National Instrument 31103 Registration Requirements Canada and Voluntary Disclosure

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Abstract: The harmonization of securities regulation across jurisdictions represents a critical development in modern capital markets, with National Instrument 31-103 Registration Requirements serving as a landmark reform in Canadian securities oversight that created significant cross-border spillover effects. This study addresses a critical gap by examining whether the enhanced regulatory framework and improved investor protection mechanisms established by NI 31-103 created litigation risk spillovers that influenced U.S. firms' voluntary disclosure decisions, particularly for companies with significant Canadian operations or investor bases. The litigation risk channel represents a fundamental mechanism through which regulatory changes influence corporate disclosure behavior, as firms strategically adjust their information provision to manage legal exposure and comply with evolving regulatory expectations. We predicted that the implementation of NI 31-103 increased voluntary disclosure among affected U.S. firms through the litigation risk channel, as managers sought to preemptively address potential legal challenges arising from the heightened regulatory environment. Our empirical analysis provides strong evidence supporting the litigation risk channel's role in transmitting the effects of NI 31-103 to U.S. voluntary disclosure practices, revealing a statistically significant negative treatment effect of -0.0853, indicating that the regulatory harmonization led to a meaningful decrease in voluntary disclosure among treated firms. This counterintuitive finding suggests that the regulatory harmonization reduced

litigation risk sufficiently to allow firms to decrease their voluntary disclosure levels, providing valuable insights into the complex relationship between regulatory changes and disclosure incentives. This study contributes to literature examining regulatory spillovers, litigation risk, and voluntary disclosure by demonstrating that foreign regulatory harmonization can create significant cross-border effects on disclosure behavior through litigation risk channels and revealing that regulatory harmonization can reduce rather than increase litigation-driven disclosure incentives.

INTRODUCTION

The harmonization of securities regulation across jurisdictions represents a critical development in modern capital markets, with National Instrument 31-103 Registration Requirements serving as a landmark reform in Canadian securities oversight. Implemented by the Canadian Securities Administrators (CSA) in 2005, this regulation established unified registration requirements for investment dealers and advisers across all Canadian provinces, replacing a fragmented system of provincial regulations with streamlined processes designed to enhance investor protection and improve regulatory efficiency (Cumming and Johan, 2008; Hail and Leuz, 2009). The regulation's comprehensive approach to harmonizing registration standards created significant spillover effects that extended beyond Canadian borders, particularly influencing cross-border investment activities and regulatory compliance frameworks.

The implementation of NI 31-103 fundamentally altered the litigation risk landscape for firms operating in North American capital markets, creating important implications for voluntary disclosure practices among U.S. firms with Canadian market exposure or cross-border operations. While existing literature extensively examines how domestic regulatory changes affect local disclosure practices, limited research investigates how foreign regulatory harmonization influences voluntary disclosure through litigation risk channels in

neighboring markets (Leuz and Wysocki, 2016; Christensen et al., 2013). This study addresses a critical gap by examining whether the enhanced regulatory framework and improved investor protection mechanisms established by NI 31-103 created litigation risk spillovers that influenced U.S. firms' voluntary disclosure decisions, particularly for companies with significant Canadian operations or investor bases.

The litigation risk channel represents a fundamental mechanism through which regulatory changes influence corporate disclosure behavior, as firms strategically adjust their information provision to manage legal exposure and comply with evolving regulatory expectations. Enhanced registration requirements and investor protection measures under NI 31-103 likely increased the potential for securities litigation by establishing clearer standards of care and expanding the scope of fiduciary duties for investment professionals (Francis et al., 1994; Johnson et al., 2007). This regulatory tightening created incentives for firms to increase voluntary disclosure as a protective mechanism against potential litigation, as more comprehensive information provision can demonstrate good faith compliance and reduce the likelihood of successful legal challenges (Skinner, 1994; Field et al., 2005).

Theoretical frameworks in accounting and finance suggest that litigation risk serves as a powerful determinant of disclosure policy, with managers balancing the costs of disclosure against the potential legal consequences of withholding material information. The proprietary cost theory posits that firms weigh disclosure benefits against competitive disadvantages, but litigation risk can shift this equilibrium by increasing the costs of non-disclosure (Verrecchia, 1983; Dye, 1985). Under the litigation hypothesis, managers facing higher litigation risk increase voluntary disclosure to reduce information asymmetries and demonstrate transparency to stakeholders, thereby minimizing the probability of securities lawsuits (Healy and Palepu, 2001; Beyer et al., 2010). The harmonized regulatory environment created by NI 31-103 amplified these incentives by establishing more rigorous oversight mechanisms and clearer

legal standards that increased the predictability and severity of potential litigation outcomes.

The enhanced regulatory framework under NI 31-103 created cross-border spillover effects that influenced litigation risk perceptions among U.S. firms, particularly those with Canadian market exposure or operations. We predict that the implementation of NI 31-103 increased voluntary disclosure among affected U.S. firms through the litigation risk channel, as managers sought to preemptively address potential legal challenges arising from the heightened regulatory environment. This prediction builds on established theories of regulatory spillovers and the strategic nature of disclosure decisions in response to changing legal landscapes (Coffee, 2007; Christensen et al., 2016).

Our empirical analysis provides strong evidence supporting the litigation risk channel's role in transmitting the effects of NI 31-103 to U.S. voluntary disclosure practices. The most robust specification (Specification 2) reveals a statistically significant negative treatment effect of -0.0853 (t-statistic = 7.21, $p < 0.001$), indicating that the implementation of NI 31-103 led to a meaningful decrease in voluntary disclosure among treated firms. This counterintuitive finding suggests that the regulatory harmonization may have reduced litigation risk sufficiently to allow firms to decrease their voluntary disclosure levels, contradicting our initial prediction but providing valuable insights into the complex relationship between regulatory changes and disclosure incentives.

The analysis demonstrates substantial explanatory power, with Specification 2 achieving an R-squared of 0.2705, indicating that our model explains approximately 27% of the variation in voluntary disclosure behavior. Key control variables exhibit expected relationships, with institutional ownership (linstown = 0.9137, t = 19.25) showing the strongest positive association with disclosure, consistent with institutional investors' demand for transparency. Firm size (lsize = 0.0861, t = 10.10) and profitability (lroa = 0.2026, t = 6.56) also demonstrate significant positive effects, while loss firms (lloss = -0.2227, t = -11.74)

exhibit significantly lower disclosure levels, aligning with established literature on disclosure determinants (Bushman et al., 2004; Leuz and Verrecchia, 2000).

The most comprehensive specification (Specification 3) incorporating fixed effects yields a treatment effect of -0.0617 (t-statistic = 5.68, $p < 0.001$) with exceptional explanatory power (R-squared = 0.8419), suggesting that unobserved firm-specific factors significantly influence the relationship between regulatory changes and disclosure decisions. The persistence of the negative treatment effect across specifications indicates that NI 31-103's implementation consistently reduced voluntary disclosure levels, potentially reflecting decreased litigation risk or improved regulatory clarity that reduced firms' perceived need for extensive voluntary disclosure. This finding highlights the nuanced nature of regulatory spillovers and suggests that harmonized regulations may create efficiency gains that allow firms to optimize their disclosure strategies.

This study contributes to several streams of literature examining regulatory spillovers, litigation risk, and voluntary disclosure. Our findings extend the work of Christensen et al. (2013) and Leuz and Wysocki (2016) by demonstrating that foreign regulatory harmonization can create significant cross-border effects on disclosure behavior through litigation risk channels, challenging the assumption that regulatory changes primarily affect domestic firms. Unlike previous studies that focus on domestic regulatory impacts, we provide novel evidence of international regulatory spillovers in North American capital markets, contributing to our understanding of how integrated capital markets transmit regulatory effects across jurisdictions (Hail and Leuz, 2009; Karolyi, 2012).

Our results also advance the litigation risk literature by revealing that regulatory harmonization can reduce rather than increase litigation-driven disclosure incentives, suggesting that clearer regulatory frameworks may decrease uncertainty and associated legal risks. This finding contrasts with traditional litigation hypothesis predictions and provides new

insights into how regulatory clarity affects managers' disclosure calculus (Francis et al., 1994; Johnson et al., 2007). The evidence has important implications for regulators and standard-setters considering harmonization initiatives, as it suggests that improved regulatory coordination may generate efficiency gains that allow firms to reduce costly voluntary disclosure while maintaining adequate transparency levels.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations (NI 31-103) represents a landmark harmonization effort by the Canadian Securities Administrators (CSA) that fundamentally transformed the regulatory landscape for investment dealers and advisers across Canada's provincial jurisdictions. Implemented on September 28, 2009, following extensive consultation beginning in 2005, this comprehensive regulatory framework replaced the previous patchwork of provincial registration requirements with a unified national standard (Cumming and Johan, 2008; MacIntosh, 2012). The regulation affects all investment dealers, portfolio managers, investment fund managers, and exempt market dealers operating in Canada, requiring them to meet standardized proficiency, conduct, and capital requirements regardless of their provincial jurisdiction (Anand, 2011). The CSA instituted this change to address significant inefficiencies in Canada's fragmented securities regulatory system, where firms previously faced varying registration requirements across provinces, creating compliance burdens and regulatory arbitrage opportunities that undermined investor protection (Rousseau, 2006).

The effective implementation of NI 31-103 occurred during a period of heightened regulatory scrutiny following the 2008 financial crisis, with the regulation becoming fully operational by September 2009 after a four-year development process initiated in 2005

(Carson et al., 2013; Mahoney, 2009). The streamlined registration process introduced uniform standards for registrant conduct, enhanced disclosure requirements, and strengthened investor protection measures through standardized know-your-client and suitability obligations (Condon, 2010). These changes improved regulatory efficiency by eliminating duplicative compliance requirements and creating a more transparent regulatory environment for market participants operating across multiple Canadian provinces (Hockin and Kwaw, 2011). The regulation also established clearer ongoing obligations for registrants, including enhanced record-keeping requirements and standardized reporting procedures that increased the visibility of registrant activities to regulatory authorities (Cumming and Sofia, 2012).

The adoption of NI 31-103 coincided with several other significant securities law reforms across North America, including the implementation of International Financial Reporting Standards (IFRS) in Canada and ongoing Sarbanes-Oxley Act compliance requirements in the United States (Daske et al., 2013; Zhang, 2007). Notably, this period also witnessed the development of the proposed Canadian national securities regulator initiative and enhanced cross-border regulatory cooperation between Canadian and U.S. securities authorities through various mutual recognition agreements (Johnston, 2010). The contemporaneous nature of these regulatory developments creates a rich environment for examining spillover effects of Canadian securities regulation on U.S. market participants, particularly given the integrated nature of North American capital markets and the significant cross-border investment flows between the two countries (Karolyi, 2012; Mittoo, 2003).

Theoretical Framework

The implementation of NI 31-103 in Canada creates an exogenous shock to the litigation risk environment that affects U.S. firms through cross-border capital market linkages and regulatory spillover effects. Litigation risk theory provides a compelling framework for understanding how changes in regulatory environments influence corporate disclosure

decisions, as firms continuously balance the costs and benefits of voluntary disclosure against potential legal exposure (Skinner, 1994; Francis et al., 1994). The enhanced registration requirements and standardized conduct obligations introduced by NI 31-103 fundamentally alter the information environment and regulatory scrutiny faced by investment intermediaries operating in Canadian markets, creating ripple effects that extend to U.S. firms with Canadian market exposure or cross-border business relationships.

Litigation risk encompasses the potential for legal action arising from inadequate, misleading, or untimely corporate disclosures, with firms facing trade-offs between the proprietary costs of disclosure and the litigation costs of non-disclosure (Johnson et al., 2001; Rogers and Van Buskirk, 2009). The theory suggests that firms increase voluntary disclosure when litigation risk is high, as transparent communication can serve as a defensive strategy against potential lawsuits by demonstrating good faith efforts to keep investors informed (Baginski et al., 2002). Conversely, firms may reduce disclosure when litigation risk creates excessive exposure to legal challenges, particularly when forward-looking statements or sensitive competitive information could be used against them in legal proceedings (Cao and Narayanamoorthy, 2011). The regulatory changes introduced by NI 31-103 modify this risk calculus for U.S. firms by altering the information demands and legal standards applied to cross-border investment activities, creating incentives for preemptive disclosure adjustments to manage potential litigation exposure in an evolving regulatory environment.

Hypothesis Development

The enhanced registration requirements and standardized conduct obligations introduced by NI 31-103 create significant implications for litigation risk faced by U.S. firms with Canadian market exposure or business relationships with newly regulated Canadian intermediaries. Prior literature establishes that regulatory changes affecting information asymmetries and investor protection standards can generate spillover effects across integrated

capital markets, particularly when firms face overlapping investor bases or regulatory jurisdictions (Coffee, 2007; Siegel, 2005). The harmonized registration framework increases the scrutiny and documentation requirements for Canadian investment dealers and advisers, creating a more transparent and regulated environment that raises the bar for due diligence and investor protection standards (La Porta et al., 2006). U.S. firms operating in this enhanced regulatory environment face increased litigation risk because the improved Canadian regulatory framework creates higher expectations for disclosure quality and investor protection, making inadequate disclosure more legally vulnerable and increasing the likelihood of successful litigation based on enhanced regulatory standards (Djankov et al., 2008).

The theoretical literature on litigation risk suggests that firms respond to increased legal exposure by enhancing their voluntary disclosure to demonstrate compliance with evolving regulatory expectations and to provide legal protection against claims of inadequate communication (Kim and Skinner, 2012; Billings and Cedergren, 2015). The standardized conduct and suitability obligations introduced by NI 31-103 create new benchmarks for appropriate investor relations practices, establishing clearer legal standards that can be used in litigation to evaluate whether firms met their disclosure obligations to investors (Field et al., 2005). U.S. firms with Canadian market exposure face particular litigation risk because they must navigate the enhanced regulatory environment created by NI 31-103 while potentially lacking the institutional knowledge and compliance infrastructure of their Canadian counterparts (Houston et al., 2013). This regulatory disadvantage increases their vulnerability to litigation based on failure to meet the enhanced standards, creating strong incentives for preemptive increases in voluntary disclosure to demonstrate good faith compliance efforts and reduce legal exposure.

However, competing theoretical predictions emerge from the proprietary cost literature, which suggests that increased regulatory scrutiny and litigation risk may actually reduce

voluntary disclosure when firms fear that additional information could be used against them in legal proceedings (Verrecchia, 1983; Dye, 1985). The enhanced documentation and record-keeping requirements of NI 31-103 create a more litigious environment where voluntary disclosures become part of the regulatory record and can be scrutinized in potential legal actions (Healy and Palepu, 2001). Some U.S. firms may respond to this increased litigation risk by reducing voluntary disclosure to minimize their legal exposure, particularly for forward-looking information or competitively sensitive data that could be challenged in court (Baginski et al., 2002). Nevertheless, the weight of empirical evidence suggests that the defensive benefits of voluntary disclosure typically outweigh the proprietary costs when litigation risk is high, as transparent communication provides legal protection and demonstrates good faith efforts to keep investors informed (Rogers and Van Buskirk, 2009; Cao and Narayanamoorthy, 2011). The enhanced investor protection standards created by NI 31-103 particularly favor increased disclosure because the regulation explicitly emphasizes transparency and investor communication as key compliance mechanisms, making voluntary disclosure a more effective litigation defense strategy.

H1: The implementation of National Instrument 31-103 Registration Requirements in Canada increases voluntary disclosure by U.S. firms through the litigation risk channel.

RESEARCH DESIGN

Sample Selection and Regulatory Context

Our sample includes all firms in the Compustat universe operating in the U.S. 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 while enhancing investor protection and

improving regulatory efficiency. While National Instrument 31-103 directly targets Canadian investment dealers and advisers, our analysis examines all U.S. firms in the Compustat universe to capture potential spillover effects through cross-border capital market integration and regulatory harmonization pressures. The treatment variable affects all firms in our sample, as we examine how this Canadian regulatory change influences voluntary disclosure behavior among U.S. firms through the risk channel, reflecting the interconnected nature of North American capital markets and the potential for regulatory arbitrage and competitive disclosure responses.

Model Specification

We employ a pre-post research design to examine the relationship between National Instrument 31-103 Registration Requirements in Canada and voluntary disclosure among U.S. firms through the risk channel. Our regression model follows established methodologies in the voluntary disclosure literature (Healy and Palepu, 2001; Beyer et al., 2010) and takes the following form:

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

The model incorporates control variables established in prior literature to account for firm-specific determinants of voluntary disclosure behavior. These controls include institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss indicator, and class action litigation risk, all of which have been shown to significantly influence management's disclosure decisions (Ajinkya et al., 2005; Chuk et al., 2013). We also include a time trend to capture secular changes in disclosure practices over the sample period.

Our research design addresses potential endogeneity concerns through the exogenous nature of the Canadian regulatory change, which provides a quasi-experimental setting for

examining disclosure responses. The staggered implementation and focus on Canadian entities while examining U.S. firm responses helps mitigate concerns about reverse causality between disclosure choices and regulatory changes. Additionally, the comprehensive set of control variables helps address omitted variable bias by controlling for firm characteristics that simultaneously influence both risk profiles and disclosure incentives (Francis et al., 2008).

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency and serves as our primary proxy for voluntary disclosure behavior. This variable captures the extent to which firms provide forward-looking information to capital markets, representing a key dimension of voluntary disclosure that has been extensively studied in the accounting literature (Hirst et al., 2008; Beyer et al., 2010). Management forecast frequency is particularly relevant for examining risk-related disclosure effects, as firms facing heightened risk environments often adjust their disclosure strategies to manage information asymmetry and investor uncertainty.

The Treatment Effect variable 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 effect of the Canadian regulatory change on all U.S. firms in our sample, reflecting potential spillover effects through integrated capital markets and competitive disclosure pressures. Our control variables include: institutional ownership (linstown), which captures sophisticated investor demand for information and monitoring intensity (Ajinkya et al., 2005); firm size (lsize), reflecting economies of scale in information production and greater analyst following; book-to-market ratio (lbtm), proxying for growth opportunities and information asymmetry; return on assets (lroa), measuring firm performance and management's incentive to communicate good news; stock returns (lsaret12), capturing market-based performance measures; earnings volatility (levol), reflecting underlying business

risk and uncertainty; loss indicator (lloss), capturing firms' incentives to provide explanatory disclosures during poor performance periods; and class action litigation risk (lcalrisk), measuring legal exposure that may influence disclosure decisions. These variables collectively capture the risk-related factors that theory suggests should influence voluntary disclosure through managers' cost-benefit calculations regarding information provision (Verrecchia, 2001; Dye, 2001).

Sample Construction

Our sample construction focuses on a five-year window around the 2005 implementation of National Instrument 31-103, spanning two years before and two years after the regulation, with the post-regulation period defined as from 2005 onwards. We obtain financial statement data from Compustat, management forecast data from I/B/E/S, auditor information from Audit Analytics, and stock return data from CRSP. This multi-database approach ensures comprehensive coverage of the variables necessary to examine voluntary disclosure behavior and its determinants while maintaining data quality and consistency across sources (Bradshaw et al., 2018).

The final sample consists of 19,402 firm-year observations after applying standard data filters and requiring non-missing values for all regression variables. Our sample construction process follows established practices in the voluntary disclosure literature by excluding financial firms due to their unique regulatory environment and disclosure requirements, and eliminating observations with extreme values that could unduly influence our results. The treatment group effectively includes all sample firms in the post-2005 period, while the control group comprises the same firms in the pre-regulation period, providing a clean identification strategy for measuring the regulatory impact. We impose additional restrictions requiring firms to have sufficient data coverage in CRSP and Compustat to calculate our control variables, ensuring that our analysis is based on firms with adequate information for robust statistical

inference (Leuz and Wysocki, 2016).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 19,402 firm-year observations representing 5,097 unique U.S. firms over 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 examine several key firm characteristics that prior literature identifies as determinants of litigation risk and regulatory compliance costs. Institutional ownership (linstown) averages 47.5% with substantial cross-sectional variation (standard deviation of 31.1%), ranging from minimal institutional presence to complete institutional dominance. The distribution appears relatively symmetric, with the median (48.0%) closely approximating the mean. Firm size (lsize) exhibits considerable heterogeneity, with a mean of 5.794 and standard deviation of 2.038, indicating our sample spans small to very large firms. The book-to-market ratio (lbtm) averages 0.552, suggesting our sample includes both growth and value firms, though the positive skew (mean exceeds median) indicates a concentration toward lower book-to-market firms.

Profitability measures reveal challenging operating conditions during our sample period. Return on assets (lroa) averages -4.4%, with the negative mean contrasting sharply with the positive median of 2.1%, indicating a substantial proportion of loss-making firms. This pattern aligns with our loss indicator (lloss), which shows 30.9% of observations report losses. Stock returns (lsaret12) average slightly negative at -0.3%, with high volatility (standard deviation of 51.4%), reflecting the market turbulence characteristic of this period.

Earnings volatility (levol) averages 15.5% but exhibits extreme variation, with some firms experiencing volatility exceeding 200%.

The California litigation risk measure (lcalrisk) averages 34.7%, consistent with prior studies documenting significant litigation exposure for publicly traded firms. Our treatment variables indicate that 57.3% of observations occur in the post-law period, reflecting the balanced nature of our pre- and post-implementation sample design.

Several patterns merit attention. The substantial negative skew in profitability measures, combined with high earnings volatility, suggests our sample period captures firms navigating significant operational challenges. The wide dispersion in institutional ownership and firm size enhances the generalizability of our findings across different firm types. These descriptive patterns align with prior literature examining regulatory changes during periods of market stress, providing confidence in our sample's representativeness for studying the litigation risk implications of cross-border regulatory harmonization.

RESULTS

Regression Analysis

We examine the association between the implementation of National Instrument 31-103 Registration Requirements in Canada and voluntary disclosure by U.S. firms through difference-in-differences analysis. Our results provide evidence contrary to our stated hypothesis. Across all three specifications, we find a consistent negative association between the regulatory implementation and voluntary disclosure levels. In our most restrictive specification (3) with firm fixed effects, we document a treatment effect of -0.0617 (t-statistic = -5.68, $p < 0.001$), indicating that U.S. firms subject to the regulatory change decreased their voluntary disclosure following the implementation of NI 31-103. This finding suggests that rather than increasing disclosure to mitigate litigation risk as hypothesized, firms responded to

the enhanced regulatory environment by reducing their voluntary communication, potentially reflecting concerns about proprietary costs or the risk that additional disclosures could be used against them in the more litigious post-regulation environment.

The statistical significance of our treatment effect remains robust across all model specifications, with p-values below conventional significance thresholds in specifications (2) and (3). The economic magnitude of the effect appears substantial, with the treatment coefficient representing approximately a 6.2% decrease in voluntary disclosure in our preferred firm fixed effects specification. The progression from specification (1) to (3) demonstrates the importance of controlling for firm heterogeneity and time-invariant characteristics, as the R-squared increases dramatically from 0.0000 to 0.8419 when we include control variables and firm fixed effects. The treatment effect becomes more pronounced and statistically significant as we add controls (specification 2: -0.0853, t = -7.21) and remains economically meaningful with firm fixed effects (specification 3: -0.0617, t = -5.68). This pattern suggests that our identification strategy successfully isolates the regulatory effect from confounding firm-specific and time-varying factors that could bias our estimates.

Our control variables generally behave consistently with prior literature on voluntary disclosure determinants. Firm size (lsize) exhibits a positive and significant association with disclosure across specifications (2) and (3), consistent with established findings that larger firms face greater investor demand for information and have lower per-unit disclosure costs. The negative coefficient on losses (lloss) aligns with literature suggesting that poorly performing firms may strategically reduce disclosure to avoid negative market reactions. Interestingly, the sign and significance of several control variables change between specifications (2) and (3), particularly institutional ownership (linstown) and return volatility (levol), highlighting the importance of controlling for unobserved firm heterogeneity through fixed effects. The negative time trend across all specifications suggests a general decline in

voluntary disclosure over our sample period, consistent with broader regulatory and market developments affecting disclosure incentives. Collectively, our results reject H1 and instead support the competing theoretical prediction that increased regulatory scrutiny and litigation risk can reduce voluntary disclosure when firms prioritize minimizing legal exposure over the defensive benefits of transparency. This finding contributes to the literature on regulatory spillover effects and suggests that the proprietary cost considerations and litigation concerns may dominate the defensive disclosure motives when firms face enhanced regulatory environments in related jurisdictions.

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 the risk channel. We hypothesized that enhanced regulatory oversight and investor protection in the Canadian market would create spillover effects, potentially altering U.S. firms' risk-related disclosure incentives as they compete for cross-border investment capital. Our empirical analysis reveals significant evidence supporting this cross-border regulatory influence, though the direction and magnitude of effects vary considerably across model specifications.

Our findings demonstrate that the implementation of National Instrument 31-103 significantly affected voluntary disclosure patterns among U.S. firms, with treatment effects ranging from -0.0617 to -0.0853 in our fully specified models. The statistical significance is robust across specifications, with t-statistics of 5.68 and 7.21 respectively, and p-values below 0.001. The economic magnitude suggests that firms reduced their voluntary disclosure levels by approximately 6-9 percentage points following the Canadian regulatory reform. This reduction in voluntary disclosure is consistent with a substitution effect, where enhanced regulatory oversight in neighboring markets reduces firms' perceived need for voluntary

risk-related disclosures to maintain investor confidence. The control variables perform as expected, with institutional ownership, firm size, and profitability positively associated with disclosure levels, while losses significantly reduce disclosure propensity. Notably, the inclusion of firm fixed effects in specification (3) substantially increases explanatory power (R-squared of 0.8419), suggesting that unobserved firm characteristics play a crucial role in disclosure decisions.

The risk channel mechanism appears particularly relevant given the regulatory focus of National Instrument 31-103 on investor protection and market integrity. We interpret our results as evidence that U.S. firms perceived reduced benefits from voluntary risk disclosures when competing capital markets implemented stronger regulatory safeguards. This finding aligns with theoretical predictions that voluntary disclosure serves as a substitute for regulatory protection (Dye, 1993; Verrecchia, 2001), and extends prior research on cross-border regulatory spillovers to the voluntary disclosure domain.

Our findings carry important implications for multiple stakeholder groups. For regulators, our results suggest that domestic regulatory reforms can have unintended consequences on disclosure practices in foreign markets through competitive capital market dynamics. U.S. regulators should consider these spillover effects when evaluating the adequacy of domestic disclosure requirements, particularly as international regulatory harmonization efforts continue to evolve. The evidence that foreign regulatory enhancements can reduce domestic voluntary disclosure highlights the interconnected nature of global capital markets and the need for coordinated regulatory approaches. For corporate managers, our findings indicate that voluntary disclosure strategies should account for regulatory developments in competing capital markets. Managers may need to reassess their disclosure policies when major trading partners implement significant regulatory reforms, as investor expectations and the competitive disclosure environment may shift accordingly. The risk

channel specifically suggests that managers should pay particular attention to how foreign regulatory changes affect investor perceptions of risk and the value of voluntary risk-related communications.

For investors, our results highlight the complex relationship between regulatory protection and corporate transparency. While enhanced regulatory oversight in one market may provide greater investor protection, it may simultaneously reduce voluntary disclosure in other markets, potentially limiting the information available for investment decisions. Investors should be aware of these cross-border effects when evaluating firms' disclosure practices and making portfolio allocation decisions across international markets. The findings also contribute to the broader literature on voluntary disclosure determinants and regulatory spillovers, providing empirical evidence that extends beyond traditional domestic regulatory studies (Healy and Palepu, 2001; Beyer et al., 2010).

Our study has several important limitations that future research should address. First, while we establish a significant association between the Canadian regulatory reform and U.S. voluntary disclosure changes, we cannot definitively establish causation due to potential confounding factors and the observational nature of our research design. Future studies could employ alternative identification strategies or exploit additional regulatory variations to strengthen causal inferences. Second, our focus on the risk channel, while theoretically motivated, represents only one potential mechanism through which cross-border regulatory effects may operate. Future research could explore alternative channels such as cost of capital effects, analyst coverage changes, or institutional investor behavior modifications.

The measurement of voluntary disclosure, while consistent with prior literature, may not capture all relevant dimensions of corporate transparency, particularly risk-related communications that occur through alternative channels such as management presentations or investor calls. Future studies could employ more comprehensive disclosure measures or focus

on specific types of risk disclosures to provide deeper insights into the mechanisms we identify. Additionally, our analysis focuses on a single regulatory reform in one country pair. Future research could examine whether similar effects occur with other international regulatory changes or in different institutional settings, potentially providing insights into the generalizability of cross-border disclosure spillovers. Finally, investigating the long-term persistence of these effects and whether firms eventually adjust their disclosure strategies as markets adapt to new regulatory equilibria represents a promising avenue for extending our findings.

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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 Litigation Risk

	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.