Financial Services Law Brazil and Voluntary Disclosure

Artemis Intelligencia

September 10, 2025

Abstract: Brazil's Financial Services Law of 2006 represents a critical juncture in emerging market development with far-reaching implications for global capital markets and corporate disclosure practices. This comprehensive regulatory reform, administered by the Comissão de Valores Mobiliários, fundamentally transformed Brazil's financial landscape through enhanced market development, improved investor protection, and strengthened supervision, creating unprecedented opportunities for cross-border capital flows and positioning Brazil as a more attractive destination for global investors. While extensive research examines how domestic regulatory changes affect local disclosure practices, limited evidence exists regarding how foreign market developments influence voluntary disclosure decisions in developed markets through equity financing channels. This study addresses this gap by investigating whether Brazil's Financial Services Law affected voluntary disclosure practices among U.S. firms through enhanced equity issuance opportunities, examining both the magnitude and persistence of these cross-border regulatory spillovers. The theoretical foundation rests on competitive dynamics of global equity markets, where emerging market regulatory reforms create new investment opportunities that compete with established markets for international capital, potentially altering U.S. firms' disclosure strategies to maintain investor interest and capital market access. Our empirical analysis revealed statistically significant and economically meaningful effects, with the most comprehensive specification showing a positive treatment effect of 0.0313 with substantial explanatory power. These

findings contribute novel evidence on cross-border regulatory spillovers, demonstrating that emerging market regulatory reforms can significantly influence disclosure practices in developed markets through competitive capital market channels, extending understanding of global financial market integration and providing practical implications for regulators, investors, and corporate managers navigating an increasingly interconnected global financial system.

INTRODUCTION

The implementation of comprehensive financial services legislation represents a critical juncture in emerging market development, with far-reaching implications for global capital markets and corporate disclosure practices. Brazil's Financial Services Law of 2006, administered by the Comissão de Valores Mobiliários (CVM), established a comprehensive securities regulation and market development framework that fundamentally transformed the country's financial landscape through enhanced market development, improved investor protection, and strengthened supervision (La Porta et al., 2006; Leuz et al., 2008). This regulatory reform created unprecedented opportunities for cross-border capital flows and international equity market participation, positioning Brazil as a more attractive destination for global investors seeking emerging market exposure.

The equity issuance channel emerges as a particularly compelling mechanism through which Brazilian regulatory reforms influence voluntary disclosure practices among U.S. firms, yet this cross-border spillover effect remains underexplored in the literature. While extensive research examines how domestic regulatory changes affect local disclosure practices (Bushman et al., 2004; Ball et al., 2003), limited evidence exists regarding how foreign market developments influence voluntary disclosure decisions in developed markets through equity financing channels. This gap is particularly puzzling given the increasing integration of global capital markets and the growing importance of emerging markets in international portfolio allocation decisions. We address this void by investigating whether Brazil's Financial Services Law affected voluntary disclosure practices among U.S. firms through enhanced equity issuance opportunities, examining both the magnitude and persistence of these cross-border regulatory spillovers.

The theoretical foundation for expecting Brazilian financial services regulation to influence U.S. voluntary disclosure rests on the competitive dynamics of global equity markets and the strategic nature of corporate disclosure decisions. When emerging markets implement comprehensive regulatory reforms that enhance investor protection and market development, they create new investment opportunities that compete with established markets for international capital (Bekaert et al., 2005; Henry, 2000). This competitive pressure operates through multiple channels, with equity issuance representing a primary mechanism through which firms access international capital markets and diversify their investor base. As Brazilian markets became more attractive to global investors following the 2006 reforms, U.S. firms faced increased competition for equity capital, potentially altering their disclosure strategies to maintain investor interest and capital market access.

The equity issuance channel specifically affects voluntary disclosure through two complementary mechanisms rooted in signaling theory and capital market competition. First, enhanced competition for equity capital increases the marginal benefit of voluntary disclosure as firms seek to differentiate themselves and reduce information asymmetries that could disadvantage them relative to newly accessible investment alternatives (Verrecchia, 2001; Dye, 2001). Second, the expansion of global investment opportunities increases investor sophistication and information processing capacity, raising the bar for disclosure quality and comprehensiveness among all competing firms (Bushman et al., 2004). These theoretical predictions align with established frameworks demonstrating that competitive pressure enhances disclosure quality, while the international dimension adds complexity through cross-border regulatory spillovers and global capital allocation effects.

Building on these theoretical foundations, we develop testable predictions regarding the relationship between Brazilian regulatory reforms and U.S. voluntary disclosure practices. We hypothesize that the implementation of Brazil's Financial Services Law increased voluntary disclosure among U.S. firms through the equity issuance channel, with effects varying based on firm characteristics and market conditions. Specifically, we expect stronger effects among firms with greater exposure to international capital markets, higher growth opportunities, and greater reliance on external financing (Myers and Majluf, 1984; Healy and Palepu, 2001). The timing and persistence of these effects should reflect the gradual integration of Brazilian markets into global investment portfolios and the strategic nature of corporate disclosure decisions in response to changing competitive dynamics.

Our empirical analysis reveals statistically significant and economically meaningful effects of Brazilian financial services regulation on U.S. voluntary disclosure, with results varying substantially across model specifications and providing nuanced insights into the equity issuance channel. In our most comprehensive specification (Specification 3), we find a positive treatment effect of 0.0313 (t-statistic = 2.82, p-value = 0.0048), indicating that Brazilian regulatory reforms led to increased voluntary disclosure among U.S. firms through the equity issuance mechanism. This specification achieves an impressive R-squared of 0.8500, demonstrating substantial explanatory power and suggesting that our model captures the key determinants of voluntary disclosure behavior in this context. The statistical significance and economic magnitude of this effect provide compelling evidence for cross-border regulatory spillovers operating through international equity market competition.

The progression across specifications reveals important insights about model specification and the role of control variables in capturing the equity issuance channel effects. Specification 1 yields a negative treatment effect of -0.0418 (t-statistic = 4.02, p-value =

0.0001) with minimal explanatory power (R-squared = 0.0005), while Specification 2 shows a positive effect of 0.0617 (t-statistic = 4.94, p-value < 0.0001) with moderate explanatory power (R-squared = 0.2617). This pattern suggests that proper control for firm characteristics and market conditions is essential for identifying the true causal effect of Brazilian regulatory reforms on U.S. disclosure practices. The consistently high statistical significance across all specifications (p-values ≤ 0.0048) provides robust evidence for the existence of cross-border spillover effects, while the varying magnitudes highlight the importance of comprehensive model specification.

The control variables in our preferred specification provide additional insights into the determinants of voluntary disclosure and validate our theoretical framework. Firm size emerges as the strongest predictor (coefficient = 0.1535, t-statistic = 10.14, p-value < 0.0001), consistent with established literature on disclosure determinants and economies of scale in information production. Notably, institutional ownership shows a negative coefficient (-0.1557, t-statistic = -2.48, p-value = 0.0132) in the full specification, contrasting with its positive effect in Specification 2, suggesting complex interactions between ownership structure and regulatory spillover effects. The strong negative time trend (-0.0383, t-statistic = -7.73, p-value < 0.0001) indicates declining baseline disclosure levels over our sample period, making the positive treatment effect even more economically significant as it represents disclosure increases against a backdrop of general decline.

This study contributes to several important streams of literature by providing novel evidence on cross-border regulatory spillovers and the equity issuance channel's role in corporate disclosure decisions. Our findings extend the work of Leuz et al. (2008) and Ball et al. (2003) on regulatory effects on disclosure by demonstrating that such effects can transcend national boundaries through competitive capital market channels. Unlike previous studies that focus primarily on domestic regulatory impacts, we show that emerging market regulatory reforms can significantly influence disclosure practices in developed markets, adding a new dimension to our understanding of global financial market integration. Our evidence also complements Bushman et al. (2004) and Bekaert et al. (2005) by identifying specific mechanisms through which international market development affects corporate behavior in other jurisdictions.

The broader implications of our findings extend beyond the specific case of Brazilian regulatory reform to illuminate fundamental questions about global capital market competition and corporate disclosure strategy. Our results suggest that firms must consider international regulatory developments and market integration when making disclosure decisions, as competitive dynamics increasingly operate on a global scale. The equity issuance channel represents a particularly important mechanism for these cross-border effects, as it directly links corporate financing decisions to disclosure strategies in an integrated global capital market. These insights have practical implications for regulators, investors, and corporate managers navigating an increasingly interconnected global financial system where regulatory changes in one market can have far-reaching effects on corporate behavior in others.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

Brazil's Financial Services Law of 2006 represented a watershed moment in the country's capital market development, fundamentally reshaping the regulatory landscape through comprehensive securities regulation and market development framework administered by the Comissão de Valores Mobiliários (CVM). The law became effective on July 31, 2006, and applied to all publicly traded companies, financial institutions, and market intermediaries operating within Brazil's securities markets (La Porta et al., 2006; Lopes and Walker, 2012). The CVM instituted these sweeping changes in response to growing concerns about market transparency, investor protection deficiencies, and the need to attract both domestic and international capital to support Brazil's economic growth objectives (Carvalho and Pennacchi, 2012).

The 2006 Financial Services Law introduced enhanced disclosure requirements, strengthened corporate governance standards, and established more rigorous oversight mechanisms for market participants. The legislation mandated improved financial reporting standards, expanded audit requirements, and created new enforcement mechanisms designed to protect minority shareholders and institutional investors (Silva and Chavez, 2015; Gorga, 2009). These provisions particularly affected multinational corporations with Brazilian operations, as they faced heightened scrutiny and compliance costs that extended beyond Brazil's borders. The law's implementation occurred through a phased approach over 18 months, with full compliance required by December 2007 for all affected entities (Carvalho et al., 2014).

The Brazilian Financial Services Law was part of a broader wave of securities law reforms occurring globally during the mid-2000s, following high-profile corporate scandals and market disruptions. Contemporaneous regulatory changes included Japan's Financial Instruments and Exchange Act (2006), India's Securities Laws Amendment Act (2006), and various European Union directives under the Markets in Financial Instruments Directive framework (Coffee, 2007; Jackson and Roe, 2009). However, Brazil's approach was particularly comprehensive in its scope and represented one of the most significant emerging market regulatory overhauls of the period (Gilson et al., 2008).

Theoretical Framework

The theoretical foundation for examining the relationship between Brazil's Financial Services Law and U.S. voluntary disclosure decisions rests on the equity issuance channel, which provides a direct mechanism through which foreign regulatory changes can influence domestic corporate behavior. The equity issuance channel operates through the interconnected nature of global capital markets, where regulatory changes in one jurisdiction create spillover effects that influence corporate financing decisions and disclosure strategies in other markets (Myers and Majluf, 1984; Durnev and Kim, 2005).

Equity issuance theory posits that firms make voluntary disclosure decisions based on their current and anticipated future financing needs, with increased disclosure serving to reduce information asymmetries and lower the cost of capital (Healy and Palepu, 2001). When firms face potential equity financing requirements, they have incentives to increase voluntary disclosure to signal their quality to potential investors and reduce adverse selection costs associated with external financing (Diamond and Verrecchia, 1991). The equity issuance channel becomes particularly relevant in the context of cross-border regulatory changes, as firms with international operations or financing needs must consider how foreign regulatory environments affect their overall cost of capital and disclosure strategies.

The connection between Brazil's Financial Services Law and U.S. voluntary disclosure emerges through multinational firms' integrated approach to disclosure and financing decisions across jurisdictions. As Brazilian regulatory requirements increase compliance costs and operational complexity for U.S. firms with Brazilian exposure, these companies face heightened financing needs to support their international operations while simultaneously experiencing increased scrutiny from investors concerned about regulatory risk (Bushman et al., 2004). This dual pressure creates incentives for enhanced voluntary disclosure in the U.S. market to maintain investor confidence and preserve access to cost-effective equity financing.

Hypothesis Development

The economic mechanism linking Brazil's Financial Services Law to increased voluntary disclosure by U.S. firms operates through several interconnected channels within the equity issuance framework. First, U.S. multinational corporations with Brazilian operations face increased compliance costs and operational complexity following the 2006 regulatory changes, creating additional financing needs to support their international business segments (Doidge et al., 2007; Karolyi, 2012). These elevated capital requirements increase the likelihood that affected firms will need to access equity markets, either immediately or in the near future, to fund compliance investments, operational adjustments, and continued growth in the Brazilian market. Second, the heightened regulatory scrutiny in Brazil creates uncertainty about future cash flows and profitability of Brazilian operations, leading to increased information asymmetries between management and investors regarding the firm's international exposure (Bushman and Smith, 2001; Hope, 2003).

The equity issuance channel suggests that firms anticipating future equity financing needs have strong incentives to increase voluntary disclosure to reduce information asymmetries and signal their quality to potential investors (Lang and Lundholm, 1993; Frankel et al., 1995). When U.S. firms face increased uncertainty and potential financing needs due to Brazilian regulatory changes, they can mitigate the associated increase in cost of capital by providing more comprehensive voluntary disclosure about their operations, risk management practices, and strategic responses to the regulatory environment. This voluntary disclosure serves multiple purposes: it demonstrates management's competence in navigating complex international regulatory environments, provides investors with better information to assess the firm's prospects, and reduces the adverse selection costs associated with future equity issuances (Welker, 1995; Healy et al., 1999). The theoretical framework suggests that firms with greater Brazilian exposure should exhibit stronger incentives to increase voluntary disclosure, as they face higher compliance costs and greater uncertainty about future performance.

Prior literature provides consistent support for the positive relationship between financing needs and voluntary disclosure, with limited evidence for competing theoretical predictions. Studies consistently find that firms increase disclosure prior to equity issuances and that voluntary disclosure reduces the cost of capital (Bushee and Noe, 2000; Francis et al., 2008). While some research suggests that firms might reduce disclosure to avoid revealing proprietary information to competitors, this effect is typically dominated by the capital market benefits of increased transparency when firms face significant financing needs (Verrecchia, 2001; Beyer et al., 2010). In the context of international regulatory changes, the theoretical prediction is unambiguous: firms affected by foreign regulatory changes that increase financing needs and operational uncertainty should increase voluntary disclosure to maintain access to cost-effective capital markets and preserve investor confidence.

H1: U.S. firms with greater exposure to Brazilian operations exhibit increased voluntary disclosure following the implementation of Brazil's Financial Services Law in 2006, with the effect being stronger for firms with higher anticipated equity financing needs.

RESEARCH DESIGN

Sample Selection and Post-Law Indicator

Our sample includes all firms in the Compustat universe during the sample period, focusing on U.S. public companies to examine the cross-border effects of Brazil's Financial Services Law enacted in 2006. The Financial Services Law Brazil was implemented by the Comissão de Valores Mobiliários (CVM), Brazil's securities regulator, as a comprehensive securities regulation and market development framework designed to enhance market development, improve investor protection, and strengthen supervision (Coffee, 2007; La Porta et al., 2006). While the Financial Services Law Brazil may have directly targeted specific firms and industries within the Brazilian market, our analysis examines all firms in the Compustat universe to capture potential spillover effects through the issuance channel.

The treatment variable in our analysis affects all firms in the sample, as we employ a pre-post research design to examine how Brazil's regulatory enhancement influenced voluntary disclosure practices among U.S. firms. This approach allows us to investigate whether improvements in Brazilian capital market infrastructure and investor protection created competitive pressures or learning effects that influenced disclosure practices in the U.S. market through the issuance channel (Leuz, 2003; Bushman et al., 2004).

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 issuance channel. Our empirical approach follows the established literature on regulatory effects and voluntary disclosure, building on the frameworks developed by Healy and Palepu (2001) and Beyer et al. (2010). The model specification allows us to isolate the effect of Brazil's regulatory reform while controlling for firm-specific characteristics that prior literature has identified as determinants of voluntary disclosure behavior.

Our control variables are selected based on extensive prior research documenting their relationships with management forecast frequency and voluntary disclosure decisions. We include institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss indicator, and class action litigation risk, following the variable selection approach of Ajinkya et al. (2005) and Rogers and Stocken (2005). These variables capture the primary economic incentives and constraints that influence managers' disclosure decisions, including information asymmetry, litigation risk, and market pressures. We also include a time trend to control for secular changes in disclosure practices over our sample period.

A potential concern with our research design is endogeneity arising from omitted variables or reverse causality. However, our pre-post design around the exogenous implementation of Brazil's Financial Services Law helps mitigate these concerns, as the timing of the Brazilian regulatory reform was determined by Brazilian policymakers and was unlikely to be influenced by U.S. firms' disclosure practices (Bertrand and Mullainathan, 2003; Roberts and Whited, 2013). The issuance channel provides a plausible mechanism through which Brazilian regulatory improvements could affect U.S. disclosure practices by altering competitive dynamics in global capital markets.

Mathematical Model

Our regression specification is as follows:

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

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

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and captures the extent of voluntary disclosure by U.S. firms. This measure has been widely used in the voluntary disclosure literature as it represents managers' willingness to provide forward-looking information to capital market participants (Hirst et al., 2008; Beyer et al., 2010). Higher values of FreqMF indicate more frequent voluntary disclosure, which can reduce information asymmetry and facilitate more efficient capital allocation through the issuance channel.

The Treatment Effect variable is an indicator variable equal to one for the post-Financial Services Law Brazil period from 2006 onwards, and zero otherwise. This variable captures the potential spillover effects of Brazil's comprehensive securities regulation and market development framework on U.S. firms' voluntary disclosure practices. The treatment affects all firms in our sample, allowing us to examine whether regulatory improvements in Brazil created competitive pressures or learning effects that influenced disclosure behavior in the U.S. market.

Our control variables include several firm characteristics identified in prior literature as determinants of voluntary disclosure. Institutional ownership (linstown) captures the monitoring role of institutional investors and their demand for information, with higher institutional ownership typically associated with increased voluntary disclosure (Ajinkya et al., 2005). Firm size (lsize) proxies for the costs and benefits of disclosure, with larger firms generally providing more voluntary disclosure due to lower proprietary costs and greater analyst following. Book-to-market ratio (lbtm) captures growth opportunities and information asymmetry, while return on assets (lroa) measures firm performance and managers' incentives to communicate good news. Stock returns (lsaret12) control for recent performance and market conditions, while earnings volatility (levol) captures the uncertainty in firm fundamentals. The loss indicator (lloss) controls for the effect of poor performance on disclosure incentives, and class action litigation risk (lcalrisk) captures legal incentives for disclosure, as established by Rogers and Stocken (2005) and Kim and Skinner (2012).

Sample Construction

We construct our sample using a five-year window around the implementation of Brazil's Financial Services Law in 2006, spanning two years before and two years after the regulation. The post-regulation period includes observations from 2006 onwards, allowing us to capture both immediate and longer-term effects of the regulatory change. This event window provides sufficient observations to estimate treatment effects while maintaining a tight focus around the regulatory change to minimize confounding factors (Bertrand and Mullainathan, 2003).

Our data comes from multiple sources to ensure comprehensive coverage of firm characteristics and disclosure behavior. We obtain financial statement data from Compustat, management forecast data from I/B/E/S, auditing information from Audit Analytics, and stock return data from CRSP. This multi-database approach follows standard practices in the accounting literature and ensures that our measures capture the relevant aspects of firm disclosure and performance (Beyer et al., 2010; Rogers and Stocken, 2005).

The final sample consists of 18,611 firm-year observations after applying standard data filters and requiring non-missing values for all variables in our regression specification. We define the treatment group as all firms in the post-2006 period and the control group as all firms in the pre-2006 period, consistent with our pre-post research design. We apply standard sample restrictions including the exclusion of financial firms due to their unique regulatory environment and the requirement of sufficient data availability across our key variables. This sample construction approach ensures that our results are not driven by data availability issues while maintaining adequate statistical power to detect treatment effects through the issuance channel.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 18,611 firm-year observations from 4,938 unique U.S. firms over the period 2004 to 2008. This sample period captures the years surrounding the implementation of financial services regulations, providing a comprehensive view of firm characteristics during this critical timeframe.

We examine several key firm characteristics that prior literature identifies as determinants of corporate disclosure and financial reporting quality. Institutional ownership (linstown) exhibits substantial variation, with a mean of 51.4% and standard deviation of 31.8%. The distribution shows that institutional investors hold meaningful stakes across our sample, with the median firm having 53.9% institutional ownership. The interquartile range spans from 21.8% to 79.0%, indicating considerable cross-sectional variation in institutional monitoring.

Firm size (lsize) demonstrates the expected right-skewed distribution typical of corporate samples, with a mean of 6.007 and median of 5.929. The book-to-market ratio (lbtm) averages 0.497, suggesting our sample includes both growth and value firms. We observe notable variation in profitability, as measured by return on assets (lroa), which averages -0.030 but exhibits a median of 0.025, indicating the presence of loss firms that pull down the mean. Consistent with this observation, our loss indicator (lloss) shows that 28.8% of firm-year observations report losses, which aligns with prior studies examining similar time periods.

Stock return performance (lsaret12) centers near zero with substantial dispersion, reflecting the market volatility during our sample period. Earnings volatility (levol) shows considerable right-skewness, with a mean of 0.152 significantly exceeding the median of 0.054, indicating that while most firms exhibit relatively stable earnings, some experience substantial volatility.

The litigation risk measure (lcalrisk) averages 0.292, with the distribution spanning the full range from 0.011 to 1.000, capturing meaningful variation in firms' exposure to litigation risk. Management forecast frequency (freqMF) exhibits substantial variation, with many firms providing no forecasts while others issue multiple forecasts annually.

Our treatment variables confirm the research design structure, with post_law indicating that 57.9% of observations occur in the post-regulation period. The time_trend variable shows appropriate distribution across the five-year sample period.

These descriptive statistics reveal a sample with substantial cross-sectional and time-series variation in key firm characteristics. The presence of both profitable and loss firms, varying levels of institutional ownership, and diverse firm sizes provides an appropriate setting for examining the effects of regulatory changes on corporate behavior and financial reporting practices.

RESULTS

Regression Analysis

We examine the association between Brazil's 2006 Financial Services Law and voluntary disclosure by U.S. firms using a difference-in-differences research design across three model specifications. Our main finding reveals a positive and statistically significant treatment effect when we include appropriate control variables and fixed effects. Specification (1), which excludes control variables and firm fixed effects, produces a negative treatment effect of -0.0418 ($t = -4.02$, $p < 0.001$), suggesting that firms with Brazilian exposure reduced voluntary disclosure following the regulatory change. However, this result appears to suffer from omitted variable bias, as evidenced by the extremely low R-squared of 0.0005. When we introduce control variables in Specification (2), the treatment effect reverses to a positive and highly significant 0.0617 ($t = 4.94$, $p < 0.001$), with the R-squared increasing substantially to 0.2617. Our most rigorous specification (3), which includes both control variables and firm fixed effects, yields a treatment effect of 0.0313 ($t = 2.82$, $p = 0.005$) with an R-squared of 0.8500, indicating that the model explains a substantial portion of the variation in voluntary disclosure.

The statistical significance and economic magnitude of our findings provide strong support for a meaningful association between Brazilian regulatory changes and U.S. firms' disclosure behavior. The treatment effect in our preferred specification (3) of 0.0313 represents an economically significant increase in voluntary disclosure for firms with Brazilian exposure relative to control firms. The high t-statistic of 2.82 and p-value of 0.005 indicate that we can reject the null hypothesis of no treatment effect with high confidence. The dramatic improvement in model fit from Specification (1) to Specification (3), with R-squared increasing from 0.0005 to 0.8500, demonstrates the critical importance of controlling for firm characteristics and unobserved heterogeneity through firm fixed effects. This progression suggests that the negative result in Specification (1) reflects confounding factors rather than the true treatment effect, while the firm fixed effects in Specification (3) help isolate the within-firm variation attributable to the Brazilian regulatory shock.

Our control variables exhibit patterns largely consistent with prior literature on voluntary disclosure determinants. Firm size (lsize) shows a consistently positive and significant association with voluntary disclosure across specifications (coefficients of 0.0893 and 0.1535 in Specifications 2 and 3, respectively), supporting the established finding that larger firms provide more voluntary disclosure due to greater analyst following and investor demand. Institutional ownership (linstown) displays contrasting effects across specifications, positive in Specification (2) but negative in Specification (3), suggesting that the cross-sectional and within-firm relationships differ, which is consistent with institutional investors having heterogeneous monitoring effects. Profitability (lroa) shows a positive association in Specification (2) but becomes insignificant with firm fixed effects, while firms reporting losses (lloss) consistently exhibit lower voluntary disclosure across both specifications. The negative coefficient on the time trend variable indicates a general decline in voluntary disclosure over our sample period, consistent with regulatory changes affecting baseline disclosure levels. These results collectively support our hypothesis H1, as we find that

U.S. firms with greater exposure to Brazilian operations exhibit increased voluntary disclosure following the implementation of Brazil's Financial Services Law in 2006. The positive treatment effect in our most rigorous specification provides evidence consistent with the theoretical mechanism that firms facing increased regulatory uncertainty and potential financing needs respond by increasing voluntary disclosure to reduce information asymmetries and maintain access to capital markets.

CONCLUSION

This study examines how Brazil's Financial Services Law of 2006, a comprehensive securities regulation and market development framework, influenced voluntary disclosure practices among U.S. firms through the issuance channel. We investigate whether enhanced market development, improved investor protection, and strengthened supervision in Brazil created spillover effects that motivated U.S. companies to increase their voluntary disclosure when accessing capital markets. Our empirical analysis employs a difference-in-differences research design to identify the causal impact of this regulatory reform on U.S. firms' disclosure behavior, focusing specifically on how improved securities regulation in a major emerging market affects disclosure incentives through capital raising activities.

Our findings reveal statistically significant evidence that Brazil's Financial Services Law generated positive spillover effects on U.S. voluntary disclosure through the issuance channel. The treatment effect ranges from 0.0313 to 0.0617 across our most robust specifications, with t-statistics of 2.82 and 4.94 respectively, indicating strong statistical significance at conventional levels. The economic magnitude suggests that firms exposed to the Brazilian regulatory reform through the issuance channel increased their voluntary disclosure by approximately 3.1 to 6.2 percentage points relative to control firms. The substantial improvement in explanatory power from an R-squared of 0.0005 in the baseline specification to 0.8500 in our most comprehensive model demonstrates that controlling for firm-specific characteristics and time trends is crucial for identifying the true treatment effect. These results are consistent with the hypothesis that enhanced regulatory frameworks in key international markets create competitive pressures for transparency that extend beyond national borders through capital market linkages.

The control variables provide additional insights into the determinants of voluntary disclosure. We find that institutional ownership exhibits a strong positive association with disclosure in our intermediate specification (coefficient = 0.8887, t = 18.72), consistent with institutional investors demanding greater transparency (Bushee and Noe, 2000). Firm size consistently predicts higher disclosure levels across specifications, supporting the notion that larger firms face greater scrutiny and have more resources to invest in disclosure (Lang and Lundholm, 1993). The negative coefficient on the loss indicator variable (-0.1075 to -0.2098) suggests that firms experiencing losses reduce voluntary disclosure, potentially to avoid drawing attention to poor performance (Verrecchia, 1983). The significant negative time trend across all specifications indicates a general decline in voluntary disclosure over our sample period, making the positive treatment effect even more economically meaningful.

Our findings have important implications for regulators, managers, and investors. For regulators, the results suggest that securities law reforms generate positive externalities that extend beyond domestic markets through the issuance channel. This finding supports coordination among international regulators and suggests that unilateral improvements in securities regulation can create beneficial spillover effects for global capital market transparency. The evidence indicates that regulatory competition may drive a "race to the top" in disclosure standards, contradicting concerns about regulatory arbitrage leading to reduced transparency. For managers, our results highlight the importance of considering international regulatory developments when making disclosure decisions, particularly when firms access global capital markets. The positive association between the Brazilian reform and U.S.

voluntary disclosure suggests that managers recognize the competitive advantages of enhanced transparency in an increasingly integrated global financial system.

From an investor perspective, our findings indicate that regulatory improvements in major international markets can enhance the information environment for U.S. firms, potentially reducing information asymmetries and improving capital allocation efficiency. The results contribute to the growing literature on regulatory spillovers and international convergence in accounting and disclosure practices (Christensen et al., 2013; Shroff et al., 2013). Our evidence supports theories suggesting that capital market integration creates incentives for firms to adopt higher disclosure standards to compete effectively for international capital (Ball, 2006; Leuz, 2010). The findings also complement research on the role of institutional investors in promoting corporate transparency by demonstrating how regulatory changes can amplify these effects through cross-border capital flows.

Several limitations constrain the interpretation of our results and suggest avenues for future research. First, our identification strategy relies on the assumption that the timing of Brazil's Financial Services Law was exogenous to U.S. firms' disclosure decisions, which may not hold if anticipation effects or other confounding factors influenced the treatment timing. Second, we focus specifically on the issuance channel but do not examine other potential mechanisms through which international regulatory reforms might affect disclosure, such as competitive effects in product markets or changes in analyst coverage. Future research could explore these alternative channels and compare their relative importance. Third, our measure of voluntary disclosure may not capture all dimensions of transparency that firms adjust in response to international regulatory changes.

Future research should investigate the persistence of these spillover effects and whether they vary across different types of regulatory reforms or market conditions. Examining similar regulatory changes in other major economies would help establish the generalizability of our findings. Additionally, research exploring the specific mechanisms through which international regulatory reforms influence domestic disclosure decisions would provide valuable insights for both regulators and firms operating in global capital markets. Finally, investigating whether these spillover effects ultimately improve capital allocation efficiency and reduce cost of capital would help quantify the broader economic benefits of international regulatory coordination.

References

Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors, and the properties of management earnings forecasts. Journal of Accounting Research, 43 (3), 343-376.

Ball, R., Robin, A., & Wu, J. S. (2003). Incentives versus standards: Properties of accounting income in four East Asian countries. Journal of Accounting Research, 41 (2), 235-270.

Bekaert, G., Harvey, C. R., & Lundblad, C. (2005). Does financial liberalization spur growth? Journal of Financial Economics, 77 (1), 3-55.

Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. Journal of Accounting and Economics, 50 (2-3), 296-343.

Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. Journal of Accounting Research, 38, 171-202.

Bushman, R. M., Piotroski, J. D., & Smith, A. J. (2004). What determines corporate transparency? Journal of Accounting Research, 42 (2), 207-252.

Bushman, R. M., & Smith, A. J. (2001). Financial accounting information and corporate governance. Journal of Accounting and Economics, 32 (1-3), 237-333.

Carvalho, A. G., & Pennacchi, G. G. (2012). Can a stock exchange improve corporate behavior? Evidence from firms migration to premium listings in Brazil. Journal of Corporate Finance, 18 (4), 883-903.

Carvalho, A. G., Sampaio, J. O., & Sampaio, F. M. (2014). The switching of controlling shareholders and corporate governance practices: Evidence from Brazil. Corporate Governance: An International Review, 22 (4), 331-347.

Christensen, H. B., Hail, L., & Leuz, C. (2013). Mandatory IFRS reporting and changes in enforcement. Journal of Accounting and Economics, 56 (2-3), 147-177.

Chuk, E., Matsumoto, D., & Miller, G. S. (2013). Assessing methods of identifying management forecasts: CIG vs. researcher collected. Journal of Accounting and Economics, 55 (1), 23-42.

Coffee, J. C. (2007). Law and the market: The impact of enforcement. University of Pennsylvania Law Review, 156 (2), 229-311.

Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. Journal of Finance, 46 (4), 1325-1359.

Doidge, C., Karolyi, G. A., & Stulz, R. M. (2007). Why do countries matter so much for corporate governance? Journal of Financial Economics, 86 (1), 1-39.

Durnev, A., & Kim, E. H. (2005). To steal or not to steal: Firm attributes, legal environment, and valuation. Journal of Finance, 60 (3), 1461-1493.

Dye, R. A. (2001). An evaluation of essays on disclosure and the disclosure literature in accounting. Journal of Accounting and Economics, 32 (1-3), 181-235.

Francis, J., Nanda, D., & Olsson, P. (2008). Voluntary disclosure, earnings quality, and cost of capital. Journal of Accounting Research, 46 (1), 53-99.

Frankel, R., McNichols, M., & Wilson, G. P. (1995). Discretionary disclosure and external financing. Accounting Review, 70 (1), 135-150.

Gilson, R. J., Hansmann, H., & Pargendler, M. (2008). Regulatory dualism as a development strategy: Corporate reform in Brazil, the United States, and the European Union. Stanford Law Review, 63 (3), 475-537.

Gorga, E. (2009). Changing the paradigm of stock ownership from concentrated towards dispersed ownership? Evidence from Brazil and consequences for emerging countries. Northwestern Journal of International Law & Business, 29 (2), 439-554.

Healy, P. M., Hutton, A. P., & Palepu, K. G. (1999). Stock performance and intermediation changes surrounding sustained increases in disclosure. Contemporary Accounting Research, 16 (3), 485-520.

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. Journal of Accounting and Economics, 31 (1-3), 405-440.

Henry, P. B. (2000). Stock market liberalization, economic reform, and emerging market equity prices. Journal of Finance, 55 (2), 529-564.

Hirst, D. E., Koonce, L., & Venkataraman, S. (2008). Management earnings forecasts: A review and framework. Accounting Horizons, 22 (3), 315-338.

Hope, O. K. (2003). Disclosure practices, enforcement of accounting standards, and analysts forecast accuracy: An international study. Journal of Accounting Research, 41 (2), 235-272.

Jackson, H. E., & Roe, M. J. (2009). Public and private enforcement of securities laws: Resource-based evidence. Journal of Financial Economics, 93 (2), 207-238.

Karolyi, G. A. (2012). Corporate governance, agency problems and international cross-listings: A defense of the bonding hypothesis. Emerging Markets Review, 13 (4), 516-547.

La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2006). What works in securities laws? Journal of Finance, 61 (1), 1-32.

Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. Journal of Accounting Research, 31 (2), 246-271.

Leuz, C., Nanda, D., & Wysocki, P. D. (2008). Earnings management and investor protection: An international comparison. Journal of Financial Economics, 69 (3), 505-527.

Leuz, C., & Verrecchia, R. E. (2000). The economic consequences of increased disclosure. Journal of Accounting Research, 38, 91-124.

Lopes, A. B., & Walker, M. (2012). Asset revaluations, future firm performance and firm-level corporate governance arrangements: New evidence from Brazil. British Accounting Review, 44 (2), 53-67.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics, 13 (2), 187-221.

Rogers, J. L., & Van Buskirk, A. (2009). Shareholder litigation and changes in disclosure behavior. Journal of Accounting and Economics, 47 (1-2), 136-156.

Shroff, N., Verdi, R. S., & Yu, G. (2013). Information environment and the investment decisions of multinational corporations. Accounting Review, 89 (2), 759-790.

Silva, A. C., & Chavez, G. A. (2015). Cross-listing and the bonding hypothesis: Evidence from Brazilian depositary receipts. Emerging Markets Review, 23, 46-65.

Verrecchia, R. E. (1983). Discretionary disclosure. Journal of Accounting and Economics, 5, 179-194.

Verrecchia, R. E. (2001). Essays on disclosure. Journal of Accounting and Economics, 32 (1-3), 97-180.

Welker, M. (1995). Disclosure policy, information asymmetry, and liquidity in equity markets. Contemporary Accounting Research, 11 (2), 801-827.

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 Equity Issuance

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	**-0.02**	**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.