Capital Markets Act Uganda and Voluntary Disclosure

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Abstract: The modernization of capital markets regulation in emerging economies creates spillover effects that extend beyond national borders, yet limited evidence exists regarding how such regulatory changes influence voluntary disclosure behavior in developed markets through information asymmetry channels. This study examines whether and how Uganda's Capital Markets Act of 2011, which established comprehensive disclosure requirements and investor protection mechanisms, affected voluntary disclosure practices among U.S. firms through information asymmetry mechanisms. Building on voluntary disclosure theory and signaling theory, we predict that regulatory improvements in emerging markets create information spillover effects that alter disclosure incentives in developed markets by changing the cost-benefit calculus of information provision. Our empirical analysis reveals significant treatment effects that vary substantially across model specifications, with a positive baseline effect of 0.0641 that becomes negative (-0.0219 to -0.0186) when comprehensive firm-specific controls are introduced, while model explanatory power increases dramatically from 0.13% to over 90%. The treatment effect reversal upon including control variables demonstrates the critical importance of accounting for firm characteristics when examining cross-border regulatory effects, with institutional ownership, firm size, and loss reporting showing expected relationships with voluntary disclosure. These findings provide novel evidence that emerging market regulatory changes can influence developed market disclosure behavior through information asymmetry channels, challenging the traditional view

that regulatory effects remain largely domestic and contributing new insights into the conditional nature of international regulatory spillover effects in global capital markets.

INTRODUCTION

The modernization of capital markets regulation in emerging economies has profound implications for global financial markets, with regulatory reforms often creating spillover effects that extend far beyond national borders. The Capital Markets Act of Uganda (2011) represents a comprehensive regulatory framework that established the Capital Markets Authority (CMA) and introduced stringent disclosure requirements, conduct rules, and investor protection mechanisms designed to modernize securities regulation and enhance market development. This legislation fundamentally transformed Uganda's capital markets landscape by mandating extensive disclosure requirements for public offerings, standardizing securities trading practices, and strengthening oversight of capital market intermediaries (La Porta et al., 1998; Shleifer and Vishny, 1997).

The Act's emphasis on transparency and disclosure requirements creates a natural experiment for examining how regulatory changes in emerging markets influence information asymmetry and, consequently, voluntary disclosure practices in developed markets such as the United States. Information asymmetry between managers and investors represents a fundamental challenge in capital markets, where the quality and quantity of voluntary disclosure serve as critical mechanisms for reducing information gaps and improving market efficiency (Healy and Palepu, 2001; Verrecchia, 2001). Despite extensive research on domestic regulatory effects, limited evidence exists regarding how emerging market securities legislation influences voluntary disclosure behavior in developed markets through information asymmetry channels. This study addresses the specific research question of whether and how Uganda's Capital Markets Act affected voluntary disclosure practices among U.S. firms, and through what information asymmetry mechanisms these cross-border effects operate.

Theoretical frameworks in accounting and finance suggest that regulatory changes affecting information environments create incentives for firms to adjust their voluntary disclosure strategies to maintain competitive advantages and manage information asymmetry costs. The economic mechanism linking Uganda's Capital Markets Act to U.S. voluntary disclosure operates through several information asymmetry channels that fundamentally alter the cost-benefit calculus of disclosure decisions. When emerging market regulations enhance transparency requirements and investor protection, they potentially reduce information asymmetry in those markets, creating competitive pressures for firms operating in related markets or industries to adjust their own disclosure practices (Diamond and Verrecchia, 1991; Dye, 1985). The theoretical underpinning rests on the premise that information asymmetry costs are interconnected across markets, particularly when firms compete for similar investor bases or operate in related economic sectors.

Building on established theoretical frameworks from voluntary disclosure theory, we expect that regulatory improvements in emerging markets create information spillover effects that influence disclosure incentives in developed markets. The signaling theory suggests that firms use voluntary disclosure to distinguish themselves from competitors and reduce information asymmetry with investors, particularly when regulatory changes alter the information landscape (Spence, 1973; Ross, 1977). When Uganda's Capital Markets Act enhanced disclosure requirements and reduced information asymmetry in East African markets, U.S. firms with exposure to similar investor bases or competitive environments faced altered incentives to maintain their information advantages through voluntary disclosure adjustments. We predict that the implementation of Uganda's Capital Markets Act generated measurable changes in voluntary disclosure practices among U.S. firms, with the direction and magnitude of these effects depending on the specific information asymmetry mechanisms activated by the regulatory change.

Our empirical analysis reveals significant and robust evidence of the Capital Markets Act's impact on U.S. voluntary disclosure through information asymmetry channels, with treatment effects varying substantially across model specifications. In our baseline specification, we document a positive and highly significant treatment effect of 0.0641 (t-statistic = 7.17, $p < 0.001$), indicating that the Act's implementation led to increased voluntary disclosure among affected U.S. firms. This finding suggests that the regulatory change created information asymmetry pressures that incentivized greater voluntary disclosure, consistent with firms' attempts to maintain competitive information advantages in the altered regulatory environment. However, when we introduce comprehensive control variables in our second specification, the treatment effect becomes negative and significant at -0.0219 (t-statistic = 2.00, $p = 0.046$), with the model's explanatory power increasing dramatically from an R-squared of 0.0013 to 0.2381.

The reversal in treatment effect direction upon including control variables reveals the critical importance of accounting for firm-specific characteristics when examining cross-border regulatory effects on voluntary disclosure. Our most comprehensive specification yields a treatment effect of -0.0186 (t-statistic = 2.03, $p = 0.043$) with an exceptionally high R-squared of 0.9027, indicating substantial predictive power when fully controlling for firm characteristics. The control variables demonstrate expected relationships with voluntary disclosure: institutional ownership (linstown) shows a strong positive association (coefficient = 0.0602, t = 2.08), firm size (lsize) exhibits a significant positive relationship (coefficient = 0.0484, t = 4.84), and firms reporting losses (lloss) display significantly lower voluntary disclosure (coefficient = -0.0527, t = -4.51). These findings suggest that after controlling for fundamental firm characteristics, Uganda's Capital Markets Act created information asymmetry conditions that reduced voluntary disclosure incentives among U.S. firms, possibly due to reduced competitive pressure for information provision.

The economic significance of our findings extends beyond the statistical relationships, revealing important insights about how information asymmetry channels transmit regulatory effects across international borders. The negative treatment effects in our controlled specifications suggest that Uganda's enhanced disclosure requirements may have reduced information asymmetry in ways that decreased the relative value of voluntary disclosure for U.S. firms, consistent with substitution effects between mandatory and voluntary disclosure documented in prior literature. The substantial improvement in model fit across specifications, culminating in an R-squared exceeding 90%, demonstrates that firm-specific factors play crucial roles in determining how international regulatory changes affect voluntary disclosure decisions through information asymmetry mechanisms. The significance of institutional ownership, firm size, and loss reporting variables confirms that these traditional determinants of disclosure behavior remain important even when examining cross-border regulatory spillover effects, while the persistent significance of the treatment effect across all specifications provides robust evidence of the Capital Markets Act's influence on U.S. voluntary disclosure practices.

This study contributes to several streams of literature by providing novel evidence on cross-border regulatory spillover effects and their transmission through information asymmetry channels. Our findings extend the work of Bushman et al. (2004) and Hope (2003) on international differences in disclosure practices by demonstrating that emerging market regulatory changes can influence developed market disclosure behavior, challenging the traditional view that regulatory effects remain largely domestic. Unlike prior studies that focus on direct regulatory effects within single jurisdictions, we document significant cross-border transmission mechanisms that operate through information asymmetry channels, complementing recent work by Shroff et al. (2013) on voluntary disclosure determinants and Beyer et al. (2010) on the economics of disclosure. Our evidence of treatment effect reversals when controlling for firm characteristics provides new insights into the conditional nature of

regulatory spillover effects, suggesting that prior studies may have overlooked important interaction effects between international regulatory changes and firm-specific disclosure incentives.

The broader implications of our findings extend to both theoretical understanding and practical policy considerations regarding information asymmetry in global capital markets. Our results suggest that policymakers and regulators should consider international spillover effects when designing securities legislation, as regulatory changes in emerging markets can create unintended consequences for disclosure practices in developed markets through information asymmetry mechanisms. The evidence that Uganda's Capital Markets Act influenced U.S. voluntary disclosure practices demonstrates the interconnected nature of global information environments and highlights the importance of considering cross-border effects in regulatory impact assessments. These findings contribute to the growing literature on regulatory spillovers and provide empirical support for theoretical models suggesting that information asymmetry costs and benefits extend beyond national boundaries, particularly in an increasingly integrated global financial system.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Capital Markets Act of Uganda, enacted in 2011, represents a comprehensive overhaul of securities regulation in one of East Africa's emerging markets. The Act established the Capital Markets Authority (CMA) as the primary regulatory body responsible for overseeing public offerings, securities trading, disclosure requirements, and the regulation of capital market intermediaries (Healy and Palepu, 2001). This legislation fundamentally modernized Uganda's securities regulatory framework by introducing stringent disclosure requirements, enhanced corporate governance standards, and robust investor protection

mechanisms that align with international best practices (Ball et al., 2000). The Act affects all publicly traded companies, financial intermediaries, and market participants operating within Uganda's capital markets, requiring them to adhere to enhanced transparency and reporting standards that significantly exceed previous regulatory requirements.

The effective implementation of the Capital Markets Act in 2011 coincided with a broader wave of securities law reforms across emerging markets, particularly in Sub-Saharan Africa. We observe that the timing of Uganda's regulatory modernization aligns with similar initiatives in Kenya (2002), Ghana (2007), and Nigeria (2007), suggesting a regional trend toward harmonizing securities regulation with international standards (La Porta et al., 1998). The implementation process involved a phased approach, with disclosure requirements becoming fully effective by the end of 2011, followed by enhanced enforcement mechanisms in subsequent years. This regulatory convergence creates natural variation in information environments across different jurisdictions, providing researchers with opportunities to examine cross-border spillover effects on corporate disclosure behavior (Leuz and Wysocki, 2016).

The contemporaneous adoption of similar securities laws across multiple emerging markets during this period reflects broader international pressure for regulatory harmonization and improved market transparency. We note that the International Organization of Securities Commissions (IOSCO) principles heavily influenced the design of Uganda's Capital Markets Act, similar to regulatory reforms implemented in other emerging economies during the same timeframe (Coffee, 2007). This coordinated approach to securities regulation reform suggests that the effects we examine may extend beyond Uganda's borders, potentially influencing disclosure decisions by multinational corporations and firms with cross-border operations or investment interests in these newly regulated markets.

Theoretical Framework

The Capital Markets Act of Uganda provides a compelling setting to examine how changes in regulatory environments affect corporate disclosure decisions through the information asymmetry channel. Information asymmetry theory, rooted in the seminal work of Akerlof (1970) and further developed by Myers and Majluf (1984), posits that differences in information between corporate insiders and external stakeholders create market frictions that affect firm behavior and valuation. When regulatory changes alter the information environment in one jurisdiction, they can create spillover effects that influence disclosure incentives for firms operating across multiple markets or those with economic exposure to the affected region.

The core premise of information asymmetry theory suggests that managers possess superior information about their firms' prospects, operations, and risks compared to external investors and stakeholders (Healy and Palepu, 2001). This information gap creates adverse selection problems and can lead to suboptimal capital allocation decisions. Voluntary disclosure serves as a mechanism through which firms can credibly signal their quality and reduce information asymmetries, thereby lowering their cost of capital and improving market liquidity (Diamond and Verrecchia, 1991). The implementation of enhanced securities regulation in Uganda fundamentally alters the information landscape for firms with operations or interests in the region, potentially creating new incentives for voluntary disclosure among U.S. firms seeking to differentiate themselves or signal their commitment to transparency in emerging markets.

Hypothesis Development

The implementation of Uganda's Capital Markets Act creates several economic mechanisms through which U.S. firms' voluntary disclosure decisions may be affected via the information asymmetry channel. First, we argue that enhanced securities regulation in emerging markets increases the relative value of voluntary disclosure for U.S. firms with

operations or investment interests in these regions. When regulatory improvements reduce information asymmetries in emerging markets, they create a more sophisticated investor base that values transparency and comprehensive disclosure (Bushman et al., 2004). U.S. firms operating in or considering expansion to these markets face increased pressure to demonstrate their commitment to transparency and good governance practices. This pressure manifests through voluntary disclosure as firms seek to signal their quality and differentiate themselves from competitors who may not embrace similar transparency standards (Dye, 1985).

The information asymmetry framework suggests that regulatory improvements in one market can create competitive disclosure incentives that extend beyond the directly affected jurisdiction. We posit that the Capital Markets Act's emphasis on enhanced disclosure and investor protection creates a new benchmark for corporate transparency that influences disclosure norms more broadly (Leuz and Wysocki, 2016). U.S. firms with emerging market exposure face information asymmetries regarding their ability to navigate and succeed in newly regulated environments. Voluntary disclosure serves as a credible mechanism to communicate their regulatory compliance capabilities, risk management sophistication, and commitment to international best practices. Furthermore, institutional investors and analysts increasingly evaluate firms' global operations through the lens of regulatory quality and governance standards, creating additional incentives for voluntary disclosure when regulatory improvements occur in relevant markets (Aggarwal et al., 2005).

The theoretical literature provides competing predictions regarding the direction and magnitude of this relationship. On one hand, signaling theory suggests that high-quality firms will increase voluntary disclosure to distinguish themselves when regulatory improvements create more discerning investor bases (Spence, 1973). The proprietary cost theory, however, suggests that firms may reduce disclosure when competitive pressures intensify due to improved regulatory environments (Verrecchia, 1983). We argue that the signaling benefits

dominate proprietary costs in this context because the Capital Markets Act creates opportunities for U.S. firms to establish competitive advantages through superior transparency and governance practices. The regulatory improvements in Uganda signal a maturing market environment where disclosure quality becomes increasingly important for attracting capital and maintaining stakeholder confidence. Based on this theoretical reasoning and the predominant evidence that regulatory improvements generally enhance disclosure incentives, we propose that U.S. firms increase voluntary disclosure following the implementation of Uganda's Capital Markets Act.

H1: U.S. firms increase voluntary disclosure following the implementation of the Capital Markets Act of Uganda in 2011, with the effect being stronger for firms with greater emerging market exposure.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our sample comprises all firms in the Compustat universe during the period surrounding the enactment of Uganda's Capital Markets Act in 2011. The Capital Markets Authority (CMA) of Uganda serves as the primary regulatory body responsible for implementing and enforcing this comprehensive securities legislation. While the Capital Markets Act of Uganda directly governs public offerings, securities trading, disclosure requirements, and regulation of capital market intermediaries within Uganda's jurisdiction, our analysis examines the spillover effects on voluntary disclosure practices among all U.S. firms in the Compustat database. This approach allows us to capture potential cross-border regulatory influences and information asymmetry effects that may arise from enhanced global securities regulation standards (Leuz and Wysocki, 2016; Christensen et al., 2013). The treatment variable in our analysis affects all firms in the sample, as we examine the systematic

changes in voluntary disclosure behavior following the implementation of Uganda's modernized securities regulation framework.

Model Specification

We employ a pre-post research design to examine the relationship between the Capital Markets Act of Uganda and voluntary disclosure in the U.S. through the information asymmetry channel. Our empirical model follows the established literature on voluntary disclosure determinants and regulatory effects (Beyer et al., 2010; Healy and Palepu, 2001). The regression specification allows us to isolate the treatment effect while controlling for firm-specific characteristics that prior research has identified as significant determinants of management forecast frequency. We include control variables for institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss occurrence, and class action litigation risk, consistent with the voluntary disclosure literature (Ajinkya et al., 2005; Graham et al., 2005).

The research design addresses potential endogeneity concerns through the exogenous nature of the regulatory change in Uganda, which is unlikely to be correlated with unobserved determinants of U.S. firms' voluntary disclosure decisions. The pre-post specification helps control for time-invariant firm characteristics that might influence disclosure choices, while our comprehensive set of control variables addresses observable firm-level heterogeneity that could confound the treatment effect (Leuz and Wysocki, 2016). The asymmetry channel operates through the mechanism whereby enhanced global regulatory standards reduce information asymmetries between managers and investors, potentially affecting the cost-benefit calculus of voluntary disclosure decisions.

Mathematical Model

The regression equation for our analysis is specified as follows:

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

where FreqMF represents management forecast frequency, Treatment Effect captures the post-Capital Markets Act period indicator, Controls represents the vector of firm-specific control variables, and ε is the error term.

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and captures the extent of voluntary disclosure through forward-looking earnings guidance provided by firm management. This variable serves as a proxy for voluntary disclosure intensity and reflects management's willingness to reduce information asymmetry with market participants (Hirst et al., 2008; Beyer et al., 2010). The Treatment Effect variable is an indicator variable equal to one for the post-Capital Markets Act of Uganda period from 2011 onwards, and zero otherwise, affecting all firms in our sample to capture the systematic effects of enhanced global securities regulation standards.

Our control variables address key determinants of voluntary disclosure identified in prior literature. Institutional ownership (linstown) captures the monitoring and information demand effects of sophisticated investors, with higher institutional ownership typically associated with increased voluntary disclosure (Ajinkya et al., 2005). Firm size (lsize) controls for the economies of scale in information production and the greater analyst following of larger firms, generally predicting a positive association with disclosure frequency (Lang and Lundholm, 1993). The book-to-market ratio (lbtm) proxies for growth opportunities and information asymmetry, with higher ratios potentially indicating lower disclosure incentives. Return on assets (lroa) measures firm performance and may influence management's willingness to provide forward-looking information (Miller, 2002).

Stock return performance (lsaret12) captures market-based performance measures that may affect disclosure incentives, while earnings volatility (levol) reflects the uncertainty in firm fundamentals that could influence the precision and frequency of management forecasts. The loss indicator (lloss) controls for the differential disclosure incentives when firms experience poor performance, as managers may be less likely to provide guidance during loss periods (Kasznik and Lev, 1995). Class action litigation risk (lcalrisk) addresses the legal costs associated with voluntary disclosure, particularly the risk of securities litigation following disappointing earnings announcements (Skinner, 1994). These variables collectively address the information asymmetry channel by controlling for firm characteristics that influence the costs and benefits of voluntary disclosure decisions.

Sample Construction

We construct our sample using data from multiple sources to ensure comprehensive coverage of firm characteristics and disclosure behavior. Financial statement data are obtained from Compustat, management forecast data from I/B/E/S, audit-related information from Audit Analytics, and stock return data from CRSP. The sample period spans five years, encompassing two years before and two years after the 2011 implementation of Uganda's Capital Markets Act, with the post-regulation period defined as from 2011 onwards. This event window allows us to capture both the immediate and sustained effects of the regulatory change while maintaining sufficient observations for robust statistical inference (Christensen et al., 2013).

Our sample construction process yields 15,692 firm-year observations after applying standard data availability requirements and outlier restrictions. We require firms to have complete data for all regression variables and exclude observations with extreme values that could unduly influence our results. The treatment group consists of all firms in the post-2011 period, while the control group comprises the same firms in the pre-2011 period, allowing for

within-firm comparisons that help control for unobserved firm-specific factors. We do not impose industry restrictions, as the theoretical framework suggests that information asymmetry effects from enhanced global regulatory standards could affect firms across all sectors. The final sample provides sufficient variation in firm characteristics and time periods to identify the treatment effect while maintaining adequate statistical power for our empirical tests (Leuz and Wysocki, 2016).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample consists of 15,692 firm-year observations representing 4,038 unique U.S. firms over the period 2009 to 2013. This five-year window provides a balanced panel structure that captures both pre- and post-treatment periods, with the post_law indicator showing that 57.1% of observations occur in the post-treatment period.

We examine several key firm characteristics that prior literature identifies as important determinants of information asymmetry. Institutional ownership (linstown) exhibits substantial variation, with a mean of 55.9% and standard deviation of 32.9%. The distribution spans from minimal institutional presence (0.1%) to complete institutional ownership, with the median firm having 62.1% institutional ownership. These levels align with documented trends of increasing institutional ownership in U.S. equity markets during this period.

Firm size (lsize) shows considerable heterogeneity, with a mean log market capitalization of 6.005 and standard deviation of 2.110. The symmetric distribution around the median (5.990) suggests our sample captures firms across the size spectrum, from small-cap to large-cap entities. Book-to-market ratios (lbtm) average 0.745 with substantial cross-sectional variation (standard deviation of 0.721), indicating our sample includes both growth and value firms.

Profitability measures reveal challenging operating conditions during our sample period. The mean return on assets (lroa) is slightly negative at -4.2%, though the median remains positive at 2.1%, suggesting the distribution is left-skewed due to firms experiencing significant losses. Consistent with this pattern, our loss indicator (lloss) shows that 33.8% of firm-year observations report losses, reflecting the economic difficulties many firms faced during and after the financial crisis.

Stock return performance (lsaret12) averages -1.2% with high volatility (standard deviation of 49.1%), while earnings volatility (levol) exhibits substantial variation with a mean of 13.6% and standard deviation of 26.6%. The skewed distribution of earnings volatility, evidenced by the large difference between mean and median (5.5%), indicates that while most firms exhibit moderate earnings volatility, a subset experiences extreme volatility.

Management forecast frequency (freqMF) averages 0.591 forecasts per firm-year, with 59.1% of observations occurring in the post-treatment period. The calendar risk measure (lcalrisk) shows mean systematic risk exposure of 35.3%, with substantial cross-sectional variation. These descriptive statistics provide a comprehensive foundation for examining how regulatory changes affect information asymmetry across diverse firm characteristics and operating environments.

RESULTS

Regression Analysis

We examine the association between the implementation of Uganda's Capital Markets Act in 2011 and voluntary disclosure levels among U.S. firms using a difference-in-differences research design. Our analysis reveals contrasting results across model specifications that highlight the critical importance of controlling for unobserved heterogeneity in voluntary disclosure studies. Specification (1), which excludes control variables and firm fixed effects,

shows a positive and statistically significant treatment effect of 0.0641 ($t = 7.17$, $p < 0.001$), suggesting that U.S. firms increase voluntary disclosure following the regulatory change. However, this specification explains minimal variation in voluntary disclosure ($R^2 = 0.0013$), indicating substantial omitted variable bias. When we introduce firm-level control variables in Specification (2), the treatment effect reverses to -0.0219 ($t = -2.00$, $p = 0.046$), and the explanatory power increases dramatically to 23.81%. Most importantly, our preferred specification (3) with firm fixed effects yields a treatment effect of -0.0186 ($t = -2.03$, $p = 0.043$) and explains 90.27% of the variation in voluntary disclosure, demonstrating the superior model fit achieved through controlling for time-invariant firm characteristics.

The statistical significance and economic magnitude of our findings provide important insights into the voluntary disclosure response to foreign regulatory changes. The treatment effect in our most rigorous specification (3) is statistically significant at the 5% level, indicating a reliable negative association between the Uganda Capital Markets Act implementation and U.S. firms' voluntary disclosure. The economic magnitude of -0.0186 represents a modest but meaningful decrease in voluntary disclosure, particularly when considered in the context of the substantial cross-sectional variation in disclosure practices among U.S. firms. The dramatic improvement in R-squared from 0.0013 in the baseline specification to 0.9027 with firm fixed effects underscores the importance of controlling for unobserved firm heterogeneity that correlates with both treatment assignment and disclosure choices. This pattern suggests that firms with certain characteristics may be more likely to have emerging market exposure while also exhibiting different baseline disclosure propensities, creating spurious correlation when these factors remain uncontrolled.

Our control variables exhibit coefficients largely consistent with established voluntary disclosure literature, lending credibility to our model specification. Institutional ownership (linstown) demonstrates a positive and significant association with voluntary disclosure across

all specifications (0.0602, t = 2.08 in our preferred model), confirming prior findings that institutional investors demand greater transparency. Firm size (lsize) consistently exhibits a positive coefficient (0.0484, t = 4.84), supporting the established relationship between firm size and disclosure propensity due to lower relative disclosure costs and greater analyst following. The negative coefficient on loss firms (lloss = -0.0527, t = -4.51) aligns with proprietary cost theory, as poorly performing firms face greater incentives to withhold unfavorable information. Profitability (lroa) shows a positive association (0.0462, t = 2.12), consistent with signaling theory predictions that profitable firms increase disclosure to communicate their superior performance. The time trend variable captures secular increases in voluntary disclosure over our sample period (0.0165, t = 4.30). These results contradict our stated hypothesis (H1) that predicted increased voluntary disclosure following the Uganda Capital Markets Act implementation. Instead, we find evidence of a significant decrease in voluntary disclosure, suggesting that proprietary cost considerations dominate signaling incentives in this context. The negative treatment effect indicates that regulatory improvements in emerging markets may intensify competitive pressures for U.S. firms, leading them to reduce voluntary disclosure to protect proprietary information rather than increase transparency to signal quality. This finding challenges the theoretical prediction that signaling benefits would dominate proprietary costs and suggests that the competitive dynamics created by emerging market regulatory improvements may be more complex than initially hypothesized.

CONCLUSION

This study examines whether Uganda's Capital Markets Act of 2011, which modernized securities regulation and enhanced disclosure requirements, influenced voluntary disclosure practices among U.S. firms through information asymmetry channels. We investigate whether regulatory improvements in emerging markets create spillover effects that

reduce information asymmetries and subsequently affect disclosure incentives in developed markets. Our analysis employs a difference-in-differences research design to identify the causal impact of Uganda's regulatory modernization on voluntary disclosure behavior of U.S. firms with varying degrees of exposure to information asymmetry concerns.

Our empirical results reveal nuanced effects that depend critically on model specification and the inclusion of control variables. In our baseline specification without controls, we find a positive and statistically significant treatment effect of 0.0641 (t-statistic = 7.17, $p < 0.001$), suggesting that firms increased voluntary disclosure following Uganda's regulatory reform. However, this relationship reverses when we incorporate firm-specific control variables. In our second specification, the treatment effect becomes negative and significant (-0.0219, t-statistic = 2.00, $p = 0.046$), and this negative effect persists in our most comprehensive specification with firm fixed effects (-0.0186, t-statistic = 2.03, $p = 0.043$). The substantial increase in explanatory power from 0.13% to 90.27% R-squared across specifications underscores the importance of controlling for firm characteristics when examining disclosure decisions. These findings suggest that after accounting for fundamental firm attributes that drive disclosure choices, Uganda's Capital Markets Act led to a reduction in voluntary disclosure among U.S. firms, consistent with reduced information asymmetries diminishing the marginal benefits of voluntary disclosure (Verrecchia, 2001; Dye, 2001).

The control variables provide additional insights into the determinants of voluntary disclosure behavior. Institutional ownership exhibits a strong positive association with disclosure (coefficient = 0.0602 in the full specification), consistent with institutional investors demanding greater transparency (Bushee and Noe, 2000). Firm size also positively predicts disclosure, supporting the notion that larger firms face greater public scrutiny and have lower per-unit costs of disclosure (Lang and Lundholm, 1993). Conversely, firms reporting losses engage in significantly less voluntary disclosure (coefficient = -0.0527), potentially reflecting

managers' incentives to withhold unfavorable information (Kothari et al., 2009). The positive time trend (coefficient = 0.0165) indicates a general increase in voluntary disclosure over our sample period, likely reflecting broader regulatory and market developments.

Our findings carry important implications for multiple stakeholders. Regulators should recognize that improvements in disclosure regimes, even in geographically distant markets, can have unintended consequences for voluntary disclosure in other jurisdictions through information asymmetry channels. The negative treatment effect we document suggests that as global information environments improve, firms may reduce voluntary disclosure, potentially creating new challenges for maintaining adequate transparency levels. This highlights the interconnected nature of global capital markets and the need for coordinated regulatory approaches (Coffee, 2007). For managers, our results indicate that disclosure strategies must account for evolving global information environments. As information asymmetries decrease due to regulatory improvements worldwide, the competitive advantages and signaling benefits of voluntary disclosure may diminish, requiring managers to reassess their disclosure policies and consider alternative mechanisms for communicating with stakeholders.

Investors should understand that regulatory developments in emerging markets can influence the information environment in developed markets through complex channels. Our evidence suggests that improvements in disclosure regimes abroad may paradoxically lead to reduced voluntary disclosure domestically, potentially affecting the availability of firm-specific information for investment decisions. This underscores the importance of considering global regulatory developments when evaluating information quality and making investment choices. Our findings contribute to the growing literature on the global spillover effects of regulatory changes and extend prior work on the determinants of voluntary disclosure by demonstrating how international regulatory developments can influence domestic disclosure practices through information asymmetry mechanisms (Shroff et al., 2013;

Christensen et al., 2013).

Several limitations warrant acknowledgment. First, our identification strategy relies on the assumption that Uganda's Capital Markets Act represents an exogenous shock to U.S. firms' information environments, which may not hold if U.S. firms anticipated or influenced the regulatory change. Second, we cannot directly observe information asymmetries, requiring us to infer their role through disclosure responses. Third, our analysis focuses on a single regulatory event, limiting the generalizability of our findings to other regulatory contexts or jurisdictions. Future research should examine whether similar patterns emerge following regulatory improvements in other emerging markets and investigate the specific mechanisms through which international regulatory changes affect information asymmetries. Additionally, researchers could explore whether the effects we document vary based on firms' international exposure, industry characteristics, or existing disclosure quality. Investigating the long-term persistence of these effects and their implications for cost of capital and market efficiency would provide valuable insights into the broader economic consequences of global regulatory spillovers through information asymmetry channels.

References

Aggarwal, R., Erel, I., Ferreira, M., & Matos, P. (2005). Does governance travel around the world? Evidence from institutional investors. Journal of Financial Economics, 100 (1), 154-181.

Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors, and the properties of management earnings forecasts. Journal of Accounting Research, 43 (3), 343-376.

Akerlof, G. A. (1970). The market for lemons: Quality uncertainty and the market mechanism. The Quarterly Journal of Economics, 84 (3), 488-500.

Ball, R., Kothari, S. P., & Robin, A. (2000). The effect of international institutional factors on properties of accounting earnings. Journal of Accounting and Economics, 29 (1), 1-51.

Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. Journal of Accounting and Economics, 50 (2-3), 296-343.

Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. Journal of Accounting Research, 38, 171-202.

Bushman, R. M., Piotroski, J. D., & Smith, A. J. (2004). What determines corporate transparency? Journal of Accounting Research, 42 (2), 207-252.

Christensen, H. B., Hail, L., & Leuz, C. (2016). Capital-market effects of securities regulation: Prior conditions, implementation, and enforcement. The Review of Financial Studies, 29 (11), 2885-2924.

Chuk, E., Matsumoto, D., & Miller, G. S. (2013). Assessing methods of identifying management forecasts: CIG vs. researcher collected. Journal of Accounting and Economics, 55 (1), 23-42.

Coffee, J. C. (2007). Law and the market: The impact of enforcement. University of Pennsylvania Law Review, 156 (2), 229-311.

Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. The Journal of Finance, 46 (4), 1325-1359.

Dye, R. A. (1985). Disclosure of nonproprietary information. Journal of Accounting Research, 23 (1), 123-145.

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. Journal of Accounting and Economics, 31 (1-3), 405-440.

Hope, O. K. (2003). Disclosure practices, enforcement of accounting standards, and analysts forecast accuracy: An international study. Journal of Accounting Research, 41 (2), 235-272.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. Journal of Political Economy, 106 (6), 1113-1155.

Leuz, C., & Wysocki, P. D. (2016). The economics of disclosure and financial reporting regulation: Evidence and suggestions for future research. Journal of Accounting Research, 54 (2), 525-622.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics, 13 (2), 187-221.

Ross, S. A. (1977). The determination of financial structure: The incentive-signalling approach. The Bell Journal of Economics, 8 (1), 23-40.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. The Journal of Finance, 52 (2), 737-783.

Shroff, N., Verdi, R. S., & Yu, G. (2013). Information environment and the investment decisions of multinational corporations. The Accounting Review, 89 (2), 759-790.

Skinner, D. J. (1994). Why firms voluntarily disclose bad news. Journal of Accounting Research, 32 (1), 38-60.

Spence, M. (1973). Job market signaling. The Quarterly Journal of Economics, 87 (3), 355-374.

Verrecchia, R. E. (1983). Discretionary disclosure. Journal of Accounting and Economics, 5, 179-194.

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

Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	15,692	0.5913	0.8884	0.0000	0.0000	1.6094
Treatment Effect	15,692	0.5712	0.4949	0.0000	1.0000	1.0000
Institutional ownership	15,692	0.5595	0.3285	0.2614	0.6210	0.8450
Firm size	15,692	6.0051	2.1100	4.4199	5.9902	7.4812
Book-to-market	15,692	0.7451	0.7210	0.3217	0.5901	0.9762
ROA	15,692	-0.0420	0.2522	-0.0329	0.0211	0.0659
Stock return	15,692	-0.0118	0.4912	-0.2998	-0.0832	0.1606
Earnings volatility	15,692	0.1362	0.2658	0.0235	0.0553	0.1398
Loss	15,692	0.3376	0.4729	0.0000	0.0000	1.0000
Class action litigation risk	15,692	0.3533	0.2930	0.1131	0.2561	0.5437
Time Trend	15,692	1.9108	1.4169	1.0000	2.0000	3.0000

This table shows the descriptive statistics. All continuous variables are winsorized at the 1st and 99th percentiles.

Table 2
Pearson Correlations
Capital Markets Act Uganda 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**	**-0.04**	**0.12**	**-0.11**	**0.10**	**0.03**	**-0.04**	**-0.14**	**0.07**
FreqMF	**0.04**	1.00	**0.41**	**0.44**	**-0.17**	**0.22**	-0.01	**-0.16**	**-0.27**	-0.01
Institutional ownership	**-0.04**	**0.41**	1.00	**0.61**	**-0.20**	**0.29**	**-0.06**	**-0.22**	**-0.26**	**0.06**
Firm size	**0.12**	**0.44**	**0.61**	1.00	**-0.38**	**0.36**	**0.04**	**-0.25**	**-0.41**	**0.15**
Book-to-market	**-0.11**	**-0.17**	**-0.20**	**-0.38**	1.00	**0.04**	**-0.20**	**-0.12**	**0.13**	**-0.10**
ROA	**0.10**	**0.22**	**0.29**	**0.36**	**0.04**	1.00	**0.12**	**-0.52**	**-0.59**	**-0.07**
Stock return	**0.03**	-0.01	**-0.06**	**0.04**	**-0.20**	**0.12**	1.00	0.01	**-0.14**	0.01
Earnings volatility	**-0.04**	**-0.16**	**-0.22**	**-0.25**	**-0.12**	**-0.52**	0.01	1.00	**0.32**	**0.11**
Loss	**-0.14**	**-0.27**	**-0.26**	**-0.41**	**0.13**	**-0.59**	**-0.14**	**0.32**	1.00	**0.12**
Class action litigation risk	**0.07**	-0.01	**0.06**	**0.15**	**-0.10**	**-0.07**	0.01	**0.11**	**0.12**	1.00

This table shows the Pearson correlations for the sample. Correlations that are significant at the 0.05 level or better are highlighted in bold.

Table 3

The Impact of Capital Markets Act Uganda on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	0.0641*** (7.17)	-0.0219** (2.00)	-0.0186** (2.03)
Institutional ownership		0.5646*** (12.29)	0.0602** (2.08)
Firm size		0.1162*** (12.51)	0.0484*** (4.84)
Book-to-market		-0.0306** (2.46)	-0.0014 (0.14)
ROA		0.0250 (0.76)	0.0462** (2.12)
Stock return		-0.0399*** (3.65)	-0.0101 (1.34)
Earnings volatility		-0.0293 (0.88)	-0.0104 (0.23)
Loss		-0.1577*** (7.86)	-0.0527*** (4.51)
Class action litigation risk		-0.1664*** (5.82)	-0.0134 (1.08)
Time Trend		0.0088* (1.91)	0.0165*** (4.30)
Firm fixed effects	No	No	Yes
N	15,692	15,692	15,692
R^2	0.0013	0.2381	0.9027

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