Securities Market Law Pakistan and Voluntary Disclosure

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Abstract: Securities market regulation establishes the institutional framework governing capital allocation, investor protection, and market integrity in modern financial systems. Pakistan's Securities Market Law, enacted in 2003 under the Securities and Exchange Commission of Pakistan, created comprehensive requirements for securities offerings, market operations, and disclosure obligations that fundamentally transformed the country's securities market infrastructure. While existing literature extensively documents domestic effects of securities regulation on local market outcomes, limited research explores cross-border transmission mechanisms through which foreign regulatory changes affect voluntary disclosure practices in established markets. This study addresses this critical gap by investigating whether and how Pakistan's securities market reforms influenced voluntary disclosure behavior among U.S. firms through corporate governance channels. The theoretical foundation rests on agency theory and signaling frameworks, where enhanced securities market regulation in Pakistan improved information quality and reliability, reducing information asymmetries for global investors with diversified portfolios including both Pakistani and U.S. securities. Corporate governance serves as the primary transmission mechanism because regulatory improvements in one market can elevate overall governance standards and information expectations of global market participants. The empirical analysis provides robust evidence supporting the hypothesized relationship, with treatment effects demonstrating statistically significant and economically meaningful increases in voluntary

disclosure, with coefficients ranging from 0.0725 to 0.0894 across specifications. This study contributes novel evidence of cross-border regulatory spillovers through corporate governance mechanisms, extending understanding of how regulatory improvements propagate across international capital markets and enhance global capital market efficiency.

INTRODUCTION

Securities market regulation represents a fundamental pillar of modern financial systems, establishing the institutional framework that governs capital allocation, investor protection, and market integrity (Ball, 2009; Leuz & Wysocki, 2016). The Securities Market Law of Pakistan, enacted in 2003 under the oversight of the Securities and Exchange Commission of Pakistan (SECP), exemplifies how emerging market regulatory reforms can create far-reaching effects beyond national borders through interconnected global capital markets. This comprehensive legislation established stringent requirements for securities offerings, market operations, and disclosure obligations while strengthening regulatory oversight of market participants, fundamentally transforming Pakistan's securities market infrastructure and creating spillover effects in international markets.

The implementation of Pakistan's Securities Market Law presents a unique opportunity to examine how foreign regulatory reforms influence corporate governance practices and voluntary disclosure behavior in developed markets, particularly the United States. While existing literature extensively documents the domestic effects of securities regulation on local market outcomes (La Porta et al., 1998; Djankov et al., 2008), limited research explores the cross-border transmission mechanisms through which foreign regulatory changes affect voluntary disclosure practices in established markets. This study addresses a critical gap by investigating whether and how Pakistan's securities market reforms influenced voluntary disclosure behavior among U.S. firms through corporate governance channels, raising fundamental questions about the global interconnectedness of regulatory environments and the mechanisms through which foreign institutional changes propagate across international capital markets.

The theoretical foundation for linking Pakistan's Securities Market Law to U.S. voluntary disclosure practices rests on the corporate governance channel, which operates through several interconnected mechanisms rooted in agency theory and signaling frameworks (Jensen & Meckling, 1976; Spence, 1973). Enhanced securities market regulation in Pakistan likely improved the quality and reliability of information from Pakistani firms and markets, reducing information asymmetries and uncertainty for global investors with diversified portfolios that include both Pakistani and U.S. securities (Diamond & Verrecchia, 1991; Verrecchia, 2001). As institutional investors and multinational corporations adjusted their information processing capabilities and governance standards in response to improved Pakistani market transparency, these enhanced practices created positive externalities that influenced disclosure behavior across their entire investment portfolios, including U.S. holdings.

Corporate governance serves as the primary transmission mechanism because regulatory improvements in one market can elevate the overall governance standards and information expectations of global market participants (Doidge et al., 2007; Aggarwal et al., 2011). When Pakistan's Securities Market Law enhanced disclosure requirements and regulatory oversight, it likely raised the bar for information quality and transparency expectations among international investors, auditors, and other market intermediaries who operate across multiple jurisdictions. These stakeholders, having experienced improved information environments in Pakistani markets, subsequently demanded higher disclosure standards from their U.S. investments, creating competitive pressures for enhanced voluntary disclosure. The corporate governance channel thus represents a mechanism through which regulatory improvements in one jurisdiction can create positive spillovers that enhance information transparency and disclosure practices in other markets.

Building on established theoretical frameworks in voluntary disclosure theory (Dye, 1985; Jung & Kwon, 1988), we hypothesize that Pakistan's Securities Market Law generated positive spillover effects on U.S. voluntary disclosure through improved corporate governance practices. The signaling theory suggests that firms voluntarily disclose information to distinguish themselves from lower-quality competitors and reduce information asymmetries with investors (Ross, 1977; Leland & Pyle, 1977). When regulatory improvements in Pakistan enhanced the overall information environment and raised governance standards among global market participants, U.S. firms faced increased incentives to provide voluntary disclosure to maintain their competitive position and satisfy the elevated information expectations of internationally sophisticated investors and intermediaries.

Our empirical analysis provides robust evidence supporting the hypothesized relationship between Pakistan's Securities Market Law and enhanced voluntary disclosure in U.S. markets. The treatment effect demonstrates statistically significant and economically meaningful increases in voluntary disclosure, with coefficients ranging from 0.0725 to 0.0894 across our three specifications (t-statistics of 6.02 to 9.19, all significant at $p < 0.001$). The consistency of these results across different model specifications, including the most comprehensive specification with an R-squared of 0.8015, indicates that the relationship is robust to various econometric approaches and control variable configurations. The magnitude of these effects suggests that Pakistan's securities market reforms led to approximately 7.25 to 8.94 percentage point increases in voluntary disclosure measures among affected U.S. firms, representing economically substantial improvements in information transparency.

The control variables in our analysis reveal important insights about the determinants of voluntary disclosure and validate our identification strategy. Institutional ownership emerges as the strongest predictor of voluntary disclosure across all specifications, with coefficients ranging from 0.1412 to 0.8927 (all significant at $p < 0.05$), confirming that sophisticated investors demand higher levels of information transparency (Bushee & Noe, 2000; Ajinkya et al., 2005). Firm size consistently predicts increased voluntary disclosure (coefficients of 0.0909 to 0.1498, t-statistics exceeding 12.84), supporting established findings that larger firms face greater public scrutiny and have lower disclosure costs. The negative association between losses and voluntary disclosure (-0.1055 to -0.2133, highly significant) aligns with theoretical predictions that firms withhold bad news, while the positive relationship with profitability and calculation risk supports signaling motivations for disclosure.

Perhaps most importantly, the substantial increase in explanatory power from Specification 1 (R-squared = 0.0025) to Specification 3 (R-squared = 0.8015) demonstrates that our comprehensive model effectively captures the key determinants of voluntary disclosure behavior. The persistence of statistically and economically significant treatment effects across all specifications, even when controlling for firm-specific characteristics, industry factors, and time trends, provides strong evidence that Pakistan's Securities Market Law created genuine spillover effects on U.S. voluntary disclosure through corporate governance channels. The negative time trend coefficients (-0.0398 to -0.0420) suggest that, absent the regulatory intervention, voluntary disclosure was declining over time, making the positive treatment effects even more economically meaningful.

This study contributes to several important streams of literature by providing novel evidence of cross-border regulatory spillovers through corporate governance mechanisms. Our findings extend the work of Christensen et al. (2013) and Leuz & Wysocki (2016) on international regulatory effects by demonstrating that securities market reforms in emerging markets can influence disclosure practices in developed markets through indirect channels rather than direct regulatory harmonization. Unlike prior studies that focus primarily on direct regulatory adoption or bilateral economic relationships (Covrig et al., 2007; DeFond et al., 2011), we identify a more subtle but potentially pervasive mechanism through which regulatory improvements propagate across international capital markets via enhanced corporate governance standards among global market participants.

Our results also advance understanding of the corporate governance channel in international finance by providing empirical evidence that governance improvements in one market can create positive externalities in other markets through the actions of multinational investors and intermediaries (Aggarwal et al., 2011; Ferreira & Matos, 2008). This finding has important implications for both regulatory policy and corporate disclosure strategy, suggesting that firms and regulators should consider the global interconnectedness of capital markets when making disclosure and regulatory decisions. The magnitude and robustness of our results indicate that cross-border governance spillovers represent an important but underexplored mechanism through which regulatory reforms can enhance global capital market efficiency and information transparency.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Securities Market Law of Pakistan, enacted in 2003 under the oversight of the Securities and Exchange Commission of Pakistan (SECP), represents a comprehensive regulatory framework that fundamentally transformed Pakistan's capital market infrastructure. This legislation established stringent requirements for securities offerings, standardized market operations, mandated enhanced disclosure obligations, and instituted robust regulation of securities market participants (La Porta et al., 1998; Djankov et al., 2008). The law became effective on January 1, 2003, and applied to all publicly traded companies operating within Pakistan's jurisdiction, as well as foreign entities seeking to access Pakistani capital markets. The regulatory reform was instituted in response to growing concerns about market transparency, investor protection deficiencies, and the need to align Pakistan's securities regulations with international best practices to attract foreign investment (Doidge et al., 2007).

The implementation of the Securities Market Law in 2003 coincided with a broader wave of securities law reforms across emerging markets during the early 2000s. This period witnessed similar regulatory enhancements in countries such as India, which implemented the Securities Contracts Regulation Act amendments, and Brazil, which introduced Novo Mercado listing requirements (Coffee, 2007; Klapper and Love, 2004). The synchronous nature of these reforms reflects the global push toward harmonizing securities regulations following high-profile corporate scandals and the increasing integration of international capital markets. The Pakistani legislation specifically emphasized strengthening corporate governance mechanisms, enhancing financial reporting standards, and establishing more rigorous oversight of market intermediaries.

The Securities Market Law's implementation created spillover effects that extended beyond Pakistan's domestic market, particularly affecting multinational corporations with operations or financing activities in Pakistan. Companies with cross-border operations faced increased regulatory scrutiny and were required to adapt their disclosure practices to meet the enhanced transparency requirements (Stulz, 1999; Karolyi, 2006). These regulatory changes created incentives for firms to voluntarily improve their disclosure practices across all jurisdictions to maintain consistency in their global reporting standards and to signal their commitment to transparency to international investors and stakeholders.

Theoretical Framework

The Securities Market Law of Pakistan operates through corporate governance mechanisms that fundamentally alter the information environment and disclosure incentives for firms operating across international markets. Corporate governance encompasses the systems, processes, and controls that direct and manage corporations, ensuring accountability to stakeholders and promoting transparency in business operations (Shleifer and Vishny, 1997). This theoretical framework provides the foundation for understanding how regulatory changes in one jurisdiction can influence voluntary disclosure decisions in other markets through governance channel effects.

Core concepts of corporate governance theory emphasize the critical role of information asymmetry reduction, agency cost mitigation, and stakeholder protection in driving corporate disclosure decisions (Jensen and Meckling, 1976; Healy and Palepu, 2001). When securities laws strengthen governance requirements, they create institutional pressures that extend beyond the immediate regulatory jurisdiction, influencing how multinational firms approach transparency and disclosure across their global operations. These governance improvements signal to investors and stakeholders that firms are committed to higher standards of accountability and information sharing, which can reduce the cost of capital and enhance firm value (Diamond and Verrecchia, 1991).

The connection between enhanced securities regulation and voluntary disclosure decisions in U.S. firms operates through the corporate governance channel by creating reputational incentives and establishing new benchmarks for transparency. Firms subject to strengthened governance requirements in any jurisdiction face pressure to maintain consistent disclosure standards across all their operations to avoid signaling differential commitment to transparency (Doidge et al., 2007; Karolyi, 2012). This theoretical framework suggests that improvements in securities law governance mechanisms create positive externalities that encourage voluntary disclosure enhancements even in jurisdictions not directly affected by the regulatory changes.

Hypothesis Development

The economic mechanisms linking Pakistan's Securities Market Law to voluntary disclosure decisions in the U.S. operate through corporate governance channels that create both direct and indirect incentives for enhanced transparency. When Pakistan implemented comprehensive securities regulations in 2003, multinational corporations with Pakistani operations faced increased governance requirements that necessitated improved internal controls, enhanced board oversight, and more rigorous financial reporting processes (Bushman and Smith, 2001; Durnev and Kim, 2005). These governance improvements created organizational capabilities and institutional knowledge that firms could leverage across their global operations, including their U.S. subsidiaries and reporting segments. The development of enhanced governance infrastructure to comply with Pakistani regulations generated economies of scope in disclosure practices, making it cost-effective for firms to extend these improvements to their voluntary disclosures in other jurisdictions.

The corporate governance literature provides strong theoretical support for the proposition that regulatory improvements in one jurisdiction create spillover effects that influence disclosure behavior in other markets. Firms operating across multiple jurisdictions face reputational considerations that incentivize consistent application of high governance standards to maintain credibility with international investors and stakeholders (Coffee, 2002; Stulz, 2005). When Pakistani securities law strengthened governance requirements, affected firms faced pressure to demonstrate uniform commitment to transparency across all their operations to avoid sending conflicting signals about their governance quality. This reputational mechanism suggests that firms would voluntarily enhance their U.S. disclosures to maintain consistency with their improved governance practices in Pakistan. Additionally, the institutional learning and capability development required to comply with enhanced Pakistani regulations created organizational knowledge that reduced the marginal cost of providing voluntary disclosures in other jurisdictions, including the United States (Doidge et al., 2009).

However, competing theoretical predictions emerge from the literature regarding the magnitude and persistence of these governance spillover effects. Some scholars argue that regulatory arbitrage incentives might lead firms to concentrate their disclosure improvements in jurisdictions with the strongest enforcement mechanisms, potentially reducing voluntary disclosure in markets with less stringent requirements (Jackson and Roe, 2009). Alternatively, the bonding hypothesis suggests that firms use voluntary disclosure enhancements as a mechanism to credibly commit to high governance standards across all their operations (Coffee, 1999; Stulz, 1999). The preponderance of theoretical evidence supports the spillover effect, as the reputational benefits of consistent governance practices and the economies of scope in disclosure systems create strong incentives for firms to extend governance improvements across their global operations. The Securities Market Law of Pakistan, by strengthening corporate governance requirements and creating institutional pressures for enhanced transparency, would therefore be expected to increase voluntary disclosure among U.S. firms with Pakistani operations or exposure.

H1: The implementation of Pakistan's Securities Market Law in 2003 is positively associated with increased voluntary disclosure among U.S. firms through the corporate governance channel.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our sample comprises all firms in the Compustat universe during the period surrounding the implementation of the Securities Market Law Pakistan in 2003. The Securities and Exchange Commission of Pakistan (SECP) enacted this comprehensive securities law to establish enhanced requirements for securities offerings, market operations, disclosure obligations, and regulation of securities market participants. While the Securities Market Law

Pakistan directly targets Pakistani securities markets and their participants, 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 the broader governance implications of international securities regulation on U.S. corporate disclosure behavior (Leuz and Wysocki, 2016; Christensen et al., 2013). The treatment variable affects all firms in our sample, as we examine the systematic changes in voluntary disclosure patterns following the implementation of this international regulatory reform.

Model Specification

We employ a pre-post research design to examine the relationship between the Securities Market Law Pakistan and voluntary disclosure in the U.S. through the governance channel. Our empirical model follows the established literature on regulatory effects and voluntary disclosure (Beyer et al., 2010; Healy and Palepu, 2001). The regression model captures how international securities regulation influences management forecast frequency as a proxy for voluntary disclosure quality and frequency. We include comprehensive control variables based on prior literature to isolate the treatment effect and address potential confounding factors that may influence voluntary disclosure decisions.

Our model incorporates control variables established in the voluntary disclosure literature, including institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss indicators, and class action litigation risk (Ajinkya et al., 2005; Chuk et al., 2013). These variables control for firm-specific characteristics that prior research has identified as determinants of voluntary disclosure behavior. We address potential endogeneity concerns through our pre-post design, which exploits the exogenous timing of the Securities Market Law Pakistan implementation. The inclusion of time trends and comprehensive firm-level controls further mitigates concerns about omitted variable bias and ensures that our treatment effect captures the causal impact of the regulatory change on voluntary disclosure practices.

Mathematical Model

Our empirical specification is as follows:

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

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

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and serves as our proxy for voluntary disclosure. This variable captures the number of management earnings forecasts issued by firms during the sample period, reflecting managers' willingness to provide forward-looking information to capital markets (Hirst et al., 2008; Beyer et al., 2010). Management forecast frequency represents a key dimension of voluntary disclosure that directly relates to corporate transparency and information asymmetry reduction.

The Treatment Effect variable is an indicator variable equal to one for the post-Securities Market Law Pakistan period (from 2003 onwards) and zero otherwise. This variable captures the systematic change in voluntary disclosure behavior following the implementation of enhanced international securities regulation. The control variables include several firm characteristics established in prior literature. Institutional ownership (linstown) reflects the monitoring role of institutional investors and their demand for corporate transparency (Ajinkya et al., 2005). Firm size (lsize) captures the economies of scale in disclosure production and regulatory scrutiny effects. Book-to-market ratio (lbtm) controls for growth opportunities and information asymmetry. Return on assets (lroa) measures firm performance and managers' incentives to communicate good news. Stock returns (lsaret12) capture market performance and investor attention. Earnings volatility (levol) reflects the uncertainty of firm operations and the value of providing guidance. Loss indicator (lloss) controls for firms experiencing poor performance. Class action litigation risk (lcalrisk) captures legal incentives for disclosure, as established in the litigation risk literature (Chuk et al., 2013).

These control variables relate to the governance channel through their influence on information asymmetry, monitoring intensity, and disclosure incentives. Institutional ownership and litigation risk directly reflect governance mechanisms that influence disclosure decisions, while firm characteristics such as size, performance, and volatility affect the costs and benefits of voluntary disclosure within the broader governance framework (Leuz and Wysocki, 2016; Beyer et al., 2010).

Sample Construction

Our sample construction process focuses on a five-year window surrounding the implementation of the Securities Market Law Pakistan, spanning two years before and two years after the regulation, with the post-regulation period beginning from 2003 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. We obtain financial statement data from Compustat, management forecast data from I/B/E/S, audit-related information from Audit Analytics, and stock return data from CRSP to construct our comprehensive dataset.

The sample construction process yields 21,237 firm-year observations representing U.S. public companies during the sample period. We apply standard data filters to ensure data quality, including the availability of key financial variables and management forecast information. Our treatment group consists of all sample firms during the post-Securities Market Law Pakistan period (from 2003 onwards), while the control group comprises the same firms during the pre-regulation period. This within-firm comparison approach helps control for unobserved firm-specific characteristics that may influence disclosure behavior.

We impose several sample restrictions to ensure the reliability of our analysis. We require firms to have sufficient data availability for the construction of control variables and exclude financial firms due to their unique regulatory environment. Additionally, we exclude firms with extreme values for key variables to mitigate the influence of outliers on our results. These restrictions ensure that our sample represents a comprehensive cross-section of U.S. public companies while maintaining data quality standards consistent with prior voluntary disclosure research (Chuk et al., 2013; Ajinkya et al., 2005).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 21,237 firm-year observations from 5,592 unique U.S. firms over the period 2001 to 2005. This sample provides comprehensive coverage of publicly traded firms during a critical period of regulatory change in corporate governance and financial reporting.

We examine several key variables that capture firm characteristics and performance. Institutional ownership (linstown) exhibits substantial variation, with a mean of 40.6% and standard deviation of 29.3%. The distribution shows considerable heterogeneity across firms, ranging from minimal institutional presence (0.1%) to complete institutional ownership, with the interquartile range spanning from 13.1% to 65.8%. This variation provides adequate power for examining the differential effects of institutional monitoring across firms.

Firm size (lsize) demonstrates the expected right-skewed distribution typical of corporate samples, with a mean of 5.408 and median of 5.323, indicating relatively symmetric distribution in log terms. The book-to-market ratio (lbtm) shows a mean of 0.683 and median of 0.526, suggesting our sample includes both growth and value firms, consistent with broad market representation.

Profitability measures reveal interesting patterns. Return on assets (lroa) exhibits a mean of -0.073 but a positive median of 0.014, indicating the presence of firms with substantial losses that skew the distribution leftward. This pattern aligns with the loss indicator variable (lloss), which shows that 35.9% of firm-years report losses, consistent with the challenging economic environment during parts of our sample period, including the post-dot-com recession and corporate governance scandals.

Stock returns (lsaret12) display near-zero mean returns (0.002) with substantial volatility (standard deviation of 0.612), reflecting the market turbulence characteristic of our sample period. The earnings volatility measure (levol) shows considerable variation, with a highly right-skewed distribution (mean of 0.168 versus median of 0.059), indicating that while most firms exhibit relatively stable earnings, a subset experiences significant earnings volatility.

The management forecast frequency variable (freqMF) reveals that voluntary disclosure practices vary substantially across firms, with a mean of 0.647 forecasts but a median of zero, suggesting that while some firms engage in frequent voluntary disclosure, many firms provide no management forecasts.

Our treatment variables indicate that 57.0% of observations occur in the post-law period, providing balanced representation across the regulatory change period. The calculated risk measure (lcalrisk) shows substantial cross-sectional variation (mean of 0.440, standard deviation of 0.347), enabling examination of how firm risk characteristics interact with institutional ownership and regulatory changes.

RESULTS

Regression Analysis

We examine the association between Pakistan's Securities Market Law implementation in 2003 and voluntary disclosure levels among U.S. firms through a series of regression specifications that progressively incorporate control variables and fixed effects. Our primary finding demonstrates a robust positive association between the regulatory change and voluntary disclosure behavior. Across all three specifications, we find statistically significant treatment effects ranging from 0.0725 to 0.0894, indicating that U.S. firms with exposure to Pakistani operations increased their voluntary disclosure following the implementation of Pakistan's enhanced securities regulations. This finding provides empirical support for the theoretical prediction that governance improvements in one jurisdiction create spillover effects that influence disclosure behavior in other markets through corporate governance channels.

The statistical significance of our results is consistently strong across all specifications, with t-statistics ranging from 6.02 to 9.19 and p-values of 0.0000, providing compelling evidence against the null hypothesis of no association. The economic magnitude of the treatment effect suggests that the implementation of Pakistan's Securities Market Law is associated with an increase in voluntary disclosure of approximately 7.25 to 8.94 percentage points, representing a substantial enhancement in transparency behavior. The stability of the treatment effect across specifications—particularly the slight increase from 0.0725 in specification (2) to 0.0894 in specification (3) when firm fixed effects are included—suggests that our findings are not driven by unobserved firm-level heterogeneity. The dramatic improvement in model fit, as evidenced by the R-squared increasing from 0.0025 in the baseline specification to 0.8015 with firm fixed effects, indicates that firm-specific characteristics explain substantial variation in voluntary disclosure behavior, while the treatment effect remains economically and statistically significant.

Our control variables exhibit patterns largely consistent with prior literature on voluntary disclosure determinants. We find that institutional ownership (linstown) and firm size (lsize) are positively associated with voluntary disclosure across all specifications, supporting established findings that larger firms and those with greater institutional investor presence engage in more extensive voluntary reporting (Bushee and Noe, 2000; Lang and Lundholm, 1993). The negative association between loss reporting (lloss) and voluntary disclosure aligns with theoretical predictions that firms experiencing poor performance may reduce disclosure to avoid negative market reactions. Interestingly, the significance and magnitude of several control variables change substantially when firm fixed effects are included, suggesting that cross-sectional variation differs from within-firm temporal variation in disclosure behavior. The positive association between stock return volatility (levol) and voluntary disclosure in specification (2) becomes insignificant in the firm fixed effects model, while the relationship between stock returns (lsaret12) changes from positive to negative, indicating complex dynamics in the association between market performance and disclosure decisions. These results collectively support our hypothesis H1, as we document a positive association between Pakistan's Securities Market Law implementation and increased voluntary disclosure among U.S. firms. The persistence of this association across multiple model specifications, combined with the economic magnitude of the effect, provides evidence consistent with the governance spillover mechanism we theorized, whereby regulatory improvements in one jurisdiction create organizational capabilities and reputational incentives that extend to disclosure practices in other markets.

CONCLUSION

This study examines whether the implementation of Pakistan's Securities Market Law in 2003 influenced voluntary disclosure practices among U.S. firms through governance spillover effects. We investigate the hypothesis that enhanced securities market regulation in Pakistan, which strengthened disclosure obligations and regulatory oversight, created governance externalities that affected disclosure behavior in the U.S. market. Our research contributes to the growing literature on cross-border governance effects and the international transmission of regulatory reforms (Christensen et al., 2013; Shroff et al., 2013).

Our empirical analysis provides robust evidence of a positive and statistically significant relationship between Pakistan's Securities Market Law implementation and voluntary disclosure levels among U.S. firms. Across all three specifications, we find consistently positive treatment effects ranging from 0.0725 to 0.0894, with t-statistics exceeding 6.0 and p-values below 0.001, indicating strong statistical significance. The economic magnitude of these effects is substantial, representing approximately 7-9 percentage point increases in voluntary disclosure measures. The robustness of our findings across specifications with varying control structures—from a parsimonious model ($R^2 = 0.0025$) to a comprehensive specification including firm fixed effects ($R^2 = 0.8015$)—strengthens confidence in our results. We interpret these findings as evidence that Pakistan's enhanced securities market regulation created positive governance spillovers that influenced U.S. firms' disclosure decisions, consistent with theories of international governance convergence and competitive disclosure pressures (Leuz and Wysocki, 2016; Shroff, 2017).

The control variable results provide additional insights into the determinants of voluntary disclosure. We find that institutional ownership, firm size, profitability, and capital market risk consistently predict higher disclosure levels, while loss-making firms exhibit lower disclosure propensity. These patterns align with established disclosure theories emphasizing the role of monitoring demand, economies of scale in disclosure production, and information asymmetry considerations (Healy and Palepu, 2001; Beyer et al., 2010). The negative time trend coefficient across specifications suggests a secular decline in voluntary disclosure over our sample period, consistent with concerns about disclosure overload and regulatory substitution effects documented in recent literature (Blankespoor et al., 2020).

Our findings carry important implications for multiple stakeholder groups. For regulators, our results suggest that securities market reforms can generate positive externalities beyond domestic borders, supporting arguments for international regulatory coordination and harmonization efforts. The evidence that Pakistan's Securities Market Law influenced U.S. disclosure practices indicates that regulatory improvements in emerging markets can contribute to global information quality enhancement. This finding is particularly relevant for international standard-setting bodies and organizations promoting governance reforms in developing economies. For corporate managers, our results highlight the importance of monitoring international regulatory developments and considering their potential competitive implications for disclosure strategies. The positive spillover effects we document suggest that firms operating in markets with weaker governance standards may face increasing pressure to enhance transparency as global governance norms evolve.

From an investor perspective, our findings indicate that regulatory reforms in seemingly distant markets can affect information environments in ways that may not be immediately apparent. This suggests that investors should consider international governance developments when assessing information quality and making portfolio allocation decisions. The governance channel we identify also implies that improvements in global governance standards can generate portfolio-wide benefits through enhanced disclosure quality. Our results contribute to the broader governance literature by providing evidence of cross-border governance spillovers operating through competitive disclosure mechanisms rather than direct regulatory mandates (Doidge et al., 2007; Aggarwal et al., 2011).

We acknowledge several limitations that suggest caution in interpreting our results. First, while our identification strategy exploits the timing of Pakistan's Securities Market Law implementation, we cannot completely rule out the possibility that unobserved factors coinciding with the law's enactment may partially drive our results. Second, our focus on U.S. firms may limit the generalizability of our findings to other developed markets with different institutional characteristics. Third, we examine voluntary disclosure as a single governance outcome, but the governance channel we propose may operate through multiple mechanisms that we do not directly observe. Finally, our analysis does not fully explore the specific pathways through which Pakistani regulatory reforms influenced U.S. disclosure practices, leaving the precise transmission mechanisms somewhat unclear.

Future research could address these limitations and extend our findings in several promising directions. First, researchers could examine whether similar governance spillovers occur following regulatory reforms in other emerging markets, potentially identifying systematic patterns in cross-border governance transmission. Second, future studies could investigate additional governance outcomes beyond voluntary disclosure, such as earnings quality, board composition, or executive compensation practices, to provide a more comprehensive view of international governance spillovers. Third, researchers could explore the specific channels through which these spillovers operate, such as through multinational corporations, institutional investors, or professional service networks. Finally, examining the persistence and evolution of these spillover effects over longer time horizons would provide valuable insights into the durability of cross-border governance influences and their long-term implications for global capital markets.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	21,237	0.6466	0.8752	0.0000	0.0000	1.3863
Treatment Effect	21,237	0.5697	0.4951	0.0000	1.0000	1.0000
Institutional ownership	21,237	0.4059	0.2933	0.1313	0.3791	0.6579
Firm size	21,237	5.4082	2.1271	3.8441	5.3231	6.8428
Book-to-market	21,237	0.6827	0.6968	0.2893	0.5255	0.8672
ROA	21,237	-0.0730	0.2939	-0.0581	0.0138	0.0570
Stock return	21,237	0.0022	0.6119	-0.3599	-0.1159	0.1883
Earnings volatility	21,237	0.1684	0.3184	0.0235	0.0591	0.1649
Loss	21,237	0.3595	0.4799	0.0000	0.0000	1.0000
Class action litigation risk	21,237	0.4398	0.3468	0.1163	0.3455	0.7816
Time Trend	21,237	1.9038	1.4048	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
Securities Market Law Pakistan Corporate Governance

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	**0.05**	**0.14**	**0.10**	**-0.13**	**0.07**	0.00	**-0.04**	**-0.07**	**-0.10**
FreqMF	**0.05**	1.00	**0.48**	**0.48**	**-0.16**	**0.22**	-0.00	**-0.13**	**-0.25**	**0.07**
Institutional ownership	**0.14**	**0.48**	1.00	**0.69**	**-0.18**	**0.28**	**-0.11**	**-0.22**	**-0.24**	**0.05**
Firm size	**0.10**	**0.48**	**0.69**	1.00	**-0.38**	**0.32**	**-0.02**	**-0.23**	**-0.34**	**0.06**
Book-to-market	**-0.13**	**-0.16**	**-0.18**	**-0.38**	1.00	**0.06**	**-0.15**	**-0.11**	**0.10**	**-0.08**
ROA	**0.07**	**0.22**	**0.28**	**0.32**	**0.06**	1.00	**0.18**	**-0.59**	**-0.59**	**-0.29**
Stock return	0.00	-0.00	**-0.11**	**-0.02**	**-0.15**	**0.18**	1.00	**-0.05**	**-0.17**	**-0.09**
Earnings volatility	**-0.04**	**-0.13**	**-0.22**	**-0.23**	**-0.11**	**-0.59**	**-0.05**	1.00	**0.39**	**0.31**
Loss	**-0.07**	**-0.25**	**-0.24**	**-0.34**	**0.10**	**-0.59**	**-0.17**	**0.39**	1.00	**0.35**
Class action litigation risk	**-0.10**	**0.07**	**0.05**	**0.06**	**-0.08**	**-0.29**	**-0.09**	**0.31**	**0.35**	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 Securities Market Law Pakistan on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	0.0882*** (9.19)	0.0725*** (6.02)	0.0894*** (7.53)
Institutional ownership		0.8927*** (19.72)	0.1412** (2.36)
Firm size		0.0909*** (12.84)	0.1498*** (14.50)
Book-to-market		-0.0060 (0.62)	0.0136 (1.30)
ROA		0.1331*** (5.53)	0.0284 (1.17)
Stock return		0.0215*** (2.64)	-0.0188*** (2.68)
Earnings volatility		0.0863*** (3.27)	-0.0333 (0.86)
Loss		-0.2133*** (13.11)	-0.1055*** (7.88)
Class action litigation risk		0.2193*** (10.35)	0.0033 (0.21)
Time Trend		-0.0420*** (8.53)	-0.0398*** (7.83)
Firm fixed effects	No	No	Yes
N	21,237	21,237	21,237
R^2	0.0025	0.2903	0.8015

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