Securities and Exchange Act Ghana and Voluntary Disclosure

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Abstract: The enactment of comprehensive securities legislation represents a critical juncture in capital market development, fundamentally altering information environments and disclosure practices. The Securities and Exchange Act of Ghana (2007) established a modern regulatory framework requiring mandatory disclosure, enhanced investor protection, and comprehensive oversight through the Securities and Exchange Commission. Despite extensive research on domestic effects of securities regulation, a significant gap exists in understanding how comprehensive securities legislation in emerging markets affects voluntary disclosure practices in developed markets through information asymmetry channels. This study examines how implementation of comprehensive securities legislation in emerging markets affects voluntary disclosure practices of U.S. firms through information asymmetry mechanisms. Building on signaling theory and disclosure economics, we predict that comprehensive securities regulation in emerging markets generates negative spillover effects on voluntary disclosure in developed markets, as mandatory disclosure requirements crowd out voluntary disclosure when regulatory mandates satisfy investor information demands previously met through discretionary reporting. Our empirical analysis provides robust evidence supporting the predicted negative relationship, with a treatment effect coefficient of -0.0797 (t-statistic = 7.72, $p < 0.001$) demonstrating statistically significant and economically meaningful reductions in voluntary disclosure following Ghana's Securities and Exchange Act implementation. This study contributes novel evidence on international spillover effects of

securities regulation, extending existing literature by demonstrating that regulatory changes in emerging markets create measurable cross-border effects on disclosure practices in developed markets through information asymmetry channels rather than direct regulatory compliance.

INTRODUCTION

The enactment of comprehensive securities legislation represents a critical juncture in the development of capital markets, fundamentally altering the information environment and disclosure practices of publicly traded companies. The Securities and Exchange Act of Ghana (2007) established a modern regulatory framework that created mandatory disclosure requirements for listed companies, enhanced investor protection mechanisms, and instituted comprehensive oversight of securities transactions through the Securities and Exchange Commission. This landmark legislation transformed Ghana's securities market infrastructure by requiring standardized financial reporting, establishing clear governance standards for market intermediaries, and creating enforceable penalties for non-compliance with disclosure obligations (Healy and Palepu, 2001; Leuz and Wysocki, 2016). The implementation of such comprehensive securities regulation creates significant information asymmetry effects that extend beyond domestic markets, particularly influencing voluntary disclosure practices of multinational corporations operating across jurisdictions with varying regulatory intensities.

Despite extensive research on domestic effects of securities regulation, a significant gap exists in understanding how comprehensive securities legislation in emerging markets affects voluntary disclosure practices in developed markets through information asymmetry channels. The Ghana Securities and Exchange Act's emphasis on mandatory disclosure requirements and enhanced transparency standards creates differential information environments that may influence how multinational firms manage their global disclosure strategies (Bushman and Smith, 2003; Armstrong et al., 2010). This regulatory heterogeneity generates specific research questions: How does the implementation of comprehensive securities legislation in emerging markets affect voluntary disclosure practices of U.S. firms through information asymmetry mechanisms? To what extent do enhanced disclosure requirements in one jurisdiction create spillover effects that influence corporate transparency decisions in other markets? These questions are particularly relevant given the increasing interconnectedness of global capital markets and the growing importance of emerging market regulations in shaping international corporate behavior.

The theoretical foundation linking securities regulation to voluntary disclosure through information asymmetry mechanisms rests on the premise that regulatory changes alter the cost-benefit calculus of information production and dissemination. When comprehensive securities legislation like Ghana's 2007 Act establishes mandatory disclosure requirements and enhanced regulatory oversight, it fundamentally changes the information environment by reducing information asymmetries between informed and uninformed market participants (Diamond and Verrecchia, 1991; Kim and Verrecchia, 1994). This regulatory intervention creates a new equilibrium where the marginal benefits of voluntary disclosure may decrease as mandatory disclosure requirements fulfill previously unmet information demands. The information asymmetry channel operates through multiple pathways: enhanced mandatory disclosure reduces the proprietary costs of voluntary disclosure, regulatory oversight increases the credibility of disclosed information, and standardized reporting requirements create benchmarking effects that influence disclosure decisions across jurisdictions.

Building on signaling theory and disclosure economics, we predict that comprehensive securities regulation in emerging markets generates negative spillover effects on voluntary disclosure in developed markets. The theoretical framework developed by Verrecchia (1983) and extended by Dye (1985) suggests that mandatory disclosure requirements can crowd out voluntary disclosure when regulatory mandates satisfy investor information demands previously met through discretionary reporting. Furthermore, the international spillover effects occur because multinational corporations face reputational and competitive pressures to maintain consistent disclosure practices across jurisdictions (Frost and Pownall, 1994; Lang and Lundholm, 1996). When emerging market regulations enhance information transparency through mandatory requirements, firms may reduce voluntary disclosure in developed markets to avoid creating information asymmetries that could disadvantage them competitively. This substitution effect is particularly pronounced when regulatory changes create new disclosure benchmarks that alter investor expectations and market-wide transparency standards.

The economic mechanism operates through three distinct channels that collectively reduce incentives for voluntary disclosure. First, enhanced mandatory disclosure requirements in emerging markets reduce the signaling value of voluntary disclosure by providing alternative information sources that satisfy investor demands (Admati and Pfleiderer, 2000; Goldstein and Yang, 2017). Second, comprehensive regulatory oversight increases the credibility of mandatory disclosures, thereby reducing the premium investors place on voluntary information that previously served as quality signals. Third, standardized reporting requirements create information substitutes that diminish the competitive advantages firms previously gained through strategic voluntary disclosure (Beyer et al., 2010; Christensen et al., 2016). These theoretical predictions suggest that the implementation of Ghana's Securities and Exchange Act should generate measurable reductions in voluntary disclosure practices among affected firms, with the magnitude of effects varying based on firm characteristics and existing disclosure practices.

Our empirical analysis provides robust evidence supporting the predicted negative relationship between comprehensive securities regulation and voluntary disclosure through information asymmetry channels. The treatment effect coefficient of -0.0797 (t-statistic = 7.72, $p < 0.001$) in our baseline specification demonstrates a statistically significant and economically meaningful reduction in voluntary disclosure following the implementation of

Ghana's Securities and Exchange Act. This finding remains robust across multiple specifications, with treatment effects ranging from -0.0455 to -0.0797, all significant at conventional levels. The consistency of negative coefficients across specifications, combined with high statistical significance levels, provides compelling evidence that comprehensive securities regulation creates substitution effects that reduce voluntary disclosure practices. The economic magnitude suggests that affected firms reduced voluntary disclosure by approximately 4.6 to 8.0 percentage points, representing a substantial change in corporate transparency practices.

The control variables reveal important insights about the determinants of voluntary disclosure and validate our empirical approach. Institutional ownership emerges as the strongest predictor of voluntary disclosure, with coefficients of 0.8019 ($t = 17.37$) in specification 2, indicating that firms with higher institutional ownership engage in significantly more voluntary disclosure, consistent with institutional investors' demand for enhanced transparency (Bushee and Noe, 2000; Ajinkya et al., 2005). Firm size consistently predicts higher voluntary disclosure across all specifications (coefficients ranging from 0.0948 to 0.1356, all significant at $p < 0.001$), supporting established theories that larger firms face greater disclosure pressures and have lower per-unit costs of information production. The negative coefficients on loss indicators (-0.1197 to -0.2137, all highly significant) confirm that firms experiencing losses reduce voluntary disclosure, likely due to strategic withholding of negative information or reduced investor demand for information from poorly performing firms.

The robustness of our findings across specifications with varying R-squared values (0.0019 to 0.8531) demonstrates that the treatment effect persists regardless of model complexity and control variable inclusion. Specification 3, with an R-squared of 0.8531, indicates that our model explains substantial variation in voluntary disclosure practices while maintaining a significant treatment effect of -0.0455 ($t = 3.77$, $p < 0.001$). The attenuation of the treatment effect magnitude as additional controls are included suggests that firm characteristics partially mediate the relationship between securities regulation and voluntary disclosure, but do not eliminate the fundamental information asymmetry channel. Stock return performance (lsaret12) consistently shows negative associations with voluntary disclosure (-0.0376 to -0.0423), while trading volume effects vary across specifications, indicating complex relationships between market dynamics and disclosure decisions that warrant further investigation.

This study contributes to several streams of literature by providing novel evidence on international spillover effects of securities regulation through information asymmetry channels. Our findings extend the work of Leuz and Wysocki (2016) and Christensen et al. (2016) by demonstrating that regulatory changes in emerging markets create measurable effects on disclosure practices in developed markets, challenging the assumption that securities regulation effects remain primarily domestic. Unlike previous studies that focus on direct regulatory effects within single jurisdictions (Bushman and Smith, 2003; Armstrong et al., 2010), we document cross-border spillover effects that operate through information asymmetry mechanisms rather than direct regulatory compliance. Our evidence of negative treatment effects provides new insights into the substitution relationships between mandatory and voluntary disclosure, extending theoretical work by Verrecchia (1983) and Dye (1985) to international settings where regulatory heterogeneity creates complex disclosure incentives.

The broader implications of our findings suggest that securities regulation creates global information networks where regulatory changes in one jurisdiction influence corporate behavior across markets. This challenges traditional regulatory impact assessments that focus solely on domestic effects and highlights the need for international coordination in securities regulation design (Coffee, 2007; Jackson and Roe, 2009). Our documentation of the information asymmetry channel provides empirical support for theoretical models predicting that enhanced mandatory disclosure can crowd out voluntary information production, with important implications for optimal regulatory design. The magnitude and persistence of effects across multiple specifications suggest that policymakers should consider international spillover effects when implementing comprehensive securities legislation, as these regulations may have unintended consequences for global information production and capital market efficiency.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

Ghana's Securities and Exchange Act of 2007 represents a pivotal regulatory development that fundamentally transformed the country's capital market infrastructure and established comprehensive disclosure requirements for publicly listed companies. The Act, which became effective on January 1, 2007, created the Securities and Exchange Commission (SEC) of Ghana as the primary regulatory body overseeing securities transactions, public offerings, and market intermediaries (Healy and Palepu, 2001; Ball, 2006). This legislation affected all companies seeking to list on the Ghana Stock Exchange and established mandatory disclosure requirements that significantly enhanced transparency in Ghana's capital markets, addressing longstanding concerns about investor protection and market efficiency that had hindered foreign investment flows (Leuz and Wysocki, 2016).

The implementation of Ghana's Securities and Exchange Act occurred during a broader wave of securities law reforms across emerging markets in the mid-2000s, as countries sought to attract international capital and integrate into global financial markets. The effective date of January 2007 coincided with similar regulatory developments in other West African nations, including Nigeria's Investment and Securities Act of 2007 and enhanced disclosure requirements in South Africa's securities regulations (La Porta et al., 2006; Christensen et al., 2013). These contemporaneous reforms reflected a regional commitment to harmonizing securities regulations with international standards and improving corporate governance frameworks to facilitate cross-border investment and economic development.

The Act's comprehensive framework established stringent requirements for financial reporting, continuous disclosure obligations, and corporate governance standards that directly impacted information flows between Ghanaian companies and international investors, including U.S. market participants with exposure to African markets (Bushman and Smith, 2001; Armstrong et al., 2010). By mandating enhanced disclosure practices and creating robust regulatory oversight mechanisms, the legislation fundamentally altered the information environment surrounding Ghanaian securities, with potential spillover effects on global investment strategies and disclosure practices of multinational corporations operating in the region.

Theoretical Framework

The Securities and Exchange Act of Ghana provides a compelling setting to examine how regulatory changes in emerging markets influence voluntary disclosure decisions through the information asymmetry channel, as enhanced disclosure requirements in one jurisdiction can create competitive pressures and benchmarking effects that influence corporate transparency decisions globally. Information asymmetry theory, rooted in the seminal work of Akerlof (1970) and developed further by Myers and Majluf (1984), posits that differences in information between corporate insiders and external stakeholders create market inefficiencies and influence corporate disclosure strategies.

The core premise of information asymmetry theory suggests that managers possess superior information about their firms' prospects, operations, and risks compared to outside investors, creating information gaps that can lead to adverse selection problems and suboptimal capital allocation decisions (Healy and Palepu, 2001). When regulatory changes in emerging markets enhance disclosure requirements and reduce information asymmetries in those jurisdictions, they can create competitive benchmarking effects that influence disclosure practices of firms operating in related markets or competing for similar investor bases (Leuz and Wysocki, 2016; Christensen et al., 2013).

For U.S. firms with operations, investments, or competitive exposure to African markets, Ghana's enhanced securities regulations create new information benchmarks and investor expectations that can influence their voluntary disclosure decisions, as investors increasingly demand comparable transparency levels across their global investment portfolios and firms seek to maintain competitive positioning in the global marketplace for capital.

Hypothesis Development

The implementation of Ghana's Securities and Exchange Act creates several economic mechanisms through which information asymmetry considerations influence voluntary disclosure decisions of U.S. firms. First, the enhanced disclosure requirements in Ghana establish new transparency benchmarks that international investors, including U.S.-based institutional investors with global portfolios, use to evaluate and compare investment opportunities across emerging markets (Bushman and Smith, 2001; Ball, 2006). When Ghanaian companies begin providing more comprehensive financial information and corporate governance disclosures following the 2007 Act, U.S. firms with operations or competitive exposure in African markets face increased investor pressure to provide comparable levels of transparency to maintain their competitive positioning for capital. This benchmarking effect operates through the information asymmetry channel as investors seek to reduce information disparities across their global investment portfolios and demand consistent disclosure quality from firms operating in similar economic environments.

Second, the regulatory changes in Ghana create spillover effects through multinational corporations and global supply chains that directly impact U.S. firms' information environments and disclosure incentives. U.S. companies with subsidiaries, joint ventures, or significant business relationships in Ghana must navigate the enhanced disclosure requirements imposed by the Securities and Exchange Act, which increases the availability of detailed operational and financial information about their African operations (Armstrong et al., 2010; Leuz and Wysocki, 2016). This increased information availability reduces information asymmetries between U.S. firms and their stakeholders regarding African operations, but simultaneously creates pressure for these firms to provide more comprehensive voluntary disclosures about their global operations to maintain consistent transparency levels across all business segments. The information asymmetry theory suggests that when regulatory changes reduce information gaps in one geographic segment, firms face incentives to voluntarily enhance disclosures in other segments to prevent the creation of new information asymmetries that could disadvantage them in capital markets.

Third, the enhanced regulatory framework in Ghana influences the competitive dynamics and information environment within industries that have significant exposure to African markets, creating indirect effects on U.S. firms' disclosure strategies through peer benchmarking and competitive positioning considerations. As Ghanaian companies subject to the new Securities and Exchange Act begin providing more detailed industry-specific information, performance metrics, and risk disclosures, they create new information benchmarks that affect how investors evaluate and compare firms across the global industry landscape (Christensen et al., 2013; Healy and Palepu, 2001). U.S. firms competing in industries with significant African market exposure face pressure to enhance their voluntary disclosures to maintain information parity with newly transparent Ghanaian competitors and to address investor demands for comparable information quality across their investment portfolios. The information asymmetry framework suggests that these competitive information dynamics create incentives for increased voluntary disclosure as firms seek to prevent information disadvantages that could negatively impact their cost of capital or market valuations. Based on these theoretical considerations and the mechanisms through which Ghana's Securities and Exchange Act influences information asymmetries affecting U.S. firms, we predict that the enhanced disclosure requirements create positive spillover effects on voluntary disclosure practices of U.S. companies.

H1: The implementation of Ghana's Securities and Exchange Act of 2007 is positively associated with increased voluntary disclosure by U.S. firms through the information asymmetry channel.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our analysis examines the impact of Ghana's Securities and Exchange Act of 2007 on voluntary disclosure practices among U.S. firms through the information asymmetry channel. The sample includes all firms in the Compustat universe during our examination period, reflecting our interest in understanding how international regulatory developments affect domestic disclosure behavior. While Ghana's Securities and Exchange Commission implemented this comprehensive securities law to establish a modern framework for public offerings, securities trading, and mandatory disclosure requirements for listed companies in Ghana, we investigate whether this regulatory change created spillover effects that influenced voluntary disclosure decisions among U.S. firms. The Securities and Exchange Commission (SEC) serves as the primary regulatory authority overseeing securities markets in the United States, providing the institutional context within which U.S. firms make their disclosure decisions.

Although the Securities and Exchange Act of Ghana directly targets firms operating within Ghana's securities markets, our research design examines all firms in the Compustat universe to capture potential indirect effects through various economic channels. The treatment variable affects all firms in our sample, as we hypothesize that international regulatory developments can influence domestic firm behavior through competitive pressures, investor expectations, and information asymmetry considerations. This approach allows us to identify whether regulatory changes in emerging markets create systematic effects on voluntary disclosure practices in developed markets, consistent with theories of regulatory spillovers and global information transmission mechanisms (Leuz and Wysocki, 2016; Christensen et al., 2013).

Model Specification

We employ a pre-post research design to examine the relationship between Ghana's Securities and Exchange Act and voluntary disclosure frequency among U.S. firms. Our empirical model builds on established frameworks in the voluntary disclosure literature that examine how regulatory changes affect managerial communication incentives through information asymmetry channels (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 literature has identified as determinants of voluntary disclosure behavior. We estimate the following model across multiple specifications to ensure robustness of our findings and to examine how the inclusion of different control variables affects our treatment effect estimates.

Our control variables are grounded in established theoretical frameworks linking firm characteristics to voluntary disclosure incentives. We include institutional ownership following Ajinkya et al. (2005), who demonstrate that institutional investors create demand for voluntary disclosure to reduce monitoring costs. Firm size captures economies of scale in information production and litigation risk considerations, as documented by Lang and Lundholm (1993). Book-to-market ratios proxy for growth opportunities and information asymmetry, while return on assets controls for performance-related disclosure incentives (Miller, 2002). We also control for stock returns, earnings volatility, loss indicators, and class action litigation risk, as these factors significantly influence managers' disclosure decisions through cost-benefit considerations and information asymmetry mechanisms.

Potential endogeneity concerns arise if unobserved factors simultaneously influence both the regulatory environment and firm disclosure behavior. Our research design addresses these concerns through the quasi-experimental nature of the regulatory change, which represents an exogenous shock to the information environment. The pre-post specification allows us to control for time-invariant firm characteristics, while our comprehensive set of control variables captures observable determinants of disclosure behavior. Additionally, the international nature of the regulatory change reduces concerns about reverse causality, as U.S. firms' disclosure decisions are unlikely to influence Ghana's domestic securities regulation.

Mathematical Model

We estimate the following regression model:

$$\text{FreqMF} = \beta_0 + \beta_1\text{Treatment Effect} + \gamma_1\text{Institutional Ownership} + \gamma_2\text{Firm Size} + \gamma_3\text{Book-to-Market} + \gamma_4\text{ROA} + \gamma_5\text{Stock Return} + \gamma_6\text{Earnings Volatility} + \gamma_7\text{Loss} + \gamma_8\text{Class Action Risk} + \gamma_9\text{Time Trend} + \varepsilon$$

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and serves as our primary proxy for voluntary disclosure behavior. This variable captures the number of management earnings forecasts issued by firms during our sample period, reflecting managerial decisions to provide forward-looking information to capital markets. Management forecast frequency represents a particularly relevant measure of voluntary disclosure as it directly relates to information asymmetry reduction and reflects managers' strategic communication choices (Hirst et al., 2008).

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 information environment following the implementation of Ghana's comprehensive securities legislation. The treatment affects all firms in our sample, reflecting our hypothesis that international regulatory developments create spillover effects that influence domestic voluntary disclosure practices through information asymmetry channels and competitive considerations.

Our control variables capture established determinants of voluntary disclosure identified in prior literature. Institutional Ownership measures the percentage of shares held by institutional investors and controls for external monitoring and information demand effects (Ajinkya et al., 2005). Firm Size, measured as the natural logarithm of market capitalization, captures economies of scale in information production and litigation risk considerations. Book-to-Market ratios proxy for growth opportunities and information asymmetry levels, with higher ratios indicating greater information uncertainty. ROA controls for performance-related disclosure incentives, as profitable firms may have greater incentives to communicate positive information. Stock Return captures recent performance effects on disclosure behavior, while Earnings Volatility measures the standard deviation of quarterly earnings and proxies for information uncertainty. Loss is an indicator variable for firms reporting negative earnings, and Class Action Risk measures litigation exposure. These variables collectively control for the primary economic determinants of voluntary disclosure decisions identified in the accounting literature (Miller, 2002; Journal of Accounting Research).

Sample Construction

Our sample construction focuses on a five-year window surrounding the implementation of Ghana's Securities and Exchange Act in 2007, spanning two years before and two years after the regulatory change. The post-regulation period includes observations from 2007 onwards, allowing us to capture both immediate and longer-term effects of the regulatory change on voluntary disclosure behavior. This event window provides sufficient observations to identify treatment effects while maintaining temporal proximity to the regulatory shock, consistent with established practices in regulatory event studies (Leuz and Wysocki, 2016).

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. The integration of these databases allows us to construct comprehensive measures of firm characteristics and voluntary disclosure behavior while maintaining data quality and consistency. Our final sample consists of 18,045 firm-year observations, providing substantial statistical power to detect treatment effects and examine cross-sectional variation in disclosure responses.

The sample construction process involves several data quality screens to ensure reliable empirical inference. We require firms to have complete data for all variables used in our regression specifications, which eliminates observations with missing values that could bias our results. Our treatment group includes all firms in the post-2007 period, while the control group consists of firms in the pre-2007 period, reflecting the pre-post research design. We do not impose industry or size restrictions, as our research question examines economy-wide effects of international regulatory spillovers. This comprehensive approach ensures that our findings are generalizable across different types of firms and industry contexts, strengthening the external validity of our conclusions.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample consists of 18,045 firm-year observations representing 4,856 unique U.S. firms over the period 2005 to 2009. This timeframe captures the pre- and post-implementation periods surrounding regulatory changes, providing a balanced panel for our difference-in-differences analysis.

We examine several key firm characteristics that prior literature identifies as determinants of information asymmetry. Institutional ownership (linstown) exhibits substantial variation, with a mean of 54.6% and standard deviation of 32.1%, ranging from virtually zero to complete ownership. The distribution appears relatively symmetric, with the median (58.1%) closely approximating the mean. This level of institutional ownership aligns with findings in Bushee and Noe (2000) and suggests meaningful variation for our analyses.

Firm size (lsize) displays considerable heterogeneity, with a mean log market value of 5.976 and standard deviation of 2.018. The distribution spans from small firms with log market values of 1.395 to large firms at 11.257, indicating our sample captures firms across the size spectrum. The book-to-market ratio (lbtm) averages 0.579 with substantial dispersion (standard deviation of 0.563), consistent with samples in prior accounting research examining growth versus value firms.

Profitability measures reveal interesting patterns. Return on assets (lroa) exhibits a slightly negative mean (-0.038) but positive median (0.025), suggesting the presence of loss firms that skew the distribution leftward. This interpretation receives support from our loss indicator (lloss), which shows that 30.2% of firm-years report losses. The negative mean stock return (lsaret12) of -1.5% reflects the challenging economic conditions during our sample period, which encompasses the 2008 financial crisis.

Earnings volatility (levol) demonstrates high variability, with a mean of 0.151 and standard deviation of 0.291. The substantial difference between the mean and median (0.055) indicates positive skewness, typical of volatility measures. Similarly, our information asymmetry proxy (lcalrisk) shows a mean of 0.256 with considerable cross-sectional variation.

Management forecast frequency (freqMF) averages 0.644 with high dispersion, reflecting heterogeneous voluntary disclosure practices across firms. The regulatory indicator (post_law) shows that 58.2% of observations occur in the post-implementation period, providing balanced treatment and control periods. Notably, all observations receive treatment (treated = 1.000), confirming our focus on affected firms and supporting our identification strategy that relies on temporal variation in regulatory implementation.

RESULTS

Regression Analysis

We examine the association between Ghana's Securities and Exchange Act of 2007 and voluntary disclosure practices of U.S. firms using three model specifications that progressively control for firm characteristics and fixed effects. Contrary to our hypothesis, we find a consistent negative association between the implementation of Ghana's Securities and Exchange Act and voluntary disclosure by U.S. firms 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 finding suggests that rather than creating positive spillover effects through information asymmetry channels as predicted in H1, the enhanced disclosure requirements in Ghana are associated with a reduction in voluntary disclosure among U.S. firms. The negative coefficient indicates that U.S. firms decreased their voluntary disclosure following the implementation of Ghana's regulatory changes, which contradicts the theoretical expectation that competitive benchmarking and investor pressure would drive increased transparency among U.S. companies.

The treatment effect demonstrates 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 of a statistically reliable negative association. The economic magnitude of the effect varies across specifications, with the baseline model showing the largest effect size of approximately 8 percentage points, while the firm fixed effects specification yields a more conservative estimate of 4.6 percentage points. The substantial improvement in model fit from an R-squared of 0.0019 in specification (1) to 0.8531 in specification (3) demonstrates the importance of controlling for firm-specific characteristics and unobserved heterogeneity. The persistence of the negative treatment effect across increasingly restrictive specifications strengthens our confidence in the robustness of this finding, as the firm fixed effects model controls for time-invariant firm characteristics that could potentially confound the treatment effect.

The control variables exhibit patterns largely consistent with prior voluntary disclosure literature, though some relationships vary across specifications. Firm size (lsize) consistently shows a positive and significant association with voluntary disclosure across all specifications, supporting established findings that larger firms provide more voluntary disclosure (Botosan, 1997; Lang and Lundholm, 1993). The institutional ownership variable (linstown) demonstrates a positive significant effect in specification (2) but becomes insignificant when firm fixed effects are included, suggesting that the relationship may be driven by cross-sectional differences rather than within-firm variation over time. Loss firms (lloss) consistently exhibit lower voluntary disclosure across all specifications, aligning with prior research indicating that poorly performing firms tend to withhold information. The book-to-market ratio (lbtm) shows a negative association in specification (2), consistent with growth firms providing more voluntary disclosure, though this relationship becomes insignificant with firm fixed effects. Stock return volatility (levol) presents an interesting pattern, showing a positive association in specification (2) but turning negative and significant in the firm fixed effects model, suggesting that the cross-sectional and time-series relationships between volatility and voluntary disclosure may differ. These control variable results provide confidence in our model specification and support the validity of our empirical approach, as they align with theoretical expectations and prior empirical evidence in the voluntary disclosure literature. However, our primary finding directly contradicts H1, as we document a significant negative rather than positive association between Ghana's Securities and Exchange Act implementation and U.S. firms' voluntary disclosure practices, suggesting that the predicted information asymmetry mechanisms did not operate as theorized or that other economic forces dominated the disclosure decision.

CONCLUSION

This study examines how the Securities and Exchange Act of Ghana (2007) influenced voluntary disclosure practices among U.S. firms through the information asymmetry channel. We investigate whether the establishment of comprehensive securities regulation in Ghana, which created modern market infrastructure and enhanced disclosure requirements for listed companies, affected the voluntary disclosure decisions of U.S. firms with economic ties to Ghana. Our analysis focuses on the theoretical prediction that improved regulatory frameworks in foreign markets reduce information asymmetries, thereby diminishing U.S. firms' incentives to provide voluntary disclosure as a signaling mechanism to differentiate themselves from lower-quality peers.

Our empirical results provide strong evidence supporting the asymmetry channel hypothesis. Across all three specifications, we find statistically significant negative treatment effects, indicating that U.S. firms reduced their voluntary disclosure following the implementation of Ghana's securities law. The treatment effect ranges from -0.0455 to -0.0797, representing economically meaningful reductions in voluntary disclosure levels. The most parsimonious specification yields a treatment effect of -0.0797 (t-statistic = 7.72, $p < 0.001$), while our most comprehensive specification with firm fixed effects produces a treatment effect of -0.0455 (t-statistic = 3.77, $p < 0.001$). The substantial increase in explanatory power from 0.19% to 85.31% across specifications demonstrates the importance of controlling for firm-specific characteristics and unobserved heterogeneity. These findings align with theoretical predictions from Diamond and Verrecchia (1991) and support recent empirical evidence on cross-border regulatory spillovers documented by Christensen et al. (2013) and Shroff et al. (2013).

The control variables exhibit patterns consistent with prior literature on voluntary disclosure determinants. Institutional ownership shows a strong positive association with disclosure in specifications without fixed effects, consistent with monitoring theories advanced by Bushee and Noe (2000). Firm size consistently predicts higher disclosure levels across all specifications, supporting the economies of scale argument in disclosure provision (Lang and Lundholm, 1993). The negative coefficient on book-to-market ratio aligns with growth firms' greater disclosure incentives, while the loss indicator's negative association reflects managers' reluctance to highlight poor performance (Miller, 2002). Stock return volatility's sign reversal between specifications suggests complex interactions between information uncertainty and disclosure incentives that merit further investigation.

Our findings carry important implications for multiple stakeholder groups. Regulators should recognize that securities law reforms create cross-border spillover effects that extend beyond their immediate jurisdictions. The reduction in U.S. firms' voluntary disclosure following Ghana's regulatory enhancement suggests that improved foreign market transparency can substitute for domestic voluntary disclosure, potentially affecting the overall information environment. This finding supports arguments for international coordination in securities regulation and highlights the interconnected nature of global capital markets (Coffee, 2007). Regulators may need to consider these spillover effects when evaluating the costs and benefits of mandatory disclosure requirements, as the social value of such regulations may extend beyond domestic markets.

For corporate managers, our results demonstrate that voluntary disclosure decisions should account for regulatory developments in economically linked foreign markets. As foreign regulatory environments become more transparent, the signaling value of voluntary disclosure may diminish, allowing managers to reduce disclosure costs while maintaining their competitive position. However, managers must balance these cost savings against potential increases in information asymmetry that could raise their cost of capital (Healy and Palepu, 2001). For investors, our findings suggest that regulatory improvements in foreign markets can affect the information environment of domestic firms, potentially altering the risk-return profiles of their investments. This evidence supports the growing literature on regulatory spillovers and information asymmetry reduction documented by Shroff (2017) and extends our understanding of how cross-border regulatory changes influence corporate disclosure decisions.

Several limitations constrain the interpretation of our findings and suggest avenues for future research. First, our identification strategy relies on the assumption that the timing of Ghana's Securities and Exchange Act was exogenous to U.S. firms' disclosure decisions. While we control for time trends and firm characteristics, unobserved factors correlated with both the regulatory change and disclosure decisions could bias our estimates. Second, we focus exclusively on the asymmetry channel, but other mechanisms such as competitive effects or regulatory arbitrage could also explain our findings. Future research should attempt to disentangle these competing explanations through more refined identification strategies or additional empirical tests.

The relatively modest R-squared in our baseline specification suggests that other important determinants of voluntary disclosure remain unexplored. Future studies could examine how the effects vary across different types of voluntary disclosure, such as management forecasts versus conference calls, or investigate whether the spillover effects differ based on the strength of economic ties between countries. Additionally, researchers could extend this analysis to other regulatory reforms in emerging markets to test the generalizability of the asymmetry channel. Finally, examining the welfare implications of these cross-border spillovers would provide valuable insights into the optimal design of international securities regulation and contribute to ongoing debates about regulatory harmonization in global capital markets.

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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 Information Asymmetry

	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.