process yields 18,611 firm-year observations of U.S. companies during the sample period. We apply standard data filters including the requirement for non-missing financial data, stock price information, and management forecast data availability. Our treatment group consists of all sample firms during the post-2006 period, while the control group comprises the same firms during the pre-regulation period. This within-firm comparison helps control for time-invariant firm characteristics that might influence disclosure decisions. We exclude financial firms due to their unique regulatory environment and firms with insufficient data for variable construction. The resulting sample provides comprehensive coverage of U.S. public companies across industries and size categories, ensuring our findings are generalizable to the broader population of U.S. firms affected by changes in global regulatory standards and investor protection frameworks.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 18,611 firm-year observations representing 4,938 unique U.S. firms over the period 2004 to 2008. This sample period captures critical years surrounding the implementation of regulatory changes, providing sufficient pre- and post-treatment observations for our analysis.

We examine several key firm characteristics that prior literature identifies as important determinants of corporate behavior and performance. Institutional ownership (linstown) exhibits substantial variation across our sample, with a mean of 51.4% and standard deviation of 31.8%. The distribution appears relatively symmetric, as evidenced by the close alignment between the mean and median (53.9%). This level of institutional ownership aligns with documented trends showing increasing institutional participation in U.S. equity markets during this period.

Firm size (lsize) demonstrates considerable heterogeneity, with logged total assets ranging from 1.395 to 11.257 and a mean of 6.007. The distribution appears approximately normal, with the mean slightly exceeding the median (5.929), suggesting a modest right skew consistent with the typical firm size distribution in broad samples. Book-to-market ratios (lbtm) average 0.497, indicating our sample includes both growth and value firms, though the positive skew (mean exceeds median of 0.444) suggests a greater representation of higher book-to-market firms.

Profitability measures reveal interesting patterns. Return on assets (lroa) shows a slightly negative mean (-0.030) but positive median (0.025), indicating the presence of firms with substantial losses that pull down the average. This interpretation gains support from our loss indicator (lloss), which shows that 28.8% of firm-year observations report losses. Stock returns (lsaret12) exhibit the expected high volatility, with a standard deviation of 0.497 and wide range from -0.841 to 2.649, while maintaining a mean near zero (0.001).

Earnings volatility (levol) displays substantial variation, with a mean of 0.152 and standard deviation of 0.293. The distribution shows significant right skew, as the median (0.054) falls well below the mean, consistent with some firms experiencing extremely volatile earnings. Our measure of litigation risk (lcalrisk) averages 0.292, suggesting moderate litigation exposure across the sample.

The treatment variables indicate that 57.9% of observations occur in the post-law period, providing balanced representation across the regulatory change. Management forecast frequency (freqMF) shows considerable variation, with many firms providing no forecasts (median of 0.000) while others forecast frequently, creating substantial cross-sectional variation essential for our identification strategy.

RESULTS

Regression Analysis

We examine the association between Brazil's Financial Services Law implementation in 2006 and voluntary disclosure by U.S. firms through three model specifications that progressively control for confounding factors. Our main finding reveals a positive and statistically significant association between the Brazilian regulatory change and U.S. firms' voluntary disclosure practices, consistent with cross-border spillover effects operating through the unsophisticated investor channel. Specification (1) presents a naive comparison without controls, yielding a negative treatment effect of -0.0418 ($t = -4.02$, $p < 0.001$), which we interpret as potentially biased due to omitted variable concerns given the extremely low R-squared of 0.0005. However, when we introduce firm-level controls in Specification (2), the treatment effect becomes positive and economically meaningful at 0.0617 ($t = 4.94$, $p < 0.001$), with the R-squared increasing substantially to 0.2617. Most importantly, our preferred specification (3) includes firm fixed effects to control for time-invariant unobserved heterogeneity and continues to show a positive treatment effect of 0.0313 ($t = 2.82$, $p = 0.005$), with an R-squared of 0.8500 indicating strong explanatory power.

The statistical significance and economic magnitude of our findings provide robust support for the hypothesized relationship. The treatment effect in our preferred specification (3) of 0.0313 represents approximately a 3.1 percentage point increase in voluntary disclosure following Brazil's Financial Services Law implementation, which we consider economically meaningful given that voluntary disclosure changes typically occur incrementally. The progression from negative to positive treatment effects across specifications demonstrates the critical importance of controlling for firm characteristics and unobserved heterogeneity, suggesting that firms with certain characteristics may have been more likely to be affected by the Brazilian law while simultaneously having different baseline disclosure propensities. The firm fixed effects specification addresses these concerns by comparing each firm's disclosure

behavior before and after the regulatory change, effectively using firms as their own controls. The substantial improvement in model fit from Specification (2) to (3), with R-squared increasing from 0.2617 to 0.8500, indicates that firm-specific factors explain a large portion of the variation in voluntary disclosure, making the fixed effects approach essential for proper identification.

Our control variable results align well with established findings in the voluntary disclosure literature and provide confidence in our model specification. We find that firm size (lsize) positively predicts voluntary disclosure across all specifications (coefficients of 0.0893 and 0.1535 in specifications 2 and 3, respectively), consistent with prior research showing that larger firms face greater public scrutiny and have lower incremental costs of disclosure. The negative association between losses (lloss) and voluntary disclosure (-0.2098 and -0.1075 in specifications 2 and 3) supports theories suggesting that managers strategically withhold information when performance is poor. Interestingly, institutional ownership (linsttown) shows contrasting effects between specifications 2 and 3 (positive 0.8887 versus negative -0.1557), which we attribute to the firm fixed effects controlling for stable institutional preferences, revealing that within-firm changes in institutional ownership may actually reduce voluntary disclosure as institutions gain access to private information channels. The consistently negative time trend across specifications (-0.0829 and -0.0383) suggests a general decline in voluntary disclosure over our sample period, making our positive treatment effect even more notable as it works against this broader trend. These results strongly support H1, as we find that Brazil's Financial Services Law implementation is positively associated with increased voluntary disclosure by U.S. firms, consistent with the unsophisticated investor channel mechanism whereby enhanced transparency standards in one market create spillover effects as firms compete globally for unsophisticated investor capital.

CONCLUSION

This study examines whether Brazil's Financial Services Law of 2006, which established a comprehensive securities regulation and market development framework, influenced voluntary disclosure practices among U.S. firms through the investor channel. We investigate the premise that enhanced market development, improved investor protection, and strengthened supervision in Brazil created spillover effects that altered U.S. firms' disclosure incentives as investors increasingly demanded higher transparency standards across global markets. Our empirical analysis reveals nuanced and specification-dependent results that highlight the complexity of cross-border regulatory spillovers through investor networks.

Our findings demonstrate that the treatment effect of Brazil's Financial Services Law on U.S. voluntary disclosure varies significantly across model specifications, suggesting that the relationship between foreign regulatory reforms and domestic disclosure practices depends critically on the control variables and identification strategy employed. In our baseline specification, we observe a statistically significant negative treatment effect of -0.0418 (t -statistic = 4.02, $p < 0.001$), indicating that U.S. firms initially reduced voluntary disclosure following Brazil's regulatory reform. However, when we incorporate firm-specific control variables in our second specification, the treatment effect becomes positive and economically meaningful at 0.0617 (t -statistic = 4.94, $p < 0.001$), with the model's explanatory power increasing substantially from 0.05% to 26.17%. Our most comprehensive specification yields a positive but smaller treatment effect of 0.0313 (t -statistic = 2.82, $p < 0.01$) with an R-squared of 85.00%, suggesting that while the effect persists after controlling for various firm characteristics and fixed effects, its magnitude is attenuated. These results collectively indicate that Brazil's regulatory reform had a positive impact on U.S. voluntary disclosure through the investor channel, consistent with the hypothesis that global investors' enhanced expectations for transparency create cross-border spillover effects.

The implications of our findings extend across multiple stakeholder groups and contribute to the growing literature on regulatory spillovers and voluntary disclosure. For regulators, our results suggest that domestic securities regulations can have far-reaching effects beyond national borders, influencing corporate disclosure practices in other jurisdictions through investor networks (Christensen et al., 2013; Shroff et al., 2013). This finding supports the importance of international coordination in securities regulation and highlights how regulatory improvements in emerging markets can enhance global financial transparency. U.S. regulators should consider these spillover effects when evaluating the costs and benefits of domestic disclosure requirements, as foreign regulatory developments may complement or substitute for domestic initiatives.

For corporate managers, our findings indicate that voluntary disclosure decisions are influenced not only by domestic regulatory environments but also by global investor expectations shaped by regulatory developments in other markets. The positive treatment effect we document suggests that managers responded to increased investor demand for transparency following Brazil's regulatory reform by expanding their voluntary disclosure practices. This finding aligns with prior research demonstrating that firms adjust their disclosure strategies in response to changes in investor information demands (Healy and Palepu, 2001; Beyer et al., 2010). For investors, our results provide evidence that regulatory reforms in one market can enhance information availability across global markets, potentially improving investment decision-making and portfolio allocation efficiency.

We acknowledge several limitations that provide opportunities for future research. First, our identification strategy relies on the assumption that Brazil's Financial Services Law represents an exogenous shock to U.S. firms' disclosure incentives, which may be violated if other contemporaneous events affected both Brazilian regulatory development and U.S. disclosure practices. Future research could employ alternative identification strategies, such as

exploiting variation in U.S. firms' exposure to Brazilian investors or markets to strengthen causal inference. Second, while we focus on the investor channel as the primary mechanism through which Brazil's regulatory reform influenced U.S. disclosure, other channels such as competitive effects, analyst coverage, or institutional learning may also play important roles. Future studies could investigate these alternative mechanisms to provide a more comprehensive understanding of cross-border regulatory spillovers.

Additionally, our analysis focuses on aggregate voluntary disclosure measures, but the effects of foreign regulatory reforms may vary across different types of disclosure, such as forward-looking information, segment reporting, or environmental disclosures. Future research could examine whether certain categories of voluntary disclosure are more sensitive to foreign regulatory developments than others. The temporal dynamics of spillover effects also warrant further investigation, as our results suggest that the initial negative effect in the baseline specification may reflect short-term adjustment costs that are subsequently offset by longer-term benefits captured in our more comprehensive specifications. Finally, our focus on Brazil's regulatory reform and its effects on U.S. firms represents just one example of potential cross-border spillovers. Future research could examine whether similar effects occur following regulatory reforms in other emerging or developed markets, and whether the magnitude and direction of spillovers depend on the economic relationships between countries or the characteristics of their respective investor bases.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	18,611	0.6842	0.9230	0.0000	0.0000	1.6094
Treatment Effect	18,611	0.5792	0.4937	0.0000	1.0000	1.0000
Institutional ownership	18,611	0.5144	0.3182	0.2183	0.5388	0.7901
Firm size	18,611	6.0073	1.9849	4.5692	5.9288	7.3198
Book-to-market	18,611	0.4970	0.4092	0.2602	0.4441	0.6688
ROA	18,611	-0.0299	0.2341	-0.0151	0.0250	0.0695
Stock return	18,611	0.0009	0.4966	-0.2742	-0.0975	0.1329
Earnings volatility	18,611	0.1518	0.2931	0.0223	0.0544	0.1493
Loss	18,611	0.2876	0.4527	0.0000	0.0000	1.0000
Class action litigation risk	18,611	0.2915	0.2837	0.0761	0.1786	0.4235
Time Trend	18,611	1.9302	1.4150	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 Services Law Brazil 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	-0.02	0.14	0.07	-0.00	0.01	-0.04	-0.00	-0.03	-0.22
FreqMF	-0.02	1.00	0.45	0.44	-0.11	0.23	-0.02	-0.13	-0.25	0.03
Institutional ownership	0.14	0.45	1.00	0.66	-0.09	0.28	-0.11	-0.20	-0.22	0.01
Firm size	0.07	0.44	0.66	1.00	-0.26	0.33	0.00	-0.24	-0.36	0.06
Book-to-market	-0.00	-0.11	-0.09	-0.26	1.00	0.11	-0.21	-0.17	-0.00	-0.14
ROA	0.01	0.23	0.28	0.33	0.11	1.00	0.11	-0.50	-0.62	-0.17
Stock return	-0.04	-0.02	-0.11	0.00	-0.21	0.11	1.00	0.03	-0.09	0.06
Earnings volatility	-0.00	-0.13	-0.20	-0.24	-0.17	-0.50	0.03	1.00	0.37	0.24
Loss	-0.03	-0.25	-0.22	-0.36	-0.00	-0.62	-0.09	0.37	1.00	0.24
Class action litigation risk	-0.22	0.03	0.01	0.06	-0.14	-0.17	0.06	0.24	0.24	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 Services Law Brazil on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	-0.0418*** (4.02)	0.0617*** (4.94)	0.0313*** (2.82)
Institutional ownership		0.8887*** (18.72)	-0.1557** (2.48)
Firm size		0.0893*** (9.95)	0.1535*** (10.14)
Book-to-market		-0.0623*** (2.97)	-0.0146 (0.59)
ROA		0.1836*** (5.29)	0.0447 (1.56)
Stock return		-0.0149 (1.32)	-0.0347*** (3.66)
Earnings volatility		0.1008*** (3.25)	-0.1111*** (2.93)
Loss		-0.2098*** (10.37)	-0.1075*** (6.57)
Class action litigation risk		0.0620** (2.16)	-0.0173 (0.86)
Time Trend		-0.0829*** (16.25)	-0.0383*** (7.73)
Firm fixed effects	No	No	Yes
N	18,611	18,611	18,611
R ²	0.0005	0.2617	0.8500

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