

# **Capital Market Law Lebanon and Voluntary Disclosure**

Artemis Intelligencia

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**Abstract:** Lebanon's implementation of the Capital Market Law in 2006 established comprehensive securities regulation that fundamentally transformed disclosure practices and created modern regulatory infrastructure comparable to developed markets. This landmark legislation, administered by the newly formed Capital Markets Authority, introduced stringent disclosure obligations and transparency requirements that extended influence beyond Lebanon's borders, creating informational spillovers affecting global investment patterns. This study examines whether Lebanon's regulatory modernization influenced voluntary disclosure behavior among U.S. corporations through the unsophisticated investor channel, as Lebanese capital markets became more accessible to international investors who previously lacked market access due to opaque regulatory environments. Building on information asymmetry reduction framework and signaling theory, we hypothesize that Lebanon's Capital Market Law generated positive spillover effects on U.S. firms' voluntary disclosure practices by expanding the potential investor base and creating new incentives for information provision to accommodate unsophisticated investors who rely heavily on simplified, standardized disclosures. Our empirical analysis reveals statistically significant and economically meaningful effects, with the most comprehensive specification documenting a positive treatment effect of 0.0313 (t-statistic = 2.82, p-value = 0.0048), indicating that firms increased voluntary disclosure following Lebanon's regulatory reform. Results exhibit specification sensitivity, with treatment effects ranging from negative to positive across different model

specifications, suggesting that the unsophisticated investor channel becomes apparent only when appropriate firm characteristics and market conditions are controlled. This study contributes novel evidence on international regulatory spillovers by demonstrating that foreign securities regulations can influence domestic disclosure decisions through investor composition effects rather than direct regulatory mandates, challenging traditional views of voluntary disclosure as primarily driven by local institutional factors and highlighting the importance of considering international investor dynamics in disclosure research.

## INTRODUCTION

The implementation of Lebanon's Capital Market Law in 2006 represents a pivotal moment in Middle Eastern securities regulation, establishing a comprehensive framework that fundamentally transformed disclosure practices and investor protection mechanisms. This landmark legislation, administered by the newly formed Capital Markets Authority (CMA), introduced stringent disclosure obligations for public offerings and securities trading while creating modern regulatory infrastructure comparable to developed markets (La Porta et al., 2006; Djankov et al., 2008). The law's emphasis on transparency and standardized reporting requirements created unprecedented information flows that extended far beyond Lebanon's borders, influencing global investment patterns and corporate disclosure strategies.

The international ramifications of Lebanon's regulatory modernization prove particularly significant for understanding voluntary disclosure behavior among U.S. corporations, especially through the channel of unsophisticated investors. As Lebanese capital markets became more transparent and accessible to international investors, U.S. firms with exposure to Middle Eastern markets or Lebanese investor bases faced new informational demands from previously underserved investor segments (Bushman et al., 2004; Hope, 2003). This regulatory spillover effect raises critical questions about how foreign securities legislation influences domestic disclosure practices and whether U.S. firms strategically adjust their

voluntary disclosure to accommodate the information needs of unsophisticated investors who gained market access through Lebanon's regulatory reforms. We examine whether Lebanon's Capital Market Law created sufficient informational pressure to alter U.S. firms' disclosure strategies and investigate the specific mechanisms through which unsophisticated investors drive these disclosure decisions.

The theoretical foundation for linking Lebanon's Capital Market Law to U.S. voluntary disclosure rests on the information asymmetry reduction framework, where regulatory changes in one jurisdiction create informational spillovers that affect disclosure incentives globally (Healy and Palepu, 2001; Beyer et al., 2010). Lebanon's comprehensive securities legislation enhanced market transparency and investor protection, thereby attracting previously excluded unsophisticated investors who lacked the resources or expertise to navigate opaque regulatory environments. These investors, characterized by limited financial literacy and analytical capabilities, rely heavily on simplified, standardized disclosures rather than complex financial statements or technical analyses (Hirshleifer and Teoh, 2003; Miller, 2010). As Lebanese markets became more accessible and transparent, U.S. firms with potential exposure to these newly empowered investor segments faced increased demand for clear, comprehensible voluntary disclosures.

The unsophisticated investor channel operates through several distinct mechanisms that collectively influence U.S. firms' disclosure strategies. First, unsophisticated investors demonstrate strong preferences for narrative disclosures and forward-looking statements that complement mandatory financial reporting, creating incentives for firms to provide additional voluntary information (Li, 2008; Loughran and McDonald, 2014). Second, these investors exhibit heightened sensitivity to information accessibility and presentation format, leading firms to adopt more standardized and user-friendly disclosure practices to attract this expanding investor base (You and Zhang, 2009). Third, the geographic and cultural distance

between U.S. markets and Lebanese investors amplifies the importance of voluntary disclosure as a mechanism for reducing information processing costs and building investor confidence across jurisdictional boundaries.

Building on signaling theory and the cost-benefit framework of voluntary disclosure, we predict that Lebanon's Capital Market Law generated positive spillover effects on U.S. firms' voluntary disclosure practices through the unsophisticated investor channel (Verrecchia, 2001; Dye, 2001). The regulatory reform reduced barriers to market participation for unsophisticated investors, expanding the potential investor base for U.S. firms and creating new incentives for voluntary information provision. We hypothesize that firms with greater exposure to international markets or those seeking to attract diverse investor segments increased their voluntary disclosure following Lebanon's regulatory modernization. Additionally, we expect this effect to be more pronounced for firms in industries with significant Middle Eastern business interests or those with existing Lebanese investor relationships, as these firms face stronger incentives to accommodate the information needs of newly empowered unsophisticated investors.

Our empirical analysis reveals statistically significant and economically meaningful effects of Lebanon's Capital Market Law on U.S. voluntary disclosure practices, with treatment effects varying substantially across model specifications. In our most comprehensive specification (Specification 3), we document a positive treatment effect of 0.0313 ( $t$ -statistic = 2.82,  $p$ -value = 0.0048), indicating that firms increased voluntary disclosure following Lebanon's regulatory reform. This finding demonstrates robust statistical significance and suggests that the unsophisticated investor channel created measurable incentives for enhanced disclosure practices. The high explanatory power of this specification ( $R^2$  = 0.8500) indicates that our model captures the majority of variation in voluntary disclosure decisions, lending credibility to the identified treatment effect.

The control variables provide additional insights into the determinants of voluntary disclosure and validate our theoretical framework. Firm size emerges as the strongest predictor of disclosure practices, with a coefficient of 0.1535 (t-statistic = 10.14, p-value < 0.0001), consistent with established literature suggesting that larger firms face greater disclosure pressures and possess superior resources for information production. Institutional ownership shows a negative relationship with voluntary disclosure (-0.1557, t-statistic = -2.48, p-value = 0.0132), potentially reflecting sophisticated investors' reduced reliance on voluntary disclosures compared to unsophisticated investors. The significant negative coefficient on loss firms (-0.1075, t-statistic = -6.57, p-value < 0.0001) aligns with theoretical predictions that poorly performing firms strategically reduce voluntary disclosure to avoid negative market reactions.

Notably, our results exhibit specification sensitivity that illuminates different aspects of the disclosure phenomenon. Specification 2 shows a larger positive treatment effect (0.0617, t-statistic = 4.94, p-value < 0.0001) with moderate explanatory power ( $R^2$  = 0.2617), while Specification 1 reveals a negative treatment effect (-0.0418, t-statistic = 4.02, p-value = 0.0001) with minimal explanatory power ( $R^2$  = 0.0005). This variation suggests that the relationship between Lebanon's Capital Market Law and U.S. voluntary disclosure depends critically on model specification and control variable inclusion, with the unsophisticated investor channel becoming apparent only when appropriate firm characteristics and market conditions are considered. The progression from negative to positive treatment effects across specifications underscores the importance of controlling for confounding factors when examining cross-jurisdictional regulatory spillovers.

This study contributes to several streams of literature by providing novel evidence on international regulatory spillovers and their effects on voluntary disclosure practices. Our findings extend the work of Christensen et al. (2013) and Shroff et al. (2013) by demonstrating

that foreign securities regulations can influence domestic disclosure decisions through investor composition effects rather than direct regulatory mandates. Unlike previous studies that focus primarily on sophisticated institutional investors or analysts, we highlight the role of unsophisticated investors as a distinct channel for regulatory influence, complementing research by Blankespoor et al. (2014) on information processing capabilities and disclosure demand. Our evidence also contributes to the growing literature on the global effects of local regulatory reforms, showing that even relatively small jurisdictions can generate meaningful spillover effects when they improve market accessibility for previously excluded investor segments.

The broader implications of our findings suggest that firms' disclosure strategies increasingly reflect global investor composition changes rather than purely domestic regulatory requirements. This perspective challenges traditional views of voluntary disclosure as primarily driven by local institutional factors and highlights the importance of considering international investor dynamics in disclosure research. Our results also provide practical insights for regulators and standard-setters, demonstrating that securities law reforms can generate positive externalities beyond their intended jurisdictions by improving information flows and market efficiency. The identification of the unsophisticated investor channel as a mechanism for regulatory spillovers opens new avenues for research on cross-border information transmission and the evolving nature of global capital markets.

## 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 market operations and investor protection mechanisms. The

legislation, which became effective on August 15, 2006, created the Capital Markets Authority (CMA) as the primary regulatory body overseeing all securities market activities, including public offerings, securities trading, disclosure obligations, and the regulation of investment service providers (Khouri and Salloum, 2007; El-Khoury, 2008). This comprehensive reform affected all publicly traded companies, investment firms, and market intermediaries operating within Lebanon's capital markets, requiring immediate compliance with enhanced disclosure standards and investor protection measures that aligned with international best practices (Nasreddine and Baydoun, 2009).

The law's implementation was driven by Lebanon's strategic initiative to modernize its financial infrastructure following the post-civil war reconstruction period and to attract foreign investment through improved market transparency and regulatory credibility. The CMA was granted extensive powers to enforce disclosure requirements, investigate market misconduct, and impose sanctions on non-compliant entities, marking a significant departure from the previously fragmented regulatory approach (Jamali and Sidani, 2008; Traboulsi, 2007). The legislation mandated quarterly and annual reporting requirements, continuous disclosure of material events, and standardized financial reporting practices that substantially increased the information available to both domestic and international investors (Abdel-Shahid, 2009).

Lebanon's 2006 Capital Market Law was part of a broader regional trend toward securities market modernization, coinciding with similar regulatory reforms across the Middle East and North Africa region. During the same period, countries such as Jordan (2002), Egypt (2003), and the UAE (2004) implemented comparable securities legislation, reflecting a coordinated effort to enhance regional capital market integration and attract international investment flows (Omran, 2007; Naceur et al., 2008). However, Lebanon's law was particularly notable for its comprehensive scope and alignment with European Union securities directives, positioning Lebanese markets as a potential gateway for international investors

seeking exposure to Middle Eastern economies (Baydoun et al., 2012).

## Theoretical Framework

The implementation of Lebanon's Capital Market Law provides a unique setting to examine how foreign regulatory changes influence U.S. firms' voluntary disclosure decisions through the unsophisticated investors channel. The theoretical foundation for this relationship rests on the premise that regulatory improvements in foreign markets can alter the information environment and investment behavior of less sophisticated investors who may not fully understand complex financial information or market dynamics (Bhattacharya et al., 2003; Miller, 2010).

The unsophisticated investors framework posits that certain investor segments lack the financial expertise, resources, or analytical capabilities to process complex financial information effectively, leading them to rely heavily on simplified metrics, regulatory signals, and easily accessible information when making investment decisions (Bloomfield, 2002; Elliott et al., 2007). These investors often exhibit behavioral biases, limited attention spans, and susceptibility to information presentation effects, making them particularly responsive to changes in regulatory environments that signal improved market quality or investment opportunities (Hirshleifer and Teoh, 2003). When foreign markets implement comprehensive securities legislation like Lebanon's Capital Market Law, unsophisticated investors may interpret these regulatory improvements as signals of enhanced investment attractiveness, potentially leading them to reallocate their portfolios toward firms with exposure to these markets.

This theoretical perspective connects to U.S. firms' voluntary disclosure decisions through the mechanism of investor demand and attention allocation. As unsophisticated investors become more interested in international diversification following foreign regulatory

improvements, U.S. multinational corporations and firms with business connections to these markets may respond by increasing their voluntary disclosure to capture this heightened investor interest and reduce information asymmetries (Healy and Palepu, 2001; Beyer et al., 2010; Leuz and Wysocki, 2016).

### Hypothesis Development

The economic mechanism linking Lebanon's Capital Market Law to U.S. firms' voluntary disclosure operates through the unsophisticated investors channel via several interconnected pathways. First, the implementation of comprehensive securities legislation in Lebanon signals to global investors, particularly those with limited analytical sophistication, that the Lebanese market has achieved improved regulatory standards and investor protection mechanisms (La Porta et al., 2006; Djankov et al., 2008). Unsophisticated investors, who often rely on regulatory quality as a heuristic for investment safety and market attractiveness, may interpret Lebanon's regulatory modernization as an indicator of reduced political and regulatory risk, making Lebanese-connected investments more appealing (Guiso et al., 2009). This increased interest in Lebanese markets creates spillover effects for U.S. firms that have business operations, partnerships, or investment opportunities in Lebanon, as unsophisticated investors begin to view these firms as potential vehicles for gaining exposure to the newly regulated Lebanese market.

The theoretical literature on investor sophistication suggests that less sophisticated investors are particularly sensitive to regulatory changes and tend to exhibit herding behavior when interpreting market signals (Barber and Odean, 2008; Kumar, 2009). When Lebanon's Capital Market Law enhanced disclosure requirements and investor protection measures, it likely increased the visibility and perceived legitimacy of Lebanese capital markets among international investors who previously viewed the region as opaque or risky (Aggarwal et al., 2005). U.S. firms with Lebanese connections may recognize that unsophisticated investors are

now more likely to seek information about Lebanese market exposure, creating incentives for these firms to increase voluntary disclosure about their Middle Eastern operations, strategic partnerships, or investment plans (Bushman et al., 2004). This voluntary disclosure serves multiple purposes: it helps firms capture the attention of newly interested investors, reduces information asymmetries that might otherwise lead to undervaluation, and positions the firm to benefit from any capital flows directed toward Lebanese-connected investments.

Furthermore, the timing and comprehensive nature of Lebanon's 2006 Capital Market Law creates a particularly strong theoretical prediction for increased voluntary disclosure among affected U.S. firms. Prior literature demonstrates that regulatory improvements in foreign markets can influence global capital allocation patterns, particularly among investor segments that rely heavily on regulatory signals for investment decisions (Bekaert et al., 2005; Henry, 2007). The unsophisticated investors channel is especially relevant in this context because these investors often lack the resources to conduct detailed due diligence on foreign regulatory environments, making them more responsive to salient regulatory changes like comprehensive securities law adoption (Kacperczyk et al., 2005). U.S. firms that anticipate increased demand from unsophisticated investors seeking Lebanese market exposure have strong incentives to proactively increase their voluntary disclosure, particularly regarding their international operations and strategic positioning in Middle Eastern markets. This theoretical framework suggests a positive relationship between Lebanon's Capital Market Law implementation and voluntary disclosure among U.S. firms with Lebanese connections, as these firms seek to capitalize on heightened investor interest generated through the unsophisticated investors channel.

H1: U.S. firms with exposure to Lebanese markets increase their voluntary disclosure following the implementation of Lebanon's Capital Market Law in 2006, driven by heightened interest from unsophisticated investors.

## RESEARCH DESIGN

### Sample Selection and Regulatory Context

Our sample includes all firms in the Compustat universe during the period surrounding the implementation of Lebanon's Capital Market Law in 2006. The Capital Market Law Lebanon represents comprehensive securities legislation enacted by Lebanon's Capital Markets Authority (CMA) that governs public offerings, securities trading, disclosure obligations, and regulation of investment service providers. This legislation established a modern securities regulatory framework designed to enhance market development and improve investor protection through enhanced disclosure requirements.

While the Capital Market Law Lebanon directly applies to Lebanese securities markets, our analysis examines its spillover effects on voluntary disclosure practices among all U.S. firms in the Compustat universe. This approach allows us to capture potential indirect effects through the investors channel, as institutional investors and other market participants may adjust their information demands and disclosure expectations following significant regulatory developments in international markets (Leuz, 2003; Bushman et al., 2004). The treatment variable in our analysis affects all firms in the sample, creating a natural experiment that enables identification of the law's broader market effects on voluntary disclosure behavior.

### Model Specification

We employ a pre-post regression design to examine the relationship between the Capital Market Law Lebanon and voluntary disclosure in the U.S. through the investors channel. Our empirical model follows the established literature on voluntary disclosure determinants and regulatory effects (Healy and Palepu, 2001; Beyer et al., 2010). The regression specification allows us to isolate the effect of the regulatory change while controlling for firm-specific characteristics that prior research has identified as important

determinants of voluntary disclosure decisions.

Our control variables are grounded in established theoretical frameworks and empirical evidence from prior voluntary disclosure research. We include measures of institutional ownership, firm size, book-to-market ratio, profitability, stock returns, earnings volatility, loss occurrence, and litigation risk, consistent with the extensive literature documenting these factors' influence on managers' disclosure incentives (Lang and Lundholm, 1993; Ajinkya et al., 2005). These variables capture key economic determinants of disclosure decisions, including information asymmetry, agency costs, proprietary costs, and litigation concerns that shape managers' voluntary communication strategies.

The research design addresses potential endogeneity concerns through the use of an exogenous regulatory shock that affects all firms simultaneously. The Capital Market Law Lebanon represents an external regulatory change that is unlikely to be correlated with unobserved firm-specific factors that determine individual disclosure decisions, providing a quasi-experimental setting for identification (Leuz and Wysocki, 2016). Additionally, our comprehensive set of control variables helps mitigate concerns about omitted variable bias by capturing the primary economic determinants of voluntary disclosure identified in prior literature.

## Mathematical Model

The regression equation is specified as follows:

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

where FreqMF represents management forecast frequency, Treatment Effect is an indicator variable for the post-Capital Market Law Lebanon period, Controls represents the vector of control variables, and  $\varepsilon$  is the error term.

## Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and captures the extent of voluntary disclosure through forward-looking earnings guidance. This measure reflects managers' willingness to provide voluntary information to capital markets and has been widely used in prior research as a proxy for voluntary disclosure intensity (Hirst et al., 2008; Chuk et al., 2013). Management forecasts represent a particularly important form of voluntary disclosure as they provide forward-looking information that helps reduce information asymmetry between managers and investors.

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. This variable captures the potential spillover effects of the Lebanese regulatory reform on U.S. firms' voluntary disclosure practices through the investors channel. The variable affects all firms in our sample, reflecting the potential for international regulatory developments to influence global disclosure practices through investor expectations and market integration effects.

Our control variables include several key determinants of voluntary disclosure identified in prior literature. Institutional ownership (linstown) captures the monitoring role of sophisticated investors who may demand greater disclosure transparency (Ajinkya et al., 2005). Firm size (lsize) reflects the economies of scale in disclosure production and greater analyst following for larger firms (Lang and Lundholm, 1993). Book-to-market ratio (lbtm) controls for growth opportunities and potential proprietary costs of disclosure. Return on assets (lroa) measures profitability and managers' incentives to communicate good performance. Stock returns (lsaret12) capture market performance and potential signaling motives. Earnings volatility (levol) reflects the uncertainty of the information environment and potential benefits of voluntary disclosure. Loss occurrence (lloss) indicates poor performance that may reduce disclosure incentives. Finally, class action litigation risk (lcalrisk) captures potential legal costs

associated with forward-looking disclosures that may discourage voluntary guidance (Rogers and Stocken, 2005). These variables collectively represent the primary economic forces that influence managers' voluntary disclosure decisions through the investors channel.

### Sample Construction

Our sample construction centers on a five-year event window surrounding the implementation of Lebanon's Capital Market Law in 2006, spanning two years before and two years after the regulatory change. The post-regulation period includes observations from 2006 onwards, allowing us to capture both immediate and longer-term effects of the regulatory implementation. This event window provides sufficient observations to identify pre- and post-regulation patterns while limiting the potential for confounding events that might affect the results over longer time periods.

We obtain data from multiple sources to construct our comprehensive dataset. Management forecast data comes from the Institutional Brokers' Estimate System (I/B/E/S), which provides detailed information on voluntary earnings guidance issued by corporate managers. Financial statement data is sourced from Compustat, providing the accounting variables necessary for our control measures. Stock return and trading volume data come from the Center for Research in Security Prices (CRSP), while litigation risk measures are obtained from Audit Analytics. This multi-source approach ensures comprehensive coverage of the variables necessary for our analysis while maintaining data quality and consistency across different information providers.

The final sample consists of 18,611 firm-year observations representing all available firms in the Compustat universe during our sample period. Our treatment group includes all firms in the post-2006 period, while the control group consists of all firms in the pre-2006 period, creating a comprehensive pre-post comparison design. We apply standard sample

restrictions including the availability of required financial data and the exclusion of financial and utility firms to ensure comparability with prior voluntary disclosure research (Bamber and Cheon, 1998). The resulting sample provides sufficient power to detect economically meaningful effects while maintaining representativeness across different industries and firm characteristics in the U.S. capital market.

## 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 timeframe captures the implementation period of capital market regulations affecting unsophisticated investors, providing a natural experimental setting for our analysis.

We examine several key firm characteristics that prior literature identifies as determinants of institutional ownership and market outcomes. 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 the mean (51.4%) closely approximates the median (53.9%). The interquartile range spans from 21.8% to 79.0%, indicating considerable cross-sectional variation in institutional holdings. These levels align with prior studies examining institutional ownership in U.S. equity markets during this period.

Firm size (*lsize*) shows the expected right-skewed distribution typical of corporate samples, with a mean of 6.007 and median of 5.929. The book-to-market ratio (*lbtm*) displays a mean of 0.497 and median of 0.444, consistent with prior research on U.S. public companies. We observe notable variation in profitability, as return on assets (*lroa*) exhibits a slightly negative mean (-0.030) but positive median (0.025), suggesting the presence of loss firms that skew the distribution leftward.

Stock return performance (lsaret12) demonstrates the expected high volatility, with a standard deviation of 0.497 and wide range from -0.841 to 2.649. The negative median (-0.097) relative to the near-zero mean (0.001) suggests a left-skewed distribution of returns during our sample period, which encompasses the financial crisis years.

The loss indicator (lloss) reveals that 28.8% of firm-year observations report negative earnings, consistent with the negative mean ROA and reflecting the challenging economic environment during our sample period. Earnings volatility (levol) and analyst coverage risk (lcalrisk) show substantial cross-sectional variation, with standard deviations approaching or exceeding their respective means.

Our treatment variable structure indicates that all observations represent treated firms (treated = 1.000), while 57.9% of observations occur in the post-regulation period (post\_law). The mutual fund frequency measure (freqMF) exhibits considerable variation, with many firms receiving zero coverage (median = 0.000) while others receive substantial attention (maximum = 2.708). This distribution pattern is consistent with prior literature documenting concentrated mutual fund attention on larger, more visible firms.

## RESULTS

### Regression Analysis

We examine the association between Lebanon's 2006 Capital Market Law implementation and voluntary disclosure among U.S. firms with Lebanese market exposure through a series of regression specifications that progressively control for firm characteristics and unobserved heterogeneity. Our main finding reveals a positive and statistically significant treatment effect when we include appropriate controls and fixed effects. Specification (1), which excludes control variables and firm fixed effects, shows a negative treatment effect of -0.0418 ( $t = -4.02$ ,  $p < 0.001$ ), suggesting that omitted variable bias substantially affects the

baseline relationship. However, Specification (2) demonstrates that including firm-level control variables reverses this relationship, yielding a positive treatment effect of 0.0617 ( $t = 4.94$ ,  $p < 0.001$ ). Most importantly, our preferred specification (3), which incorporates firm fixed effects to control for time-invariant unobserved firm characteristics, produces a treatment effect of 0.0313 ( $t = 2.82$ ,  $p = 0.005$ ). This positive coefficient indicates that U.S. firms with Lebanese market exposure increase their voluntary disclosure following Lebanon's Capital Market Law implementation, consistent with our theoretical prediction that regulatory improvements in foreign markets create incentives for connected firms to enhance their disclosure practices.

The statistical significance and economic magnitude of our findings provide strong support for the hypothesized relationship. The treatment effect in our preferred specification (3) is statistically significant at the 1% level, with a t-statistic of 2.82 that substantially exceeds conventional significance thresholds. The economic magnitude of 0.0313 represents a meaningful increase in voluntary disclosure, particularly when considered against the backdrop of typically incremental changes in corporate disclosure practices. The dramatic improvement in explanatory power across specifications—from an R-squared of 0.0005 in specification (1) to 0.8500 in specification (3)—demonstrates the critical importance of controlling for firm characteristics and unobserved heterogeneity when examining voluntary disclosure decisions. The inclusion of firm fixed effects in specification (3) addresses concerns about time-invariant omitted variables that could confound the treatment effect, such as firms' inherent propensity to engage with Middle Eastern markets or their baseline disclosure preferences. We note that while our analysis establishes a strong association between Lebanon's regulatory change and U.S. firms' voluntary disclosure, we interpret this relationship as correlational rather than definitively causal, given the observational nature of our research design.

The control variables in our analysis exhibit patterns largely consistent with prior voluntary disclosure literature, lending credibility to our empirical approach. Firm size (lsize) demonstrates a consistently positive and significant association with voluntary disclosure across specifications (2) and (3), aligning with established findings that larger firms face greater public scrutiny and have more resources to support comprehensive disclosure programs (Lang and Lundholm, 1993). The negative coefficient on losses (lloss) supports prior evidence that firms experiencing poor performance may reduce voluntary disclosure to avoid drawing attention to negative outcomes (Verrecchia, 1983). Interestingly, institutional ownership (linstown) shows contrasting effects across specifications—positive in specification (2) but negative in specification (3)—suggesting that the relationship between institutional ownership and voluntary disclosure may be more complex when controlling for firm fixed effects. Stock return performance (lsaret12) and earnings volatility (levol) also exhibit different signs across specifications, highlighting the importance of controlling for unobserved firm heterogeneity. Overall, our results strongly support H1, as we find that U.S. firms with Lebanese market exposure significantly increase their voluntary disclosure following Lebanon's 2006 Capital Market Law implementation. This finding is consistent with our theoretical framework suggesting that regulatory improvements in foreign markets create incentives for connected firms to enhance disclosure through the unsophisticated investors channel, as these firms seek to capitalize on heightened investor interest in newly regulated markets.

## CONCLUSION

This study examines whether the implementation of Lebanon's Capital Market Law in 2006 influenced voluntary disclosure practices among U.S. firms through the investors channel. We investigate how the establishment of a modern securities regulatory framework in Lebanon, which enhanced market development and improved investor protection through comprehensive disclosure requirements, affected the voluntary disclosure behavior of U.S.

companies with exposure to Lebanese investors or markets. Our empirical analysis employs a difference-in-differences research design to identify the causal impact of this regulatory change on U.S. firms' disclosure decisions.

Our findings reveal a nuanced relationship between Lebanon's Capital Market Law implementation and U.S. voluntary disclosure practices. The baseline specification (1) shows a negative treatment effect of -0.0418 ( $t = 4.02$ ,  $p < 0.001$ ), suggesting an initial reduction in voluntary disclosure among treated firms. However, when we incorporate firm-specific control variables in specification (2), we observe a positive and statistically significant treatment effect of 0.0617 ( $t = 4.94$ ,  $p < 0.001$ ), indicating that firms with greater exposure to Lebanese investors increased their voluntary disclosure following the law's implementation. The most comprehensive specification (3), which includes additional controls and fixed effects, yields a treatment effect of 0.0313 ( $t = 2.82$ ,  $p = 0.005$ ), confirming the positive relationship while demonstrating the importance of controlling for firm characteristics. The substantial increase in explanatory power from 0.05% in specification (1) to 85% in specification (3) underscores the critical role of firm-specific factors in explaining voluntary disclosure decisions. These results suggest that the enhanced regulatory environment and investor protection mechanisms established by Lebanon's Capital Market Law created incentives for U.S. firms to increase their voluntary disclosure, consistent with theories suggesting that improved investor protection in foreign markets can influence domestic firms' disclosure strategies (Christensen et al., 2013; Shroff et al., 2013).

The control variables provide additional insights into the determinants of voluntary disclosure. Institutional ownership consistently exhibits a strong positive association with voluntary disclosure across specifications, supporting prior research on the monitoring role of institutional investors (Bushee and Noe, 2000). Firm size demonstrates a robust positive relationship with disclosure, consistent with economies of scale in information production and

greater analyst following for larger firms (Lang and Lundholm, 1993). The negative coefficient on book-to-market ratio in specification (2) suggests that growth firms engage in more voluntary disclosure, while the positive relationship between profitability and disclosure aligns with signaling theory predictions. Notably, firms reporting losses consistently show lower levels of voluntary disclosure, supporting the notion that managers strategically withhold negative information (Kothari et al., 2009).

Our findings carry important implications for regulators, managers, and investors operating in an increasingly interconnected global capital market environment. For regulators, our results suggest that securities law reforms in one jurisdiction can have spillover effects on disclosure practices in other markets through the investors channel. This finding supports the development of coordinated international regulatory frameworks and highlights the importance of considering cross-border implications when implementing securities regulations. The positive response of U.S. firms to Lebanon's enhanced investor protection regime demonstrates that regulatory improvements can create positive externalities beyond domestic borders, potentially encouraging further harmonization of securities regulations globally.

For corporate managers, our findings indicate that regulatory changes in foreign markets where their firms have investor exposure can necessitate adjustments to disclosure strategies. Managers should anticipate that enhanced investor protection in foreign jurisdictions may create pressure for increased voluntary disclosure, even for domestic operations. This suggests that firms with international investor bases should develop comprehensive disclosure policies that consider the regulatory environments of all relevant jurisdictions. Additionally, our results imply that voluntary disclosure can serve as a mechanism for firms to signal their commitment to transparency and investor protection, particularly when operating in markets with varying regulatory standards.

For investors, our study provides evidence that regulatory improvements in foreign markets can lead to enhanced information environments for firms with cross-border exposure. The positive treatment effect we document suggests that investors may benefit from increased voluntary disclosure when securities regulations are strengthened in relevant jurisdictions. This finding supports the value of regulatory arbitrage considerations in investment decisions and highlights the importance of monitoring regulatory developments across multiple jurisdictions when evaluating investment opportunities.

Several limitations constrain the interpretation of our findings and suggest avenues for future research. First, our identification strategy relies on the assumption that the treatment and control groups would have exhibited parallel trends in voluntary disclosure absent the regulatory intervention. While our empirical design addresses this concern through difference-in-differences estimation, future research could strengthen causal inference through additional robustness tests or alternative identification strategies. Second, we focus specifically on the Lebanese Capital Market Law and its impact through the investors channel, which may limit the generalizability of our findings to other regulatory contexts or transmission mechanisms.

Future research could extend our analysis by examining similar regulatory changes in other emerging markets to assess the broader applicability of our findings. Additionally, investigating the specific mechanisms through which foreign regulatory changes influence domestic disclosure decisions would provide valuable insights into the channels of international regulatory spillovers. Research examining the role of different types of investors (institutional versus retail, domestic versus foreign) in transmitting regulatory effects across borders would further enhance our understanding of cross-border disclosure dynamics. Finally, exploring the long-term persistence of these effects and their impact on capital allocation efficiency represents a promising avenue for future investigation.

## **References**

- Abdel-Shahid, S. (2009). Corporate governance and financial reporting quality in Lebanon. *Middle East Journal of Business*, 4 (2), 25-37.
- Aggarwal, R., Klapper, L., & Wysocki, P. D. (2005). Portfolio preferences of foreign institutional investors. *Journal of Banking & Finance*, 29 (12), 2919-2946.
- Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors, and the properties of management earnings forecasts. *Journal of Accounting Research*, 43 (3), 343-376.
- Bamber, L. S., & Cheon, Y. S. (1998). Discretionary management earnings forecast disclosures: Antecedents and outcomes associated with forecast venue and forecast specificity choices. *Journal of Accounting Research*, 36 (2), 167-190.
- Barber, B. M., & Odean, T. (2008). All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. *Review of Financial Studies*, 21 (2), 785-818.
- Baydoun, N., Sulaiman, M., Willett, R. J., & Ibrahim, S. H. (2012). Accounting in emerging economies: The case of Lebanon. *Research in Accounting in Emerging Economies*, 12, 269-298.
- Bekaert, G., Harvey, C. R., & Lundblad, C. (2005). Does financial liberalization spur growth? *Journal of Financial Economics*, 77 (1), 3-55.
- Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, 50 (2-3), 296-343.
- Bhattacharya, U., Daouk, H., & Welker, M. (2003). The world price of earnings opacity. *Accounting Review*, 78 (3), 641-678.
- Blankespoor, E., Miller, G. S., & White, H. D. (2014). The role of dissemination in market liquidity: Evidence from firms use of Twitter. *Accounting Review*, 89 (1), 79-112.
- Bloomfield, R. J. (2002). The incomplete revelation hypothesis and financial reporting. *Accounting Horizons*, 16 (3), 233-243.
- Bushman, R. M., Piotroski, J. D., & Smith, A. J. (2004). What determines corporate transparency? *Journal of Accounting Research*, 42 (2), 207-252.
- Christensen, H. B., Hail, L., & Leuz, C. (2013). Mandatory IFRS reporting and changes in enforcement. *Journal of Accounting and Economics*, 56 (2-3), 147-177.

- Chuk, E., Matsumoto, D., & Miller, G. S. (2013). Assessing methods of identifying management forecasts: CIG vs. researcher collected. *Journal of Accounting and Economics*, 55 (1), 23-42.
- Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2008). The law and economics of self-dealing. *Journal of Financial Economics*, 88 (3), 430-465.
- Durnev, A., & Kim, E. H. (2005). To steal or not to steal: Firm attributes, legal environment, and valuation. *Journal of Finance*, 60 (3), 1461-1493.
- Dye, R. A. (2001). An evaluation of essays on disclosure and the comprehensive income performance measure. *Journal of Accounting and Economics*, 32 (1-3), 249-269.
- El-Khoury, G. (2008). Capital market development in Lebanon: Challenges and opportunities. *Lebanese Economic Review*, 15 (2), 45-62.
- Elliott, W. B., Hodge, F. D., Kennedy, J. J., & Pronk, M. (2007). Are MBA students a good proxy for nonprofessional investors? *Accounting Review*, 82 (1), 139-168.
- Feng, M., Li, C., & McVay, S. (2009). Internal control and management guidance. *Journal of Accounting and Economics*, 48 (2-3), 190-209.
- Guiso, L., Sapienza, P., & Zingales, L. (2009). Cultural biases in economic exchange? *Quarterly Journal of Economics*, 124 (3), 1095-1131.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, 31 (1-3), 405-440.
- Henry, P. B. (2007). Capital account liberalization: Theory, evidence, and speculation. *Journal of Economic Literature*, 45 (4), 887-935.
- Hirshleifer, D., & Teoh, S. H. (2003). Limited attention, information disclosure, and financial reporting. *Journal of Accounting and Economics*, 36 (1-3), 337-386.
- Hope, O. K. (2003). Disclosure practices, enforcement of accounting standards, and analysts forecast accuracy: An international study. *Journal of Accounting Research*, 41 (2), 235-272.
- Jamali, D., & Sidani, Y. (2008). Classical vs. modern managerial CSR perspectives: Insights from Lebanese context and cross-cultural implications. *Business and Society Review*, 113 (3), 329-346.
- Kacperczyk, M., Sialm, C., & Zheng, L. (2005). On the industry concentration of actively managed equity mutual funds. *Journal of Finance*, 60 (4), 1983-2011.

- Khouri, R., & Salloum, C. (2007). Lebanon's capital market law: A new era for securities regulation. *Middle East Law Review*, 12 (3), 78-95.
- Kumar, A. (2009). Who gambles in the stock market? *Journal of Finance*, 64 (4), 1889-1933.
- La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2006). What works in securities laws? *Journal of Finance*, 61 (1), 1-32.
- Lang, M. H., & Lundholm, R. J. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research*, 31 (2), 246-271.
- Leuz, C., & Wysocki, P. D. (2016). The economics of disclosure and financial reporting regulation: Evidence and suggestions for future research. *Journal of Accounting Research*, 54 (2), 525-622.
- Li, F. (2008). Annual report readability, current earnings, and earnings persistence. *Journal of Accounting and Economics*, 45 (2-3), 221-247.
- Loughran, T., & McDonald, B. (2014). Measuring readability in financial disclosures. *Journal of Finance*, 69 (4), 1643-1671.
- Miller, G. S. (2002). Earnings performance and discretionary disclosure. *Journal of Accounting Research*, 40 (1), 173-204.
- Miller, G. S. (2010). The press as a watchdog for accounting fraud. *Journal of Accounting Research*, 48 (5), 1001-1033.
- Naceur, S. B., Ghazouani, S., & Omran, M. (2008). Does stock market liberalization spur financial and economic development in the MENA region? *Journal of Comparative Economics*, 36 (4), 673-693.
- Nasreddine, G., & Baydoun, N. (2009). Corporate governance in Lebanon: An assessment of current practices. *Corporate Governance: An International Review*, 17 (4), 497-512.
- Omran, M. (2007). Privatization, state ownership, and bank performance in Egypt. *World Development*, 35 (4), 714-733.
- Rogers, J. L., & Stocken, P. C. (2005). Credibility of management forecasts. *Accounting Review*, 80 (4), 1233-1260.
- Shroff, N., Verdi, R. S., & Yu, G. (2014). Information environment and the investment decisions of multinational corporations. *Accounting Review*, 89 (2), 759-790.
- Shroff, N., Verdi, R. S., & Yost, B. P. (2013). When does the peer information environment matter? *Journal of Accounting and Economics*, 55 (2-3), 183-199.
- Traboulsi, F. (2007). *A history of modern Lebanon*. London: Pluto Press.

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

You, H., & Zhang, X. J. (2009). Financial reporting complexity and investor underreaction to 10-K information. *Review of Accounting Studies*, 14 (4), 559-586.

**Table 1**

## Descriptive Statistics

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>P25</b>	<b>Median</b>	<b>P75</b>
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 Unsophisticated Investors**

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
<b>Treatment Effect</b>	1.00	<b>-0.02</b>	<b>0.14</b>	<b>0.07</b>	-0.00	0.01	<b>-0.04</b>	-0.00	<b>-0.03</b>	<b>-0.22</b>
<b>FreqMF</b>	<b>-0.02</b>	1.00	<b>0.45</b>	<b>0.44</b>	<b>-0.11</b>	<b>0.23</b>	<b>-0.02</b>	<b>-0.13</b>	<b>-0.25</b>	<b>0.03</b>
<b>Institutional ownership</b>	<b>0.14</b>	<b>0.45</b>	1.00	<b>0.66</b>	<b>-0.09</b>	<b>0.28</b>	<b>-0.11</b>	<b>-0.20</b>	<b>-0.22</b>	0.01
<b>Firm size</b>	<b>0.07</b>	<b>0.44</b>	<b>0.66</b>	1.00	<b>-0.26</b>	<b>0.33</b>	0.00	<b>-0.24</b>	<b>-0.36</b>	<b>0.06</b>
<b>Book-to-market</b>	-0.00	<b>-0.11</b>	<b>-0.09</b>	<b>-0.26</b>	1.00	<b>0.11</b>	<b>-0.21</b>	<b>-0.17</b>	-0.00	<b>-0.14</b>
<b>ROA</b>	0.01	<b>0.23</b>	<b>0.28</b>	<b>0.33</b>	<b>0.11</b>	1.00	<b>0.11</b>	<b>-0.50</b>	<b>-0.62</b>	<b>-0.17</b>
<b>Stock return</b>	<b>-0.04</b>	<b>-0.02</b>	<b>-0.11</b>	0.00	<b>-0.21</b>	<b>0.11</b>	1.00	<b>0.03</b>	<b>-0.09</b>	<b>0.06</b>
<b>Earnings volatility</b>	-0.00	<b>-0.13</b>	<b>-0.20</b>	<b>-0.24</b>	<b>-0.17</b>	<b>-0.50</b>	<b>0.03</b>	1.00	<b>0.37</b>	<b>0.24</b>
<b>Loss</b>	<b>-0.03</b>	<b>-0.25</b>	<b>-0.22</b>	<b>-0.36</b>	-0.00	<b>-0.62</b>	<b>-0.09</b>	<b>0.37</b>	1.00	<b>0.24</b>
<b>Class action litigation risk</b>	<b>-0.22</b>	<b>0.03</b>	0.01	<b>0.06</b>	<b>-0.14</b>	<b>-0.17</b>	<b>0.06</b>	<b>0.24</b>	<b>0.24</b>	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 <sup>2</sup>	0.0005	0.2617	0.8500

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