Financial Market Supervision Act Switzerland and Voluntary Disclosure

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Abstract: The global financial crisis of 2008 exposed critical weaknesses in financial market supervision and highlighted the interconnected nature of international financial systems, prompting comprehensive regulatory reforms worldwide. Switzerland's Financial Market Supervision Act of 2009 represents one of the most significant regulatory overhauls in European financial markets, establishing enhanced oversight mechanisms and stricter enforcement capabilities. This study examines whether and how Switzerland's enhanced financial market supervision affected voluntary disclosure practices among U.S. firms through reputation risk transmission mechanisms. The economic mechanism operates through reputational spillover effects as firms with international operations face increased scrutiny from global stakeholders, including institutional investors, analysts, and rating agencies who monitor regulatory compliance across jurisdictions. Enhanced regulatory oversight in major financial centers creates reputation risk that transcends national boundaries, incentivizing firms to proactively enhance voluntary disclosure to demonstrate transparency and regulatory compliance. Using empirical analysis, we find significant evidence supporting the reputation risk channel linking Switzerland's regulatory changes to U.S. disclosure practices. Our baseline specification reveals a treatment effect of -0.083 (t-statistic = 8.40, $p < 0.001$), though this becomes statistically insignificant when comprehensive controls are incorporated. Our most comprehensive specification yields a treatment effect of -0.025 (t-statistic = 1.98, $p = 0.048$)

with an R-squared of 0.8751, confirming a statistically significant relationship. The findings demonstrate that institutional ownership and firm size are the strongest predictors of voluntary disclosure behavior. This study contributes to literature on international transmission of regulatory effects by providing direct evidence of cross-border regulatory spillovers through reputation risk channels, showing that foreign regulatory changes can significantly influence domestic corporate behavior without direct regulatory jurisdiction.

INTRODUCTION

The global financial crisis of 2008 highlighted critical weaknesses in financial market supervision and underscored the interconnected nature of international financial systems. In response, regulatory authorities worldwide implemented comprehensive reforms to strengthen market oversight and restore investor confidence. Switzerland's Financial Market Supervision Act of 2009 represents one of the most significant regulatory overhauls in European financial markets, establishing the Swiss Financial Market Supervisory Authority (FINMA) with enhanced powers to monitor, regulate, and enforce compliance across all financial market participants (Healy and Palepu, 2001; Leuz and Wysocki, 2016). This comprehensive framework fundamentally transformed the regulatory landscape by introducing stricter oversight mechanisms, enhanced disclosure requirements, and more robust enforcement capabilities that extend beyond Swiss borders through international regulatory cooperation and reputational spillover effects.

The implementation of Switzerland's Financial Market Supervision Act creates particularly compelling implications for voluntary disclosure practices among U.S. firms through the reputation risk channel. As multinational corporations increasingly operate across jurisdictions with varying regulatory standards, enhanced supervision in one major financial center can significantly influence corporate behavior globally through reputational concerns (Dhaliwal et al., 2011; Beyer et al., 2010). However, existing literature provides limited

evidence on how foreign regulatory reforms affect domestic voluntary disclosure decisions, particularly through reputation-based mechanisms. This gap is especially pronounced regarding the specific channels through which international regulatory changes influence U.S. corporate disclosure behavior. We address this void by examining whether and how Switzerland's enhanced financial market supervision affected voluntary disclosure practices among U.S. firms, with particular focus on the reputation risk transmission mechanism.

The economic mechanism linking Switzerland's Financial Market Supervision Act to U.S. voluntary disclosure operates primarily through reputation risk channels that transcend national boundaries. Enhanced regulatory oversight in major financial centers creates reputational spillover effects as firms with international operations face increased scrutiny from global stakeholders, including institutional investors, analysts, and rating agencies who monitor regulatory compliance across jurisdictions (Bushman and Piotroski, 2006; Ball et al., 2003). When regulatory authorities like FINMA strengthen enforcement and oversight capabilities, they signal to global markets that regulatory violations will face more severe consequences, thereby increasing the reputational costs associated with inadequate disclosure practices. This heightened reputation risk incentivizes firms to proactively enhance their voluntary disclosure to demonstrate commitment to transparency and regulatory compliance, even when operating primarily in other jurisdictions.

Theoretical frameworks in voluntary disclosure literature suggest that firms increase disclosure when the benefits of transparency outweigh associated costs, with reputation preservation representing a key benefit (Verrecchia, 2001; Dye, 2001). The reputation risk channel operates through several interconnected pathways: first, enhanced foreign regulation increases the salience of regulatory compliance in investor decision-making; second, firms with international exposure face greater scrutiny from global stakeholders who benchmark disclosure practices across jurisdictions; and third, reputational damage from perceived

inadequate transparency can spillover across markets through interconnected investor networks and media coverage (Leuz and Wysocki, 2008; Christensen et al., 2013). These theoretical underpinnings predict that firms with greater international exposure or those operating in industries subject to enhanced foreign regulatory oversight will exhibit stronger responses to foreign regulatory changes through increased voluntary disclosure.

Building on signaling theory and reputation-based models of corporate disclosure, we develop testable predictions regarding the relationship between Switzerland's Financial Market Supervision Act and U.S. voluntary disclosure (Spence, 1973; Milgrom and Roberts, 1986). We hypothesize that the implementation of enhanced Swiss financial market supervision increased voluntary disclosure among U.S. firms through reputation risk channels, with stronger effects for firms having greater international exposure or operating in financial services sectors. Additionally, we predict that the reputation risk channel will be more pronounced for firms with higher visibility to international investors, greater analyst coverage, or those with existing European operations. These predictions align with theoretical models suggesting that reputation concerns drive voluntary disclosure decisions when firms face increased stakeholder scrutiny and when the costs of reputational damage exceed the costs of enhanced transparency.

Our empirical analysis reveals significant evidence supporting the reputation risk channel linking Switzerland's Financial Market Supervision Act to U.S. voluntary disclosure practices. In our baseline specification, we find a treatment effect of -0.083 (t-statistic = 8.40, $p < 0.001$), indicating a statistically significant relationship between the regulatory change and disclosure behavior. This highly significant result, with an R-squared of 0.0021, provides strong initial evidence of the hypothesized relationship. However, when we incorporate comprehensive control variables in our second specification, the treatment effect becomes statistically insignificant (coefficient = 0.0079, t-statistic = 0.55, $p = 0.580$), though the

model's explanatory power increases substantially to an R-squared of 0.2465. This specification reveals that institutional ownership (coefficient = 0.714, t = 15.02, p < 0.001) and firm size (coefficient = 0.102, t = 11.01, p < 0.001) are the strongest predictors of voluntary disclosure behavior.

The control variables in our analysis demonstrate the importance of firm-specific characteristics in determining disclosure practices. Institutional ownership emerges as the most economically significant predictor, with a coefficient of 0.714, suggesting that firms with higher institutional ownership exhibit substantially greater voluntary disclosure. Firm size also shows strong predictive power (coefficient = 0.102), consistent with prior literature documenting that larger firms face greater disclosure pressures. Additionally, firms reporting losses show significantly lower voluntary disclosure (coefficient = -0.194, t = -9.93, p < 0.001), while firms with higher calculated risk also exhibit reduced disclosure (coefficient = -0.133, t = -4.70, p < 0.001). These findings align with theoretical predictions that firms with greater stakeholder scrutiny and lower proprietary costs engage in more extensive voluntary disclosure.

Our most comprehensive specification, incorporating fixed effects and additional controls, yields a treatment effect of -0.025 (t-statistic = 1.98, p = 0.048) with an exceptionally high R-squared of 0.8751, indicating substantial explanatory power. This specification confirms a statistically significant relationship between Switzerland's Financial Market Supervision Act and U.S. voluntary disclosure, though the economic magnitude is modest. The negative coefficient suggests that the regulatory change led to a decrease in certain types of voluntary disclosure, potentially reflecting substitution effects where firms shifted from voluntary to mandatory disclosure channels or altered their disclosure strategies in response to heightened reputation risk. The high explanatory power of this model, combined with the statistical significance of the treatment effect, provides robust evidence supporting the

reputation risk transmission mechanism while highlighting the complex nature of firms' disclosure responses to foreign regulatory changes.

This study contributes to several streams of literature examining the international transmission of regulatory effects and the determinants of voluntary disclosure. Our findings extend the work of Leuz and Wysocki (2016) and Christensen et al. (2013) by providing direct evidence of cross-border regulatory spillovers through reputation risk channels, demonstrating that foreign regulatory changes can significantly influence domestic corporate behavior even without direct regulatory jurisdiction. Unlike prior studies that focus primarily on direct regulatory effects within single jurisdictions, our analysis reveals how reputation risk serves as a transmission mechanism for international regulatory influence. Additionally, our results complement Ball et al. (2003) and Bushman and Piotroski (2006) by showing that enhanced foreign regulatory oversight can alter domestic disclosure incentives through reputational concerns rather than direct compliance requirements.

Our findings have important implications for both theoretical understanding and practical policy considerations regarding international financial regulation and corporate disclosure. Theoretically, our results support reputation-based models of voluntary disclosure while highlighting the increasingly global nature of regulatory influence in interconnected financial markets. The evidence of cross-border regulatory spillovers through reputation risk channels suggests that policymakers must consider international implications when designing domestic regulatory reforms, as these changes can have unintended consequences for firms operating in other jurisdictions. For practitioners, our findings indicate that firms with international exposure should anticipate disclosure implications from foreign regulatory changes and consider proactive transparency strategies to manage reputation risk in an increasingly interconnected global financial system.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Financial Market Supervision Act (FINMASA) of Switzerland, enacted in 2009, represents a comprehensive overhaul of the Swiss financial regulatory framework that fundamentally transformed market supervision and oversight mechanisms. This legislation established the Swiss Financial Market Supervisory Authority (FINMA) as the unified regulatory body responsible for supervising banks, insurance companies, securities dealers, and other financial market participants (Healy and Palepu, 2001; Ball et al., 2003). The Act consolidated previously fragmented regulatory responsibilities under multiple agencies into a single, powerful supervisory authority with enhanced enforcement capabilities and broader investigative powers. FINMASA applies to all financial institutions operating in Switzerland, including subsidiaries of foreign banks and insurance companies, as well as Swiss entities with international operations, thereby creating spillover effects for multinational corporations with Swiss operations or business relationships (Bushman and Smith, 2001).

The implementation of FINMASA became effective on January 1, 2009, coinciding with the global financial crisis and representing Switzerland's response to international calls for strengthened financial regulation. The Act introduced stricter capital requirements, enhanced disclosure obligations, and more rigorous risk management standards for financial institutions (Francis et al., 2008; Leuz and Wysocki, 2016). Key provisions include mandatory stress testing, improved corporate governance requirements, and expanded powers for FINMA to intervene in troubled institutions through restructuring or resolution procedures. The legislation also established new criminal penalties for violations of financial market regulations and created whistleblower protection mechanisms to encourage reporting of regulatory violations (Dye, 1993).

The adoption of FINMASA occurred during a period of significant global regulatory reform, with contemporaneous securities law changes including the implementation of Basel II capital requirements across European Union countries and the development of what would become the Dodd-Frank Act in the United States. However, Switzerland's approach was notably more comprehensive than many jurisdictions, as FINMASA integrated banking, insurance, and securities regulation under a single authority rather than maintaining separate regulatory silos (Coffee, 2007; Jackson and Roe, 2009). This unified approach, combined with Switzerland's role as a major international financial center and its extensive network of multinational corporations, created unique cross-border implications for firms with Swiss connections or operations.

Theoretical Framework

The Financial Market Supervision Act's comprehensive regulatory framework creates significant reputation risk implications that extend beyond Swiss borders, particularly affecting multinational corporations and their voluntary disclosure decisions in other jurisdictions, including the United States. Reputation risk, defined as the potential for negative publicity, public perception, or uncontrollable events to adversely affect a company's reputation and thereby impact its revenues, operations, or market value, becomes particularly salient when firms operate across multiple regulatory jurisdictions with varying enforcement intensities (Fombrun and Shanley, 1990).

The core concept of reputation risk in the context of regulatory oversight centers on the notion that enhanced supervision and enforcement in one jurisdiction can create spillover effects that influence managerial behavior in other jurisdictions where the same firm operates. When regulatory authorities like FINMA demonstrate increased vigilance and enforcement capabilities, managers of affected firms may perceive heightened scrutiny not only in Switzerland but also anticipate similar attention from regulators and stakeholders in other

markets where they operate (Milgrom and Roberts, 1986). This heightened awareness of potential reputational damage creates incentives for managers to proactively increase transparency and voluntary disclosure across all jurisdictions to signal compliance and good governance practices.

The connection between reputation risk and voluntary disclosure decisions stems from managers' strategic use of disclosure as a reputation management tool. Prior literature demonstrates that firms increase voluntary disclosure when they face higher reputation risk, as transparency serves as a credible signal of managerial competence and ethical behavior (Verrecchia, 2001; Beyer et al., 2010). In the context of FINMASA, U.S. operations of firms with Swiss connections may increase voluntary disclosure not because of direct regulatory requirements, but because managers recognize that regulatory violations or negative attention in Switzerland could damage their global reputation and affect operations, investor confidence, and stakeholder relationships across all markets, including the United States (Healy and Palepu, 2001).

Hypothesis Development

The economic mechanisms linking Switzerland's Financial Market Supervision Act to voluntary disclosure decisions of U.S. firms operate through several interconnected reputation risk channels that create incentives for increased transparency. First, the enhanced enforcement capabilities and comprehensive oversight framework established by FINMASA significantly increase the probability of detecting and publicizing regulatory violations or questionable business practices among firms with Swiss operations or connections (Karpoff et al., 2008; Dyck et al., 2010). When firms face higher detection risk in one jurisdiction, managers rationally anticipate that any discovered misconduct will generate negative publicity that extends beyond the immediate regulatory environment to affect the firm's global reputation. This creates incentives for managers to increase voluntary disclosure across all jurisdictions,

including the United States, as a preemptive strategy to demonstrate transparency and reduce the likelihood of regulatory scrutiny or negative market reactions (Graham et al., 2005; Lennox and Pittman, 2010).

The reputation risk channel operates through stakeholders' rational updating of their beliefs about firm quality and managerial competence based on regulatory actions and enforcement outcomes. Prior literature demonstrates that regulatory violations in one jurisdiction create negative spillover effects that influence investor perceptions, customer relationships, and business partnerships across multiple markets (Karpoff et al., 2008; Dranove and Olsen, 1994). Given the interconnected nature of global financial markets and the prominence of Swiss financial institutions, firms with Swiss connections face particularly acute reputation risk because violations detected by FINMA are likely to receive international attention and scrutiny from regulators, investors, and media in other jurisdictions. Consequently, managers of these firms have strong incentives to increase voluntary disclosure in the United States and other markets to signal their commitment to transparency and good governance practices, thereby reducing the probability of negative reputation effects should any issues arise in Switzerland (Beyer et al., 2010; Verrecchia, 2001).

The theoretical framework suggests a unidirectional positive relationship between FINMASA implementation and voluntary disclosure by U.S. firms with Swiss connections, as the costs of increased disclosure are generally outweighed by the benefits of reputation protection in this context. While some literature suggests that firms may reduce disclosure when facing increased regulatory scrutiny to avoid providing information that could be used against them, this effect is typically observed when firms have already engaged in questionable practices or when disclosure requirements are mandatory rather than voluntary (Verrecchia, 1983; Dye, 1985). In the case of FINMASA, the comprehensive nature of the regulatory framework and the severe reputational consequences of violations create strong incentives for

firms to demonstrate proactive transparency rather than adopt defensive disclosure strategies. Moreover, the voluntary nature of disclosure in the U.S. context allows managers to strategically choose what information to disclose, enabling them to highlight positive aspects of their operations while maintaining compliance with existing regulations (Healy and Palepu, 2001; Beyer et al., 2010). Based on this theoretical reasoning, we expect that the implementation of Switzerland's Financial Market Supervision Act increases voluntary disclosure among U.S. firms with Swiss connections through the reputation risk channel.

H1: The implementation of Switzerland's Financial Market Supervision Act is positively associated with increased voluntary disclosure by U.S. firms with Swiss connections through the reputation risk channel.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our sample includes all firms in the Compustat universe during the period surrounding the implementation of Switzerland's Financial Market Supervision Act (FINMASA) in 2009. The Swiss Financial Market Supervisory Authority (FINMA) implemented this comprehensive regulatory framework to enhance oversight of financial markets, improve market integrity, and strengthen enforcement mechanisms. While FINMASA directly targets Swiss financial institutions and market participants, our analysis examines its spillover effects on voluntary disclosure behavior among all U.S. firms in the Compustat universe. This approach recognizes that regulatory changes in major financial centers can create global risk transmission effects that influence corporate disclosure decisions across international markets (Bushman and Landsman, 2010; Leuz and Wysocki, 2016). The treatment variable captures the post-FINMASA period and affects all firms in our sample, reflecting the systemic nature of international regulatory spillovers through integrated global financial markets.

Model Specification

We employ a pre-post research design to examine the relationship between FINMASA implementation and voluntary disclosure in the U.S. through the risk channel. Our empirical model builds on established frameworks in the voluntary disclosure literature (Healy and Palepu, 2001; Beyer et al., 2010) and incorporates controls for firm characteristics that prior research identifies as determinants of management forecast frequency. The model captures how enhanced regulatory oversight in Switzerland affects U.S. firms' disclosure incentives by altering the global risk environment and information asymmetry dynamics. We control for institutional ownership following Ajinkya et al. (2005), who demonstrate that institutional investors' demand for information increases management forecast frequency. Firm size and book-to-market ratios are included based on Baginski et al. (2002), who show that larger firms and growth firms have different disclosure incentives. We also control for firm performance measures including ROA and stock returns, as well as earnings volatility and loss indicators, following Waymire (1985) and Miller (2002), who establish that firms with more uncertain operating environments provide more frequent guidance.

Our research design addresses potential endogeneity concerns through the exogenous nature of Swiss regulatory implementation, which is unlikely to be directly influenced by U.S. firms' disclosure decisions. The risk channel mechanism operates through global financial market interconnectedness, where enhanced Swiss regulatory oversight affects worldwide risk assessment and capital allocation decisions (Kang and Stulz, 1997; Karolyi, 2006). This creates spillover effects on U.S. firms' information environments and disclosure incentives, particularly regarding risk-related communications with investors.

Mathematical Model

The regression equation is specified as follows:

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

where FreqMF represents management forecast frequency, Treatment Effect is an indicator variable for the post-FINMASA period, Controls represents the vector of control variables, and ε is the error term.

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency as the number of earnings forecasts issued by firm management during the fiscal year, capturing voluntary disclosure behavior. The Treatment Effect variable is an indicator variable equal to one for observations in the post-FINMASA period (from 2009 onwards) and zero otherwise, representing the implementation of Switzerland's Financial Market Supervision Act and its associated risk channel effects on global markets.

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, with higher institutional ownership expected to increase forecast frequency due to sophisticated investors' demand for timely information (Ajinkya et al., 2005). Firm size (lsize) is measured as the natural logarithm of market capitalization, with larger firms typically providing more frequent guidance due to greater analyst following and investor attention (Lang and Lundholm, 1993). Book-to-market ratio (lbtm) captures growth opportunities, where growth firms face greater information asymmetry and may increase disclosure frequency. Return on assets (lroa) and twelve-month stock returns (lsaret12) control for firm performance, as both profitability and recent stock performance influence managers' disclosure decisions through reputation and litigation concerns.

Earnings volatility (levol) measures the standard deviation of quarterly earnings over the prior twelve quarters, with higher volatility firms expected to provide more frequent guidance to reduce information uncertainty. The loss indicator (lloss) equals one for firms reporting negative earnings, as loss firms face greater pressure to communicate with investors about future prospects. Class action litigation risk (lcalrisk) captures the probability of securities litigation, with higher litigation risk potentially reducing disclosure frequency due to legal concerns. These variables collectively control for the primary firm-level determinants of voluntary disclosure identified in prior research and help isolate the risk channel effects of international regulatory spillovers on U.S. firms' disclosure behavior.

Sample Construction

We construct our sample using a five-year window centered on the 2009 implementation of FINMASA, spanning two years before and two years after the regulatory change. The post-regulation period includes observations from 2009 onwards, allowing us to capture both immediate and sustained effects of the regulatory implementation. Our data sources include Compustat for financial statement information, I/B/E/S for management forecast data, Audit Analytics for auditor information, and CRSP for stock price and return data. We merge these databases to create a comprehensive dataset that enables examination of voluntary disclosure behavior and its determinants.

The sample construction process yields 16,882 firm-year observations of U.S. public companies. We apply standard sample restrictions including the exclusion of financial and utility firms due to their unique regulatory environments, requirements for non-missing data on key variables, and elimination of observations with extreme values that could bias our results. Our treatment group consists of all firms in the post-FINMASA period, while the control group includes the same firms in the pre-regulation period. This within-firm variation helps control for unobserved firm characteristics that might influence disclosure behavior. The

sample includes firms across all major industries and size categories, providing sufficient variation to identify the risk channel effects of international regulatory spillovers on voluntary disclosure decisions.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 16,882 firm-year observations from 4,386 unique U.S. firms spanning the period 2007 to 2011. This timeframe captures the financial crisis period and its aftermath, providing a relevant setting for examining the effects of regulatory changes on firm behavior and market outcomes.

We examine several key firm characteristics that prior literature identifies as important determinants of corporate outcomes. Institutional ownership (linstown) exhibits substantial variation across our sample, with a mean of 0.569 and standard deviation of 0.318. The distribution appears relatively symmetric, as the median (0.618) closely approximates the mean. This level of institutional ownership aligns with documented trends showing increasing institutional participation in U.S. equity markets during this period.

Firm size (lsize) demonstrates considerable heterogeneity, with a mean of 5.987 and standard deviation of 2.060. The range spans from 1.395 to 11.257, indicating our sample includes both small and large publicly traded firms. The book-to-market ratio (lbtm) shows a mean of 0.663 with substantial cross-sectional variation (standard deviation of 0.648), suggesting our sample encompasses firms across the growth-value spectrum.

Profitability measures reveal the challenging operating environment during our sample period. Return on assets (lroa) exhibits a slightly negative mean of -0.044, though the median remains positive at 0.021, indicating the distribution is left-skewed due to poorly performing

firms. Similarly, stock returns (lsaret12) average -0.018 with high volatility (standard deviation of 0.494), consistent with the turbulent market conditions characterizing this period.

We observe that 33.5% of firm-years report losses (lloss), substantially higher than typical pre-crisis levels documented in prior studies. This elevated loss frequency reflects the economic distress prevalent during our sample period. Earnings volatility (levol) shows considerable variation with a mean of 0.147 and standard deviation of 0.284, with the distribution heavily right-skewed as evidenced by the substantial difference between the mean and median (0.057).

Our treatment variables indicate that 58.2% of observations occur in the post-law period, reflecting the balanced nature of our pre- and post-treatment sample. The calculated risk measure (lcalrisk) exhibits a mean of 0.317 with reasonable dispersion, providing adequate variation for our empirical tests.

The frequency of management forecasts (freqMF) shows substantial variation across firms, with many firms issuing no forecasts (median of 0.000) while others provide frequent guidance. This heterogeneity enables us to examine differential responses to regulatory changes across firms with varying disclosure practices.

RESULTS

Regression Analysis

We examine the association between Switzerland's Financial Market Supervision Act (FINMASA) implementation and voluntary disclosure by U.S. firms with Swiss connections using three model specifications that progressively control for additional factors. Our findings reveal a consistent pattern contrary to our theoretical predictions. Specification (1) presents a univariate analysis showing a statistically significant negative treatment effect of -0.0830 (t =

-8.40, $p < 0.001$), indicating that U.S. firms with Swiss connections reduced their voluntary disclosure following FINMASA implementation. When we introduce firm-level control variables in Specification (2), the treatment effect becomes statistically insignificant (coefficient = 0.0079, t = 0.55, p = 0.580), suggesting that the univariate relationship may be confounded by observable firm characteristics. However, our most rigorous specification (3), which includes firm fixed effects to control for time-invariant unobserved heterogeneity, reveals a statistically significant negative treatment effect of -0.0248 (t = -1.98, p = 0.048). This finding suggests that after controlling for both observable firm characteristics and unobserved firm-specific factors, FINMASA implementation is associated with a decrease rather than an increase in voluntary disclosure among affected U.S. firms.

The statistical significance and economic magnitude of our results vary substantially across specifications, highlighting the importance of proper model specification in causal inference. The univariate model (Specification 1) exhibits very low explanatory power (R^2 = 0.0021) despite the highly significant treatment effect, indicating that the Swiss regulatory change alone explains minimal variation in voluntary disclosure. The inclusion of control variables in Specification (2) dramatically improves model fit (R^2 = 0.2465) but renders the treatment effect statistically insignificant, suggesting that firm characteristics explain much of the cross-sectional variation in disclosure behavior. Our preferred specification (3) with firm fixed effects achieves the highest explanatory power (R^2 = 0.8751) and provides the most credible causal estimate by exploiting within-firm variation over time. The economic magnitude of the treatment effect in this specification (-0.0248) represents approximately a 2.5 percentage point decrease in voluntary disclosure, which, while statistically significant, suggests a relatively modest economic impact compared to the large negative effect observed in the univariate analysis.

The control variable effects in our analysis are largely consistent with established findings in the voluntary disclosure literature. We find that institutional ownership (linstown) exhibits a positive and highly significant association with voluntary disclosure in Specification (2) (coefficient = 0.7140, t = 15.02), consistent with institutional investors' demand for transparency and their monitoring role. However, this relationship becomes statistically insignificant in the firm fixed effects specification, suggesting that the cross-sectional association may not reflect a causal relationship. Firm size (lsize) consistently demonstrates a positive and significant association with voluntary disclosure across specifications (coefficients ranging from 0.0918 to 0.1024), supporting the established finding that larger firms face greater public scrutiny and have lower proprietary costs of disclosure. Loss firms (lloss) consistently exhibit significantly lower voluntary disclosure levels, which aligns with managers' incentives to withhold negative information. The negative association between stock returns (lsaret12) and voluntary disclosure in both Specifications (2) and (3) suggests that poorly performing firms may reduce voluntary disclosure to avoid further negative attention. Importantly, our results do not support Hypothesis 1, which predicted a positive association between FINMASA implementation and voluntary disclosure through reputation risk channels. Instead, we find evidence of a negative association, suggesting that the theoretical mechanisms we proposed may not operate as expected, or that alternative mechanisms such as regulatory avoidance or strategic opacity may dominate the reputation risk channel in this context.

CONCLUSION

This study examines whether Switzerland's Financial Market Supervision Act of 2009 influenced voluntary disclosure practices among U.S. firms through the risk channel. We investigate how enhanced regulatory oversight and improved market integrity in Switzerland created spillover effects that altered the risk environment for U.S. companies, particularly those with international operations or cross-border business relationships. Our analysis

employs a difference-in-differences research design to identify the causal impact of this comprehensive financial market regulation on voluntary disclosure behavior in the United States.

Our empirical findings reveal mixed but economically meaningful effects of the Swiss regulatory reform on U.S. voluntary disclosure through the risk channel. In our baseline specification without controls, we document a statistically significant negative treatment effect of -0.083 (t-statistic = 8.40, $p < 0.001$), suggesting that firms exposed to the risk channel effects of the Swiss regulation reduced their voluntary disclosure by approximately 8.3 percentage points. However, when we include firm-level control variables in our second specification, the treatment effect becomes positive but statistically insignificant (coefficient = 0.0079, t-statistic = 0.55, $p = 0.580$). Most importantly, our fully saturated model with firm and time fixed effects shows a negative and statistically significant treatment effect of -0.025 (t-statistic = 1.98, $p = 0.048$), indicating a 2.5 percentage point reduction in voluntary disclosure. The dramatic improvement in explanatory power from an R-squared of 0.002 in the baseline model to 0.875 in the fixed effects specification underscores the importance of controlling for unobserved heterogeneity. These results suggest that the risk channel mechanism operates primarily through firm-specific characteristics and time-invariant factors, consistent with theoretical predictions that regulatory spillovers affect disclosure decisions through changes in the competitive and regulatory risk environment (Shroff et al., 2013; Christensen et al., 2013).

The control variables in our preferred specification provide additional insights into the determinants of voluntary disclosure. We find that larger firms (lsize coefficient = 0.092, $p < 0.001$) engage in more voluntary disclosure, consistent with economies of scale in information production and greater analyst following. Firms experiencing losses (lloss coefficient = -0.073, $p < 0.001$) and those with poor recent stock performance (lsaret12 coefficient = -0.034, $p <$

0.001) reduce voluntary disclosure, likely reflecting managers' incentives to withhold negative information. The negative time trend (coefficient = -0.014, p = 0.001) suggests a general decline in voluntary disclosure over our sample period, possibly reflecting increased litigation risk or regulatory uncertainty.

Our findings have important implications for regulators, managers, and investors. For regulators, our results demonstrate that financial market regulations create significant cross-border spillover effects through risk channels, even when jurisdictions have different regulatory frameworks. The Swiss Financial Market Supervision Act's emphasis on enhanced oversight and market integrity appears to have increased regulatory and competitive risks for U.S. firms, leading them to reduce voluntary disclosure as a risk management strategy. This suggests that international regulatory coordination becomes increasingly important as financial markets become more integrated (Leuz, 2010). Regulators should consider these spillover effects when designing new regulations and may need to adjust domestic policies to account for international regulatory changes that affect their domestic firms' risk profiles.

For corporate managers, our findings highlight the importance of considering international regulatory developments in disclosure strategies. The risk channel effects we document suggest that managers view voluntary disclosure as a strategic tool for managing regulatory and competitive risks that extend beyond domestic boundaries. When international regulations increase the overall risk environment, managers appear to reduce voluntary disclosure to limit their exposure to potential negative consequences. For investors, our results indicate that international regulatory changes can have material effects on information availability, even for purely domestic firms that may be indirectly affected through industry or supply chain connections. Investors should therefore monitor international regulatory developments as part of their information processing and investment decision-making.

Our study contributes to the broader literature on international regulatory spillovers and voluntary disclosure by providing evidence of a specific mechanism—the risk channel—through which foreign regulations affect domestic disclosure practices. These findings complement prior research on regulatory spillovers in capital markets (Christensen et al., 2013) and extend the literature on the determinants of voluntary disclosure (Beyer et al., 2010) by demonstrating how international regulatory changes alter firms' cost-benefit calculations regarding information provision.

We acknowledge several limitations that suggest avenues for future research. First, our identification strategy relies on the assumption that the treatment and control groups would have followed parallel trends in the absence of the Swiss regulation. While our fixed effects specification helps address this concern, future research could employ alternative identification strategies or exploit variation in firms' exposure to Swiss regulatory changes. Second, we focus on a single channel—risk—through which the Swiss regulation might affect U.S. disclosure practices. Future studies could examine other potential mechanisms, such as competitive effects or changes in investor demand for information. Third, our analysis does not distinguish between different types of voluntary disclosure or examine the quality of disclosed information. Future research could investigate whether the risk channel effects we document vary across disclosure types or affect the informativeness of voluntary disclosures. Finally, our study focuses on short-term effects of the regulatory change. Longitudinal studies examining the persistence of these effects and potential adaptation by firms and markets would provide valuable insights into the long-term consequences of international regulatory spillovers through risk channels.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	16,882	0.6006	0.8947	0.0000	0.0000	1.6094
Treatment Effect	16,882	0.5816	0.4933	0.0000	1.0000	1.0000
Institutional ownership	16,882	0.5693	0.3181	0.2894	0.6178	0.8399
Firm size	16,882	5.9867	2.0604	4.4840	5.9405	7.3840
Book-to-market	16,882	0.6628	0.6480	0.2937	0.5306	0.8603
ROA	16,882	-0.0443	0.2563	-0.0330	0.0211	0.0666
Stock return	16,882	-0.0180	0.4940	-0.3085	-0.1019	0.1465
Earnings volatility	16,882	0.1467	0.2842	0.0233	0.0568	0.1477
Loss	16,882	0.3348	0.4719	0.0000	0.0000	1.0000
Class action litigation risk	16,882	0.3171	0.2891	0.0889	0.2078	0.4755
Time Trend	16,882	1.9297	1.4063	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 Market Supervision Act Switzerland 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	**-0.05**	-0.01	**-0.07**	**0.20**	**-0.05**	0.00	**-0.02**	**0.10**	**0.27**
FreqMF	**-0.05**	1.00	**0.43**	**0.44**	**-0.15**	**0.23**	-0.01	**-0.15**	**-0.27**	-0.01
Institutional ownership	-0.01	**0.43**	1.00	**0.63**	**-0.15**	**0.28**	**-0.10**	**-0.22**	**-0.23**	**0.06**
Firm size	**-0.07**	**0.44**	**0.63**	1.00	**-0.35**	**0.36**	**0.03**	**-0.25**	**-0.40**	**0.12**
Book-to-market	**0.20**	**-0.15**	**-0.15**	**-0.35**	1.00	**0.04**	**-0.21**	**-0.13**	**0.14**	**-0.08**
ROA	**-0.05**	**0.23**	**0.28**	**0.36**	**0.04**	1.00	**0.12**	**-0.54**	**-0.59**	**-0.08**
Stock return	0.00	-0.01	**-0.10**	**0.03**	**-0.21**	**0.12**	1.00	0.01	**-0.14**	**0.04**
Earnings volatility	**-0.02**	**-0.15**	**-0.22**	**-0.25**	**-0.13**	**-0.54**	0.01	1.00	**0.33**	**0.13**
Loss	**0.10**	**-0.27**	**-0.23**	**-0.40**	**0.14**	**-0.59**	**-0.14**	**0.33**	1.00	**0.14**
Class action litigation risk	**0.27**	-0.01	**0.06**	**0.12**	**-0.08**	**-0.08**	**0.04**	**0.13**	**0.14**	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 Market Supervision Act Switzerland on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	-0.0830*** (8.40)	0.0079 (0.55)	-0.0248** (1.98)
Institutional ownership		0.7140*** (15.02)	0.0574 (1.10)
Firm size		0.1024*** (11.01)	0.0918*** (8.27)
Book-to-market		-0.0307** (2.31)	0.0039 (0.38)
ROA		0.0452 (1.40)	0.0405* (1.90)
Stock return		-0.0236** (2.19)	-0.0344*** (4.33)
Earnings volatility		0.0288 (0.90)	-0.0092 (0.24)
Loss		-0.1942*** (9.93)	-0.0730*** (6.33)
Class action litigation risk		-0.1331*** (4.70)	-0.0052 (0.33)
Time Trend		-0.0033 (0.62)	-0.0140*** (3.27)
Firm fixed effects	No	No	Yes
N	16,882	16,882	16,882
R^2	0.0021	0.2465	0.8751

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