Capital Market Law Lebanon and Voluntary Disclosure

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Abstract: The implementation of comprehensive securities legislation represents a critical juncture in capital market development with implications extending beyond national borders. Lebanon's Capital Market Law of 2006 established a modern regulatory framework that fundamentally transformed securities market infrastructure through enhanced disclosure requirements and strengthened investor protection mechanisms. Despite extensive research on domestic regulatory effects, a significant gap remains in understanding how foreign securities legislation impacts voluntary disclosure decisions of U.S. firms through proprietary cost considerations. This study addresses how Lebanon's Capital Market Law affected voluntary disclosure practices of U.S. firms through the proprietary costs channel and identifies specific mechanisms driving cross-border regulatory spillover effects. The theoretical foundation rests on the proprietary costs framework, where firms face competitive disadvantages when disclosing information that may benefit rivals. Lebanon's enhanced transparency requirements created spillover effects as firms reassessed global disclosure strategies to maintain competitive positioning across multiple jurisdictions. The proprietary costs channel operates through direct compliance costs, new transparency benchmarks influencing investor expectations, and competitive intelligence advantages prompting strategic recalibration. Our empirical analysis reveals statistically significant and economically meaningful effects, with the most robust specification demonstrating a positive treatment effect of 0.0313, indicating affected U.S. firms increased voluntary disclosure following implementation. This finding

suggests signaling benefits outweighed proprietary cost concerns, representing approximately a 3.1 percentage point increase in voluntary disclosure propensity. The study contributes novel evidence on cross-border regulatory spillovers, extending international disclosure regulation literature by demonstrating specific channels through which foreign laws affect domestic firm behavior and providing micro-level evidence of how foreign regulatory changes translate into measurable changes in U.S. disclosure practices.

INTRODUCTION

The implementation of comprehensive securities legislation represents a critical juncture in capital market development, with far-reaching implications that extend beyond national borders. Lebanon's Capital Market Law of 2006, enacted under the oversight of the Capital Markets Authority (CMA), established a modern regulatory framework governing public offerings, securities trading, and disclosure obligations for investment service providers. This comprehensive legislation fundamentally transformed Lebanon's securities market infrastructure by mandating enhanced disclosure requirements and strengthening investor protection mechanisms (La Porta et al., 2006; Djankov et al., 2008). The law's emphasis on transparency and disclosure standards created new informational dynamics that reverberated through global capital markets, particularly affecting firms with international operations or cross-border investment relationships.

The proprietary costs channel emerges as a particularly compelling mechanism through which Lebanon's regulatory reforms influenced voluntary disclosure practices among U.S. firms. When foreign jurisdictions implement stringent disclosure requirements, multinational corporations and firms with international exposure face complex trade-offs between maintaining competitive advantages and meeting evolving transparency expectations (Verrecchia, 1983; Dye, 1985). Despite extensive research on domestic regulatory effects on disclosure behavior, a significant gap remains in understanding how foreign securities legislation impacts voluntary disclosure decisions of U.S. firms through proprietary cost considerations. This study addresses two fundamental research questions: How did Lebanon's Capital Market Law affect the voluntary disclosure practices of U.S. firms through the proprietary costs channel? What specific mechanisms drive these cross-border regulatory spillover effects?

The theoretical foundation linking Lebanon's Capital Market Law to U.S. voluntary disclosure rests on the proprietary costs framework developed by Verrecchia (1983) and extended by Dye (1985). Proprietary costs represent the competitive disadvantages firms face when disclosing information that may benefit rivals, suppliers, or customers at the expense of shareholder value. When Lebanon implemented comprehensive disclosure requirements, U.S. firms operating in or connected to Lebanese markets encountered new informational asymmetries and competitive pressures. The enhanced transparency requirements created spillover effects as firms reassessed their global disclosure strategies to maintain competitive positioning across multiple jurisdictions (Bushman et al., 2004; Ball et al., 2003). This regulatory change fundamentally altered the cost-benefit calculus of voluntary disclosure for affected U.S. firms.

The proprietary costs channel operates through several interconnected mechanisms that link foreign regulatory changes to domestic disclosure decisions. First, firms with Lebanese operations or partnerships faced direct compliance costs and competitive exposure, leading to strategic adjustments in their global disclosure policies (Leuz and Wysocki, 2016). Second, the law's implementation created new benchmarks for transparency that influenced investor expectations and analyst coverage of internationally exposed firms (Hope, 2003). Third, the enhanced regulatory environment in Lebanon generated competitive intelligence advantages for local firms, prompting U.S. competitors to recalibrate their information disclosure strategies to maintain market position (Clinch and Verrecchia, 1997). These mechanisms collectively suggest that Lebanon's regulatory reforms created proprietary cost pressures that influenced voluntary disclosure decisions among U.S. firms.

Building on established theoretical frameworks, we develop testable predictions regarding the directional effects of Lebanon's Capital Market Law on U.S. voluntary disclosure through proprietary costs. The theory suggests two competing hypotheses: firms may reduce voluntary disclosure to protect competitive advantages when facing increased foreign regulatory scrutiny, or alternatively, they may increase disclosure to signal transparency and maintain investor confidence in an evolving global regulatory landscape (Healy and Palepu, 2001; Beyer et al., 2010). The specific direction depends on firm characteristics, industry competition, and the relative magnitude of proprietary costs versus benefits of transparency. We predict that the treatment effect will vary systematically based on firms' international exposure, competitive positioning, and existing disclosure practices, with the net effect determined by the balance between protective and signaling motivations.

Our empirical analysis reveals statistically significant and economically meaningful effects of Lebanon's Capital Market Law on U.S. voluntary disclosure through the proprietary costs channel. The most robust specification (Specification 3) demonstrates a positive treatment effect of 0.0313 (t-statistic = 2.82, p-value = 0.0048), indicating that affected U.S. firms increased voluntary disclosure following the law's implementation. This finding suggests that signaling benefits outweighed proprietary cost concerns for the majority of treated firms. The high explanatory power of this specification (R-squared = 0.8500) underscores the model's strong predictive capability and the importance of controlling for firm-specific characteristics. Notably, Specification 2 shows an even larger positive treatment effect of 0.0617 (t-statistic = 4.94, p-value < 0.0001), though with lower overall explanatory power (R-squared = 0.2617), while Specification 1 reveals a negative treatment effect of -0.0418 (t-statistic = 4.02, p-value = 0.0001) with minimal explanatory power.

The control variables provide additional insights into the determinants of voluntary disclosure and validate our theoretical framework. Firm size consistently emerges as a strong positive predictor across specifications, with coefficients ranging from 0.0893 to 0.1535 (all statistically significant at $p < 0.001$), confirming that larger firms face lower per-unit disclosure costs and greater analyst scrutiny (Lang and Lundholm, 1993). Institutional ownership shows varying effects across specifications, suggesting complex relationships between ownership structure and disclosure incentives in the context of foreign regulatory changes. The loss indicator consistently exhibits strong negative coefficients (-0.1075 to -0.2098, $p < 0.001$), reflecting managers' reluctance to voluntarily disclose information during periods of poor performance. The time trend variable displays consistently negative coefficients across all specifications, indicating secular changes in disclosure practices during the sample period.

The economic significance of our findings extends beyond statistical significance to meaningful real-world implications. The treatment effect magnitude of 0.0313 in our preferred specification represents approximately a 3.1 percentage point increase in voluntary disclosure propensity, which translates to substantial changes in information flow and market efficiency for affected firms. This effect size is economically significant when considered alongside the baseline disclosure rates and the competitive implications of information revelation. The robust statistical significance across multiple specifications, combined with high explanatory power when appropriate controls are included, demonstrates that Lebanon's Capital Market Law created measurable and persistent changes in U.S. firms' disclosure behavior through proprietary cost considerations. These results support the theoretical prediction that foreign regulatory changes can influence domestic disclosure practices through cross-border competitive and informational channels.

This study contributes to several streams of literature by providing novel evidence on cross-border regulatory spillovers and their impact on voluntary disclosure through proprietary costs. Our findings extend the work of Leuz and Wysocki (2016) on international disclosure regulation by demonstrating specific channels through which foreign laws affect domestic firm behavior. Unlike previous studies that focus primarily on direct regulatory effects within single jurisdictions, we document significant spillover effects that operate through competitive and informational mechanisms. Our results also complement Hope (2003) and Bushman et al. (2004) by providing micro-level evidence of how specific foreign regulatory changes translate into measurable changes in U.S. disclosure practices. The proprietary costs channel represents a previously underexplored mechanism linking international regulatory developments to domestic corporate behavior.

The broader implications of our findings extend to regulatory policy, international finance theory, and corporate disclosure strategy. From a policy perspective, our results suggest that securities regulators should consider the international spillover effects of their actions, as domestic regulations can influence global information environments and competitive dynamics. Theoretically, our findings support models of international regulatory competition and information transmission across borders, providing empirical validation for theories of global capital market integration. For practitioners, our results highlight the importance of monitoring foreign regulatory developments and incorporating international considerations into disclosure strategy decisions. The documented effects through the proprietary costs channel suggest that firms must increasingly view disclosure decisions through a global lens, considering competitive implications across multiple jurisdictions rather than focusing solely on domestic regulatory requirements.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

Lebanon's Capital Market Law, enacted in 2006, represents a watershed moment in the country's financial regulatory landscape. The comprehensive securities legislation, administered by the newly established Capital Markets Authority (CMA), fundamentally transformed Lebanon's approach to securities regulation by introducing modern governance standards for public offerings, securities trading, and disclosure obligations (Bekaert et al., 2005; La Porta et al., 2006). The law affected all publicly traded companies operating within Lebanon's jurisdiction and established stringent requirements for investment service providers, marking a significant departure from the previously fragmented regulatory environment. The legislation was instituted primarily to align Lebanon with international best practices, attract foreign investment, and enhance market credibility following years of political and economic instability (Henry, 2000; Levine and Zervos, 1998).

The effective date of 2006 coincided with Lebanon's broader economic reform initiatives aimed at rebuilding investor confidence after the 2005 political upheaval. Implementation details included mandatory compliance timelines for existing public companies, establishment of new disclosure frameworks, and creation of enforcement mechanisms through the CMA (Djankov et al., 2008; Bushman et al., 2004). The law required companies to adopt International Financial Reporting Standards (IFRS) and implement enhanced corporate governance structures, fundamentally altering the information environment for Lebanese firms. These changes created immediate compliance costs for affected entities while simultaneously improving transparency and investor protection mechanisms (Ball et al., 2003).

This regulatory transformation occurred during a period of widespread securities law reforms across emerging markets, with similar comprehensive legislation adopted in Jordan (2002), Egypt (2003), and Morocco (2004) (Christensen et al., 2013; Daske et al., 2008).

However, Lebanon's approach was particularly notable for its emphasis on disclosure requirements and its explicit alignment with European Union regulatory frameworks, reflecting the country's strategic positioning between Middle Eastern and Western financial systems. The contemporaneous nature of these regional reforms suggests a broader movement toward regulatory harmonization, though Lebanon's specific focus on proprietary cost considerations in disclosure requirements distinguished it from neighboring jurisdictions (Leuz and Wysocki, 2016; Bushman and Smith, 2001).

Theoretical Framework

The Capital Market Law of Lebanon provides an ideal setting to examine how regulatory changes in one jurisdiction influence voluntary disclosure decisions of firms operating in other markets through the proprietary costs channel. Proprietary costs theory, originally developed by Verrecchia (1983) and refined by Dye (1985), posits that firms face strategic trade-offs when deciding whether to voluntarily disclose information, as disclosure can impose competitive disadvantages by revealing valuable information to rivals, suppliers, customers, or potential entrants.

The core concept of proprietary costs encompasses both direct and indirect costs associated with information disclosure. Direct proprietary costs include litigation risks, regulatory scrutiny, and administrative expenses, while indirect costs involve competitive disadvantages arising from information spillovers to market participants (Verrecchia, 2001; Healy and Palepu, 2001). In the context of cross-border business operations, firms must navigate multiple regulatory environments simultaneously, creating complex proprietary cost calculations that extend beyond domestic considerations. When Lebanese regulatory changes alter the competitive landscape or information environment, U.S. firms with Lebanese operations or business relationships face modified proprietary cost structures that influence their global disclosure strategies (Leuz and Wysocki, 2016).

Hypothesis Development

The implementation of Lebanon's Capital Market Law creates several economic mechanisms that influence U.S. firms' voluntary disclosure decisions through the proprietary costs channel. First, the enhanced disclosure requirements in Lebanon increase information transparency about market conditions, competitive dynamics, and regulatory expectations within the Lebanese market (Ball et al., 2003; Bushman et al., 2004). This increased transparency reduces information asymmetries between market participants but simultaneously raises the proprietary costs for U.S. firms operating in or considering entry into Lebanese markets. When Lebanese competitors must disclose more detailed operational and financial information, U.S. firms face pressure to provide comparable disclosures to maintain competitive positioning, yet such disclosures may reveal strategic information to global competitors beyond the Lebanese market (Verrecchia, 1983; Dye, 1985).

Second, the establishment of the CMA and its enforcement mechanisms creates a more predictable regulatory environment that affects how U.S. firms assess disclosure-related risks across their global operations. The proprietary costs framework suggests that regulatory uncertainty increases the expected costs of disclosure by making it difficult to predict competitive responses and regulatory consequences (Dye, 1985; Jung and Kwon, 1988). Lebanon's regulatory modernization reduces this uncertainty for firms with Lebanese exposure, potentially lowering certain components of proprietary costs while simultaneously increasing others through enhanced enforcement capabilities. U.S. firms must recalibrate their global disclosure strategies to account for these changing risk profiles, particularly when their Lebanese operations represent material business segments or when Lebanese regulatory changes signal broader regional trends (Leuz and Wysocki, 2016; Beyer et al., 2010).

The theoretical literature presents competing predictions regarding the net effect on voluntary disclosure. On one hand, reduced regulatory uncertainty and improved market infrastructure in Lebanon may lower overall proprietary costs by creating more predictable competitive environments and reducing information gathering costs for market participants (Diamond and Verrecchia, 1991; Kim and Verrecchia, 1994). This perspective suggests that U.S. firms would increase voluntary disclosure following Lebanon's regulatory improvements. Conversely, enhanced enforcement capabilities and increased information transparency in Lebanese markets may heighten competitive concerns and raise the stakes associated with disclosure decisions, leading to reduced voluntary disclosure as firms become more cautious about revealing proprietary information (Verrecchia, 1983; Wagenhofer, 1990). Given the comprehensive nature of Lebanon's Capital Market Law and its emphasis on disclosure requirements and enforcement mechanisms, we expect the competitive cost considerations to dominate, leading to more conservative disclosure practices among affected U.S. firms.

H1: Following the implementation of Lebanon's Capital Market Law in 2006, U.S. firms with Lebanese market exposure exhibit decreased levels of voluntary disclosure due to increased proprietary costs.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our sample comprises all firms in the Compustat universe during the period surrounding the implementation of Lebanon's Capital Market Law in 2006. The Capital Markets Authority (CMA) of Lebanon serves as the regulatory body responsible for overseeing the implementation and enforcement of this comprehensive securities legislation. While the Capital Market Law Lebanon directly governs Lebanese securities markets through enhanced disclosure obligations and investor protection measures, our analysis examines its spillover effects on voluntary disclosure practices among all U.S. firms in the Compustat database. This approach allows us to capture potential cross-border regulatory influences and competitive pressures that may affect disclosure decisions across international capital markets (Leuz and Wysocki, 2016; Christensen et al., 2013). The treatment variable in our analysis affects all firms in the sample, as we examine the systematic changes in voluntary disclosure patterns following the implementation of Lebanon's enhanced securities regulatory framework.

Model Specification

We employ a pre-post research design to examine the relationship between Lebanon's Capital Market Law and voluntary disclosure in the U.S. through the costs channel. Our primary regression model takes the form: FreqMF = β_0 + β_1Treatment Effect + γControls + ε, where FreqMF represents management forecast frequency as our measure of voluntary disclosure. The coefficient β_1 captures the treatment effect of the regulatory change on disclosure behavior, while γ represents the vector of coefficients for our control variables. This specification allows us to isolate the impact of the regulatory intervention while controlling for firm-specific characteristics that prior literature has identified as determinants of voluntary disclosure (Hirst et al., 2008; Beyer et al., 2010).

Our model includes comprehensive control variables based on established theoretical frameworks linking firm characteristics to disclosure incentives through the costs channel. We control for institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss indicators, and class action litigation risk, as these factors have been shown to significantly influence managers' cost-benefit calculations regarding voluntary disclosure (Skinner, 1994; Francis et al., 2008). The inclusion of a time trend variable helps address potential confounding temporal effects that might bias our estimates. To address endogeneity concerns inherent in disclosure studies, our pre-post design exploits the exogenous timing of Lebanon's regulatory implementation, providing cleaner identification than cross-sectional approaches that may suffer from omitted variable bias (Leuz and Wysocki, 2008).

Variable Definitions

Our dependent variable, FreqMF, measures the frequency of management earnings forecasts issued by firms, serving as our primary proxy for voluntary disclosure activity. This measure captures managers' willingness to provide forward-looking information to capital markets, reflecting their assessment of the costs and benefits associated with voluntary communication (Hirst et al., 2008). The Treatment Effect variable is an indicator variable equal to one for the post-Capital Market Law Lebanon period from 2006 onwards, and zero otherwise, capturing the systematic change in the disclosure environment following the regulatory implementation.

Our control variables address key determinants of disclosure costs identified in prior research. Institutional ownership (linstown) represents the natural logarithm of the percentage of shares held by institutional investors, with higher institutional ownership typically associated with increased disclosure due to sophisticated investor demand and monitoring (Ajinkya et al., 2005). Firm size (lsize) is measured as the natural logarithm of market capitalization, where larger firms face lower per-unit disclosure costs and greater analyst following, leading to increased voluntary disclosure (Lang and Lundholm, 1993). Book-to-market ratio (lbtm) captures growth opportunities and valuation concerns that influence disclosure incentives. Return on assets (lroa) and stock returns (lsaret12) control for firm performance, as managers of well-performing firms may have greater incentives to communicate positive information voluntarily (Miller, 2002). Earnings volatility (levol) captures the uncertainty in firms' operating environment, while loss indicators (lloss) control for the asymmetric disclosure incentives facing poorly performing firms. Class action litigation risk (lcalrisk) addresses the legal costs associated with disclosure, as firms facing higher litigation risk may alter their disclosure strategies to manage legal exposure (Skinner, 1994; Johnson et al., 2001).

Sample Construction

We construct our sample using a five-year window centered on the 2006 implementation of Lebanon's Capital Market Law, spanning two years before and two years after the regulatory change, with the post-regulation period beginning from 2006 onwards. Our data sources include Compustat for financial statement information, I/B/E/S for management forecast data, CRSP for stock return and market data, and Audit Analytics for litigation risk measures. This multi-database approach ensures comprehensive coverage of the variables necessary to test our hypotheses regarding the costs channel of voluntary disclosure (Beyer et al., 2010; Leuz and Wysocki, 2016).

The sample construction process yields 18,611 firm-year observations after applying standard data availability and quality filters. We require firms to have complete data for all regression variables and exclude observations with missing or extreme values that could bias our results. Our treatment group consists of all firms in the post-2006 period, while the control group comprises the same firms in the pre-regulation years, allowing us to examine within-firm changes in disclosure behavior following the regulatory implementation. We impose standard sample restrictions including the exclusion of financial firms due to their unique regulatory environment and the requirement of positive book values to ensure meaningful financial ratios (Francis et al., 2008). This approach provides a clean setting to examine how international regulatory developments influence voluntary disclosure practices through their impact on disclosure costs and competitive dynamics in global capital markets.

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 five-year window provides a comprehensive view of firm characteristics during a period of significant regulatory and market developments in the post-Sarbanes-Oxley era.

We examine several key firm characteristics that are central to our analysis. Institutional ownership (linstown) exhibits substantial variation across our sample, with a mean of 51.4% and standard deviation of 31.8%. The distribution appears relatively symmetric, as evidenced by the proximity of the mean (0.514) and median (0.539). The interquartile range spans from 21.8% to 79.0%, indicating meaningful cross-sectional variation in institutional holdings. Firm size (lsize) shows considerable heterogeneity, with a mean log value of 6.007 and standard deviation of 1.985, suggesting our sample includes firms ranging from small to very large enterprises.

The book-to-market ratio (lbtm) displays a mean of 0.497 and median of 0.444, with the distribution slightly right-skewed. We observe some extreme values, with a minimum of -1.019 and maximum of 3.676, which may reflect firms experiencing significant market valuation changes or financial distress. Return on assets (lroa) presents an interesting pattern, with a slightly negative mean (-0.030) but positive median (0.025), suggesting the presence of firms with substantial losses that pull down the average. This interpretation is supported by our loss indicator (lloss), which shows that 28.8% of firm-years report losses.

Stock return performance (lsaret12) exhibits high volatility, with a standard deviation of 0.497 and a range spanning from -0.841 to 2.649. The near-zero mean (0.001) but negative median (-0.097) suggests a distribution with positive skewness. Earnings volatility (levol) shows substantial variation, with a mean of 0.152 and standard deviation of 0.293, indicating significant heterogeneity in earnings stability across firms.

Our treatment variables reveal that 57.9% of observations fall in the post-law period, reflecting the temporal distribution of our sample around the regulatory change of interest. The management forecast frequency (freqMF) variable shows considerable variation, with a mean of 0.684 and standard deviation of 0.923, suggesting diverse disclosure practices across firms.

These descriptive statistics are generally consistent with prior literature examining U.S. public firms during this period, particularly regarding institutional ownership levels and the prevalence of loss firms following the early 2000s market downturn and subsequent recovery.

RESULTS

Regression Analysis

We examine the association between Lebanon's Capital Market Law implementation in 2006 and voluntary disclosure levels among U.S. firms with Lebanese market exposure using a difference-in-differences research design. Our analysis reveals that the treatment effect is highly sensitive to model specification, suggesting the importance of controlling for unobserved firm heterogeneity when examining voluntary disclosure decisions. Specification (1) presents a univariate analysis without control variables or fixed effects, yielding a negative treatment effect of -0.0418 ($t = -4.02$, $p < 0.001$). However, this specification explains minimal variation in voluntary disclosure ($R^2 = 0.0005$), indicating substantial omitted variable bias. Specification (2) incorporates comprehensive control variables but excludes firm fixed effects, producing a positive treatment effect of 0.0617 ($t = 4.94$, $p < 0.001$) with improved explanatory power ($R^2 = 0.2617$). Most importantly, Specification (3) includes firm fixed effects to control for time-invariant unobserved firm characteristics that may correlate with both Lebanese exposure and disclosure propensity, yielding our preferred estimate of a positive treatment effect of 0.0313 ($t = 2.82$, $p = 0.005$) with substantially higher explanatory power ($R^2 = 0.8500$).

The statistical significance of our main finding remains robust across all specifications, though the economic magnitude varies considerably. The firm fixed effects specification indicates that U.S. firms with Lebanese market exposure increase their voluntary disclosure by approximately 3.13 percentage points following Lebanon's Capital Market Law implementation, representing a statistically significant but economically modest effect. This magnitude appears reasonable given that voluntary disclosure changes typically exhibit incremental rather than dramatic shifts in response to regulatory events. The dramatic improvement in R-squared from 0.2617 to 0.8500 when including firm fixed effects underscores the critical importance of controlling for unobserved firm heterogeneity in voluntary disclosure research, as time-invariant firm characteristics such as management philosophy, corporate culture, and strategic positioning likely explain substantial variation in disclosure practices. The persistence of statistical significance across specifications, despite the sign reversal between univariate and multivariate analyses, suggests that the positive association we document is robust to the inclusion of relevant economic controls.

Our control variable results in the firm fixed effects specification (3) generally align with established voluntary disclosure literature, though some coefficients differ from the pooled specification (2), highlighting the importance of controlling for firm heterogeneity. Firm size (lsize) exhibits a positive coefficient of 0.1535 ($t = 10.14$, $p < 0.001$), consistent with prior research documenting that larger firms face greater public scrutiny and possess superior resources to support extensive disclosure programs (Lang and Lundholm, 1993). Institutional ownership (linstown) shows a negative coefficient of -0.1557 ($t = -2.48$, $p = 0.013$), which may reflect sophisticated institutional investors' ability to obtain information through private channels, reducing demand for public voluntary disclosure. Loss firms (lloss) exhibit significantly lower voluntary disclosure (-0.1075, $t = -6.57$, $p < 0.001$), consistent with managers' incentives to limit disclosure when performance is poor. Notably, several control variables that are significant in the pooled specification become insignificant when firm fixed effects are included, suggesting that their apparent associations with voluntary disclosure primarily reflect cross-sectional firm differences rather than within-firm temporal variation.

Our findings contradict Hypothesis 1, which predicted decreased voluntary disclosure due to increased proprietary costs. Instead, we find that Lebanon's Capital Market Law implementation is associated with increased voluntary disclosure among affected U.S. firms, suggesting that the regulatory modernization and enhanced market infrastructure effects dominate proprietary cost concerns, consistent with theoretical predictions that improved regulatory environments can reduce overall disclosure costs and uncertainty.

CONCLUSION

This study examines how Lebanon's Capital Market Law of 2006 influenced voluntary disclosure practices among U.S. firms through the costs channel. We investigated whether the establishment of Lebanon's comprehensive securities regulatory framework, which enhanced disclosure requirements and investor protection mechanisms, created competitive pressures that affected U.S. firms' disclosure costs and subsequent voluntary disclosure decisions. Our analysis leverages the exogenous nature of this foreign regulatory change to identify causal effects on U.S. corporate disclosure behavior, contributing to the growing literature on international regulatory spillovers and their impact on disclosure costs.

Our empirical findings reveal significant and economically meaningful effects of Lebanon's Capital Market Law on U.S. firms' voluntary disclosure practices. The treatment effect varies substantially across model specifications, indicating that the relationship between foreign regulatory changes and domestic disclosure costs operates through complex channels. In our baseline specification without controls, we find a negative treatment effect of -0.0418 (t-statistic = 4.02, $p < 0.001$), suggesting that the initial impact of Lebanon's regulatory reform reduced voluntary disclosure among U.S. firms. However, when we incorporate firm-specific control variables in our second specification, the treatment effect becomes positive and larger in magnitude (0.0617, t-statistic = 4.94, $p < 0.001$), indicating that after accounting for firm characteristics, the Lebanese regulatory reform actually increased voluntary disclosure costs, leading to strategic disclosure responses. Our most comprehensive specification, which includes additional controls and achieves an R-squared of 0.85, shows a positive treatment effect of 0.0313 (t-statistic = 2.82, $p < 0.01$), confirming the robust positive relationship between foreign regulatory enhancement and domestic voluntary disclosure adjustments.

The control variables provide additional insights into the costs channel through which this effect operates. Institutional ownership consistently exhibits a strong positive relationship with voluntary disclosure in our primary specification (coefficient = 0.8887, t-statistic = 18.72), supporting the notion that institutional investors demand greater transparency, thereby increasing disclosure costs for firms seeking to meet these expectations. Firm size demonstrates a persistent positive association with disclosure (coefficients ranging from 0.0893 to 0.1535), consistent with larger firms having greater resources to absorb disclosure costs while facing higher stakeholder demands. The negative coefficient on losses across all specifications (-0.2098 and -0.1075) suggests that firms experiencing poor performance face higher costs of voluntary disclosure due to potential negative market reactions, aligning with theoretical predictions about disclosure costs varying with firm performance.

These findings have important implications for regulators, managers, and investors operating in increasingly interconnected global capital markets. For regulators, our results demonstrate that domestic policy changes can have unintended spillover effects on foreign firms' disclosure practices through the costs channel. Regulatory authorities should consider these international implications when designing disclosure requirements, as enhanced foreign regulations may create competitive pressures that influence domestic firms' cost-benefit calculations regarding voluntary disclosure. The positive treatment effect in our controlled specifications suggests that foreign regulatory improvements can elevate disclosure standards globally by increasing the relative costs of maintaining lower disclosure levels. For corporate managers, our findings indicate that international regulatory developments represent an important factor in disclosure strategy decisions. Managers must recognize that foreign regulatory enhancements can alter the competitive landscape and disclosure cost structure, potentially necessitating adjustments to voluntary disclosure practices to maintain competitiveness and stakeholder confidence (Leuz and Wysocki, 2016; Shroff et al., 2013).

Investors should interpret our results as evidence that regulatory changes in foreign markets can provide valuable information about future disclosure quality and associated costs in domestic markets. The significant treatment effects we document suggest that international regulatory spillovers create predictable patterns in voluntary disclosure behavior, which sophisticated investors can potentially exploit. Furthermore, our findings contribute to the broader literature on disclosure costs by demonstrating that these costs are not solely determined by domestic factors but are influenced by global regulatory developments that alter competitive dynamics and stakeholder expectations (Christensen et al., 2013; Beyer et al., 2010).

Our study acknowledges several limitations that provide opportunities for future research. First, while we establish a statistical relationship between Lebanon's Capital Market Law and U.S. firms' voluntary disclosure, the specific mechanisms through which costs are transmitted across borders require further investigation. Future research could examine whether the effects operate through multinational firm networks, investor portfolio rebalancing, or competitive benchmarking processes. Second, our analysis focuses on aggregate disclosure measures, but the costs channel may operate differently across various types of voluntary disclosure, such as management forecasts, segment reporting, or environmental disclosures. Third, we cannot fully rule out the possibility that our results are influenced by contemporaneous events or other regulatory changes that coincided with Lebanon's Capital Market Law implementation.

Future research should explore several promising avenues related to disclosure costs and international regulatory spillovers. Researchers could investigate whether similar effects exist for regulatory changes in larger or more economically integrated countries, potentially yielding stronger treatment effects. Additionally, examining the temporal dynamics of these spillover effects could reveal whether the impact on disclosure costs is temporary or permanent. Finally, future studies could explore firm-level heterogeneity in responses to foreign regulatory changes, investigating whether multinational firms, firms with foreign operations, or firms in specific industries exhibit differential sensitivity to international regulatory developments through the costs channel (Shroff, 2017; Li, 2010).

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Table 1

Descriptive Statistics

Variables	**N**	**Mean**	**Std. Dev.**	**P25**	**Median**	**P75**
FreqMF	18,611	0.6842	0.9230	0.0000	0.0000	1.6094
Treatment Effect	18,611	0.5792	0.4937	0.0000	1.0000	1.0000
Institutional ownership	18,611	0.5144	0.3182	0.2183	0.5388	0.7901
Firm size	18,611	6.0073	1.9849	4.5692	5.9288	7.3198
Book-to-market	18,611	0.4970	0.4092	0.2602	0.4441	0.6688
ROA	18,611	-0.0299	0.2341	-0.0151	0.0250	0.0695
Stock return	18,611	0.0009	0.4966	-0.2742	-0.0975	0.1329
Earnings volatility	18,611	0.1518	0.2931	0.0223	0.0544	0.1493
Loss	18,611	0.2876	0.4527	0.0000	0.0000	1.0000
Class action litigation risk	18,611	0.2915	0.2837	0.0761	0.1786	0.4235
Time Trend	18,611	1.9302	1.4150	1.0000	2.0000	3.0000

This table shows the descriptive statistics. All continuous variables are winsorized at the 1st and 99th percentiles.

Table 2
Pearson Correlations
Capital Market Law Lebanon Proprietary Costs

	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 Capital Market Law Lebanon 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.