National Instrument 31103 Registration Requirements Canada and Voluntary Disclosure

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Abstract: The harmonization of financial market regulations across jurisdictions represents a critical development in modern capital markets, with Canada's National Instrument 31-103 Registration Requirements serving as a landmark regulatory reform that established unified registration requirements for investment dealers and advisers across all Canadian provinces in 2005. While existing literature extensively examines domestic regulatory effects on disclosure quality, limited research addresses how foreign regulatory reforms influence voluntary disclosure through corporate governance channels in neighboring jurisdictions. This study addresses this critical gap by investigating whether Canada's harmonized registration requirements affected U.S. firms' voluntary disclosure practices through enhanced corporate governance mechanisms. The theoretical foundation rests on the competitive governance hypothesis and agency theory, suggesting that regulatory improvements in one jurisdiction create competitive pressures for governance enhancements in related markets, potentially substituting for voluntary disclosure through improved monitoring capabilities. Using empirical analysis, we examined the spillover effects of NI 31-103 on U.S. voluntary disclosure behavior. Our results revealed significant negative effects, with treatment effects ranging from -0.0617 to -0.0853 across robust specifications, indicating that enhanced governance mechanisms resulting from Canada's regulatory reform reduced voluntary disclosure among U.S. firms. These findings provide novel evidence supporting the

substitution hypothesis between governance mechanisms and voluntary disclosure, demonstrating that regulatory harmonization efforts create complex spillover effects extending beyond intended jurisdictional boundaries and contributing to literature on international regulatory spillovers and corporate disclosure strategies.

INTRODUCTION

The harmonization of financial market regulations across jurisdictions represents a critical development in modern capital markets, with National Instrument 31-103 Registration Requirements serving as a landmark regulatory reform in Canada's investment industry. Implemented in 2005 by the Canadian Securities Administrators (CSA), this comprehensive regulation established unified registration requirements for investment dealers and advisers across all Canadian provinces, fundamentally transforming the regulatory landscape through streamlined processes, enhanced investor protection, and improved regulatory efficiency (Cumming and Johan, 2013). The regulation's emphasis on standardized governance frameworks and enhanced oversight mechanisms created significant spillover effects that extended beyond Canadian borders, influencing corporate governance practices and disclosure behaviors in interconnected North American capital markets.

The cross-border implications of NI 31-103 are particularly pronounced in the context of voluntary disclosure practices among U.S. firms operating in integrated capital markets. While existing literature extensively examines domestic regulatory effects on disclosure quality (Leuz and Wysocki, 2016; Shroff et al., 2013), limited research addresses how foreign regulatory reforms influence voluntary disclosure through corporate governance channels in neighboring jurisdictions. This study addresses a critical gap by investigating whether Canada's harmonized registration requirements affected U.S. firms' voluntary disclosure practices through enhanced corporate governance mechanisms. We specifically examine whether the regulation's emphasis on improved governance standards and investor protection

created competitive pressures that influenced U.S. firms' disclosure strategies, representing a novel examination of international regulatory spillovers in voluntary disclosure behavior.

The theoretical foundation linking NI 31-103 to U.S. voluntary disclosure rests on the competitive governance hypothesis, which suggests that regulatory improvements in one jurisdiction create competitive pressures for governance enhancements in related markets (Durnev and Kim, 2005; Doidge et al., 2007). The regulation's standardization of governance requirements for Canadian investment intermediaries enhanced the overall quality of corporate oversight and monitoring in Canadian capital markets, creating a benchmark effect that influenced governance practices among U.S. firms with Canadian operations or investor bases. This mechanism operates through several channels: first, improved governance standards among Canadian intermediaries increased scrutiny of cross-listed firms, creating incentives for enhanced disclosure; second, the regulation's emphasis on investor protection elevated market-wide expectations for transparency and accountability.

Agency theory provides additional theoretical support for this relationship, as enhanced governance mechanisms reduce information asymmetries between managers and stakeholders (Jensen and Meckling, 1976; Healy and Palepu, 2001). The implementation of NI 31-103 strengthened monitoring capabilities of Canadian investment professionals, creating spillover effects that influenced governance quality among firms operating in integrated North American markets. We hypothesize that these enhanced governance mechanisms increased the marginal benefits of voluntary disclosure for U.S. firms, as improved monitoring infrastructure made voluntary disclosures more credible and valuable to investors. Furthermore, the regulation's focus on standardized practices created network effects, where firms operating in both markets faced increased pressure to adopt best practices in governance and disclosure to maintain competitive positioning.

Building on signaling theory, we predict that the governance improvements associated with NI 31-103 created incentives for U.S. firms to increase voluntary disclosure as a means of signaling superior governance quality (Spence, 1973; Miller, 2002). The regulation's emphasis on enhanced oversight and standardized practices established new benchmarks for governance quality, creating opportunities for well-governed firms to distinguish themselves through increased voluntary disclosure. However, we also consider the possibility that improved governance mechanisms could substitute for voluntary disclosure, as enhanced monitoring reduces the need for managers to voluntarily communicate private information. This competing hypothesis suggests that stronger governance frameworks may decrease voluntary disclosure by reducing information asymmetries through alternative channels, leading to our central research question regarding the net effect of governance improvements on voluntary disclosure behavior.

Our empirical analysis reveals significant negative effects of NI 31-103 on U.S. voluntary disclosure, with treatment effects ranging from -0.0617 to -0.0853 across our most robust specifications. The strongest evidence emerges from our second specification, which shows a treatment effect of -0.0853 (t-statistic = 7.21, $p < 0.001$) with an R-squared of 0.2705, indicating substantial explanatory power. This specification demonstrates that the implementation of Canada's harmonized registration requirements led to a statistically and economically significant reduction in voluntary disclosure among U.S. firms. The consistency of negative coefficients across specifications, with the third specification showing a treatment effect of -0.0617 (t-statistic = 5.68, $p < 0.001$) and remarkably high explanatory power (R-squared = 0.8419), provides robust evidence supporting the substitution hypothesis between enhanced governance mechanisms and voluntary disclosure.

The control variables reveal important insights into the determinants of voluntary disclosure behavior and validate our empirical approach. Institutional ownership (linstown)

shows the strongest positive association with voluntary disclosure in specification 2 (coefficient = 0.9137, t-statistic = 19.25), consistent with institutional investors' demand for enhanced transparency (Bushee and Noe, 2000). Firm size (lsize) consistently exhibits positive coefficients across specifications, supporting the established relationship between firm size and disclosure propensity (Lang and Lundholm, 1993). Notably, the coefficient magnitudes and significance levels vary substantially between specifications 2 and 3, with institutional ownership becoming negative and marginally significant in the high R-squared specification, suggesting important interaction effects between governance mechanisms and firm characteristics in determining disclosure outcomes.

The economic significance of our findings extends beyond statistical significance, with the treatment effects representing meaningful changes in voluntary disclosure behavior. The negative coefficients indicate that enhanced governance mechanisms resulting from NI 31-103 reduced the marginal benefits of voluntary disclosure for U.S. firms, supporting theoretical predictions that improved monitoring and oversight can substitute for managerial communication through voluntary channels. The substantial explanatory power achieved in our third specification (R-squared = 0.8419) demonstrates that our model captures the majority of variation in voluntary disclosure behavior, while the loss indicator (lloss) consistently shows strong negative associations across specifications, confirming that firms experiencing losses reduce voluntary disclosure to avoid negative market reactions (Kothari et al., 2009).

This study contributes to several important literature streams by providing novel evidence on international regulatory spillovers in voluntary disclosure behavior. Our findings extend the work of Shroff et al. (2013) and Leuz and Wysocki (2016) by demonstrating that regulatory reforms in neighboring jurisdictions can significantly influence disclosure practices through governance channels, challenging the traditional focus on domestic regulatory effects. Unlike previous studies examining direct regulatory impacts on disclosure (Li et al., 2018;

Christensen et al., 2016), we identify an indirect channel through which foreign governance improvements affect voluntary disclosure decisions. Our evidence supports the substitution hypothesis between governance mechanisms and voluntary disclosure, contributing to ongoing debates about the complementary versus substitutive nature of different information mechanisms in capital markets.

The broader implications of our findings suggest that regulatory harmonization efforts create complex spillover effects that extend beyond intended jurisdictional boundaries, influencing corporate behavior through competitive governance channels. Our results inform policy discussions about international regulatory coordination by demonstrating that governance improvements in one jurisdiction can reduce voluntary disclosure in neighboring markets, potentially affecting overall information availability to investors. These findings contribute to the growing literature on regulatory competition and convergence by identifying specific mechanisms through which international regulatory reforms influence corporate disclosure strategies, with important implications for understanding the effectiveness of cross-border regulatory initiatives in enhancing overall market transparency and efficiency.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations represents a landmark regulatory reform implemented by the Canadian Securities Administrators (CSA) in 2010, following extensive consultation beginning in 2005. This comprehensive regulation harmonized registration requirements for investment dealers and advisers across all Canadian provinces and territories, replacing a fragmented system of provincial regulations that had created compliance complexities and regulatory arbitrage opportunities (Cumming and Johan, 2008; MacIntosh, 2012). The instrument affects all

investment fund managers, portfolio managers, exempt market dealers, investment dealers, and scholarship plan dealers operating in Canada, establishing uniform standards for registration, proficiency requirements, and ongoing obligations regardless of provincial jurisdiction.

The CSA instituted these changes to address significant inefficiencies in Canada's securities regulatory framework, where firms previously navigated multiple provincial registration regimes with varying requirements and standards (Anand, 2006). The harmonization effort aimed to reduce regulatory burden while enhancing investor protection through consistent application of registration standards, improved oversight mechanisms, and streamlined compliance procedures (Johnston and Rockwell, 2011). The regulation introduced enhanced capital adequacy requirements, standardized proficiency testing, and comprehensive record-keeping obligations that collectively strengthened the integrity of Canada's investment industry infrastructure.

The implementation of NI 31-103 occurred during a period of significant regulatory reform in North American capital markets, coinciding with enhanced oversight measures following the 2008 financial crisis and complementing contemporaneous U.S. regulatory developments including the Dodd-Frank Act's investment adviser registration provisions (Coffee, 2012). This timing created cross-border spillover effects as institutional investors and financial intermediaries operating in both markets faced heightened regulatory scrutiny and enhanced corporate governance expectations. The regulation's emphasis on improved disclosure, enhanced fiduciary standards, and strengthened oversight mechanisms positioned it as part of a broader North American trend toward more rigorous financial sector governance (Anand and Green, 2012).

Theoretical Framework

The implementation of National Instrument 31-103 creates theoretical linkages to voluntary disclosure decisions through corporate governance mechanisms that extend beyond Canadian borders to influence U.S. firm behavior. Corporate governance theory posits that regulatory changes affecting information intermediaries and institutional investors create spillover effects that influence corporate disclosure practices through altered monitoring incentives and information demand (Shleifer and Vishny, 1997).

Corporate governance encompasses the systems, processes, and structures through which corporations are directed and controlled, with particular emphasis on the relationships between shareholders, management, and other stakeholders in determining firm strategy and performance (Jensen and Meckling, 1976; Fama and Jensen, 1983). The theory emphasizes how external monitoring mechanisms, including institutional investor oversight and analyst coverage, create incentives for enhanced corporate transparency and voluntary disclosure. When regulatory changes strengthen the governance capabilities of financial intermediaries, these improvements can translate into increased demand for corporate information and enhanced monitoring of portfolio companies.

The connection between Canadian investment adviser regulation and U.S. voluntary disclosure operates through institutional investor channels, where enhanced registration requirements and governance standards for Canadian financial intermediaries create stronger incentives for information gathering and monitoring of U.S. portfolio companies (Bushee and Noe, 2000). Improved governance standards among Canadian institutional investors, resulting from NI 31-103's enhanced proficiency requirements and fiduciary obligations, theoretically increase these investors' capacity and incentive to demand higher-quality information from their U.S. holdings, thereby influencing voluntary disclosure decisions through the corporate governance channel.

Hypothesis Development

The economic mechanisms linking National Instrument 31-103 to U.S. voluntary disclosure operate through enhanced institutional investor governance capabilities that create stronger incentives for corporate monitoring and information demand. Corporate governance theory suggests that regulatory improvements affecting institutional investors' governance standards and monitoring capabilities create spillover effects on portfolio companies through increased information demand and enhanced oversight activities (Gillan and Starks, 2000). NI 31-103's enhanced registration requirements, including improved proficiency standards, strengthened fiduciary obligations, and comprehensive oversight mechanisms, theoretically increase Canadian institutional investors' capacity to engage in effective corporate governance activities. These improvements enable more sophisticated analysis of portfolio companies, create incentives for enhanced due diligence, and establish stronger accountability mechanisms that collectively increase demand for high-quality corporate information from U.S. holdings (Chen et al., 2007).

The theoretical relationship between enhanced institutional investor governance and voluntary disclosure draws on established frameworks demonstrating that sophisticated institutional investors create positive externalities for corporate transparency through their monitoring activities and information demands (Bushee and Noe, 2000; Healy et al., 1999). When regulatory changes strengthen institutional investors' governance capabilities, these improvements translate into enhanced monitoring effectiveness and increased capacity to process and utilize corporate information. NI 31-103's emphasis on enhanced proficiency requirements and ongoing education obligations for investment advisers theoretically increases these intermediaries' ability to conduct sophisticated financial analysis and engage in meaningful corporate governance activities. The regulation's strengthened fiduciary standards create stronger incentives for Canadian institutional investors to actively monitor their U.S. portfolio companies, as enhanced legal obligations require more diligent oversight of investment decisions and portfolio performance (Coffee, 1991; Del Guercio, 1996).

Prior literature provides consistent theoretical predictions regarding the relationship between institutional investor governance improvements and corporate voluntary disclosure, with established frameworks suggesting a positive association between enhanced monitoring capabilities and corporate transparency (Ajinkya et al., 2005; Karamanou and Vafeas, 2005). The corporate governance channel operates through multiple complementary mechanisms: enhanced institutional investor sophistication increases demand for forward-looking information and strategic guidance, improved monitoring capabilities create incentives for firms to provide voluntary disclosure to facilitate institutional oversight, and strengthened fiduciary obligations encourage institutional investors to seek comprehensive information for investment decision-making. These theoretical mechanisms suggest that regulatory improvements affecting institutional investor governance create positive spillover effects on corporate disclosure practices, as firms respond to enhanced information demand and monitoring pressure by increasing voluntary disclosure activities. The cross-border nature of institutional investment portfolios ensures that governance improvements among Canadian institutional investors influence disclosure decisions of U.S. portfolio companies through these established corporate governance channels.

H1: The implementation of National Instrument 31-103 Registration Requirements in Canada is positively associated with increased voluntary disclosure among U.S. firms through the corporate governance channel.

RESEARCH DESIGN

Sample Selection and Post-Law Indicator

Our sample comprises all firms in the Compustat universe operating in the United States during the sample period surrounding the implementation of National Instrument 31-103 Registration Requirements in Canada. The Canadian Securities Administrators (CSA)

implemented this regulation in 2005 to harmonize registration requirements for investment dealers and advisers across Canada, streamlining the registration process and enhancing investor protection through improved regulatory efficiency. While National Instrument 31-103 directly targets investment dealers and advisers in Canada, our analysis examines all U.S. firms in the Compustat universe to capture potential spillover effects through the governance channel. We construct a treatment variable that affects all firms in our sample, reflecting the broader market-wide implications of enhanced regulatory coordination between the U.S. and Canadian capital markets. This comprehensive approach allows us to examine how improvements in cross-border regulatory harmonization influence voluntary disclosure practices among U.S. firms through enhanced governance mechanisms and investor protection standards.

Model Specification

We employ a pre-post regression design to examine the relationship between National Instrument 31-103 Registration Requirements and voluntary disclosure in the U.S. through the governance channel. Our empirical model follows the established literature on voluntary disclosure determinants (Ajinkya et al., 2005; Karamanou and Vafeas, 2005) and incorporates control variables that prior research has identified as significant predictors of management forecast frequency. The model specification allows us to isolate the effect of the Canadian regulatory change on U.S. firms' voluntary disclosure behavior while controlling for firm-specific characteristics that influence disclosure decisions.

We include comprehensive control variables based on prior literature examining voluntary disclosure determinants. Institutional ownership captures the monitoring role of sophisticated investors who demand greater transparency (Ajinkya et al., 2005). Firm size reflects the cost-benefit trade-offs of disclosure, with larger firms typically providing more voluntary disclosure due to lower relative costs and greater analyst following (Lang and

Lundholm, 1993). We control for book-to-market ratio as a proxy for growth opportunities and information asymmetry, return on assets to capture profitability effects on disclosure incentives, stock returns to account for performance-related disclosure patterns, earnings volatility to proxy for information uncertainty, loss indicators to capture the asymmetric disclosure of bad news, and class action litigation risk to account for legal considerations in disclosure decisions (Rogers and Stocken, 2005).

A key concern in our research design is the potential for endogeneity between regulatory changes and firm disclosure behavior. We address this concern through our pre-post design that exploits the exogenous timing of National Instrument 31-103 implementation. The regulatory change originated from Canadian regulatory harmonization efforts rather than U.S. market conditions, providing plausible exogeneity for identification. Additionally, our comprehensive set of control variables helps mitigate concerns about omitted variable bias by capturing the primary determinants of voluntary disclosure identified in prior literature.

Mathematical Model

Our regression specification is as follows:

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

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency, capturing the extent of voluntary forward-looking disclosure provided by firm management. This variable reflects managers' decisions to voluntarily communicate private information to capital market participants, serving as a key proxy for voluntary disclosure behavior examined in prior literature (Hirst et al., 2008; Chuk et al., 2013).

Our variable of interest, Treatment Effect, is an indicator variable equal to one for the post-National Instrument 31-103 period from 2005 onwards, and zero otherwise. This variable captures the market-wide effect of enhanced regulatory coordination and governance standards following the implementation of harmonized registration requirements in Canada. The treatment affects all firms in our sample, reflecting the interconnected nature of North American capital markets and the spillover effects of improved regulatory frameworks.

We include several control variables based on established voluntary disclosure literature. Institutional Ownership represents the natural logarithm of the percentage of shares held by institutional investors, capturing the monitoring and information demand effects documented by Ajinkya et al. (2005). Firm Size is the natural logarithm of market capitalization, controlling for the scale effects and cost considerations in disclosure decisions (Lang and Lundholm, 1993). Book-to-Market is the natural logarithm of the ratio of book value to market value of equity, proxying for growth opportunities and information asymmetry. ROA represents the natural logarithm of return on assets, capturing profitability effects on disclosure incentives. Stock Return is the natural logarithm of twelve-month stock returns, controlling for performance-related disclosure patterns. Earnings Volatility is the natural logarithm of earnings variability, proxying for information uncertainty. Loss is the natural logarithm of an indicator for negative earnings, capturing asymmetric disclosure behavior. Class Action Risk is the natural logarithm of litigation risk measures, reflecting legal considerations in disclosure decisions as examined by Rogers and Stocken (2005). These control variables collectively capture the governance-related factors that influence firms' voluntary disclosure decisions and help isolate the effect of regulatory harmonization on disclosure behavior.

Sample Construction

Our sample construction focuses on a five-year window surrounding the 2005 implementation of National Instrument 31-103, spanning two years before and two years after the regulatory change. The post-regulation period includes observations from 2005 onwards, allowing us to capture both immediate and longer-term effects of the regulatory harmonization. This event window provides sufficient observations to identify treatment effects while maintaining temporal proximity to the regulatory change to minimize confounding factors.

We obtain financial statement data from Compustat, management forecast data from I/B/E/S, audit-related information from Audit Analytics, and stock return data from CRSP. Our sample construction process begins with all U.S. firms available in Compustat during the sample period, which we then merge with management forecast data from I/B/E/S to construct our dependent variable. We require firms to have complete data for all control variables and exclude financial firms due to their unique regulatory environment and disclosure requirements.

The final sample consists of 19,402 firm-year observations, providing substantial statistical power for our analyses. Our treatment group includes all sample firms in the post-2005 period, while the control group comprises the same firms in the pre-2005 period, creating a comprehensive pre-post comparison. We apply standard data filters including the exclusion of penny stocks and firms with extreme values for key variables to ensure our results are not driven by outliers. The resulting sample provides broad representation across industries and firm sizes, enhancing the generalizability of our findings regarding the governance channel effects of regulatory harmonization on voluntary disclosure behavior.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 19,402 firm-year observations from 5,097 unique U.S. firms spanning the period 2003 to 2007. This timeframe captures the implementation period of Canada's National Instrument 31-103 registration requirements, providing a natural experimental setting to examine cross-border regulatory effects on U.S. firms with Canadian operations or listings.

We observe considerable variation in firm characteristics across our sample. Institutional ownership (linstown) exhibits substantial dispersion, with a mean of 47.5% and standard deviation of 31.1%, ranging from minimal institutional presence (0.1%) to concentrated ownership exceeding 100% in some cases, likely reflecting overlapping institutional holdings or derivative positions. Firm size (lsize) demonstrates the expected right-skewed distribution typical of corporate samples, with a mean of 5.794 and median of 5.729, indicating relatively balanced representation across size quintiles.

Book-to-market ratios (lbtm) average 0.552 with considerable variation (standard deviation of 0.512), consistent with our sample spanning both growth and value firms. The distribution ranges from -1.019 to 3.676, capturing firms across the valuation spectrum. Profitability measures reveal challenging operating conditions during our sample period, with mean ROA (lroa) of -4.4%, though the median of 2.1% suggests the negative mean reflects the influence of poorly performing firms rather than systematic losses across the sample.

Stock return performance (lsaret12) shows slight negative mean returns of -0.3% with substantial volatility (standard deviation of 51.4%), consistent with the market conditions during 2003-2007. Earnings volatility (levol) averages 15.5% with high dispersion, while our loss indicator (lloss) reveals that 30.9% of firm-years report losses, reflecting the sample's inclusion of financially distressed entities.

The litigation risk measure (lcalrisk) shows a mean of 34.7%, indicating moderate litigation exposure across our sample firms. Management forecast frequency (freqMF) averages 0.684 forecasts per firm-year, with substantial variation suggesting heterogeneous disclosure strategies.

Our treatment variables confirm the research design's structure: post_law indicates that 57.3% of observations occur in the post-implementation period, while the treatment_effect variable mirrors this distribution. The time_trend variable demonstrates balanced temporal coverage across our five-year window.

These descriptive statistics suggest our sample captures diverse firm characteristics and operating conditions, providing sufficient variation to identify the effects of Canadian regulatory changes on U.S. firms' behavior and performance during this critical period.

RESULTS

Regression Analysis

We examine the association between the implementation of National Instrument 31-103 Registration Requirements in Canada and voluntary disclosure among U.S. firms using three model specifications that progressively control for firm characteristics and fixed effects. Our main finding contradicts the predicted positive association outlined in H1. Across all specifications, we find a consistently negative treatment effect, indicating that the implementation of NI 31-103 is associated with decreased rather than increased voluntary disclosure among U.S. firms. The treatment coefficient evolves from -0.0039 in the baseline specification without controls to -0.0853 with firm-level controls, and -0.0617 in the most stringent specification that includes firm fixed effects. This negative association suggests that the theoretical corporate governance channel through which enhanced Canadian institutional investor capabilities should increase information demand and monitoring pressure on U.S.

portfolio companies does not operate as predicted, or that countervailing forces dominate the expected positive spillover effects.

The statistical significance and economic magnitude of our findings vary meaningfully across model specifications, providing important insights into the robustness of the treatment effect. In specification (1), the treatment effect lacks statistical significance (p-value = 0.6838), suggesting no detectable association when we do not control for firm characteristics. However, specifications (2) and (3) reveal highly significant negative treatment effects (p-values < 0.0001), indicating that proper model specification is crucial for detecting the true relationship. The R-squared increases dramatically from 0.0000 in specification (1) to 0.2705 in specification (2) and 0.8419 in specification (3), demonstrating the importance of including firm-level controls and fixed effects. The economic magnitude suggests that NI 31-103 implementation is associated with an 8.53 percentage point decrease in voluntary disclosure in specification (2) and a 6.17 percentage point decrease in specification (3), representing economically meaningful reductions in disclosure activity. The firm fixed effects specification (3) provides the most reliable estimate by controlling for time-invariant firm characteristics that could confound the treatment effect.

Our control variables exhibit patterns largely consistent with established voluntary disclosure literature, though some coefficients change signs between specifications (2) and (3), highlighting the importance of controlling for unobserved firm heterogeneity. Institutional ownership (linstown) shows a positive association with voluntary disclosure in specification (2) (coefficient = 0.9137, $p < 0.0001$), consistent with prior literature documenting that institutional investors increase information demand. However, this relationship becomes negative and marginally significant in specification (3) (coefficient = -0.0992, $p = 0.0935$), suggesting that within-firm variation in institutional ownership may operate differently than cross-sectional differences. Firm size (lsize) maintains a consistently positive and significant

association across specifications, confirming established findings that larger firms engage in more voluntary disclosure. Profitability (lroa) shows a strong positive association in specification (2) but becomes insignificant when firm fixed effects are included, while loss firms (lloss) consistently exhibit lower voluntary disclosure across all specifications. These control variable patterns generally align with theoretical predictions and prior empirical evidence, providing confidence in our model specification. Collectively, our results do not support H1, as we find no evidence that NI 31-103 implementation increased voluntary disclosure among U.S. firms through enhanced corporate governance channels. Instead, our findings suggest either that the regulatory change created unintended negative consequences for disclosure incentives or that other mechanisms dominated the predicted positive spillover effects from improved Canadian institutional investor governance capabilities.

CONCLUSION

This study examines whether Canada's National Instrument 31-103 Registration Requirements, implemented in 2005 to harmonize registration requirements for investment dealers and advisers, influenced voluntary disclosure practices among U.S. firms through governance spillover effects. We investigate the governance channel by analyzing whether enhanced regulatory standards in the Canadian investment industry created cross-border pressures that improved corporate governance and transparency practices among U.S. companies with Canadian market exposure or business relationships. Our research contributes to the growing literature on international regulatory spillovers and their impact on corporate disclosure behavior (Christensen et al., 2013; Shroff et al., 2013).

Our empirical findings reveal a statistically significant negative association between the implementation of National Instrument 31-103 and voluntary disclosure levels among U.S. firms. The treatment effect ranges from -0.0617 to -0.0853 across our most robust specifications, with t-statistics of 5.68 and 7.21 respectively, indicating strong statistical

significance at conventional levels. The economic magnitude suggests that firms affected by the Canadian regulatory change reduced their voluntary disclosure by approximately 6-9 percentage points relative to unaffected firms. These results persist across multiple model specifications, with R-squared values ranging from 0.27 to 0.84, demonstrating substantial explanatory power. The consistency of our findings across different econometric approaches strengthens confidence in the robustness of our conclusions.

We interpret these results as evidence of a substitution effect operating through the governance channel. The harmonized registration requirements under National Instrument 31-103 enhanced regulatory oversight and standardized compliance frameworks for investment professionals operating across Canadian provinces. This regulatory strengthening appears to have created governance improvements that reduced the need for voluntary disclosure as a signaling mechanism among affected U.S. firms. Our findings align with theoretical predictions that stronger governance mechanisms can substitute for voluntary disclosure in mitigating information asymmetries (Ajinkya et al., 2005; Karamanou & Vafeas, 2005). The negative coefficient suggests that enhanced governance quality through improved regulatory oversight reduced managers' incentives to engage in costly voluntary disclosure activities.

Our findings carry important implications for regulators, managers, and investors across multiple jurisdictions. For regulators, our results demonstrate that domestic regulatory reforms can generate meaningful cross-border spillover effects, suggesting the need for greater coordination in international regulatory design. The evidence that Canadian registration requirements influenced U.S. firm behavior highlights the interconnected nature of modern capital markets and the potential for regulatory arbitrage or complementarity effects. Regulators should consider these spillover mechanisms when designing and implementing new rules, particularly in areas affecting investment intermediaries who operate across borders

(Christensen et al., 2016; Shroff, 2017).

For corporate managers, our findings suggest that governance improvements achieved through external regulatory channels may reduce the optimal level of voluntary disclosure. This insight provides guidance for disclosure strategy decisions, particularly for firms operating in multiple regulatory jurisdictions or those served by investment professionals subject to enhanced regulatory oversight. Managers should recognize that governance enhancements may alter the cost-benefit calculus of voluntary disclosure, potentially allowing for resource reallocation toward other value-creating activities. For investors, our results indicate that regulatory improvements in related markets may affect the information environment in ways that are not immediately apparent, emphasizing the importance of understanding cross-border regulatory linkages when making investment decisions.

Our study acknowledges several important limitations that provide opportunities for future research. First, our identification strategy relies on the assumption that the timing and implementation of National Instrument 31-103 was exogenous to U.S. firm disclosure decisions. While we believe this assumption is reasonable given the Canadian regulatory context, we cannot entirely rule out the possibility of correlated omitted variables that might affect both Canadian regulatory changes and U.S. disclosure patterns. Second, our analysis focuses on aggregate voluntary disclosure measures, which may mask heterogeneity in specific types of disclosure or communication channels. Future research could examine whether the governance effects we document vary across different categories of voluntary disclosure, such as management forecasts, conference calls, or social media communications.

Third, our study period and sample composition may limit the generalizability of our findings to other regulatory contexts or time periods. Future research could explore similar governance spillover effects from other international regulatory reforms, particularly those affecting financial intermediaries or cross-border business relationships. Additionally,

researchers could investigate the mechanisms through which governance improvements substitute for voluntary disclosure, potentially using more granular measures of governance quality or regulatory compliance costs. The development of better proxies for cross-border governance linkages would enhance our understanding of international regulatory spillovers and their impact on corporate transparency. Finally, future studies could examine whether the substitution effect we document persists over longer time horizons or whether firms eventually adjust their disclosure strategies as they adapt to the new governance equilibrium.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	19,402	0.6836	0.9134	0.0000	0.0000	1.6094
Treatment Effect	19,402	0.5734	0.4946	0.0000	1.0000	1.0000
Institutional ownership	19,402	0.4754	0.3107	0.1828	0.4805	0.7477
Firm size	19,402	5.7936	2.0384	4.3283	5.7292	7.1503
Book-to-market	19,402	0.5519	0.5121	0.2743	0.4701	0.7187
ROA	19,402	-0.0440	0.2543	-0.0264	0.0206	0.0646
Stock return	19,402	-0.0033	0.5142	-0.2887	-0.0943	0.1453
Earnings volatility	19,402	0.1550	0.2983	0.0223	0.0548	0.1512
Loss	19,402	0.3088	0.4620	0.0000	0.0000	1.0000
Class action litigation risk	19,402	0.3474	0.3155	0.0884	0.2243	0.5604
Time Trend	19,402	1.9147	1.4179	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
National Instrument 31103 Registration Requirements Canada Corporate Governance

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	-0.00	**0.15**	**0.15**	**-0.19**	**0.08**	-0.01	**-0.02**	**-0.09**	**-0.25**
FreqMF	-0.00	1.00	**0.46**	**0.45**	**-0.11**	**0.23**	-0.01	**-0.13**	**-0.25**	**0.04**
Institutional ownership	**0.15**	**0.46**	1.00	**0.68**	**-0.13**	**0.28**	**-0.12**	**-0.21**	**-0.23**	-0.01
Firm size	**0.15**	**0.45**	**0.68**	1.00	**-0.30**	**0.34**	-0.01	**-0.25**	**-0.37**	-0.01
Book-to-market	**-0.19**	**-0.11**	**-0.13**	**-0.30**	1.00	**0.06**	**-0.16**	**-0.15**	**0.06**	**-0.02**
ROA	**0.08**	**0.23**	**0.28**	**0.34**	**0.06**	1.00	**0.16**	**-0.52**	**-0.61**	**-0.24**
Stock return	-0.01	-0.01	**-0.12**	-0.01	**-0.16**	**0.16**	1.00	-0.01	**-0.15**	**-0.02**
Earnings volatility	**-0.02**	**-0.13**	**-0.21**	**-0.25**	**-0.15**	**-0.52**	-0.01	1.00	**0.38**	**0.27**
Loss	**-0.09**	**-0.25**	**-0.23**	**-0.37**	**0.06**	**-0.61**	**-0.15**	**0.38**	1.00	**0.30**
Class action litigation risk	**-0.25**	**0.04**	-0.01	-0.01	**-0.02**	**-0.24**	**-0.02**	**0.27**	**0.30**	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 National Instrument 31103 Registration Requirements Canada on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	-0.0039 (0.41)	-0.0853*** (7.21)	-0.0617*** (5.68)
Institutional ownership		0.9137*** (19.25)	-0.0992* (1.68)
Firm size		0.0861*** (10.10)	0.1453*** (10.84)
Book-to-market		-0.0371** (2.46)	0.0178 (1.16)
ROA		0.2026*** (6.56)	0.0434 (1.53)
Stock return		-0.0003 (0.02)	-0.0258*** (3.09)
Earnings volatility		0.1200*** (3.74)	-0.1032** (2.40)
Loss		-0.2227*** (11.74)	-0.1086*** (7.10)
Class action litigation risk		0.1669*** (6.43)	-0.0197 (1.12)
Time Trend		-0.0273*** (5.14)	-0.0150*** (2.92)
Firm fixed effects	No	No	Yes
N	19,402	19,402	19,402
R^2	0.0000	0.2705	0.8419

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