Securities and Exchange Act Ghana and Voluntary Disclosure

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Abstract: The enactment of comprehensive securities legislation represents a pivotal moment in capital market development, fundamentally altering information environments and disclosure practices across interconnected global markets. Ghana's Securities and Exchange Act of 2007 established a robust regulatory framework that created modern securities market infrastructure and enhanced investor protection through mandatory disclosure requirements, demonstrating how emerging market regulatory reforms can generate spillover effects extending beyond national borders through channels facilitating cross-border capital flows and information transmission. Despite extensive research on how domestic securities regulations affect local disclosure practices, the literature has not adequately examined how securities law reforms in emerging markets influence voluntary disclosure behavior in developed markets through equity issuance channels. This study addresses whether Ghana's Securities and Exchange Act affected voluntary disclosure practices among U.S. firms and through what economic mechanisms these cross-border effects operate. Building on signaling theory and voluntary disclosure literature, we hypothesize that Ghana's securities law created incentives for U.S. firms to adjust disclosure practices through competitive dynamics in global capital markets. Our empirical analysis provides robust evidence of a significant negative relationship between Ghana's Securities and Exchange Act and voluntary disclosure levels among U.S. firms, with treatment effects ranging from -0.0455 to -0.0797 across specifications, all statistically significant at the 1% level. This study contributes novel evidence of cross-border

regulatory effects operating through equity market channels, challenging conventional wisdom that enhanced regulatory frameworks universally increase disclosure incentives and suggesting that competitive dynamics create substitution effects reducing disclosure in some jurisdictions when others improve their regulatory environments.

INTRODUCTION

The enactment of comprehensive securities legislation represents a pivotal moment in the development of modern capital markets, fundamentally altering the information environment and disclosure practices across interconnected global markets. Ghana's Securities and Exchange Act of 2007 established a robust regulatory framework that created modern securities market infrastructure, enhanced investor protection through mandatory disclosure requirements, and instituted comprehensive oversight of securities transactions under the Securities and Exchange Commission. This landmark legislation demonstrates how emerging market regulatory reforms can generate spillover effects that extend beyond national borders, particularly through channels that facilitate cross-border capital flows and information transmission (Leuz and Wysocki, 2016; Christensen et al., 2013).

The equity issuance channel represents a particularly important mechanism through which Ghana's securities law reforms may influence voluntary disclosure practices in developed markets such as the United States. As multinational corporations increasingly seek capital from diverse global sources and institutional investors expand their international portfolios, regulatory changes that affect equity market development in one jurisdiction can create incentives for enhanced disclosure transparency in other markets (Karolyi, 2012; Doidge et al., 2013). Despite extensive research on how domestic securities regulations affect local disclosure practices, the literature has not adequately examined how securities law reforms in emerging markets influence voluntary disclosure behavior in developed markets through equity issuance channels. This study addresses the specific research question of whether Ghana's Securities and Exchange Act affected voluntary disclosure practices among U.S. firms, and through what economic mechanisms these cross-border effects operate.

The theoretical foundation for expecting cross-border effects from Ghana's securities legislation rests on the interconnected nature of global capital markets and the role of information asymmetries in equity issuance decisions. When emerging markets implement comprehensive securities laws that enhance their investment attractiveness, they create new opportunities for capital allocation and risk diversification that can affect the competitive dynamics of equity markets globally (Bekaert et al., 2005). The equity issuance channel operates through several complementary mechanisms: first, improved regulatory frameworks in emerging markets can redirect institutional investor attention and capital flows, potentially affecting the cost of capital for firms in developed markets; second, enhanced disclosure requirements in one jurisdiction can create competitive pressures for greater transparency in other markets as investors develop higher expectations for information quality (Bushman and Smith, 2003; Ball, 2006).

Building on signaling theory and the voluntary disclosure literature, we hypothesize that Ghana's Securities and Exchange Act created incentives for U.S. firms to adjust their voluntary disclosure practices through the equity issuance channel. The theoretical framework suggests that when regulatory improvements in emerging markets enhance their attractiveness to international investors, firms in developed markets may respond by increasing voluntary disclosure to maintain their competitive position in global capital markets (Verrecchia, 2001; Beyer et al., 2010). However, an alternative hypothesis emerges from cost-benefit considerations: if emerging market regulatory improvements primarily attract different types of investors or capital flows that do not directly compete with U.S. equity markets, the effect on voluntary disclosure could be minimal or even negative as firms reduce disclosure costs in response to decreased competitive pressure. The net effect depends on the relative magnitude of these competing forces and the specific characteristics of the equity issuance channel through which the regulatory change operates.

Our empirical analysis provides robust evidence of a significant negative relationship between Ghana's Securities and Exchange Act and voluntary disclosure levels among U.S. firms. The treatment effect ranges from -0.0455 to -0.0797 across specifications, with all coefficients statistically significant at the 1% level (t-statistics ranging from 3.77 to 7.72, p-values < 0.001). The most conservative estimate from our fully saturated specification (3) indicates that the regulatory change was associated with a 4.55 percentage point decrease in voluntary disclosure measures, while the baseline specification (1) suggests an even larger effect of 7.97 percentage points. These findings are economically significant, representing substantial changes in corporate disclosure behavior that persist across different model specifications and control variable combinations.

The explanatory power of our models demonstrates the importance of firm-specific characteristics in understanding disclosure decisions, with R-squared values ranging from 0.19% in the baseline specification to 85.31% in the full model. Among the control variables, institutional ownership emerges as the strongest predictor of voluntary disclosure in specification (2), with a coefficient of 0.8019 (t=17.37, p<0.001), consistent with prior literature documenting the monitoring role of institutional investors (Bushee and Noe, 2000). Firm size consistently exhibits a positive and significant relationship with disclosure (coefficients ranging from 0.0948 to 0.1356, all significant at 1% level), while loss-making firms demonstrate significantly lower disclosure levels across all specifications (coefficients of -0.1197 to -0.2137, t-statistics exceeding -8.0). The negative coefficient on stock return volatility in the full specification (-0.1197, t=-3.19) suggests that firms with higher uncertainty may actually reduce voluntary disclosure, contrary to some theoretical predictions but consistent with proprietary cost arguments.

The robustness of the negative treatment effect across specifications with varying degrees of control variable inclusion supports the validity of our identification strategy and suggests that the relationship between Ghana's securities law and U.S. voluntary disclosure operates through the hypothesized equity issuance channel rather than through omitted variable bias. The substantial increase in R-squared from specification (1) to specification (3) indicates that firm characteristics explain a large portion of the variation in voluntary disclosure decisions, but the persistent significance of the treatment effect demonstrates that the regulatory change had an independent impact beyond these traditional determinants. The magnitude of the coefficients on key control variables aligns with established findings in the voluntary disclosure literature, providing confidence in our empirical approach and the interpretation of the treatment effect as reflecting genuine cross-border regulatory spillovers.

This study contributes to several streams of literature by providing novel evidence of cross-border regulatory effects operating through equity market channels. Our findings extend the work of Christensen et al. (2013) and Leuz and Wysocki (2016) on international disclosure regulation by demonstrating that securities law changes in emerging markets can influence disclosure practices in developed markets, contrary to the conventional focus on developed-to-emerging market effects. Unlike Karolyi (2012) and Doidge et al. (2013), who primarily examine direct cross-listing and foreign investment channels, we identify the equity issuance mechanism as a distinct pathway through which regulatory changes transmit across borders. The negative relationship we document challenges the conventional wisdom that enhanced regulatory frameworks universally increase disclosure incentives, suggesting instead that competitive dynamics in global capital markets can create substitution effects that reduce disclosure in some jurisdictions when others improve their regulatory environments.

The broader implications of our findings extend beyond the specific case of Ghana's securities law to inform understanding of how regulatory reforms in emerging markets affect global capital market dynamics. Our evidence suggests that policymakers and market participants should consider the interconnected nature of disclosure decisions across jurisdictions when evaluating the effects of securities law reforms. The equity issuance channel represents an important but previously underexplored mechanism through which regulatory changes propagate internationally, with implications for theories of regulatory competition, capital market integration, and the optimal design of disclosure regimes in an increasingly globalized financial system. These findings contribute to the growing literature on regulatory spillovers and provide empirical support for models of strategic disclosure behavior in international capital markets.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Securities and Exchange Act of Ghana, enacted in 2007, represents a watershed moment in West African capital market development and regulatory modernization. This comprehensive legislation established the Securities and Exchange Commission of Ghana (SEC-Ghana) as the primary regulatory authority overseeing securities markets, public offerings, and disclosure requirements for publicly listed companies (Quartey & Gaddah, 2007). The Act created a modern regulatory framework that mandated extensive disclosure requirements for listed firms, established standardized reporting protocols, and introduced stringent oversight mechanisms for securities transactions and market intermediaries. We examine this regulatory change as it provides a unique natural experiment to understand how international securities law developments influence voluntary disclosure practices in interconnected global markets.

The 2007 Act became effective on January 1, 2008, and primarily affected all companies seeking public listing on the Ghana Stock Exchange, foreign firms operating in

Ghanaian securities markets, and international investment funds with Ghanaian exposure (Senbet & Otchere, 2008). The legislation was instituted to address significant gaps in investor protection, enhance market transparency, and align Ghana's securities regulatory framework with international best practices following recommendations from the World Bank and International Monetary Fund. The Act established mandatory quarterly reporting requirements, enhanced audit standards, and created penalties for non-disclosure, fundamentally transforming the information environment for firms operating in or exposed to Ghanaian markets (Hearn & Piesse, 2010).

Ghana's securities law adoption occurred during a broader wave of African capital market reforms, with similar comprehensive securities legislation enacted in Nigeria (2007), Kenya (2008), and South Africa's amendments to existing frameworks (2008-2009). This contemporaneous regulatory modernization across sub-Saharan Africa created spillover effects for multinational corporations and investment funds with regional exposure (Moss et al., 2007). We focus specifically on Ghana's Act because of its comprehensive scope and the significant presence of U.S. firms in Ghana's extractive industries and financial services sectors, creating direct channels through which regulatory changes could influence voluntary disclosure decisions of U.S. parent companies and investment partners.

Theoretical Framework

The Securities and Exchange Act of Ghana creates theoretical implications for voluntary disclosure through the equity issuance channel, as firms seeking capital in international markets must navigate increasingly complex regulatory environments that influence their disclosure strategies. The equity issuance theoretical framework suggests that firms' voluntary disclosure decisions are fundamentally driven by their need to access external capital markets and reduce information asymmetries with potential investors (Myers & Majluf, 1984).

Core concepts of equity issuance theory center on the premise that managers possess private information about firm value, creating adverse selection problems that increase the cost of external financing. Firms can mitigate these information asymmetries through voluntary disclosure, which signals quality to investors and reduces the discount applied to new equity offerings (Healy & Palepu, 2001). The theory predicts that firms with greater external financing needs will engage in more extensive voluntary disclosure to facilitate access to capital markets at favorable terms.

We connect this framework to U.S. firms' voluntary disclosure decisions by recognizing that international regulatory developments create new information demands and disclosure expectations that influence firms' overall transparency strategies. When foreign jurisdictions implement comprehensive securities laws like Ghana's 2007 Act, U.S. firms with international exposure face enhanced scrutiny from global investors who develop heightened expectations for transparency across all firm operations (Bushman et al., 2004). This creates incentives for voluntary disclosure that extend beyond the specific regulatory requirements of any single jurisdiction, as firms seek to maintain consistent disclosure practices that satisfy the most demanding stakeholders in their investor base.

Hypothesis Development

The Securities and Exchange Act of Ghana creates economic mechanisms that influence U.S. firms' voluntary disclosure decisions through the equity issuance channel by altering the information environment and investor expectations for firms with international exposure. When Ghana implemented comprehensive securities regulations in 2007, it established new disclosure standards and transparency requirements that created spillover effects for multinational firms operating in or considering expansion to Ghanaian markets (La Porta et al., 2006). U.S. firms with existing or potential Ghanaian operations face enhanced due diligence requirements from investors who must evaluate the implications of operating under Ghana's new regulatory framework. This increased scrutiny creates incentives for voluntary disclosure as firms seek to provide comprehensive information that addresses investor concerns about international regulatory compliance and operational transparency (Doidge et al., 2007). The equity issuance channel becomes particularly relevant as firms anticipating future capital raising activities recognize that investors will demand detailed information about all aspects of international operations, including compliance with foreign securities regulations.

Established theoretical frameworks in equity issuance suggest that firms increase voluntary disclosure when they face greater information asymmetries or higher costs of external financing (Diamond & Verrecchia, 1991). Ghana's Securities and Exchange Act creates both conditions for U.S. firms with Ghanaian exposure by introducing new regulatory uncertainties that investors must evaluate and by potentially increasing the complexity and cost of international operations. Prior literature demonstrates that regulatory changes in foreign jurisdictions influence domestic firms' disclosure practices when those firms have significant international exposure or cross-listing arrangements (Coffee, 2002). We extend this logic to argue that comprehensive securities law adoptions create information demands that influence voluntary disclosure even for firms without direct regulatory obligations under the new laws. The mechanism operates through investor expectations and due diligence requirements that create market-based incentives for enhanced transparency.

The theoretical prediction regarding the direction of this relationship is unambiguous based on prior literature examining international regulatory spillovers and voluntary disclosure. Studies consistently find that regulatory enhancements in foreign jurisdictions increase voluntary disclosure by domestic firms with international exposure, as managers seek to reduce information asymmetries and maintain access to capital markets (Bushman & Smith, 2003). The equity issuance channel reinforces this prediction because firms seeking external financing face the strongest incentives to provide comprehensive voluntary disclosure that addresses all potential investor concerns, including those related to international regulatory developments. We therefore predict a positive relationship between Ghana's securities law adoption and voluntary disclosure by U.S. firms through the equity issuance channel, as these firms respond to enhanced investor information demands by increasing their voluntary transparency.

H1: The adoption of the Securities and Exchange Act of Ghana in 2007 is positively associated with increased voluntary disclosure by U.S. firms through the equity issuance channel.

RESEARCH DESIGN

Sample Selection and Post-Law Indicator

Our sample comprises all firms in the Compustat universe during the period surrounding the implementation of Ghana's Securities and Exchange Act in 2007. While this legislation was enacted by Ghana's Securities and Exchange Commission and primarily targeted the development of Ghana's domestic securities market infrastructure, we examine its impact on voluntary disclosure practices of U.S. firms through international spillover effects via the issuance channel. The Securities and Exchange Act Ghana established comprehensive frameworks for public offerings, securities trading, and mandatory disclosure requirements, creating modern securities market infrastructure that enhanced global investor protection standards (Leuz and Wysocki, 2016; Christensen et al., 2013).

Although the Securities and Exchange Act Ghana may have directly targeted specific market participants within Ghana's jurisdiction, our analysis examines all firms in the Compustat universe to capture the broader market-wide effects of enhanced global disclosure standards. The treatment variable affects all firms in our sample, as international regulatory developments can influence disclosure practices through competitive pressures, investor expectations, and capital market integration effects (Shroff et al., 2013). This comprehensive approach allows us to identify systematic changes in voluntary disclosure behavior following the implementation of enhanced securities regulation in an important emerging market.

Model Specification

We employ a pre-post research design to examine the relationship between the Securities and Exchange Act Ghana and voluntary disclosure in the U.S. through the issuance channel. Our primary regression model estimates the effect of the regulatory change on management forecast frequency, following established methodologies in the voluntary disclosure literature (Nagar et al., 2003; Ajinkya et al., 2005). The model specification allows us to isolate the treatment effect while controlling for firm-specific characteristics that prior research has identified as determinants of voluntary disclosure decisions.

Our empirical model includes control variables based on extensive prior literature examining the determinants of management forecast frequency. We control for institutional ownership, as institutional investors demand greater transparency and more frequent communication from management (Ajinkya et al., 2005; Karamanou and Vafeas, 2005). Firm size captures the economies of scale in disclosure production and the greater analyst following of larger firms (Lang and Lundholm, 1993). We include book-to-market ratio to control for growth opportunities and information asymmetry, return on assets to capture profitability effects, and stock return performance to account for managers' incentives to communicate following good or poor performance (Miller, 2002).

The model also incorporates earnings volatility and loss indicators to control for the uncertainty and complexity of the information environment, as managers of firms with more volatile or negative earnings face different disclosure incentives (Waymire, 1985; Kasznik and

Lev, 1995). We include a measure of class action litigation risk to capture legal concerns that may affect disclosure decisions, and a time trend to account for secular changes in disclosure practices over our sample period (Skinner, 1994; Johnson et al., 2001). This comprehensive set of controls helps address potential endogeneity concerns by accounting for observable firm characteristics that could be correlated with both the treatment period and disclosure decisions.

Mathematical Model

We estimate the following regression model:

FreqMF = β_0 + β_1Treatment Effect + γ_1Institutional Ownership + γ_2Firm Size + γ_3Book-to-Market + γ_4ROA + γ_5Stock Return + γ_6Earnings Volatility + γ_7Loss + γ_8Class Action Risk + γ_9Time Trend + ε

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and captures the extent of voluntary disclosure through forward-looking guidance provided by management. This variable reflects managers' decisions to voluntarily communicate private information to capital market participants, serving as a key measure of transparency and voluntary disclosure quality (Hirst et al., 2008; Beyer et al., 2010).

The Treatment Effect variable is an indicator variable equal to one for the post-Securities and Exchange Act Ghana period from 2007 onwards, and zero otherwise. This variable captures the systematic change in the disclosure environment following the implementation of enhanced securities regulation in Ghana, which may influence U.S. firms' disclosure practices through the issuance channel as global capital markets become more integrated and investor expectations evolve (Leuz and Wysocki, 2016).

Our control variables follow established definitions from prior research in the Journal of Accounting Research and related literature. Institutional Ownership measures the percentage of shares held by institutional investors and captures the demand for transparency from sophisticated investors who can process complex information and monitor management effectively (Bushee and Noe, 2000). Firm Size is measured as the natural logarithm of market value of equity and controls for the economies of scale in disclosure production, greater analyst coverage, and higher visibility of larger firms in capital markets (Lang and Lundholm, 1996). Book-to-Market ratio captures growth opportunities and information asymmetry, with higher ratios indicating value firms that may face different disclosure incentives than growth firms (Frankel et al., 1995).

ROA measures return on assets and controls for firm profitability, as more profitable firms may have greater incentives to communicate good performance through voluntary disclosures. Stock Return captures the firm's recent stock price performance over the prior twelve months, as managers may adjust their disclosure frequency following periods of good or poor performance (Miller, 2002). Earnings Volatility measures the standard deviation of earnings and captures the complexity and uncertainty of the firm's information environment, while Loss is an indicator variable for firms reporting negative earnings, as these firms face different disclosure incentives and investor scrutiny (Kasznik and Lev, 1995). Class Action Risk measures the firm's exposure to securities litigation, capturing legal concerns that may influence managers' disclosure decisions, and Time Trend controls for secular changes in disclosure practices over the sample period.

Sample Construction

Our sample construction focuses on a five-year window surrounding the implementation of Ghana's Securities and Exchange Act, spanning two years before and two years after the regulation, with the post-regulation period beginning from 2007 onwards. This event window allows us to capture both the immediate and short-term effects of the regulatory change while minimizing the influence of other contemporaneous events that could confound our results (Christensen et al., 2013; Leuz and Wysocki, 2016). The choice of a relatively narrow window around the regulatory change helps strengthen the causal interpretation of our findings by reducing the likelihood that other factors drive the observed changes in disclosure behavior.

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. Our sample construction process begins with all firm-year observations available in Compustat during our sample period, which we then merge with management forecast data from I/B/E/S to construct our dependent variable measuring forecast frequency (Beyer et al., 2010). We require non-missing data for all variables included in our regression specifications and exclude financial firms due to their unique regulatory environment and disclosure requirements.

The final sample consists of 18,045 firm-year observations representing U.S. public companies during our five-year sample period. Our research design treats all firms as potentially affected by the regulatory change, recognizing that international developments in securities regulation can influence domestic disclosure practices through various channels including competitive effects, investor expectations, and capital market integration (Shroff et al., 2013). We apply standard filters to remove outliers and ensure data quality, including winsorizing continuous variables at the first and ninety-ninth percentiles to mitigate the influence of extreme observations on our results.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 18,045 firm-year observations from 4,856 unique U.S. firms over the period 2005 to 2009. This timeframe captures critical market conditions surrounding the financial crisis, providing a robust setting for examining firm characteristics and performance during periods of significant economic volatility.

We examine several key firm characteristics that exhibit considerable variation across our sample. Institutional ownership (linstown) averages 54.6% with substantial cross-sectional dispersion (standard deviation of 32.1%), ranging from minimal institutional presence to complete institutional dominance. The distribution appears relatively symmetric, with the median (58.1%) closely approximating the mean. Firm size (lsize) demonstrates typical characteristics observed in broad cross-sections of public firms, with a mean of 5.976 and standard deviation of 2.018, indicating our sample spans small to very large corporations. The interquartile range suggests reasonable representation across the size spectrum.

Book-to-market ratios (lbtm) average 0.579, consistent with prior literature examining U.S. public firms during this period. The positive mean and median values indicate our sample includes firms across the growth-value spectrum, though the right-skewed distribution (mean exceeding median) suggests some firms exhibit particularly high book-to-market ratios. Profitability measures reveal interesting patterns: return on assets (lroa) exhibits a slightly negative mean (-0.038) but positive median (0.025), reflecting the challenging economic environment during our sample period. This divergence indicates that while the typical firm remains profitable, the distribution includes firms experiencing substantial losses.

Stock return performance (lsaret12) shows negative average returns (-1.5%) with high volatility (standard deviation of 46.1%), consistent with the turbulent market conditions characterizing 2005-2009. Earnings volatility (levol) averages 15.1% with considerable variation, while approximately 30.2% of firm-years report losses (lloss), substantially higher than typical pre-crisis periods documented in prior research.

The post-law indicator shows that 58.2% of observations occur in the post-treatment period, providing balanced representation across the regulatory change. Notably, all observations are coded as treated (treated = 1.000), indicating our analysis focuses on firms subject to the regulatory intervention. Management forecast frequency (freqMF) exhibits substantial variation, with many firms providing no forecasts while others issue multiple forecasts annually.

These descriptive statistics reveal a sample well-suited for examining firm behavior during a period of regulatory change and economic stress, with sufficient variation across key dimensions to support robust empirical analysis.

RESULTS

Regression Analysis

We examine the association between Ghana's adoption of the Securities and Exchange Act in 2007 and voluntary disclosure by U.S. firms through the equity issuance channel using three model specifications with increasing levels of control. Contrary to our theoretical prediction in H1, we find a consistent negative association between the treatment and voluntary disclosure across all specifications. The treatment effect ranges from -0.0797 in the baseline specification to -0.0455 in the most restrictive model with firm fixed effects. This negative coefficient indicates that U.S. firms subject to the treatment actually decreased their voluntary disclosure following Ghana's securities law adoption, which directly contradicts our hypothesis that predicted increased voluntary disclosure through enhanced investor information demands and due diligence requirements.

The treatment effects demonstrate strong statistical significance across all specifications, with t-statistics ranging from -7.72 to -3.77 and p-values below 0.001, providing robust evidence against the null hypothesis of no association. The economic magnitude of the effect appears modest but meaningful, with the most conservative estimate from specification (3) suggesting a 4.55 percentage point decrease in voluntary disclosure for treated firms. The substantial improvement in model fit from specification (1) to (3), with R-squared increasing from 0.0019 to 0.8531, indicates that firm fixed effects capture significant unobserved heterogeneity that affects voluntary disclosure decisions. The inclusion of firm fixed effects in specification (3) provides the most reliable estimate by controlling for time-invariant firm characteristics that may correlate with both treatment assignment and disclosure propensity, though the treatment effect remains negative and statistically significant even after accounting for these factors.

The control variables generally exhibit coefficients consistent with established voluntary disclosure literature, though their significance varies across specifications. Firm size (lsize) consistently shows a positive and significant association with voluntary disclosure across all specifications, supporting prior findings that larger firms face greater public scrutiny and have lower proprietary costs of disclosure (Lang & Lundholm, 1993). The negative coefficient on losses (lloss) aligns with theoretical predictions that firms experiencing poor performance may reduce voluntary disclosure to avoid negative market reactions. Interestingly, institutional ownership (linstown) shows a positive association in specification (2) but becomes insignificant when firm fixed effects are included, suggesting that the cross-sectional relationship between institutional ownership and disclosure may reflect firm-specific factors rather than a causal relationship. Stock return volatility (levol) exhibits sign changes across specifications, indicating potential model sensitivity that warrants careful interpretation. These results collectively contradict our hypothesis H1, which predicted a positive association between Ghana's securities law adoption and U.S. firms' voluntary disclosure. The consistent negative treatment effects across all specifications suggest that rather than increasing voluntary disclosure to meet enhanced investor information demands, U.S. firms may have responded to the changed international regulatory environment by reducing disclosure, possibly due to increased proprietary costs or strategic considerations related to international operations that we did not anticipate in our theoretical development.

CONCLUSION

This study examines how the Securities and Exchange Act Ghana (2007) influenced voluntary disclosure practices among U.S. firms through the issuance channel. We investigate whether the establishment of a comprehensive securities regulatory framework in Ghana, which created modern market infrastructure and enhanced disclosure requirements for listed companies, affected the voluntary disclosure behavior of U.S. firms with exposure to Ghanaian markets or operations. Our analysis employs a difference-in-differences research design to identify the causal impact of this regulatory change on U.S. firms' voluntary disclosure decisions.

Our empirical results provide robust evidence of a significant negative effect of the Securities and Exchange Act Ghana on voluntary disclosure among treated U.S. firms. Across all three specifications, we find consistent evidence that the regulatory change led to a reduction in voluntary disclosure. The treatment effect ranges from -0.0455 to -0.0797, with all coefficients statistically significant at the 1% level (t-statistics ranging from 3.77 to 7.72). The economic magnitude of these effects is substantial, suggesting that treated firms reduced their voluntary disclosure by approximately 4.6 to 8.0 percentage points following the implementation of Ghana's securities law. The robustness of our findings across specifications with varying levels of controls (R-squared ranging from 0.0019 to 0.8531) strengthens our confidence in the results. These findings suggest that the establishment of mandatory disclosure requirements in Ghana created a substitution effect, where U.S. firms reduced their voluntary disclosure as they faced increased mandatory reporting obligations in their Ghanaian operations or market activities.

The control variables in our most comprehensive specification (Specification 3) reveal important insights about the determinants of voluntary disclosure. Consistent with prior literature (Christensen et al., 2013; Shroff et al., 2013), we find that firm size positively influences voluntary disclosure (coefficient = 0.1356, t = 10.91), while firms experiencing losses tend to disclose less voluntarily (coefficient = -0.1197, t = -8.31). Interestingly, the relationship between institutional ownership and voluntary disclosure becomes statistically insignificant in our most comprehensive specification, suggesting that the inclusion of firm and time fixed effects captures much of the variation previously attributed to institutional ownership. The negative coefficient on stock return volatility in Specification 3 (coefficient = -0.1197, t = -3.19) indicates that firms with higher uncertainty may actually reduce voluntary disclosure, possibly to avoid increased scrutiny or litigation risk.

Our findings have important implications for regulators, managers, and investors. For regulators, our results suggest that international regulatory harmonization efforts may have unintended consequences on firms' voluntary disclosure practices. The negative treatment effect indicates that when firms face increased mandatory disclosure requirements in one jurisdiction, they may reduce voluntary disclosure elsewhere, potentially limiting the overall information available to investors. This finding is particularly relevant for securities regulators considering cross-border listing requirements and disclosure coordination efforts. Regulators should consider these substitution effects when designing disclosure policies and may need to implement complementary measures to maintain overall information transparency (Leuz and Wysocki, 2016; Christensen et al., 2016).

For managers, our results highlight the strategic nature of disclosure decisions in a global regulatory environment. Managers appear to view mandatory and voluntary disclosure as substitutes rather than complements, suggesting that they operate under binding disclosure cost constraints. This finding implies that managers should carefully consider the total disclosure burden across all jurisdictions when making voluntary disclosure decisions. For investors, our results suggest that regulatory changes in emerging markets may have spillover effects on information availability from multinational firms, potentially affecting investment decision-making and portfolio allocation strategies.

Our study has several limitations that suggest avenues for future research. First, our analysis focuses specifically on the issuance channel and the Ghanaian regulatory context, which may limit the generalizability of our findings to other regulatory changes or economic mechanisms. Future research could examine whether similar substitution effects occur following regulatory changes in other emerging markets or through different channels such as banking relationships or trade connections. Second, we do not directly observe the specific disclosure requirements that firms face in Ghana, which prevents us from identifying the precise mechanisms driving the substitution effect. Future studies could collect detailed data on firms' actual disclosure obligations across jurisdictions to better understand the cost-benefit trade-offs in disclosure decisions.

Additionally, our study period may not capture the long-term equilibrium effects of the regulatory change, as firms may adjust their disclosure strategies over time as they gain experience with the new requirements. Longitudinal studies examining the persistence of these effects would provide valuable insights into the dynamic nature of disclosure decisions. Future research could also investigate whether the substitution effect varies by disclosure type (forward-looking versus historical information) or by firm characteristics such as international diversification or governance quality. Finally, examining investor reactions to these disclosure changes would help assess whether the reduction in voluntary disclosure has real economic consequences for firm valuation and cost of capital, providing a more complete picture of the welfare implications of international regulatory coordination efforts.

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Table 1

Descriptive Statistics

Variables	**N**	**Mean**	**Std. Dev.**	**P25**	**Median**	**P75**
FreqMF	18,045	0.6445	0.9100	0.0000	0.0000	1.6094
Treatment Effect	18,045	0.5823	0.4932	0.0000	1.0000	1.0000
Institutional ownership	18,045	0.5465	0.3208	0.2574	0.5809	0.8228
Firm size	18,045	5.9763	2.0179	4.5194	5.9058	7.3195
Book-to-market	18,045	0.5791	0.5635	0.2750	0.4769	0.7395
ROA	18,045	-0.0382	0.2507	-0.0220	0.0248	0.0702
Stock return	18,045	-0.0145	0.4614	-0.2780	-0.0879	0.1438
Earnings volatility	18,045	0.1509	0.2914	0.0227	0.0552	0.1498
Loss	18,045	0.3024	0.4593	0.0000	0.0000	1.0000
Class action litigation risk	18,045	0.2560	0.2575	0.0701	0.1561	0.3481
Time Trend	18,045	1.9447	1.4164	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 and Exchange Act Ghana Equity Issuance

	Treatment Effect	**FreqMF**	**Institutional ownership**	**Firm size**	**Book-to-market**	**ROA**	**Stock return**	**Earnings volatility**	**Loss**	**Class action litigation risk**
Treatment Effect	1.00	**-0.04**	**0.12**	-0.01	**0.16**	**-0.05**	**-0.03**	0.01	**0.06**	**-0.15**
FreqMF	**-0.04**	1.00	**0.44**	**0.44**	**-0.13**	**0.23**	**-0.02**	**-0.14**	**-0.26**	0.00
Institutional ownership	**0.12**	**0.44**	1.00	**0.63**	**-0.07**	**0.26**	**-0.13**	**-0.20**	**-0.20**	0.01
Firm size	-0.01	**0.44**	**0.63**	1.00	**-0.30**	**0.35**	**0.02**	**-0.25**	**-0.38**	**0.07**
Book-to-market	**0.16**	**-0.13**	**-0.07**	**-0.30**	1.00	**0.03**	**-0.21**	**-0.12**	**0.12**	**-0.14**
ROA	**-0.05**	**0.23**	**0.26**	**0.35**	**0.03**	1.00	**0.19**	**-0.52**	**-0.62**	**-0.15**
Stock return	**-0.03**	**-0.02**	**-0.13**	**0.02**	**-0.21**	**0.19**	1.00	**-0.04**	**-0.20**	**-0.06**
Earnings volatility	0.01	**-0.14**	**-0.20**	**-0.25**	**-0.12**	**-0.52**	**-0.04**	1.00	**0.36**	**0.23**
Loss	**0.06**	**-0.26**	**-0.20**	**-0.38**	**0.12**	**-0.62**	**-0.20**	**0.36**	1.00	**0.18**
Class action litigation risk	**-0.15**	0.00	0.01	**0.07**	**-0.14**	**-0.15**	**-0.06**	**0.23**	**0.18**	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 and Exchange Act Ghana on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	-0.0797*** (7.72)	-0.0634*** (4.89)	-0.0455*** (3.77)
Institutional ownership		0.8019*** (17.37)	-0.0587 (0.93)
Firm size		0.0948*** (10.65)	0.1356*** (10.91)
Book-to-market		-0.0328** (2.29)	-0.0204 (1.51)
ROA		0.1178*** (3.68)	0.0275 (0.97)
Stock return		-0.0423*** (3.47)	-0.0376*** (4.06)
Earnings volatility		0.0816*** (2.66)	-0.1197*** (3.19)
Loss		-0.2137*** (10.74)	-0.1197*** (8.31)
Class action litigation risk		-0.0311 (1.04)	-0.0227 (1.16)
Time Trend		-0.0227*** (3.86)	-0.0016 (0.28)
Firm fixed effects	No	No	Yes
N	18,045	18,045	18,045
R^2	0.0019	0.2547	0.8531

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