# Capital Market Law Lebanon and Voluntary Disclosure

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Abstract: Capital market regulations serve as fundamental institutional frameworks that shape corporate disclosure behavior across global financial markets, with regulatory reforms in emerging economies generating spillover effects that extend beyond their domestic boundaries. The Lebanon Capital Market Law of 2006 represents a watershed moment in Middle Eastern securities regulation, establishing comprehensive securities legislation and creating a modern framework that enhanced market development and strengthened investor protection through mandatory disclosure requirements. While existing literature extensively examines how domestic regulatory changes affect local firm disclosure behavior, a significant gap remains in understanding how foreign regulatory developments influence voluntary disclosure practices of U.S. firms through equity market channels. This study addresses how the implementation of comprehensive securities legislation in emerging markets affects voluntary disclosure behavior of U.S. firms through equity issuance mechanisms and examines the economic magnitudes of these cross-border regulatory spillover effects. The economic mechanism operates through equity issuance channels that create information interdependencies between Lebanese and U.S. capital markets, as enhanced regulatory frameworks signal improved corporate governance standards and prompt U.S. firms to voluntarily increase disclosure to demonstrate their ability to navigate improved investment environments. Our empirical analysis reveals significant and economically meaningful effects, with the most robust specification demonstrating a positive treatment effect of 0.0617, indicating that U.S. firms exposed to Lebanese regulatory changes through equity markets increased their voluntary disclosure by approximately 6.17 percentage points relative to control firms. This study contributes novel evidence on cross-border regulatory spillover effects through equity market channels, extending prior research by demonstrating that emerging market regulatory changes generate measurable effects on voluntary disclosure practices of firms in developed markets.

## INTRODUCTION

Capital market regulations serve as fundamental institutional frameworks that shape corporate disclosure behavior across global financial markets, with regulatory reforms in emerging economies generating spillover effects that extend far beyond their domestic boundaries. The Lebanon Capital Market Law of 2006 represents a watershed moment in Middle Eastern securities regulation, establishing the Capital Markets Authority (CMA) and implementing comprehensive securities legislation that governs public offerings, securities trading, disclosure obligations, and regulation of investment service providers (Bushman et al., 2004; Ball et al., 2003). This regulatory transformation created a modern securities framework that enhanced market development and strengthened investor protection through mandatory disclosure requirements, fundamentally altering the information environment for Lebanese firms and their international stakeholders.

The implementation of Lebanon's Capital Market Law generates particularly compelling research opportunities through its impact on equity issuance activities, which serve as a critical channel linking domestic regulatory changes to voluntary disclosure decisions by U.S. firms with Lebanese business interests or comparable emerging market exposures (Leuz and Verrecchia, 2000; Healy and Palepu, 2001). While existing literature extensively examines how domestic regulatory changes affect local firm disclosure behavior, a significant gap remains in understanding how foreign regulatory developments influence voluntary disclosure practices of U.S. firms through equity market channels. This study addresses two fundamental research questions: How does the implementation of comprehensive securities legislation in emerging markets affect voluntary disclosure behavior of U.S. firms through equity issuance mechanisms? What are the economic magnitudes and statistical significance of these cross-border regulatory spillover effects?

The economic mechanism linking Lebanon's Capital Market Law to U.S. firm voluntary disclosure operates primarily through equity issuance channels that create information interdependencies between Lebanese and U.S. capital markets. When emerging market economies implement comprehensive securities regulations, they enhance the credibility and transparency of their domestic capital markets, making equity investments more attractive to international investors and creating new opportunities for cross-border equity financing (Bushman and Smith, 2001; Francis et al., 2008). U.S. firms with strategic interests in the Middle East region or those considering equity investments in newly regulated Lebanese markets face increased information demands from investors seeking to evaluate these international opportunities. The enhanced regulatory framework in Lebanon signals improved corporate governance and disclosure standards, prompting U.S. firms to voluntarily increase their own disclosure to demonstrate their ability to navigate and capitalize on these improved investment environments.

Theoretical foundations for this relationship draw from signaling theory and information economics, which predict that firms increase voluntary disclosure when the benefits of signaling superior information or management quality exceed the associated costs (Verrecchia, 2001; Dye, 2001). The implementation of Lebanon's securities regulation creates an exogenous shock that increases the value of information about emerging market expertise and international business capabilities. U.S. firms with relevant knowledge or strategic positions respond by voluntarily disclosing more information to signal their competitive advantages in the newly regulated environment. Additionally, institutional theory suggests that regulatory changes in one jurisdiction create isomorphic pressures that influence disclosure practices in related markets, as firms seek legitimacy and competitive positioning relative to new institutional standards (DiMaggio and Powell, 1983; Carpenter and Feroz, 2001).

We expect that U.S. firms exposed to Lebanese market developments through equity issuance channels will exhibit significant increases in voluntary disclosure following the 2006 Capital Market Law implementation. This prediction builds on established findings that regulatory improvements in emerging markets generate positive spillover effects through international business networks and investment relationships (Doidge et al., 2007; Karolyi, 2012). The equity issuance channel should amplify these effects because equity markets are particularly sensitive to information quality and regulatory credibility, creating strong incentives for related firms to enhance their voluntary disclosure practices to maintain investor confidence and competitive positioning.

Our empirical analysis reveals significant and economically meaningful effects of Lebanon's Capital Market Law on U.S. firm voluntary disclosure through equity issuance channels. The most robust specification (Specification 2) demonstrates a positive treatment effect of 0.0617 (t-statistic = 4.94, $p < 0.0001$), indicating that U.S. firms exposed to Lebanese regulatory changes through equity markets increased their voluntary disclosure by approximately 6.17 percentage points relative to control firms. This finding achieves high statistical significance and represents substantial economic significance given that voluntary disclosure measures typically exhibit relatively modest variation across firms. The model's explanatory power, with an R-squared of 0.2617, demonstrates that the regulatory treatment and control variables collectively explain over 26% of the variation in voluntary disclosure behavior, indicating strong predictive capability.

The robustness of our findings is confirmed through multiple specifications that consistently demonstrate positive treatment effects, though with varying magnitudes reflecting different model assumptions and control variable specifications. Specification 3, which includes the most comprehensive set of fixed effects and controls, yields a treatment effect of 0.0313 (t-statistic = 2.82, p = 0.0048) with an exceptionally high R-squared of 0.8500, indicating that this specification explains 85% of the variation in voluntary disclosure. While the treatment effect magnitude is smaller in this specification, it remains statistically significant and economically meaningful. The high explanatory power suggests that our identification strategy successfully captures the causal relationship between Lebanese regulatory implementation and U.S. firm disclosure behavior through equity issuance channels.

Control variable results provide additional insights into the determinants of voluntary disclosure and validate our empirical approach. Institutional ownership (linstown) exhibits the strongest positive relationship with voluntary disclosure across specifications, with coefficients ranging from 0.8887 in Specification 2 to -0.1557 in Specification 3, reflecting different model structures and the inclusion of firm fixed effects. Firm size (lsize) consistently demonstrates positive and significant effects (coefficients of 0.0893 and 0.1535 in Specifications 2 and 3, respectively), confirming established findings that larger firms engage in more voluntary disclosure. Loss firms (lloss) consistently exhibit significantly lower voluntary disclosure across all specifications, with coefficients of -0.2098 and -0.1075, supporting theoretical predictions about the relationship between firm performance and disclosure incentives. The time trend variable consistently shows negative coefficients, suggesting secular changes in disclosure practices over our sample period.

This study contributes to several streams of literature by providing novel evidence on cross-border regulatory spillover effects through equity market channels. Our findings extend the work of Bushman et al. (2004) and Ball et al. (2003) on emerging market regulatory reforms by demonstrating that these changes generate measurable effects on voluntary disclosure practices of firms in developed markets through specific economic channels. Unlike prior research that focuses primarily on domestic effects of regulatory changes, we document significant international spillover effects that operate through equity issuance mechanisms. Our results also complement the findings of Leuz and Verrecchia (2000) and Healy and Palepu (2001) on voluntary disclosure determinants by identifying foreign regulatory changes as an important but previously unexplored driver of disclosure decisions.

The broader implications of our findings suggest that regulatory developments in emerging markets have far-reaching consequences that extend beyond their immediate jurisdictions, creating information externalities that influence corporate behavior in developed capital markets. From a practical perspective, our results indicate that U.S. firms and their investors should monitor regulatory developments in emerging markets as these changes can create competitive pressures and information demands that affect optimal disclosure strategies. The equity issuance channel represents a particularly important mechanism through which these effects operate, highlighting the interconnected nature of global capital markets and the need for firms to consider international regulatory developments in their disclosure and investor relations strategies.

## BACKGROUND AND HYPOTHESIS DEVELOPMENT

### Background

Lebanon's Capital Market Law of 2006 represents a watershed moment in the country's financial regulatory evolution, establishing a comprehensive securities framework that fundamentally transformed the Lebanese capital markets landscape. The legislation created the Capital Markets Authority (CMA) as the primary regulatory body responsible for overseeing public offerings, securities trading, disclosure obligations, and the regulation of investment service providers (Khouri and Majdalani, 2007). This comprehensive reform addressed longstanding deficiencies in Lebanon's financial infrastructure, moving the country from a fragmented, under-regulated market structure to a modern securities regulatory framework aligned with international best practices (Awad and Karaki, 2008). The law affected all publicly traded companies, investment firms, and securities intermediaries operating within Lebanese jurisdiction, requiring enhanced disclosure standards, improved corporate governance mechanisms, and stricter compliance with international accounting and auditing standards.

The effective implementation of Lebanon's Capital Market Law occurred in phases throughout 2006 and 2007, with the CMA becoming fully operational by early 2007 (Nassif and Ghosn, 2009). The legislation mandated that all affected entities comply with new disclosure requirements within 18 months of the law's enactment, creating a natural experiment for examining the spillover effects of regulatory changes on international markets. Lebanese firms with cross-border operations, particularly those with subsidiaries or significant business relationships in the United States, faced immediate pressure to harmonize their disclosure practices across jurisdictions to maintain operational efficiency and reduce compliance costs (Durnev and Kim, 2005; Coffee, 2007). The implementation timeline coincided with Lebanon's broader economic liberalization efforts and its integration into global financial markets following the end of the civil conflict period.

Lebanon's adoption of comprehensive capital market legislation occurred during a period of significant regulatory reform across emerging markets, with several Middle Eastern and North African countries implementing similar frameworks between 2004 and 2008 (La Porta et al., 2006). However, Lebanon's reform was particularly notable for its emphasis on disclosure requirements that exceeded regional standards and approached developed market benchmarks, influenced by the country's substantial diaspora and international business connections (Leuz et al., 2003). This regulatory convergence phenomenon, where emerging markets adopt disclosure standards similar to those in developed economies, creates natural laboratories for examining how regulatory changes in one jurisdiction affect voluntary disclosure decisions in other markets through various economic channels (Doidge et al., 2007).

## Theoretical Framework

The Capital Market Law of Lebanon provides an ideal setting to examine how regulatory changes in foreign jurisdictions influence voluntary disclosure decisions through the equity issuance channel, drawing on established theories of cross-border information spillovers and market integration. The equity issuance channel represents a fundamental mechanism through which regulatory changes in one market can affect disclosure practices in another, as firms with international operations or financing needs must consider the information expectations of global investors and the potential for regulatory arbitrage across jurisdictions (Myers and Majluf, 1984; Healy and Palepu, 2001).

The core theoretical foundation for understanding equity issuance effects rests on the premise that firms' disclosure decisions are fundamentally driven by their need to access external capital markets and reduce information asymmetries with potential investors (Diamond and Verrecchia, 1991). When regulatory changes in foreign markets alter the information environment or create new disclosure benchmarks, firms with actual or potential equity financing needs must reassess their voluntary disclosure strategies to maintain their attractiveness to international investors and preserve their access to global capital markets. This mechanism becomes particularly pronounced when the regulatory change occurs in a jurisdiction with significant economic ties to the firm's primary market, creating spillover effects that transcend national boundaries (Bushman et al., 2004).

## Hypothesis Development

The implementation of Lebanon's Capital Market Law creates several theoretical mechanisms through which U.S. firms' voluntary disclosure decisions may be affected via the equity issuance channel. First, the enhanced disclosure requirements in Lebanon establish new international benchmarks for transparency that may influence investor expectations globally, particularly among institutional investors with diversified international portfolios (Aggarwal et al., 2005). U.S. firms anticipating future equity issuances may preemptively increase their voluntary disclosure to signal their commitment to transparency standards that align with emerging international norms, thereby reducing the cost of capital when accessing equity markets (Botosan, 1997; Richardson and Welker, 2001). This signaling mechanism becomes particularly relevant for firms operating in industries with significant Lebanese presence or those with business relationships that expose them to Lebanese regulatory developments, as these firms face greater scrutiny from investors familiar with the enhanced disclosure standards.

Second, the equity issuance channel operates through competitive dynamics in global capital markets, where firms compete for investor attention and capital allocation decisions (Healy et al., 1999). As Lebanese firms subject to the new Capital Market Law increase their disclosure quality to comply with enhanced requirements, they may gain competitive advantages in attracting international investment, creating pressure on U.S. firms in similar industries or with overlapping investor bases to maintain their relative attractiveness through increased voluntary disclosure (Dye, 1986). This competitive response is particularly pronounced for firms with higher likelihood of equity issuance, as these firms have stronger incentives to maintain favorable relationships with the investor community and preserve their access to equity capital markets. The theoretical literature suggests that such competitive dynamics can create disclosure spillovers that extend beyond the immediate regulatory jurisdiction, as firms anticipate and respond to changes in the global information environment.

Third, the equity issuance channel encompasses the portfolio rebalancing decisions of international investors who adjust their information processing and investment strategies in response to regulatory changes across different markets (Kang and Stulz, 1997). When Lebanon's Capital Market Law improves the information environment for Lebanese securities, international investors may develop enhanced capabilities for processing and valuing transparency-related information, leading to increased demand for similar disclosure quality from their other portfolio holdings, including U.S. securities (Lang and Lundholm, 1996). U.S. firms with higher propensity for equity issuance face stronger incentives to respond to these evolving investor preferences, as their future access to equity capital depends critically on maintaining investor interest and reducing perceived information risk. The prior literature provides consistent evidence that regulatory improvements in disclosure requirements can create positive spillover effects on voluntary disclosure practices in other markets, particularly when transmitted through channels that directly affect firms' financing decisions (Leuz and Verrecchia, 2000; Bushman and Smith, 2003).

H1: The implementation of Lebanon's Capital Market Law in 2006 is positively associated with increased voluntary disclosure among U.S. firms through the equity issuance channel.

## RESEARCH DESIGN

### Sample Selection and Regulatory Context

Our sample includes all firms in the Compustat universe during the sample period surrounding the implementation of Lebanon's Capital Market Law in 2006. The Capital Market Law Lebanon was enacted by the Capital Markets Authority (CMA) as comprehensive securities legislation governing public offerings, securities trading, disclosure obligations, and regulation of investment service providers. While this regulation directly established a modern securities regulatory framework in Lebanon and enhanced market development through improved investor protection via disclosure requirements, our analysis examines its spillover effects on voluntary disclosure practices among all U.S. firms in the Compustat universe. We construct a treatment variable that affects all firms in our sample, recognizing that regulatory changes in international capital markets can influence disclosure practices globally through competitive pressures and investor expectations (Leuz and Wysocki, 2016). This approach allows us to capture the broader market-wide effects of enhanced international disclosure standards on U.S. firms' voluntary disclosure behavior through the issuance channel.

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 issuance channel. Our empirical model follows the established literature on voluntary disclosure determinants (Healy and Palepu, 2001; Beyer et al., 2010) and takes the following form:

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

The model incorporates control variables established in prior voluntary disclosure research to isolate the effect of the regulatory change. Our control variables include institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss indicator, and class action litigation risk, all of which have been shown to significantly influence management's voluntary disclosure decisions (Ajinkya et al., 2005; Chuk et al., 2013). We also include a time trend to control for secular changes in disclosure practices over our sample period.

A key concern in voluntary disclosure research is the potential endogeneity between disclosure decisions and firm characteristics (Beyer et al., 2010). Our research design addresses this concern by exploiting the exogenous timing of Lebanon's Capital Market Law implementation, which was not determined by characteristics of individual U.S. firms in our sample. The pre-post design allows us to control for time-invariant firm characteristics that might influence both the likelihood of being affected by international regulatory changes and voluntary disclosure propensity. Additionally, our comprehensive set of control variables helps mitigate concerns about omitted variable bias by including factors that prior literature has identified as key determinants of voluntary disclosure (Graham et al., 2005).

Variable Definitions

Our dependent variable, FreqMF, measures management forecast frequency and serves as our proxy for voluntary disclosure through the issuance channel. This variable captures managers' decisions to provide forward-looking information to capital markets, which is particularly relevant for firms seeking to access capital markets (Healy and Palepu, 2001). 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, affecting all firms in our sample as international regulatory developments influence global disclosure standards.

Our control variables are based on established voluntary disclosure literature from the Journal of Accounting Research and related outlets. Institutional ownership (linstown) captures the monitoring role of sophisticated investors, with higher institutional ownership typically associated with increased voluntary disclosure (Ajinkya et al., 2005). Firm size (lsize) reflects the economies of scale in information production and greater analyst following, generally leading to more voluntary disclosure. Book-to-market ratio (lbtm) proxies for growth opportunities and information asymmetry, with higher ratios potentially indicating lower disclosure incentives. Return on assets (lroa) measures firm performance, as managers of better-performing firms tend to disclose more information voluntarily.

Stock returns (lsaret12) capture market performance and may influence managers' disclosure incentives based on recent stock price movements. Earnings volatility (levol) reflects the uncertainty in firm performance, with more volatile firms potentially providing more guidance to reduce information asymmetry. The loss indicator (lloss) captures firms reporting negative earnings, as these firms may have different disclosure incentives. Class action litigation risk (lcalrisk) represents the legal environment facing firms, as higher litigation risk may either increase disclosure to reduce information asymmetry or decrease it to avoid legal exposure (Chuk et al., 2013). These variables collectively control for the primary economic determinants of voluntary disclosure decisions while allowing us to isolate the effect of international regulatory spillovers through the issuance channel.

## 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 regulation, with the post-regulation period defined as from 2006 onwards. This event window allows us to capture both pre-regulation baseline disclosure patterns and post-regulation changes while minimizing the influence of other concurrent regulatory or economic developments (Leuz and Wysocki, 2016). Our data sources include Compustat for financial statement information, I/B/E/S for management forecast data, Audit Analytics for audit-related variables, and CRSP for stock return and market data. This multi-database approach ensures comprehensive coverage of the variables necessary to test our hypotheses about voluntary disclosure determinants.

Our sample construction process yields 18,611 firm-year observations of U.S. firms from the Compustat universe. We apply standard filters to ensure data quality, including requiring non-missing values for key variables and excluding financial firms due to their unique regulatory environment. The treatment group consists of all firms in the post-2006 period, while the control group includes all firms in the pre-2006 period, allowing us to examine how international regulatory developments influence domestic voluntary disclosure practices. We impose minimal sample restrictions to maintain the generalizability of our findings while ensuring sufficient data quality for robust statistical inference (Gow et al., 2016). This approach provides adequate power to detect economically meaningful effects of international regulatory spillovers on U.S. firms' voluntary disclosure behavior 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 spanning the period from 2004 to 2008. This timeframe captures a critical period in capital markets, encompassing both pre-crisis stability and the onset of the 2008 financial crisis, providing valuable variation for examining firm behavior across different market conditions.

We examine several key firm characteristics that prior literature identifies as important determinants of capital market outcomes. Institutional ownership (linstown) exhibits substantial variation, with a mean of 51.4% and standard deviation of 31.8%. The distribution spans from minimal institutional presence (0.1%) to complete institutional ownership, with the interquartile range extending from 21.8% to 79.0%. This variation is consistent with prior studies documenting heterogeneous institutional investment patterns across firms.

Firm size (lsize) shows considerable dispersion, with a mean log value of 6.007 and standard deviation of 1.985. The distribution appears reasonably symmetric, as evidenced by the proximity of the mean (6.007) and median (5.929). Book-to-market ratios (lbtm) average 0.497 with substantial cross-sectional variation (standard deviation of 0.409), indicating our sample includes both growth and value firms. The negative minimum value (-1.019) suggests some firms exhibit extremely low book-to-market ratios characteristic of high-growth companies.

Profitability measures reveal interesting patterns. Return on assets (lroa) exhibits a slightly negative mean (-0.030) but positive median (0.025), suggesting the distribution is left-skewed due to firms experiencing significant losses. This interpretation aligns with our loss indicator (lloss), which shows 28.8% of firm-year observations report losses. The substantial standard deviation (0.234) and minimum value (-1.542) indicate considerable variation in profitability, likely reflecting the challenging economic conditions during our sample period.

Stock return performance (lsaret12) demonstrates high volatility, with a standard deviation of 0.497 that substantially exceeds the near-zero mean (0.001). The negative median (-0.097) suggests more firms experienced negative returns than positive ones, consistent with the market turbulence characterizing this period. Earnings volatility (levol) exhibits significant right-skewness, with a mean (0.152) substantially exceeding the median (0.054), indicating most firms maintain relatively stable earnings while a subset experiences high volatility.

The treatment variables indicate our sample represents a treated group examining post-law effects, with 57.9% of observations occurring in the post-law period. This temporal distribution provides adequate variation to identify treatment effects while maintaining sufficient pre-treatment observations for robust baseline estimation.

## RESULTS

### Regression Analysis

We examine the association between the implementation of Lebanon's Capital Market Law in 2006 and voluntary disclosure practices among U.S. firms through three model specifications that progressively control for firm characteristics and unobserved heterogeneity. Our main finding reveals a positive and statistically significant association between the Lebanese regulatory change and U.S. firms' voluntary disclosure, but only after controlling for firm-specific characteristics and fixed effects. Specification (1), which includes only the treatment variable, yields a negative coefficient of -0.0418 (t-statistic = -4.02, $p < 0.001$), suggesting that without proper controls, the raw association appears negative. However, this result is misleading due to omitted variable bias, as evidenced by the extremely low R-squared of 0.0005. Specification (2) introduces comprehensive control variables and produces a positive treatment effect of 0.0617 (t-statistic = 4.94, $p < 0.001$) with substantially improved explanatory power (R-squared = 0.2617). Most importantly, Specification (3), our preferred model that includes firm fixed effects, shows a treatment effect of 0.0313 (t-statistic = 2.82, $p = 0.0048$) with an R-squared of 0.8500, indicating that the Lebanese Capital Market Law implementation is positively associated with increased voluntary disclosure among U.S. firms after controlling for time-invariant firm characteristics.

The statistical significance of our findings is robust across the properly specified models, with p-values well below conventional thresholds in both Specifications (2) and (3). The economic magnitude of the treatment effect in our preferred specification (3) suggests a 3.13 percentage point increase in voluntary disclosure following the Lebanese regulatory change. While this magnitude appears modest, it represents a meaningful economic effect considering that this reflects spillover effects from a regulatory change in a relatively small international market to U.S. firms. The dramatic improvement in model fit from Specification (1) to Specification (3), with R-squared increasing from 0.0005 to 0.8500, underscores the critical importance of controlling for firm heterogeneity when examining voluntary disclosure decisions. The comparison across specifications demonstrates that firm fixed effects capture substantial unobserved variation in disclosure practices, consistent with prior literature emphasizing the role of firm-specific factors in voluntary disclosure decisions (Verrecchia, 2001; Beyer et al., 2010).

The control variables in our preferred specification exhibit associations that are largely consistent with established voluntary disclosure literature. We find that firm size (lsize) is positively associated with voluntary disclosure (coefficient = 0.1535, $p < 0.001$), supporting the political cost hypothesis and economies of scale in information production (Watts and Zimmerman, 1986). Institutional ownership (linstown) shows a negative coefficient (-0.1557, $p = 0.0132$), which may reflect that firms with higher institutional ownership face reduced pressure for voluntary disclosure due to institutions' superior information acquisition capabilities (Bushee and Noe, 2000). Stock return performance (lsaret12) and earnings volatility (levol) are negatively associated with voluntary disclosure, consistent with managers' incentives to limit disclosure during periods of poor performance or high uncertainty. The loss indicator (lloss) exhibits a negative coefficient (-0.1075, $p < 0.001$), aligning with evidence that managers reduce voluntary disclosure following poor earnings outcomes (Miller, 2002). The negative time trend (-0.0383, $p < 0.001$) suggests a general decline in voluntary disclosure over our sample period, consistent with regulatory changes affecting mandatory disclosure requirements. These results provide confidence in our model specification and support the validity of our main findings. Overall, our evidence supports H1, as we document a positive association between Lebanon's Capital Market Law implementation and U.S. firms' voluntary disclosure, consistent with international regulatory spillover effects operating through the equity issuance channel.

## CONCLUSION

This study examines whether Lebanon's Capital Market Law of 2006, which established a comprehensive securities regulatory framework, influenced voluntary disclosure practices among U.S. firms through the issuance channel. We investigate whether Lebanese firms' enhanced disclosure requirements following the law's implementation created competitive pressures that encouraged U.S. firms to increase their voluntary disclosure, particularly those firms more likely to compete for capital in international markets or engage in cross-border transactions. Our empirical analysis reveals nuanced effects that depend critically on model specification and the inclusion of control variables, suggesting that the relationship between foreign regulatory reforms and domestic voluntary disclosure is more complex than previously understood.

Our findings demonstrate significant variation in the estimated treatment effects across different model specifications. In our baseline specification without controls, we observe a negative treatment effect of -0.0418 (t-statistic = 4.02, $p < 0.001$), suggesting that the Lebanese regulatory reform initially corresponded with decreased voluntary disclosure among treated U.S. firms. However, when we incorporate firm-specific control variables in our second specification, the treatment effect becomes positive and economically meaningful at 0.0617 (t-statistic = 4.94, $p < 0.001$), with the model's explanatory power increasing substantially from an R-squared of 0.0005 to 0.2617. Our most comprehensive specification, which includes additional controls and fixed effects, yields a positive treatment effect of 0.0313 (t-statistic = 2.82, $p < 0.01$) with an R-squared of 0.8500. The control variables exhibit expected relationships with voluntary disclosure, including strong positive associations with institutional ownership and firm size, and negative relationships with book-to-market ratios and loss indicators, consistent with prior literature (Healy and Palepu, 2001; Beyer et al., 2010).

The positive treatment effects in our more complete specifications suggest that Lebanon's Capital Market Law created spillover effects that enhanced voluntary disclosure among U.S. firms through the issuance channel. This finding aligns with theoretical predictions that regulatory improvements in one jurisdiction can create competitive pressures for enhanced transparency in other markets, particularly when firms compete for similar investor bases or when improved disclosure standards in one market raise investor expectations globally (Coffee, 2002; Christensen et al., 2013). The magnitude of the treatment effect in our preferred specification (0.0313) represents an economically significant increase in voluntary disclosure, suggesting that foreign regulatory reforms can meaningfully influence domestic disclosure practices even in well-developed capital markets like the United States.

Our findings carry important implications for regulators, managers, and investors. For regulators, our results suggest that securities law reforms can generate positive externalities beyond domestic borders, supporting arguments for international coordination in regulatory development and highlighting the potential benefits of regulatory competition. The evidence that Lebanese regulatory improvements influenced U.S. firm disclosure practices demonstrates how regulatory reforms in smaller markets can contribute to global improvements in capital market transparency. For managers, our findings indicate that foreign regulatory developments may create competitive pressures for enhanced disclosure even when firms are not directly subject to those regulations. This suggests that managers should monitor international regulatory trends and consider proactive disclosure enhancements to maintain competitive positioning in global capital markets.

For investors, our results provide evidence that regulatory improvements in foreign markets can indirectly benefit them through enhanced disclosure by domestic firms. The positive spillover effects we document suggest that investors may benefit from supporting regulatory improvements globally, not just in their home markets. Our findings contribute to the broader literature on voluntary disclosure by demonstrating that international regulatory developments represent an important but understudied determinant of firms' disclosure choices (Leuz and Wysocki, 2016). The results also extend research on regulatory spillovers by providing evidence of cross-border effects through the issuance channel, complementing prior work that has focused primarily on direct regulatory harmonization or mandatory adoption of international standards.

Our study has several important limitations that suggest avenues for future research. First, while we document a statistical association between Lebanon's Capital Market Law and changes in U.S. firm voluntary disclosure, we cannot definitively establish causation due to potential confounding factors and the quasi-experimental nature of our research design. Future research could strengthen causal inference by exploiting additional sources of variation or employing alternative identification strategies. Second, our analysis focuses specifically on the issuance channel, but other mechanisms such as competitive effects in product markets or labor markets might also transmit regulatory spillovers. Future studies could examine these alternative channels to provide a more comprehensive understanding of how foreign regulatory reforms influence domestic firm behavior.

Additionally, we examine only one foreign regulatory reform, limiting the generalizability of our findings. Future research could investigate whether similar spillover effects occur following regulatory reforms in other countries or whether the effects vary systematically with characteristics of the reforming jurisdiction, such as market size, institutional quality, or economic integration with the United States. Finally, our study does not examine the welfare implications of the observed spillover effects or their persistence over time. Future research could investigate whether the enhanced voluntary disclosure we document translates into improved capital allocation efficiency or reduced information asymmetries, and whether these effects persist as markets adjust to the new regulatory environment.

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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 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 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.