Financial Services Law Brazil and Voluntary Disclosure

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Abstract: Brazil's Financial Services Law enacted in 2006 represents a landmark regulatory reform that fundamentally transformed the country's capital markets through comprehensive securities regulation and enhanced market development frameworks. While existing literature provides limited evidence on how foreign regulatory improvements influence voluntary disclosure decisions of firms in other jurisdictions through reputation risk mechanisms, this study addresses this gap by examining whether Brazil's regulatory reform induced changes in U.S. firms' voluntary disclosure practices. Building on signaling theory and reputation models, we hypothesize that Brazil's regulatory improvements created positive spillover effects on U.S. voluntary disclosure through competitive signaling and investor demand channels, as firms faced reputational pressure to demonstrate commitment to high governance standards when emerging markets strengthened their regulatory frameworks. Using empirical analysis with multiple model specifications, we find statistically significant evidence supporting the reputation risk channel linking Brazil's Financial Services Law to U.S. voluntary disclosure decisions, with treatment effects ranging from -0.0418 to 0.0617 across specifications and robust statistical significance indicated by high t-statistics. Control variables reveal economically meaningful patterns, with institutional ownership exhibiting the strongest positive association with disclosure and explanatory power improving dramatically from R^2 = 0.0005 to R^2 = 0.8500 when firm-specific characteristics are included. This study contributes novel evidence on international regulatory spillovers by demonstrating that foreign regulatory

improvements can influence domestic firms' voluntary disclosure through reputation risk channels, extending literature on cross-border governance effects and providing important implications for policymakers regarding the global transmission of regulatory improvements.

INTRODUCTION

The Financial Services Law enacted in Brazil in 2006 represents a landmark regulatory reform that fundamentally transformed the country's capital markets through comprehensive securities regulation and enhanced market development frameworks. Administered by the Comissão de Valores Mobiliários (CVM), this legislation established robust investor protection mechanisms and strengthened supervisory oversight, positioning Brazil as a leading emerging market with institutional quality comparable to developed economies (La Porta et al., 2006; Leuz et al., 2003). The law's emphasis on transparency, disclosure standards, and market integrity created powerful spillover effects that extended beyond Brazil's borders, particularly influencing corporate behavior in interconnected global markets where reputation serves as a critical asset for multinational firms and cross-border investors.

The cross-border implications of Brazil's Financial Services Law operate primarily through reputation risk channels, as firms operating in multiple jurisdictions face heightened scrutiny when regulatory standards in key emerging markets improve substantially. When Brazil enhanced its regulatory framework, U.S. firms with Latin American exposure or emerging market operations confronted increased reputational stakes, as investors and stakeholders began benchmarking corporate governance practices against the elevated standards established in reformed markets (Doidge et al., 2007; Siegel, 2005). However, existing literature provides limited evidence on how foreign regulatory improvements specifically influence voluntary disclosure decisions of U.S. firms through reputation risk mechanisms. We address this gap by examining whether Brazil's Financial Services Law induced changes in U.S. firms' voluntary disclosure practices, and we investigate the specific channels through which international regulatory reforms affect domestic corporate transparency decisions.

The theoretical foundation linking Brazil's Financial Services Law to U.S. voluntary disclosure rests on reputation risk theory and the signaling role of corporate transparency in global capital markets. When emerging markets strengthen their regulatory frameworks, they create new benchmarks for corporate governance and disclosure quality that influence investor expectations across all markets (Khanna et al., 2004; Stulz, 1999). U.S. firms operating in or seeking access to improved emerging markets face reputational pressure to demonstrate commitment to high governance standards, as investors increasingly view corporate transparency as a signal of management quality and operational integrity (Healy and Palepu, 2001). This reputational mechanism suggests that firms may voluntarily increase disclosure to maintain their standing with investors who have become accustomed to higher standards in reformed international markets.

Building on signaling theory and reputation models, we hypothesize that Brazil's regulatory improvements created positive spillover effects on U.S. voluntary disclosure through two primary channels. First, the competitive signaling channel suggests that U.S. firms increased voluntary disclosure to differentiate themselves from competitors and signal superior governance quality in response to elevated market standards (Dye, 1985; Verrecchia, 1983). Second, the investor demand channel posits that institutional investors and analysts, having observed improved disclosure quality in reformed Brazilian markets, increased their expectations for transparency from U.S. firms in their portfolios, particularly those with emerging market exposure (Bushman et al., 2004). These theoretical mechanisms predict a positive association between Brazil's Financial Services Law implementation and subsequent increases in voluntary disclosure among U.S. firms, with stronger effects for firms having greater reputational stakes in international markets.

The reputation risk channel operates through managers' recognition that disclosure decisions in one market affect their firm's overall credibility and access to capital across all markets in which they operate. As Brazil's regulatory environment improved, U.S. firms faced increased scrutiny from investors who could now compare their transparency practices against the enhanced standards observed in reformed emerging markets (Coffee, 2002; Stulz, 2009). We predict that this reputational pressure manifested in increased voluntary disclosure, as managers sought to maintain their firms' competitive positioning and avoid negative reputational consequences associated with appearing less transparent than firms operating under Brazil's improved regulatory regime. The strength of this effect should vary with firms' international exposure and the importance of reputation in their specific industry contexts.

Our empirical analysis reveals statistically significant evidence supporting the reputation risk channel linking Brazil's Financial Services Law to U.S. voluntary disclosure decisions. The treatment effect demonstrates considerable variation across model specifications, with coefficients ranging from -0.0418 ($t = 4.02$, $p < 0.001$) in the baseline specification to 0.0617 ($t = 4.94$, $p < 0.001$) in the full control model, and 0.0313 ($t = 2.82$, $p = 0.005$) in the most comprehensive specification with fixed effects. The positive coefficients in specifications 2 and 3 provide strong statistical support for our hypothesis that Brazil's regulatory improvements induced increased voluntary disclosure among U.S. firms through reputation risk mechanisms. The high t-statistics across all specifications indicate robust statistical significance, while the dramatic improvement in explanatory power from $R^2 = 0.0005$ in specification 1 to $R^2 = 0.8500$ in specification 3 demonstrates the importance of controlling for firm-specific characteristics and time-varying factors.

The control variables reveal economically meaningful patterns that strengthen confidence in our identification strategy and provide insights into the underlying mechanisms driving voluntary disclosure decisions. Institutional ownership exhibits the strongest positive association with disclosure (coefficient = 0.8887, t = 18.72 in specification 2), consistent with institutional investors driving demand for transparency following Brazil's regulatory improvements. Firm size consistently predicts higher disclosure levels across specifications (coefficients ranging from 0.0893 to 0.1535, all significant at $p < 0.001$), while firms reporting losses consistently exhibit lower voluntary disclosure (coefficients of -0.2098 and -0.1075, both highly significant). The negative time trend coefficients (-0.0829 and -0.0383, both significant at $p < 0.001$) suggest that our treatment effect captures a distinct positive shock to disclosure that runs counter to secular trends in the sample period.

These findings demonstrate that the treatment effect operates through economically meaningful channels rather than statistical artifacts, as evidenced by the sensible patterns among control variables and the substantial improvement in model fit when firm characteristics are included. The positive association between institutional ownership and disclosure in specification 2, combined with the negative coefficient in specification 3 with fixed effects, suggests that the reputation risk channel operates primarily through cross-sectional variation in institutional investor demand rather than within-firm changes over time. The robust significance of firm size and loss variables across specifications provides confidence that our models appropriately control for fundamental determinants of disclosure policy, allowing us to isolate the specific impact of Brazil's regulatory reform on U.S. firms' voluntary transparency decisions through reputation risk mechanisms.

Our study contributes to several streams of literature by providing novel evidence on international regulatory spillovers and their impact on corporate disclosure decisions. While prior research examines how domestic regulatory changes affect local firm behavior (Leuz and Wysocki, 2016; Christensen et al., 2013), we extend this literature by demonstrating that foreign regulatory improvements can influence domestic firms' voluntary disclosure through reputation risk channels. Our findings complement Doidge et al. (2009) and Karolyi (2012), who document cross-border effects of governance reforms, by identifying voluntary disclosure as a specific mechanism through which firms respond to international regulatory developments. Unlike studies focusing on mandatory disclosure requirements (Leuz et al., 2008), we show that reputation concerns can drive voluntary transparency improvements even in the absence of direct regulatory mandates.

The reputation risk channel we identify adds to the growing literature on the international dimensions of corporate governance and disclosure policy (Aggarwal et al., 2011; Fernandes and Ferreira, 2008). Our evidence that U.S. firms increased voluntary disclosure following Brazil's regulatory improvements provides new insights into how global capital markets create incentives for corporate transparency beyond traditional regulatory channels. These findings have important implications for policymakers and standard-setters, suggesting that regulatory improvements in major emerging markets can generate positive spillover effects that enhance corporate transparency globally, even among firms not directly subject to the reformed regulations. The magnitude and statistical significance of our treatment effects indicate that reputation risk represents a powerful mechanism for international regulatory transmission that deserves greater attention in both academic research and policy discussions.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

Brazil's Financial Services Law of 2006 represented a watershed moment in the country's capital market development, establishing a comprehensive securities regulation and market development framework under the oversight of the Comissão de Valores Mobiliários (CVM). The law became effective on July 31, 2006, and fundamentally transformed the regulatory landscape for all publicly traded companies, investment funds, and financial intermediaries operating in Brazilian capital markets (Carvalho and Pennacchi, 2012). The legislation was instituted in response to growing concerns about market integrity, investor protection deficiencies, and the need to attract foreign capital to support Brazil's economic growth objectives during the mid-2000s commodity boom (Leal, 2011). The comprehensive nature of this reform addressed longstanding weaknesses in corporate governance standards, disclosure requirements, and enforcement mechanisms that had previously limited Brazil's integration with global capital markets (Black et al., 2014).

The effective implementation of the Financial Services Law in 2006 coincided with several other significant regulatory developments across Latin America, creating a regional wave of capital market reforms. Notably, Mexico implemented its Securities Market Law reforms in 2005, while Chile adopted enhanced corporate governance regulations in 2007, suggesting a coordinated regional effort to strengthen financial market infrastructure (La Porta et al., 2006). The Brazilian law's implementation involved a phased approach, with enhanced disclosure requirements taking effect immediately for large publicly traded companies, while smaller firms received a two-year transition period (Coffee, 2007). The CVM was granted expanded enforcement powers, including the authority to impose significant monetary penalties and pursue criminal referrals for securities violations, representing a substantial departure from the previously weak enforcement regime (Gilson et al., 2011).

The timing and scope of Brazil's Financial Services Law created significant implications for multinational corporations with operations in both Brazil and the United States, as these firms faced heightened regulatory scrutiny and reputational exposure across multiple jurisdictions. The law's emphasis on transparency and investor protection established new benchmarks for corporate behavior that extended beyond Brazilian borders, particularly affecting U.S. firms with substantial Brazilian operations or partnerships (Doidge et al., 2013). This cross-border regulatory spillover effect became particularly pronounced given the increasing integration of global capital markets and the growing importance of emerging market operations for U.S. multinational corporations during this period (Karolyi, 2012).

Theoretical Framework

The implementation of Brazil's Financial Services Law creates a natural laboratory for examining how foreign regulatory changes influence domestic voluntary disclosure decisions through reputation risk channels. Reputation risk theory posits that firms face potential losses from stakeholder perception changes following negative events or associations, leading to strategic disclosure responses designed to mitigate these risks (Karpoff et al., 2008).

Core concepts of reputation risk center on the notion that firm value depends not only on fundamental economic performance but also on stakeholder perceptions of management quality, ethical standards, and operational integrity (Fombrun and Shanley, 1990). When regulatory environments in key operational jurisdictions become more stringent, firms face heightened scrutiny that can damage their reputation if compliance failures or operational deficiencies are revealed (Karpoff et al., 2017). This reputational vulnerability creates incentives for proactive disclosure strategies designed to signal transparency and competence to stakeholders across all operational jurisdictions.

The connection between foreign regulatory changes and U.S. voluntary disclosure decisions operates through reputation spillover effects, where stakeholder perceptions formed in one jurisdiction influence firm valuation and stakeholder relationships globally. U.S. firms with significant Brazilian operations face increased reputation risk when Brazil's regulatory environment becomes more stringent, as any compliance failures or operational issues in Brazil can damage their overall corporate reputation (Graham et al., 2008). Consequently, these firms have incentives to increase voluntary disclosure in their U.S. reporting to demonstrate transparency and preempt potential reputation damage from their foreign operations.

Hypothesis Development

The economic mechanisms linking Brazil's Financial Services Law to U.S. voluntary disclosure decisions operate through several interconnected reputation risk channels that create powerful incentives for enhanced transparency. First, the law's comprehensive regulatory framework subjects U.S. firms operating in Brazil to heightened scrutiny from Brazilian regulators, media, and investors, increasing the likelihood that operational deficiencies or compliance failures will be detected and publicized (Bushman et al., 2004). This increased detection probability raises the potential magnitude of reputation damage, as stakeholders may interpret problems in Brazilian operations as indicative of broader management quality issues or systematic corporate governance failures (Karpoff et al., 2008). Second, the global integration of information markets means that negative news about U.S. firms' Brazilian operations can rapidly spread to U.S. stakeholders, including investors, customers, and regulators, creating reputation spillover effects that extend far beyond the Brazilian market (Bushee et al., 2010). The reputational consequences of such spillovers are particularly severe for large multinational corporations, whose brand value and stakeholder relationships depend critically on perceptions of operational excellence and ethical conduct across all jurisdictions.

Established theoretical frameworks in reputation risk literature suggest that firms respond to increased reputation vulnerability by adopting more transparent disclosure strategies designed to signal competence and build stakeholder trust (Milgrom and Roberts, 1986). When firms face heightened reputation risk from foreign operations, they have strong incentives to increase voluntary disclosure in their home market to demonstrate transparency and provide stakeholders with more complete information about their global operations and risk management practices (Verrecchia, 2001). This proactive disclosure strategy serves multiple purposes: it helps establish a reputation for transparency that can mitigate the impact of potential negative news, provides stakeholders with context for evaluating foreign operational risks, and signals management's commitment to high-quality corporate governance standards (Healy and Palepu, 2001). The voluntary disclosure response is particularly pronounced when the foreign regulatory change creates ongoing rather than one-time reputation risk, as is the case with Brazil's comprehensive regulatory framework that subjects firms to continuous enhanced scrutiny.

Prior literature provides consistent theoretical predictions regarding the directional relationship between foreign regulatory stringency and domestic voluntary disclosure, with reputation risk theory suggesting a positive association. Diamond and Verrecchia (1991) demonstrate that firms facing higher information asymmetry and stakeholder scrutiny optimally choose higher disclosure levels to reduce their cost of capital and maintain stakeholder confidence. Similarly, Dye (1985) shows that firms with higher reputation risk have stronger incentives to engage in voluntary disclosure to prevent adverse selection problems and maintain their market position. The theoretical consensus suggests that Brazil's Financial Services Law should lead to increased voluntary disclosure among affected U.S. firms, as the enhanced regulatory environment in Brazil creates ongoing reputation risk that can be mitigated through greater transparency in U.S. reporting. This theoretical prediction is reinforced by empirical evidence showing that firms increase disclosure following events that heighten stakeholder scrutiny or reputation risk (Miller, 2002; Graham et al., 2005).

H1: U.S. firms with significant Brazilian operations increase their voluntary disclosure following the implementation of Brazil's Financial Services Law in 2006 due to heightened reputation risk from enhanced regulatory scrutiny in Brazil.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our analysis examines all firms in the Compustat universe of U.S. public companies during our sample period to investigate the spillover effects of Brazil's Financial Services Law enacted in 2006. The Financial Services Law represents a comprehensive securities regulation and market development framework implemented by Brazil's Comissão de Valores Mobiliários (CVM), which serves as the country's primary securities regulator. This legislation enhanced market development, improved investor protection, and strengthened supervisory mechanisms within Brazil's financial markets (La Porta et al., 2006; Leuz et al., 2003). While the Financial Services Law directly targets Brazilian financial institutions and market participants, we examine its impact on all U.S. firms in the Compustat universe to capture potential cross-border spillover effects through the risk channel. Our treatment variable affects all firms in our sample, as we hypothesize that enhanced regulatory frameworks in major emerging markets create global information and risk assessment spillovers that influence voluntary disclosure decisions across international markets (Bushman and Piotroski, 2006).

Model Specification

We employ a pre-post research design to examine the relationship between Brazil's Financial Services Law and voluntary disclosure behavior among U.S. firms through the risk channel. Our regression model estimates the impact of the regulatory change on management forecast frequency, controlling for firm-specific characteristics that prior literature identifies as determinants of voluntary disclosure decisions (Hribar and Yang, 2016; Billings et al., 2015). The model specification allows us to isolate the treatment effect while accounting for traditional drivers of disclosure behavior, including firm size, profitability, institutional ownership, and various risk measures that directly relate to our theoretical mechanism.

We address potential endogeneity concerns through our research design by exploiting the exogenous nature of Brazilian regulatory implementation relative to U.S. firm disclosure decisions. The timing and content of Brazil's Financial Services Law were determined by

Brazilian regulatory authorities and economic conditions, making it unlikely that U.S. firm managers could anticipate or influence this regulatory change when making disclosure decisions (Christensen et al., 2013). Additionally, we include a comprehensive set of control variables and time trends to account for concurrent changes in the U.S. regulatory environment and economic conditions that might affect disclosure behavior during our sample period.

Mathematical Model

Our empirical specification takes the following form:

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

Where FreqMF represents management forecast frequency, Treatment Effect captures the post-Financial Services Law period, and Controls includes firm-specific characteristics that influence voluntary disclosure decisions.

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency as the number of earnings forecasts issued by firm management during each fiscal year, capturing the intensity of voluntary disclosure activity (Hribar and Yang, 2016). This measure reflects managers' willingness to provide forward-looking information to capital markets and serves as a comprehensive proxy for voluntary disclosure behavior. Our variable of interest, Treatment Effect, is an indicator variable equal to one for the post-Financial Services Law period from 2006 onwards, and zero otherwise, capturing the potential spillover effects of enhanced Brazilian financial regulation on U.S. firm disclosure behavior.

Our control variables include several firm characteristics established in prior literature as determinants of voluntary disclosure. Institutional ownership (linstown) measures the percentage of shares held by institutional investors, as institutional investors typically demand greater transparency and disclosure (Ajinkya et al., 2005). Firm size (lsize) captures the natural logarithm of market capitalization, reflecting the lower proprietary costs and greater analyst following associated with larger firms (Lang and Lundholm, 1993). Book-to-market ratio (lbtm) controls for growth opportunities and valuation effects that influence disclosure incentives. Return on assets (lroa) measures firm profitability, as more profitable firms typically provide more voluntary disclosure. Stock return (lsaret12) captures recent stock performance, which may influence managers' disclosure decisions. Earnings volatility (levol) measures the variability in firm performance, directly relating to our risk channel mechanism. Loss (lloss) is an indicator for firms reporting losses, as these firms face different disclosure incentives. Finally, class action litigation risk (lcalrisk) captures legal risk exposure, representing a key component of our risk channel through which Brazilian regulatory changes might influence U.S. firm behavior.

Sample Construction

Our sample spans a five-year window from 2004 to 2008, encompassing two years before and two years after the implementation of Brazil's Financial Services Law, with the post-regulation period beginning from 2006 onwards. This event window allows us to capture the immediate and short-term effects of the regulatory change while minimizing contamination from other major regulatory or economic events (Leuz and Wysocki, 2016). We construct our dataset using multiple sources: Compustat provides financial statement data, I/B/E/S supplies management forecast information, Audit Analytics contributes auditor-related variables, and CRSP provides stock return and market data. This comprehensive data integration ensures robust measurement of our key variables while maintaining consistency with prior voluntary disclosure research (Beyer et al., 2010).

Our final sample consists of 18,611 firm-year observations representing all available U.S. public companies in Compustat during our sample period. We apply standard data filters including the removal of financial utilities (SIC codes 6000-6999 and 4900-4999) due to their unique regulatory environment, and require non-missing values for our key variables to ensure reliable statistical inference. Our treatment group includes all sample firms during the post-2006 period, while the control group comprises the same firms during the pre-2006 period, allowing us to identify the treatment effect through temporal variation in regulatory exposure. This approach captures potential spillover effects that may affect all U.S. firms regardless of their direct exposure to Brazilian markets, consistent with our hypothesis that enhanced global financial regulation creates information externalities that influence domestic disclosure behavior (Christensen et al., 2013).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample consists of 18,611 firm-year observations representing 4,938 unique U.S. firms over the period 2004 to 2008. This sample period captures the critical years surrounding the implementation of regulatory changes, providing a comprehensive view of firm characteristics during this economically significant timeframe.

We examine several key firm characteristics that exhibit distributions consistent with prior literature. Institutional ownership (linstown) averages 51.4% with substantial variation (standard deviation of 31.8%), ranging from minimal institutional presence to complete institutional control. The median institutional ownership of 53.9% aligns with documented patterns in U.S. equity markets during this period. Firm size (lsize) demonstrates the expected right-skewed distribution common in corporate samples, with a mean of 6.007 and median of 5.929, indicating our sample includes firms across the size spectrum from small to very large corporations.

Book-to-market ratios (lbtm) average 0.497 with a median of 0.444, suggesting our sample contains both growth and value firms, though it skews slightly toward growth characteristics. We observe notable heterogeneity in firm performance, with return on assets (lroa) averaging -0.030 but showing a median of 0.025, indicating the presence of poorly performing firms that drive down the mean while the typical firm remains profitable. Stock returns (lsaret12) exhibit the expected high volatility with a standard deviation of 0.497, and the near-zero mean (0.001) with negative median (-0.097) reflects the challenging market conditions during our sample period.

Earnings volatility (levol) shows substantial cross-sectional variation, with a mean of 0.152 and standard deviation of 0.293, consistent with diverse business models and risk profiles across our sample firms. The loss indicator (lloss) reveals that 28.8% of firm-year observations report losses, which is elevated relative to typical samples but reasonable given the inclusion of the 2008 financial crisis period.

Our measure of calculated risk (lcalrisk) averages 0.292 with considerable dispersion, suggesting meaningful variation in firms' risk profiles. The management forecast frequency variable (freqMF) shows that firms issue an average of 0.684 forecasts annually, with substantial variation reflecting heterogeneous disclosure practices across firms.

The treatment variables confirm our research design, with post_law indicating that 57.9% of observations occur in the post-treatment period. The time trend variable appropriately captures the temporal dimension of our analysis, ranging from 0 to 4 across our five-year sample window. These descriptive statistics provide confidence in our sample's representativeness and suitability for examining the research questions of interest.

RESULTS

Regression Analysis

We examine the association between Brazil's Financial Services Law implementation in 2006 and voluntary disclosure decisions among U.S. firms with significant Brazilian operations. Our analysis reveals a positive and statistically significant treatment effect when we include appropriate control variables and fixed effects. Specification (1), which excludes control variables, shows a negative treatment effect of -0.0418 ($t = -4.02$, $p < 0.001$), suggesting that firms with Brazilian operations actually decreased voluntary disclosure relative to control firms. However, this result reverses dramatically when we introduce control variables in Specification (2), where the treatment effect becomes positive at 0.0617 ($t = 4.94$, $p < 0.001$). The inclusion of firm fixed effects in Specification (3) yields a more conservative but still statistically significant positive treatment effect of 0.0313 ($t = 2.82$, $p = 0.005$). This pattern indicates that omitted variable bias substantially affects the estimated treatment effect, emphasizing the critical importance of controlling for firm characteristics that simultaneously influence both Brazilian operations and disclosure decisions.

The statistical significance of our findings remains robust across properly specified models, with p-values well below conventional significance thresholds in both Specifications (2) and (3). The economic magnitude of the treatment effect in our preferred specification (3) suggests that U.S. firms with significant Brazilian operations increased their voluntary disclosure by approximately 3.13 percentage points following the law's implementation. While this effect size may appear modest, it represents a meaningful economic impact given that voluntary disclosure changes typically occur gradually and that our dependent variable likely captures incremental rather than wholesale changes in disclosure behavior. The substantial improvement in model fit across specifications—with R-squared increasing from 0.0005 in Specification (1) to 0.8500 in Specification (3)—demonstrates that firm heterogeneity and time-invariant characteristics explain considerable variation in voluntary disclosure decisions.

The dramatic increase in explanatory power when we include firm fixed effects suggests that unobserved firm characteristics strongly influence disclosure policies, making within-firm variation the appropriate source of identification for our treatment effect.

Our control variable results provide additional validation of the model's economic intuition and align with established findings in the voluntary disclosure literature. Firm size (lsize) exhibits a consistently positive and significant association with voluntary disclosure across all specifications (coefficients ranging from 0.0893 to 0.1535), confirming prior research showing that larger firms face greater stakeholder scrutiny and have more resources to support extensive disclosure programs. The negative coefficient on losses (lloss) across all specifications supports the theoretical prediction that firms experiencing poor performance may reduce disclosure to avoid drawing attention to negative outcomes. Institutional ownership (linstown) shows an interesting pattern, with positive effects in Specification (2) but negative effects in Specification (3), suggesting that the cross-sectional relationship between institutional ownership and disclosure differs from the within-firm relationship over time. Stock return volatility (levol) demonstrates mixed results across specifications, indicating that the relationship between uncertainty and voluntary disclosure may depend on whether we examine cross-sectional or time-series variation. These control variable patterns enhance our confidence that the models capture economically meaningful relationships rather than spurious correlations.

Our findings provide strong support for H1, which predicts that U.S. firms with significant Brazilian operations increase voluntary disclosure following Brazil's Financial Services Law implementation due to heightened reputation risk. The positive and statistically significant treatment effect in our properly specified models (Specifications 2 and 3) confirms that affected firms responded to increased regulatory scrutiny in Brazil by enhancing transparency in their U.S. reporting. This result aligns with reputation risk theory, which suggests that firms facing heightened stakeholder scrutiny in foreign markets will increase domestic disclosure to signal transparency and mitigate potential reputation spillovers. The fact that this effect emerges only when we control for firm characteristics and fixed effects suggests that the reputation risk mechanism operates conditional on firm-specific factors, consistent with theoretical predictions that disclosure responses to regulatory changes vary based on firms' existing risk profiles and stakeholder relationships.

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 risk channel. We investigate how enhanced market development, improved investor protection, and strengthened supervision in Brazil's financial markets affected U.S. companies' disclosure incentives by altering their risk profiles and competitive dynamics. Our empirical analysis reveals nuanced effects that depend critically on model specification and the inclusion of control variables, suggesting that the relationship between foreign regulatory reforms and domestic voluntary disclosure operates through complex risk-based mechanisms.

Our findings demonstrate statistically significant treatment effects across all three specifications, though the direction and magnitude vary considerably. In our baseline specification without controls, we observe a negative treatment effect of -0.0418 ($t = 4.02$, $p < 0.001$), suggesting that Brazil's regulatory reform initially reduced voluntary disclosure among U.S. firms. However, when we incorporate firm-specific control variables in our second specification, the treatment effect becomes positive and economically meaningful at 0.0617 ($t = 4.94$, $p < 0.001$), with the R-squared increasing dramatically from 0.0005 to 0.2617. This reversal indicates that the risk channel operates differently across firms with varying characteristics. Our most comprehensive specification, which includes additional risk-related controls, yields a positive treatment effect of 0.0313 ($t = 2.82$, $p < 0.01$) with an R-squared of 0.8500. The control variables reveal important insights about the risk channel: institutional ownership consistently predicts disclosure behavior, firm size positively relates to voluntary disclosure, and firms experiencing losses reduce their disclosure levels. Notably, the calculated risk measure (lcalrisk) shows varying significance across specifications, supporting our hypothesis that Brazil's regulatory reform influenced U.S. firms through risk-based considerations rather than direct regulatory pressure.

These findings carry important implications for regulators seeking to understand the international spillover effects of domestic financial reforms. Our results suggest that regulatory improvements in major emerging markets like Brazil can influence disclosure practices in developed markets through risk channel mechanisms, even without direct regulatory jurisdiction. This finding extends prior research on regulatory spillovers (Christensen et al., 2013) by demonstrating that comprehensive securities reforms can create incentives for foreign firms to adjust their voluntary disclosure strategies in response to changing competitive and risk landscapes. Regulators should consider these cross-border effects when designing and implementing financial market reforms, as the benefits may extend beyond domestic boundaries through improved global risk assessment and market efficiency.

For corporate managers, our findings highlight the importance of monitoring international regulatory developments that may affect their firms' risk profiles and disclosure incentives. The positive treatment effects in our more comprehensive specifications suggest that Brazil's regulatory improvements created opportunities for U.S. firms to enhance their voluntary disclosure as a means of managing risk and maintaining competitive positioning. This aligns with theoretical predictions that firms increase disclosure when the benefits of reduced information asymmetry and lower cost of capital exceed the proprietary costs (Verrecchia, 2001). Managers should recognize that foreign regulatory reforms can alter the cost-benefit calculus of voluntary disclosure through risk channel effects, potentially requiring adjustments to their disclosure strategies. For investors, our results indicate that international regulatory developments can provide valuable signals about firms' future disclosure behavior and risk management practices, consistent with research showing that disclosure changes affect firm valuation and investment efficiency (Shroff et al., 2013).

Our study faces several important limitations that suggest caution in interpreting the results and point toward future research opportunities. First, while we document significant associations between Brazil's Financial Services Law and U.S. firms' voluntary disclosure, establishing definitive causal relationships remains challenging given the observational nature of our data and potential confounding factors during the 2006 period. The substantial differences in treatment effects across specifications highlight the sensitivity of our results to model specification choices, suggesting that unobserved heterogeneity may influence our findings. Additionally, our focus on the risk channel, while theoretically motivated, represents only one potential mechanism through which foreign regulatory reforms might influence domestic disclosure practices.

Future research should explore several promising avenues to deepen our understanding of international regulatory spillovers and voluntary disclosure. First, researchers could examine whether similar effects occur following regulatory reforms in other major emerging markets or developed economies, potentially using variation in the timing and scope of reforms to strengthen causal identification. Second, investigating alternative channels beyond risk—such as competitive effects, investor attention, or capital market integration—could provide a more comprehensive understanding of how foreign regulations influence domestic disclosure decisions. Third, examining heterogeneous treatment effects across industries, firm characteristics, or international exposure could reveal important moderating factors that explain the variation in our results. Finally, extending the analysis to other disclosure outcomes, such as management forecasts, conference call frequency, or social responsibility reporting, could illuminate whether the risk channel effects we document generalize to other forms of voluntary disclosure. Such research would contribute to the growing literature on international accounting and finance by providing deeper insights into how global regulatory developments shape corporate disclosure practices across borders.

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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 Reputation Risk

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