

Mandatory Gender Diversity Disclosures as a Commitment Device: Evidence from Canada

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Abstract

We examine the real effects of mandatory gender diversity disclosures. Our analysis takes advantage of Canada's 2014 regulation mandating disclosures of specific governance practices regarding gender diversity, such as written policies and targets. We find that female directorships increase following the mandate, especially among firms showing a strong commitment to gender diversity in their disclosures. In addition, the strength of the disclosed commitments is associated with a subsequent increase in foreign institutional ownership with pro-social preferences. Furthermore, the increase in female directorships is associated with improved CEO turnover-performance sensitivity and the stock market reacts positively to the adoption of the regulation. Overall, our findings suggest that mandatory disclosure of specific gender diversity practices can alter firm behavior by facilitating credible commitment and stakeholder discipline.

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1. Introduction

The growing global focus of social equity has triggered an unprecedented wave of boardroom gender diversity reforms worldwide (Deloitte 2017; Catalyst 2018 a, b). An increasingly popular regulatory instrument to address boardroom gender imbalance is mandatory diversity disclosures, which aim to increase transparency that facilitates stakeholder discipline on corporate diversity practices. However, these mandates are commonly perceived as uninformative and ineffective, due to the existence of multiple reporting frameworks and the lack of specific disclosure requirements (Aguilar 2010; EC 2013).¹ Taking advantage of a regulation in Canada that mandates disclosures of specific governance practices regarding gender diversity, this study examines the real effects of this disclosure regulation.

In 2014, Canada enacted disclosure requirements regarding women on boards and in senior management for all domestic firms listed on the Toronto Stock Exchange (TSX). The regulation is “intended to provide investors and other stakeholders with information on the issuer’s approach to advancing the representation of women on boards and in senior management, which in turn may impact investment and voting decisions” (OSC 2014). A unique feature of this regulation is that it clearly defines the disclosure scope and requires firms to disclose, in the proxy circular for the annual meeting, the following practices regarding women on boards: director term limits, written policies on identification and nomination of women directors, consideration of the representation of women on the board, targets for women on the board, and the number and percentage of women

¹ For example, in response to the 2009 diversity disclosure enhancements by the U.S. SEC that require companies to provide information “regarding the consideration of diversity in the process by which candidates for director are considered for nomination,” firms often simply provide a brief statement indicating diversity was something considered as part of an informal policy (SEC 2017). Similarly, the 2013 European Commission (EC) impact assessment of nonfinancial disclosure directives highlights inadequate transparency of nonfinancial information as a main issue and notes that “Information provided by companies does not reveal the board’s approach on diversity in the selection process, the objectives envisaged or how they have been reached” (EC 2013, p. 3).

on the board.² The new information mandated by the regulation mainly pertains to the board's practices such as diversity policy and targets, because information on the number of female directors is already available prior to the regulation.

The 2014 Canadian gender diversity disclosure regulation (hereafter, the disclosure regulation) provides a powerful setting to examine our research question. First, it does not require firms to *adopt* any specific diversity practice on director term limit, policy, or target, or to *consider* the representation of women on boards. Instead, it requires firms to explicitly *disclose* whether they adopt or consider each specific practice, and if not, why not. Second, unlike the disclosure requirements in most countries, the disclosure mandate is not bundled with governance code amendments or quota legislation.³ Third, firms listed on the TSX Venture Exchange ("venture firms") are exempt from the disclosure mandate, and thus can be used as a benchmark sample to strengthen our identification.

The disclosure regulation may increase female directorships because it facilitates credible commitment and stakeholder discipline. First, the regulation promotes social awareness of fair representation of women on boards and binds boards to publicly reveal their specific gender diversity practices (Mahoney 1995; Rock 2002; Cheng, Liao, and Zhang 2013). The increased visibility and reporting obligation enable the sorting between "good" versus "bad" firms and

² See Amendments to National Instrument 58-101, Disclosure of Corporate Governance Practice (NI 58-101). While the regulation also requires firms to disclose their practices regarding women in executive officer positions, these disclosure requirements are less specific or extensive. In particular, the term limit disclosure is not applicable to executives, the regulation does not require the disclosure of a written policy regarding women in executive officer positions, and firms can define executive officers in various ways. Thus, we focus on the disclosure requirements regarding female directorships in our main analyses.

³ Most countries have amended governance codes or enacted legislative measures to improve boardroom gender diversity (Catalyst 2018a, b). Take EU member countries as an example. The gender diversity disclosure requirement for listed companies is associated with the corporate governance codes, which require the company to disclose whether it has complied with the gender diversity recommendation in the governance code and, if not, to explain why not. Most recently, the SEC approved a Nasdaq proposal that would require listed companies to meet minimum diversity targets or explain in writing why they are not doing so (Osipovich 2021)

increase boards' incentives to disclose favorable information and commit to gender diversity. Second, the clearly defined disclosure scope and specific disclosure requirements reduce information acquisition costs and facilitate comparison across firms, which increases stakeholders' ability to monitor and pressure underperforming firms to behave better (Christensen, Floyd, Liu, and Maffett 2017; Chen, Hung, and Wang 2018). The increased stakeholder monitoring further enhances the credibility of using the disclosures to commit to gender diversity.

We predict that the disclosure regulation increases female directorships, and that the increase is greater among firms showing a stronger commitment to boardroom gender diversity in their disclosures. There are, however, arguments for no discernable changes in female directorships, if the market discipline fails to overcome unconscious gender bias, or if the stakeholders already have sufficient information on board diversity (e.g., director profiles in the proxy statements). Thus, it is an empirical question whether the disclosure regulation alters firm behavior in appointing female directors.

We begin our analysis by examining changes in female representation on corporate boards in the four years before and after the regulation. We use a difference-in-differences (DiD) design that compares the changes following the regulation for Canadian TSX-listed firms ("treatment firms") with the corresponding changes for benchmark firms. We employ three alternative benchmark samples: a PSM U.S. sample, which comprises propensity-score-matched U.S. firms; a non-U.S. sample, which comprises non-Canadian firms from 11 economies without governance-code or legislation-based boardroom gender diversity reforms; and a venture sample, which comprises Canadian firms listed on the TSX Venture Exchange. We use three measures to capture female representation on the board: the number of women, the percentage of women, and a variable indicating whether a firm has at least one female director. We find that, relative to the benchmark

firms, all three measures increase among the treatment firms after the disclosure regulation. The change is economically significant. For example, the increase in the number of female directors ranges from 37 to 49.5 percentage points, when compared to the three benchmark samples.

We next investigate the association between the strength of disclosed commitment and subsequent changes in female directorships. To measure the level of disclosed commitment to boardroom gender diversity, we construct a firm-year-level board diversity commitment index by summing up four indicator variables based on whether a firm discloses in the post-regulation period: 1) adoption of director term limits and other renewal mechanisms, 2) adoption of a written policy regarding the representation of women on the board, 3) consideration of the representation of women in the director recruitment, and 4) adoption of targets regarding the representation of women on the board. Consistent with our prediction, we find that the increase in female directorships is larger for firms with a higher commitment index. Importantly, this result is robust to controlling for the effect of voluntary gender diversity disclosure in the last year of the pre-regulation period. And there is no significant difference in the post-regulation increase in female directors for treatment firms with or without pre-regulation voluntary diversity disclosure. This result highlights the role of mandating specific disclosures in facilitating credible commitment to gender diversity.

To provide corroborating evidence that the specific disclosures on gender diversity practices facilitating stakeholder monitoring and benchmarking, we examine changes in institutional ownership following the disclosure regulation. We focus on foreign pension funds and independent institutions (including mutual funds and investment advisers), because 1) foreign investors are more likely to respond to disclosure regulations due to their information disadvantage compared to domestic investors (DeFond, Hu, Hung, and Li 2011), and 2) pension funds and independent

institutions have a greater need to cater to their clients on social issues (Dyck, Lins, Roth, and Wagner 2019). We find that these investors increase their ownership of the treatment firms after the disclosure regulation, and that the increase is greater among firms with stronger disclosed commitment. In contrast, there is no change in other types of institutional ownership following the regulation.

In the next set of tests, we examine whether the increase in female directorships is simply window dressing and explore governance implications from the disclosure regulation. We find an increase in female representation on governance-related committees (i.e., governance, audit, compensation, and nominating) following the disclosure regulation, especially among firms with stronger disclosed commitment. Importantly, we find an improvement in the sensitivity of CEO turnover to performance after the regulation, and this improvement is stronger among firms with a greater increase in female directorships.

We further find significant and positive cumulative abnormal returns around the key events associated with the disclosure regulation. The observed market reaction is more positive for firms without any women on the board or on governance-related committees. These results suggest that governance frictions exist to prevent some firms from having a diverse board and that investors perceive the disclosure regulation to yield greater net benefits for these firms. Finally, we find no changes in female executives following the disclosure mandate, suggesting that the disclosure requirements for female executives are relatively ineffective.

Our study contributes to the literature in several ways. First, we extend the growing research on the real effects of nonfinancial disclosure regulations.⁴ Consistent with mandatory disclosures

⁴ Nonfinancial disclosure generally refers to the disclosure on a firm's activities related to environment, social, and governance (ESG) issues. The "Carrot & Sticks" report includes over 600 reporting provisions on nonfinancial reporting as of 2020 (KPMG and UNEP 2010). Examples of studies investigating the effects of mandatory

facilitating stakeholder monitoring and improving social outcomes at the expense of shareholders, Chen et al. (2018) and Grewal, Riedl, and Serafeim (2019) find negative stock market reactions to events associated with the passage of mandatory nonfinancial disclosures in China and the European Union. Our study documents that Canada's disclosure regulation alters firm practice in appointing female directors and is in line with shareholder interest. Importantly, one channel that disclosure regulations can affect boardroom gender diversity is through enabling firm commitment and facilitating stakeholder discipline.

Second, our results speak to the important issues of implementation and design for nonfinancial disclosure regulations. Unlike corporate financial reporting that is prescribed by a uniform regime such as U.S. GAAP and IFRS (Chen, Lewis, Schipper, and Zhang 2017), the proliferation of multiple nonfinancial reporting frameworks and the lack of consistent disclosure requirements are the subject of much criticism and confusion (EC 2013).⁵ Canada's regulation is unique as it clearly defines the scope of disclosure with specific requirements that facilitate the use of these disclosures as a commitment device to boardroom gender diversity (Rogers, Milkman, and Volpp 2014). Our results support the notion that the effectiveness of a disclosure regulation depends on the framework in prescribing what and how firms must disclose (Christensen, Hail, and Leuz 2018).

Finally, we add to the large literature on gender diversity and provide policy implications on corporate gender diversity reforms. Research suggests that gender-diverse boards are associated with significant economic effects (e.g., Adam and Ferreira 2009; Gul, Srinidhi, and Ng 2011; Srinidhi, Gul, and Tsui 2011; Post and Byron 2015). Because endogeneity is difficult to address

nonfinancial disclosures include Dranove, Kessler, McClellan, and Satterthwaite (2003), Jin and Leslie (2003), Benneer and Olmstead (2008), Kolstad (2013), Christensen et al. (2017), and Rauter (2020).

⁵ Also, see "In the Soup: Accounting Standards Comes with Costs," *The Economist*, October 3, 2020.

in a cross-sectional setting, a growing body of research focuses on gender quota laws and governance code reforms.⁶ The findings of this stream of research, however, do not speak directly to the effect of diversity disclosure regulations, which are typically embedded in reforms and involve few reporting obligations. Given that a growing number of regulators have passed or are considering disclosure-based gender diversity regulations,⁷ we provide a timely investigation on the effectiveness of specific disclosure requirements as an alternative means of improving boardroom gender diversity and promoting good governance practices.

2. Institutional background and empirical predictions

2.1 Institutional background

Over the past few decades, women's participation in the labor market has grown substantially in Canada. According to Statistics Canada (2011), women make up 47 percent of the Canadian workforce. Their representation on Canadian corporate boards and senior management, on the other hand, has lagged behind other developed countries (Catalyst 2012). In response, the Canadian federal and provincial governments have taken steps to address the gender imbalance in business, including a key disclosure regulation to increase the representation of women on boards and in executive officer positions.

In June 2013, Charles Sousa, the Ontario Minister of Finance, and Laurel Broten, then Minister Responsible for Women's Issues, requested that the Ontario Securities Commission (the OSC) undertook a public consultation process regarding disclosure requirements for women on

⁶ See, for example, Ahern and Dittmar (2012), Matsa and Miller (2013), Fauver, Hung, and Taboada (2019), Hwang, Shivdasani, and Simintzi (2019), and Lu (2019).

⁷ Several states in the U.S. (e.g., Maryland and Illinois) have enacted mandatory disclosure requirements on boardroom gender diversity (<https://corpgov.law.harvard.edu/2020/05/12/states-are-leading-the-charge-to-corporate-boards-diversify/>).

boards and in senior management. The OSC then published a consultation paper on July 30, 2013. It convened a public roundtable to discuss the proposed requirements on October 16, 2013 and issued a survey to approximately 1,000 TSX-listed issuers on November 5, 2013. Following the roundtable discussion and after receiving over 90 written submissions to the consultation paper and more than 440 responses to the survey that generally supported the initiative, the OSC issued proposed amendments to National Instrument 58-101 Disclosure of Corporate Governance Practices for public comment on January 16, 2014.⁸

On July 3, 2014, the securities regulatory authorities in other Canadian provinces and territories, including Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Québec and Saskatchewan, republished the proposed amendments by the OSC for a 60-day comment period.⁹ On October 15, 2014, the OSC and these eight securities regulatory authorities issued Multilateral CSA Notice of Amendments to National Instrument 58-101, requiring disclosure regarding the representation of women on the board and in executive officer positions. The new requirements applied to issuers listed on TSX but not to those listed on TSX Venture Exchange. TSX-listed companies must provide these disclosures in their proxy circulars following the financial year ending on or after December 31, 2014.

The objectives of the regulation are “to encourage more effective boards and better corporate decision making by requiring greater transparency for investors and other stakeholders regarding the representation of women on boards and in senior management of TSX-listed and other non-venture issuers” (OSC 2014). To encourage “renewal” of boards, the regulation asks for disclosure about whether companies have term limits in place. In addition, the regulation requires companies

⁸ See https://www.osc.gov.on.ca/en/SecuritiesLaw_ni_20140116_58-101_pro-amd-f1.htm.

⁹ The Canadian Securities Administrators (CSA) consists of securities regulators in Canada’s 10 provinces and three territories.

to disclose whether they have a written diversity policy for recruiting women directors and whether they consider or have internal targets for women directors and executives and, if not, why not.¹⁰ It also requires companies to report the number of women on their boards and in executive officer positions. Specifically, the regulation adds the following items in Form 58-101F1 Corporate Governance Disclosure: 1) Item 10, director term limits and other mechanisms of board renewal, 2) Item 11, policies regarding the representation of women on the board, 3), Item 12, consideration of the representation of women in the director identification and selection process, 4) Item 13, consideration given to the representation of women in executive officer appointments, 5) Item 14, issuer's targets regarding the representation of women on the board and in executive officer positions, and 6) Item 15, number of women on the board and in executive officer positions.

Appendix A provides an example of the mandatory gender diversity disclosures from Acadian Timber Corp., one of the largest timberland owners in Eastern Canada. The company provides no discussion related to diversity in the 2013 proxy circular. Following the 2014 disclosure regulation, the company adds Items 10-15 in its statement of corporate governance practices in the 2014 proxy circular. The statement describes that the company does not have any term limit of board renewal, has not adopted a written board diversity policy, considers the level of women as one of the many factors in the director identification and selection process, and has not adopted targets regarding the number of women on its board.

Because Canada's regulation aims to address the weaknesses of diversity disclosure rules in other countries, it is worth comparing this regulation with the U.S. diversity disclosure rule. In 2009, the SEC amended Regulation S-K to require companies to report in their annual proxy statements on whether they considered diversity in identifying director nominees and, if so, how.

¹⁰ Unlike the comply-or-explain approach in other countries, such as Australia and the U.K., Canada's regulation is not bundled with amendments of governance codes to recommend consideration of gender diversity or targets.

The rule also requires firms that have adopted a diversity policy to describe how they implement the policy and assess its effectiveness.¹¹ The U.S. rule, however, does not define “diversity,” affording managers significant discretion over what to disclose. In addition, the rule does not require firms to disclose specific diversity practices (or the lack of them). Analyzing diversity disclosures in the proxy statements of S&P 100 firms from 2010–2013, Dhir (2015) finds that firms most frequently define diversity with reference to experiential and related factors, rather than socio-demographic characteristics, such as gender, race, or ethnicity. Furthermore, the lack of specificity in the U.S. disclosure requirements gives firms little incentive to provide meaningful information. As a result, U.S. companies often limit their disclosure to a brief statement indicating diversity was something considered as part of an informal policy, and many companies do not discuss any concrete steps taken to create a diverse board (Aguilar 2010).¹²

2.2 Empirical predictions

Prior research suggests that mandatory financial disclosure provides managers with a credible mechanism to commit to disclosure ex ante, thereby reducing information asymmetry and agency conflicts between managers and shareholders (Mahoney 1995; Rock 2002; Christensen et al. 2018). Unlike mandatory financial disclosure that is typically prescribed by a uniform framework with specific standards, mandatory nonfinancial disclosure usually allows multiple reporting frameworks and lacks specificity. Despite much criticism and the push to increase transparency of

¹¹ Specifically, Item 401(e) of Regulation S-K requires a company to “briefly discuss the specific experience, qualifications, attributes or skills that led to the conclusion that the person should serve as a director....” If diversity is a factor that is considered when nominating directors, Item 407(c)(2)(vi) requires a company to discuss how “the nominating committee (or the board) considers diversity in identifying nominees for director.” Additionally, Item 407(c)(2)(vi) requires a company to disclose whether its “nominating committee (or the board) has a policy with regard to the consideration of diversity in identifying director nominees” and a description of how such a policy is implemented.

¹² In additional analyses based on four years before and after 2009 (untabulated), we find that both our PSM U.S. firms and Canadian firms show few changes and exhibit similar trends in the number of female directors surrounding the adoption of the 2009 SEC diversity disclosure rule.

companies' ESG practices (e.g., policies and targets), it is unclear whether and how these disclosures affect firm behavior.

We posit that by clearly defining the disclosure scope and prescribing specific disclosure requirements, the disclosure regulation may facilitate the use of these disclosures as a commitment device and lead to an increase in female directorships. First, the reporting obligation and public visibility motivate boards to commit to gender diversity by disclosing detailed diversity strategies. For example, the required disclosure of whether a firm adopts a diversity policy allows stakeholders to sort firms on their level of commitment to gender diversity, thereby increasing the benefits of committing through disclosures (Besley and Ghatak 2007; Dranove and Jin 2010). In addition, by disclosing that a firm has adopted a written policy that assesses the effectiveness of the nomination process and monitors the annual progress, firms risk negative publicity for failure to improve. In contrast, using such disclosure as a commitment device would be less effective under voluntary disclosure regimes, because the discretionary nature of voluntary disclosures makes it difficult for stakeholders to compare across firms and take corresponding actions. Furthermore, firms can freely discontinue providing information after observing the outcome, without any enforcement from the regulators.

Second, the clearly defined scope of the diversity disclosure and specific disclosure requirements facilitate market discipline by reducing stakeholders' information acquisition and processing costs and by enhancing their ability to coordinate and pressure firms who need improvement. Anecdotal evidence suggests that institutional investors and other stakeholders consider disclosures of diversity practices in their monitoring and engagement effort. For example, the British Columbia Investment Management Corporation sets the goal of women on boards at 25% for its portfolio companies. If a company does not meet that requirement and has no plan to

do so, it votes against the chair of the nominating committee (Porado 2019). As diversity and inclusiveness programs are a focus of many international and Canadian nongovernmental organizations (NGOs),¹³ the disclosure regulation can help these stakeholders better identify underperforming firms and set a clear goal (Topping 2012).

The above reasoning leads to the following hypotheses.

Hypothesis 1: *TSX-listed firms experience an increase in female directorships after Canada's gender diversity disclosure regulation in 2014.*

Hypothesis 2: *The increase in female directorships after Canada's gender diversity disclosure regulation is greater among TSX-listed firms showing a stronger commitment to boardroom gender diversity in their disclosures.*

There are also countervailing arguments for finding no effect of the disclosure regulation on boardroom gender diversity. Compared with quota laws or governance code reforms, disclosure regulations may lack teeth in promoting corporate gender diversity. For example, the disclosure approach does not specifically address the need for programs aimed at increasing the number of qualified women candidates. The Ontario Teachers' Pension Plan states in its comment letter to OSC's staff consultation paper on the proposed disclosure requirement: "We are not convinced that a comply-or-explain regime will be effective in achieving a measurable increase in the number of female directors." In addition, since information on the number of female directors is already available before the disclosure regulation, it is unclear whether specific disclosure requirement on diversity practices can lead to real changes. It is therefore an empirical question whether the disclosure regulation affects firms' choice of female directors.

¹³ For example, Catalyst Canada focuses on supporting research with the federal and provincial governments to promote gender-balanced boards. Canada's Top 100 is an annual competition that recognizes Canadian companies for their diversity and inclusiveness programs. #GoSponsorHer was created to catalyze the sponsorship and mentorship of women in leadership roles.

3. Data and research design

3.1 Sample selection

Our treatment firms consist of Canadian domestic firms listed on the TSX that are subject to the gender diversity disclosure regulation of National Instrument 58-101. We restrict the sample period to the four years before Canada adopted the regulation in December 2014 and the four years afterward. Specifically, the pre-regulation period consists of the fiscal years ending in December 2010 through November 2014, and the post-regulation period consists of the fiscal years ending in December 2015 through November 2019. We exclude the first effective year of the disclosure regulation from our sample to mitigate possible transition effects.¹⁴

We obtain financial data from S&P Compustat and director profiles from BoardEx. For our primary analysis, we require sample firms to have necessary financial and director data and to have at least one year in both pre- and post-regulation periods. These criteria yield a treatment sample of 2,402 firm-year observations representing 399 unique firms.

To perform difference-in-differences analyses, we construct three alternative benchmark samples. The first is the propensity-score-matched U.S. firms (“PSM U.S. sample”).¹⁵ As described in detail in Appendix C, the PSM procedure generates a sample of 1,807 firm-years for 273 unique U.S. firms. The second benchmark sample is the non-Canadian firms from economies without legislation-based and governance-code boardroom gender diversity reforms (Catalyst 2018a, b; Fauver et al. 2019) (“non-U.S. sample”). After excluding economies with less than 50 firm-year observations, the non-U.S. sample consists of 2,548 observations from 11 economies: Argentina (81 observations), Brazil (350), Chile (159), China (770), Indonesia (132), South Korea (169), Mexico (219), New Zealand (131), the Philippines (175), Taiwan (312), and United Arab

¹⁴ Our results are robust to including the first effective year of the disclosure regulation.

¹⁵ Our results are robust to using all U.S. listed firms or industry-size matched U.S. firms as alternative benchmarks.

Emirates (50). The third benchmark sample is the Canadian firms listed on the TSX Venture Exchange (“venture firms”), which are exempt from the diversity disclosure regulation. This sample of Canadian venture firms consists of 235 firm-year observations.¹⁶ Table 1 presents the sample distribution by year for the treatment sample and the three benchmark samples.

An advantage of using the PSM U.S. sample as the benchmark is that these firms are more comparable with our treatment firms than the non-U.S. firms. A limitation, however, is that the U.S. Council of Institutional Investors amended the Corporate Governance Policies to recommend consideration of gender in 2013, a potential confounding event during our sample period.¹⁷ Canadian venture firms serve as a useful benchmark, because they are subject to the same national institutions and concurrent political changes (e.g., the election of Justin Trudeau with a big win of the Liberal and Green Parties in 2015) that coincided with the increased stakeholder support of the gender diversity issues but are exempt from the diversity disclosure regulation in 2014. However, this benchmark sample has a relatively small sample size and limited coverage in BoardEx.

3.2 Research design

We test our hypotheses using a DiD design that compares female representation on the board before and after the gender diversity disclosure regulation for treatment firms versus for benchmark firms. Specifically, we regress the number of female directors on an indicator variable that captures the post-regulation period (*Post*), the interaction term between *Post* and a firm-level indicator that captures the treatment firms (*Treat*), an array of control variables, and firm fixed

¹⁶ The sample of venture firms is relatively small due to the requirement of financial data from Compustat. Because most of the venture firms are not covered by BoardEx, we hand-collect the director information from the proxy circulars. We verify from the circulars that the venture firms in our sample do not voluntarily provide gender diversity disclosures as required by Form 58-101F1.

¹⁷ To the extent that female representation on boards increases among U.S. firms in response to the recommendation by the Council of Institutional Investors, this would bias against finding relative changes for the TSX firms.

effects.¹⁸ We omit the indicator variable, *Treat*, because it is absorbed by firm fixed effects.¹⁹ The regression model is specified as follows.

$$N. \text{female directors}_t = \beta_0 + \beta_1 Post + \beta_2 Post \times Treat + Controls_{t-1} + Firm\ FEs + \mu. \quad (1)$$

We alternatively measure the dependent variable as the percentage of female directors or a dummy indicating whether a firm has at least one female director. We use OLS to estimate the regression model, where the dependent variable is the number or percentage of female directors. We use a Probit model, where the dependent variable is the indicator for female directors after replacing firm fixed effects with industry fixed effects, because nonlinear models with many fixed effects likely suffer from incidental parameter problems (Wooldridge 2010). A significantly positive coefficient on $Post \times Treat$ indicates an increase in the representation of women on corporate boards after the gender diversity disclosure regulation for the treatment firms, relative to the benchmark firms. We use robust standard errors clustered by firm to evaluate the significance of regression coefficients in all analyses.²⁰

To mitigate potential omitted-variables problems, we follow previous studies (e.g., Zhang 2007; Gul, Srinidhi, and Ng 2011; Levi, Li, and Zhang 2014; Lai, Srinidhi, Guil and Tsui 2017) and control for the following variables: (1) *Inst. ownership*, measured as the percentage of institutional ownership; (2) *Indp. directors*, measured as the percentage of independent directors; (3) *CEO-Chair*, an indicator equal to one if a firm's CEO is also the chairman/chairwoman of the

¹⁸ We use the raw number of female directors as our dependent variable, instead of a log-transformed value, because econometrics research argues that log-transformation tends to produce biased estimates when applied to count data (Abrevaya 1999). In an untabulated analysis, we re-estimate model (1) using a Poisson model, a negative binomial model, or an OLS model with the logged value of the number of female directors or executives. Our results remain robust, except that the DiD coefficient is insignificant with the Poisson or negative binomial models when using the venture firms as the benchmark in Table 3, Panel A.

¹⁹ Untabulated results are robust to including year fixed effect instead of *Post*. Our main model includes *Post* to ease comparison with the results based on treatment firms only.

²⁰ Untabulated results are robust to alternative clustering schemes at the industry or year level, or two-way clustering at the firm and year level or the industry and year level.

board and zero otherwise; (4) *Board size*, measured as the natural logarithm of the number of directors; (5) *Market-book*, measured as the ratio of the market value of equity to the book value of equity; (6) *Leverage*, measured as short-term debt plus long-term debt divided by total assets; (7) *Firm size*, measured as the natural logarithm of total assets in million U.S. dollars; (8) *ROA*, measured as pre-tax income divided by total assets; and (9) *Ret*, measured as annual stock returns adjusted by two-digit-SIC industry return for Canadian and U.S. firms and by market return for non-U.S. firms. All the control variables are lagged by one year.

3.3 Descriptive statistics

Table 2 presents descriptive statistics of the variables. In Panel A, we report summary statistics for the treatment firms and the three samples of benchmark firms. We find that the average number of female directors (average percentage of female directors, percentage of firms having at least one female director) over the sample period is 1.107 (10.8%, 58.5%) for the treatment firms, 0.959 (9.4%, 57.9%) for the PSM U.S. firms, 0.8 (8.2%, 51.6%) for the non-U.S. firms, and 0.281 (4.5%, 23.8%) for the venture firms.

Panel B of Table 2 reports results of the univariate analysis of female director variables. We find that the average number of female directors (average percentage of female directors, percentage of firms having at least one female director) for the treatment firms is 0.825 (7.5%, 45.7%) in the pre-regulation period and 1.373 (13.9%, 70.6%) in the post-regulation period, representing an increase of 66.4 (85.3, 54.5) percentage points. The corresponding number increases from 0.787 (7.7%, 52%) in the pre-regulation period to 1.157 (11.5%, 64.8%) in the post-regulation period for the PSM U.S. firms, increases from 0.686 (7%, 47%) to 0.873 (9%, 54.6%) for the non-U.S. firms, and increases from 0.205 (1.4%, 19.7%) to 0.37 (2.7%, 28.7%) for the venture firms. Comparing the DiD changes in female representation on the board from the pre- to

the post-regulation period, we find that the increases in the three measures of female directorships for the treatment firms are all significantly greater than the increases in the three benchmark samples. An untabulated analysis also shows that, in the pre-regulation period, none of these measures differs statistically between the treatment firms and the two benchmarks of the PSM U.S. firms and non-U.S. firms, while venture firms have significantly lower levels of female boardroom representation than the treatment firms.

To illustrate the trend of female directorships surrounding the adoption of gender diversity disclosure regulation in Canada (i.e., year 0), Panels A, B, and C of Figure 1 plot the annual average numbers of female directors, the annual average percentages of female directors, and the annual percentages of firms having at least one female director for the treatment firms and the three benchmark samples, respectively. The figure shows that the treatment firms experience a sharp increase in all three measures of female directorships from year -1 to year 4. The three benchmark samples, on the other hand, experience a gradual increase over the sample period. In addition to the growing global awareness of gender diversity issues, the increasing trend in the United States may also reflect that the 2013 amendment of Corporate Governance Policies to recommend consideration of gender on corporate boards by the U.S. Council of Institutional Investors. In contrast, the trend in the pre-regulation period is generally similar across the treatment and benchmark firms in all three panels.

4. Hypotheses tests

4.1 Mandatory gender diversity disclosure and female representation on the board

In Table 3, we perform analyses of the effects of the disclosure regulation on female directorships. In Panel A, the dependent variable is the number of female directors. Column (1)

reports the baseline regression results using the treatment firms only. Under this specification, the variable of interest, *Post*, captures the effects of the disclosure regulation. We find that the coefficient on *Post* is positive and significant at the 1% level, suggesting that the number of female directors on corporate boards increases after the regulation. Columns (2)–(4) report results of the DiD analysis using the three alternative benchmarks. We find that the coefficients on the variable of interest, $Post \times Treat$, are positive and significant at the 1% level in all three columns. The increase in female directorships is economically meaningful. Following the gender diversity disclosure regulation, the average number of women on the board increases by 37 percentage points relative to the PSM U.S. firms, by 47.6 percentage points relative to the non-U.S. benchmark firms, and by 49.5 percentage points relative to the venture firms.²¹ In addition, we find that the coefficients on *Post* are significantly positive in columns (2)–(4), suggesting an increasing global trend of female directorships.

We conduct similar analyses in Table 3, Panel B, based on the percentage of female directors and, in Panel C, on the probability of having at least one female director. As in Panel A, we find significant increases in female representation on the boards in the treatment firms, relative to the benchmark firms. Following Norton, Wang, and Ai (2004), we compute the average marginal effects of the interaction terms of Probit regressions reported in Panel C and their average *z-stats*. Untabulated results show that the average marginal effects of $Post \times Treat$ in Panel C, where the benchmark is the PSM U.S. firms, non-U.S. firms, and venture firms, are 0.129, 0.193, and 0.137, respectively, with average *z-stats* of 2.78, 3.40, and 1.46, respectively. In terms of economic magnitude, the increase in the average percentage of women on the board (average likelihood of a

²¹ 37%, 47.6%, and 49.5% are calculated as $0.305/0.825$, $0.393/0.825$, and $0.408/0.825$, where 0.305, 0.393 and 0.408 are the coefficients on $Post \times Treat$ in columns (2)–(4) of Panel A of Table 3, and 0.825 is the average number of female directors for the treatment firms in the pre-regulation period as reported in Panel B of Table 2.

firm having female directors) in the treatment firms represent an increase of 44 (28.2), 56 (42.2), and 58.7 (30) percentage points, relative to the PSM U.S. firms, non-U.S. firms, and the venture firms, respectively.²²

Regarding the control variables, we find that firms with more independent directors (*Indp. director*), larger board size (*Board size*), higher growth (*Market-book*), lower leverage (*Leverage*), and greater assets (*Firm size*) have more female representation on the board. Despite the differences in sample and period, these findings are generally consistent with those in prior studies (e.g., Gul et al. 2011; Levi et al. 2014; Lai et al. 2017). Collectively, the results in Table 3 support our first hypothesis and suggest that the disclosure regulation in Canada leads to an increase in female directorships.

4.2 Specific gender diversity disclosures as a commitment device

In this section, we conduct analyses to shed light on how firms use specific disclosures required by the regulation to reveal their commitment to boardroom gender diversity, and how such disclosures correlate with the change in female directors following the regulation. Using data on the disclosure items collected by the CSA, we construct a firm-year-level board diversity commitment index in the post-regulation period (*Diversity commitment_Post*) by summing up four indicator variables based on whether a firm discloses 1) the adoption of director term limits and other mechanisms of board renewal (*Term limit_Post*), 2) the adoption of a written policy regarding the representation of women on the board (*Diversity policy_Post*), 3) consideration of the representation of women in the director recruitment (*Diversity consideration_Post*), and 4) the

²² 44%, 56%, and 58.7% (28.2%, 42.2%, and 30%) are calculated as $0.033/0.075$, $0.042/0.075$, and $0.044/0.075$ ($0.129/0.457$, $0.193/0.457$, and $0.137/0.457$), where 0.033, 0.042 and 0.044 are the coefficient on *Post* \times *Treat* in columns (2)–(4) of Panel B of Table 3 (0.129, 0.193, and 0.137 are the average marginal effects of *Post* \times *Treat* in columns (2)–(4) of Panel C as calculated previously). 0.075 is the mean of *%female directors* and 0.457 is the mean of *Having at least one female director* for the treatment firms in the pre-regulation period as reported in Panel B of Table 2.

adoption of targets regarding the representation of women on the board (*Diversity target_Post*). The larger the value of the diversity commitment index, the stronger the disclosed commitment to improving female representation on the board. We emphasize that all treatment firms are required to provide the disclosures under the regulation regardless of the governance practices. The content of the disclosure, such as whether they adopt diversity policies and targets, varies across firms and thus reveals their commitment to boardroom gender diversity.

Table 4, Panel A reports descriptive statistics of the diversity commitment index and the associated disclosure variables. Among the post-regulation firm-years, the mean values of *Diversity commitment_Post*, *Term limit_Post*, *Diversity policy_Post*, *Diversity consideration_Post*, and *Diversity target_Post* are 1.668, 0.566, 0.287, 0.675, and 0.139, respectively.²³

Table 4, Panel B reports results of the effects of the disclosure regulation on the number of female directors, conditional on the board diversity commitment index as well as the individual indicators. We restrict this analysis to the treatment sample as the diversity disclosure items are available only for these firms. In doing so, we lag these variables by one year to mitigate the potential effects of female directorships on a firm's diversity disclosures. Column (1) shows a positive and significant coefficient on *Diversity commitment_Post*, and columns (2)–(5) show that the coefficients on the four individual disclosure indicators are positive and significant at the 1% level.²⁴ These results support our second hypothesis and suggest that the increase in female

²³ In addition, we find that the annual average of *Term limit_Post* drops from 77% in the regulation event year (*Year 0*) to 43.4% in *Year +1* and then gradually increases in subsequent years. In contrast, the annual averages of the other three variables (*Diversity policy_Post*, *Diversity consideration_Post*, and *Diversity target_Post*) gradually increase from *Year 0* to *Year +3*.

²⁴ In an untabulated analysis, where all four individual indicators are included in one regression, we find that the coefficients on all interactions remain significant, except that the coefficient on *Diversity target_Post* becomes insignificant. The Pearson correlation between *Diversity target_Post* and *Diversity Policy_Post* (*Term limit_Post*, *Diversity consideration_Post*) is 0.467 (0.239, 0.214), so the insignificant coefficient on *Diversity target_Post* may be driven by the relatively high correlation between diversity targets and diversity policy.

directorships following the disclosure regulation is greater for firms whose disclosures show a stronger commitment to boardroom gender diversity in the previous year.²⁵

Note that our argument of specific disclosure requirements enhancing the credibility of commitment does not require that firms cannot commit via voluntary disclosure pre-regulation, nor do we argue that firms perfectly commit post-regulation. Our emphasis is that mandating specific disclosures facilitates creditable commitments through these disclosures. To shed light on this issue, we hand-collect information from proxy circulars on voluntary diversity disclosures in the last year of the pre-regulation period. We obtain proxy circular filings in the Canadian System for Electronic Document Analysis and Retrieval (SEDAR) database. We find that, among the 329 treatment firms in our sample with available proxy circulars, 155 (47.1%) disclose some form of diversity-related considerations in selecting directors before the regulation. These disclosures, however, are often vague and vary in scope.²⁶ To control for a firm's commitment to board diversity pre-regulation, we construct a firm-level indicator variable, *Pre-commit firms*, and include its interaction with *Post* in the regression. Specifically, *Pre-commit firms* equals one if a firm discloses any diversity-related considerations in selecting directors in the last fiscal year prior to December 2014, and zero otherwise.

²⁵ Additional analysis (untabulated) finds robust results using the percentage of female directors and the probability of a firm having at least one female director as the dependent variable in Panel B of Table 4.

²⁶ For example, Lundin Mining Corp states in its 2013 proxy circular: "The Corporation recognizes that improving diversity on the Board and among its senior executives presents the Corporation with an opportunity to develop a competitive advantage by ensuring that the Corporation appeals to potential employees from the broadest possible talent pool. To that end, while the focus always has been, and will continue to be, to recruit and appoint the most qualified individuals, the Corporation proposes to make a greater effort to locate qualified women as candidates for nomination to the Board. Women are well represented in senior executive officer positions within the Corporation and its subsidiary corporations." Westport Fuel System Inc. states in its 2013 proxy circular: "Nomination and Election of Directors Recruiting an appropriate group of people to act as Directors of a public company is a challenging task. Westport's Board Chair and the NCG Committee work together to determine the optimum size of the Board and the appropriate mix of business skills, experience, and diversity of the members of the Board in order to effectively fulfill its mission."

As reported in column (6) of Panel B, Table 4, the coefficient on *Diversity commitment_Post* remains significantly positive after controlling for the pre-regulation diversity disclosure. Moreover, the insignificant coefficient on *Pre-commit firms* \times *Post* suggests that the increase in female directorships following the regulation does not differ between the treatment firms with or without pre-regulation disclosure of diversity-related considerations. Overall, our results in Table 4 are consistent with the view that mandatory disclosure of specific gender diversity practices can alter firm behavior by facilitating credible commitment to boardroom gender diversity.

5. Additional analyses

5.1 Mandatory gender diversity disclosure and institutional ownership

We argue that specific diversity information disclosed under the regulation improves the ability of stakeholders to exert pressure on firms to behave better, which further enhances the credibility of committing to boardroom gender diversity through disclosing diversity practices. To provide corroborating evidence on this argument, we examine changes in institutional ownership following the disclosure regulation. We focus on one group of foreign institutional investors that are likely sensitive to gender diversity issues: foreign pension funds and independent institutions (including mutual funds and investment advisers). Relative to domestic investors, foreign investors have greater costs of obtaining information about local companies and therefore would benefit more from disclosure regulations (DeFond et al. 2011). In addition, compared to hedge funds who have a relatively short investment horizon and primarily focus on financial returns, pension funds and independent institutions have a greater need to cater to their clients on social issues and are more likely to drive ESG performance (Ferreira and Matos 2008; Dyck et al. 2019). If these

investors are mindful of boardroom gender diversity, we expect them to find the disclosed diversity information useful and incorporate it in their investment decisions.

Table 5, Panel A reports the descriptive statistics of institutional ownership for the sample firms over the years surrounding the diversity disclosure regulation. The ownership held by foreign pension funds and independent institutions increases from 11.6% in the pre-regulation period to 13.6% in the post period. The other institutional ownership, on the other hand, has a weak increase from 16.8% to 17.8% after the regulation.

Table 5, Panel B presents regression results of the effect of board diversity disclosure on institutional ownership.²⁷ In columns (1) through (5) where the ownership held by foreign pension funds and independent institutions is the dependent variable, we find a significantly positive coefficient on *Post*, suggesting that foreign pension funds and independent institutions generally increase their ownership in our treatment firms after the disclosure regulation. More importantly, column (1) shows a positive and significant coefficient on *Diversity commitment_Post*, and columns (2)–(5) show positive and significant coefficients on two out of the four individual disclosure indicators: *Diversity policy_Post* and *Diversity target_Post*. These results suggest that the increase in ownership of foreign pension funds and independent institutions following the disclosure regulation is greater for firms showing a stronger commitment to boardroom gender diversity in the previous year. In contrast, column (6) shows that the coefficient on neither *Post* nor *Diversity commitment_Post* is significant, suggesting no change in other types of institutional ownership following the regulation.

Overall, the results in Table 5 are consistent with foreign pension funds and independent institutions change their ownership in response to the diversity information disclosed under the

²⁷ To facilitate the interpretation of the variables in the firm fixed effects models, we drop *Inst. ownership* from the list of control variables in Table 5.

regulation. These results suggest that the mandatory and specific diversity disclosures facilitate shareholder monitoring in achieving boardroom gender diversity.²⁸

5.2 Female memberships on governance-related committees

Our analyses so far show an increase in female directorships following the disclosure regulation in Canada. The greater presence of women on boards may simply reflect tokenism or window dressing, or it can meaningfully affect corporate governance if newly appointed female directors participate in board monitoring and corporate governance. In this subsection, we examine whether the diversity disclosure regulation affects female memberships on governance-related committees. We identify the governance, audit, nominating, and compensation committees as governance-related, as studies show that directors who sit on these committees are more likely to influence board governance (Adams and Ferreira 2009).

Table 6 presents the analysis of the effect of the gender diversity disclosure regulation on the number of female members on the governance-related committees.²⁹ Panel A reports the primary regression results. In column (1), we report the baseline results using the treatment firms only, and in columns (2)–(4), we report results of the DiD analysis results using the three alternative benchmarks. We find that the coefficients on the variables of interest, *Post* in column (1) and *Post* \times *Treat* in columns (2)–(4), are all positive and significant at the 1% level, suggesting that the

²⁸ To provide additional evidence on the effect of the disclosure regulation, we conduct a Factiva search of media articles that mention "gender diversity" in the pre- and post-regulation periods. We find that the number of media articles in Canada increases from 913 in the pre-regulation period to 3,683 in the post-regulation period, representing a 303% increase. On the other hand, the number of media articles increases from 3,147 to 8,652 in the U.S. (a 175% increase) and from 1340 to 2,467 in the 11 non-U.S. benchmark countries (an 84% increase). These descriptive statistics are consistent with the greater increase in the awareness and media attention of gender diversity issues in Canada following the disclosure regulation, relative to the benchmark countries.

²⁹ For brevity, we report results in Table 6 using the number of female members on governance-related committees (*N. female, gov. committees*) as the dependent variable. Using the percentage variable (*%female gov. committees*) or indicator variable (*Having at least one female member on gov. committees*) as alternative dependent variables yields similar results (untabulated).

number of women on the governance-related committees increases after the regulation. In terms of economic magnitude, following the gender diversity disclosure regulation, the female representation on the governance committees increases by 37.9, 63.2, and 24.8 percentage points relative to the PSM U.S. firms, the non-U.S. benchmark firms, and the venture firms, respectively.³⁰ Panel B reports the results of the cross-sectional analysis conditional on the board diversity commitment index and the individual items. Consistent with the results in Panel B of Table 4, we find that increase in the number of female members on governance-related committees following the disclosure regulation is greater for firms that show a stronger commitment to boardroom gender diversity via the specific disclosures in the previous year.

Taken together, Table 6 provides evidence suggesting that the adoption of mandatory gender diversity disclosure in Canada is associated with an increase in female members on governance-related committees, and that this association is more pronounced among firms showing a stronger diversity commitment via expanded disclosure of specific diversity policies and practices.

5.3 Mandatory gender diversity disclosure and CEO turnover-performance sensitivity

The greater presence of women on boards and governance-related committees could affect corporate governance in significant ways if companies seek women directors to tap a broader talent pool or promote board independence. To the extent that newly appointed female directors influence corporate governance, we expect that boards with an increased number of female members are more likely to hold CEOs accountable for poor performance, leading to greater CEO turnover-performance sensitivity following the disclosure regulation. On the other hand, if additional female directors are appointed simply for window dressing or tokenism or are even

³⁰ 37.9%, 63.2%, and 24.8% are calculated as $0.247/0.652$, $0.412/0.652$, and $0.162/0.652$, where 0.247, 0.412, and 0.162 are the coefficients on $Post \times Treat$ in columns (2) through (4) of Panel A of Table 6, and 0.652 is the average number of female members on the governance committees for the treatment firms over the pre-regulation period.

counterproductive to well-governed firms, we expect no change or a decrease in CEO turnover-performance sensitivity following the disclosure regulation.

To shed light on this issue, we perform an analysis to examine whether the increased representation of women on corporate boards and the governance-related committees after the disclosure regulation increases CEO turnover-performance sensitivity. In doing so, we obtain CEO data from BoardEx and identify CEO turnovers when the CEOs in two successive years are not the same person.³¹ Following prior studies (e.g., Wu and Zhang 2019), we exclude voluntary CEO turnovers, which are classified as departures of CEOs older than 60 or when the departing CEO remains as chairman/chairwoman of the board.³² As in prior studies (e.g., Jenter and Kanaan 2015; Kang, Luo, and Na 2018), we measure firm performance using stock returns over the past two years prior to the turnover year, *2-year Ret*.³³ We adjust *2-year Ret* by two-digit-SIC industry return for the treatment firms, the PSM U.S. firms, and the venture firms, and by market return for the non-U.S. sample of firms.

Table 7, Panel A reports results of the Probit regression analysis. The dependent variable is an indicator capturing CEO turnover and the independent variable of interest is the interaction term between the post-regulation indicator and the stock price performance ($Post \times 2\text{-year Ret}$). As in prior studies (e.g., Jenter and Kanaan 2015), we control for CEO age (*LnAge*), CEO tenure (*LnTenure*), TSX index membership (*TSX index*), along with *Inst. ownership*, *Indp. directors*, *CEO-Chair*, *Board size*, *Market-book*, *Leverage*, and *Firm size* that are used in our main analyses. We additionally control for the industry fixed effects. All firm-year independent variables are

³¹ We hand-collect CEO data for venture firms from their proxy circulars.

³² Our results (untabulated) are robust to the sample with the inclusion of voluntary CEO turnovers.

³³ Results are similar when firm performance is measured as annual stock returns. We use two-year, instead of one-year, returns, as CEOs are more likely to be terminated for their cumulative (rather than temporary, i.e., one-year) poor performance.

lagged by one year. In column (1), we present results for the treatment firms only. We find that the coefficient on $Post \times 2\text{-year } Ret$ is negative and significant at the 1% level. Following Norton et al. (2004), we also compute the average marginal effects of the interaction term and the average z -stats. Untabulated results show that the average marginal effect of $Post \times 2\text{-year } Ret$ is -0.042, with average z -stats of -1.59. These results suggest a greater sensitivity of CEO turnover to performance after the gender diversity disclosure regulation in Canada.

Columns (2)–(4) of Table 7, Panel A report results of the DiD analysis using the three alternative benchmarks. Under this design, the variable of interest is $Post \times 2\text{-year } Ret \times Treat$, which captures the change in the CEO turnover-performance sensitivity before and after the disclosure regulation for the treatment firms, relative to the benchmark firms. We find significantly negative coefficients on $Post \times 2\text{-year } Ret \times Treat$ in columns (2) and (3) with the PSM U.S. firms and non-U.S. firms as the benchmarks.³⁴ In column (4), where the benchmark sample is the venture firms, the coefficient on $Post \times 2\text{-year } Ret \times Treat$ is negative but insignificant, possibly due to the small sample of CEO turnovers among the venture firms. Overall, these results suggest a greater sensitivity of CEO turnover to performance following the disclosure regulation among the treatment firms relative to the benchmark firms.

Table 7, Panel B reports results of cross-sectional analyses. Based on the sample median, we partition the treatment firms into subsamples with a high versus low increase in female directors and subsamples with a high versus low increase in female members on the governance-related committees. We measure the increase in the number of female directors (female members on the

³⁴ It is challenging to calculate the triple interaction terms' marginal effects in nonlinear regressions. Alternatively, we separately estimate the Probit regressions for the two benchmark firms. Untabulated results show that the coefficient on $Post \times 2\text{-year } Ret$ and its average marginal effects are insignificant for both benchmark samples. The difference in the coefficients between the treatment firms and the PSM U.S. firms (non-U.S. firms) is significant at $p\text{-value} = 0.04$ (0.006).

governance-related committees) as the average number of female directors (female members on the governance-related committees) over the post-regulation period less the number in the last year prior to December 2014 when the regulation became effective. We find that the increase in the sensitivity of CEO turnover to performance, as captured by the coefficient on $Post \times 2\text{-year } Ret$, is significant for the subsample with a high increase in female directors or a high increase in female members on governance-related committees (columns (1) and (3)) but is insignificant for the subsample with a low increase (columns (2) and (4)). The difference in the coefficient on $Post \times 2\text{-year } Ret$ across the high and low subsamples is significant at the 10% level.³⁵

In Panels A and B of Table 7, we define the indicator variable, $Post$, as one in the period after the passage of the diversity disclosure regulation. To assess whether the increased CEO-performance sensitivity occurs after the appointment of female directors in the post-period, we perform additional analyses by redefining $Post$ for the treatment firms based on the actual increase in the number of female directors or female members on the governance-related committees following the regulation. Specifically, in columns (1) and (2) (columns (3) and (4)) of Panel C, for the treatment firms, $Post$ equals one in and after the first post-regulation year when the number of female directors (female members on the governance-related committees) increases, relative to that in the last fiscal year prior to December 2014, and zero otherwise. We re-perform the DiD analysis of Panel A with the redefined $Post$. We focus on PSM U.S. firms and non-U.S. firms as the two alternative benchmarks, as the results in Panel A are insignificant with the venture firms as the benchmark. Panel C shows that the coefficients on $Post \times 2\text{-year } Ret \times Treat$ remain significantly negative across all four columns.

³⁵ Untabulated results on average marginal effects indicate similar inferences.

Collectively, Table 7 provides evidence in line with improved board governance following the gender diversity disclosure regulation. After the regulation, boards are more likely to hold poorly performing CEOs accountable, and this effect is stronger among firms with a greater increase in female directors or in female members on the governance-related committees. These results, however, are also consistent with well-governed firms responding to stakeholder pressure and/or valuing boardroom gender diversity. Nevertheless, to the extent that the disclosure regulation facilitates credible commitment to gender diversity and motivates firms to respond to market demand to increase female director representation, the findings in Table 7 improve our understanding of the effects of corporate gender diversity disclosure regulations.

5.4 Market reactions to events related to the gender diversity disclosure regulation

In this section, we study equity market reactions to key regulatory events associated with the gender diversity disclosure regulation in Canada. This analysis allows us to infer investor expectations about the costs and benefits associated with the diversity disclosures. We begin this analysis by searching Factiva using keyword terms of “Canada,” “gender diversity,” and “disclosure” between June 1, 2013, and Dec. 31, 2014, and exclude from our search results republished news, recurring pricing and market data, and obituaries, sports, and calendars. We then cross-check our search results with the regulatory events documented in CSA’s 2014 Notice of Amendments to ensure all key events are captured. After further reviewing the search results, we identify five events that are discussed in the CSA’s documents and covered by the press and

that are expected to increase the likelihood of adopting the disclosure regulation.³⁶ Panel A of Table 8 provides details of these events.³⁷

Following prior research (e.g., Zhang 2007; Armstrong, Barth, Jagolinzer, and Riedl 2010), we measure stock market reaction using the firm's cumulative two-day abnormal stock returns around the event dates (i.e., $[0, +1]$ days) and aggregate it across the five events.³⁸ To isolate market effects attributable to the disclosure regulation, we measure abnormal stock returns as the sum of the differences between raw daily returns and expected returns over the two-day window $[0, +1]$ for each event, where the expected returns are calculated based on parameters estimated from a market model that regresses a firm's raw daily returns on value-weighted market daily returns of firms from the U.S. (non-U.S. economies, or Canada) over the 120 trading days prior to July 2013. Thus, we employ three measures of cumulative abnormal returns—*ACAR_US*, *ACAR_NONUS*, and *ACAR_CAN*—to assess the market reaction to the disclosure regulation. We report *t-stats* to indicate the significance levels for the cumulative returns and the returns of each individual event. As the variability of prediction errors in the event period can differ from that in the estimation period and returns of consecutive event days may be correlated, we also follow Zhang (2007) and test the statistical significance based on the bootstrapped *p-values*.³⁹

³⁶ Some events in the CSA's documents, such as the final notice of ministerial approval of the amendments on December 11, 2014, are not included because there is no news coverage in Factiva. We identify possible confounding events during the three days surrounding each key event date (i.e., $[-1, 1]$ days) through another Factiva keyword search, using "regulation," "law," and "market." We find that event #3 is associated with possible confounding events (e.g., Judge rejects challenge to healthcare law subsidies) that are likely to affect the market around these dates. The aggregate abnormal returns remain significantly positive when excluding event #3 (untabulated) in Panel A of Table 8.

³⁷ Event #5 is a combination of two events that occurred back-to-back on two days. Accordingly, we use a three-day window of $[0, +1]$ for event #5.

³⁸ Using a three-day window of $[-1, +1]$ generates similar results (untabulated).

³⁹ As in Zhang (2007), the bootstrapped *p-values* are calculated as follows. (1) For each event, returns of the same number of consecutive non-event days in the period of July 2013 through December 2014, R_t , are computed (Sample A). (2) A sample (Sample B) of 1,000 returns is drawn with replacement from Sample A. (3) One-tailed *p-values* are computed as the ratio of the number of observations in sample B with values greater (lower) than R_t to 1,000, if $R_t > 0$ (if $R_t < 0$).

Table 8, Panel A presents the abnormal returns for each event. For events #2 and #3, all three measures of abnormal returns are significantly positive, while two out of the three measures are significantly positive for events #4 and #5. For event #1, the abnormal return based on expected returns of non-U.S. firms (*ACAR_NONUS*) is significantly negative, while the abnormal return based on expected returns of firms in Canada (*ACAR_CAN*) is significantly positive. As in Zhang (2007), we draw our inferences based on the abnormal returns aggregated across the five events. We find significant and positive cumulative abnormal returns around all events, ranging from 2.56% to 5.74%, depending on the measure of abnormal returns. This result suggests that equity investors perceive net benefits associated with the gender diversity disclosure regulation in Canada.

We next investigate the cross-sectional variation in the market reaction to the gender diversity disclosure regulation. We regress the three alternative measures of cumulative abnormal returns on variables that indicate all-male boards (*All-male board*) and all-male members on the governance-related committees (*All-male gov. comm.*) and the control variables in Table 3. Because each firm only appears once in this analysis, we replace firm fixed effects with TSX index membership (*TSX index*) and industry fixed effects. All independent variables are measured in the fiscal year prior to July 30, 2013, when the first event occurred.⁴⁰

Panel B of Table 8 reports the results with *ACAR_US*, *ACAR_NONUS*, and *ACAR_CAN* as the dependent variable in columns (1)–(2), (3)–(4), and (5)–(6), respectively. We find a significant and positive coefficient on *All-male board* in columns (1), (3), and (5). Similarly, the coefficient on *All-male gov. comm.* reported in columns (2), (4), and (6) is significant and positive. These results suggest that the observed market reaction to events related to the gender diversity disclosure regulation is more positive for firms without any female directors on the board and for firms

⁴⁰ On average, 55.9% and 61.4% of the treatment sample have all-male boards and all-male governance-related committees in the last fiscal year before July 30, 2013.

without any female members on governance-related committees. This is consistent with the notion that the disclosure regulation increases shareholder value by mitigating frictions that prevent firms from investing in a gender diverse board.

5.5 Female representation in executive officer positions

In our final analysis, we examine the effect of mandatory gender diversity disclosure on female representation in executive officer positions. *Ex ante*, it is difficult to predict the effect of the disclosure regulation on female executives, because the disclosure requirements for executive gender diversity are relatively limited and unspecific compared to the requirements for boardroom gender diversity. While the regulation requires firms to disclose whether they adopt a target regarding the representation of women in executive officer positions, it does not require disclosure of a written policy regarding female executives. In addition, unlike board membership that is well defined, firms have flexibility in defining “executive officers,” resulting in significant reporting discretion and lack of verifiability. Furthermore, executives do not have specific terms and are not subject to elections by shareholders. As noted by several commenters of the regulation, the appointment of executive officers is within the authority of the board (CSA 2014).

We obtain executive profiles from S&P Capital IQ.⁴¹ Using the treatment firms only, columns (1)–(3) of Table 9 present the baseline regression results, where the dependent variable is the number of female executives, the percentage of female executives, and the likelihood of a firm having at least one female executive, respectively. In all three columns, the coefficient on *Post* is insignificant, suggesting no discernable changes in female representation in executive officer

⁴¹ BoardEx reports limited data on executives. We focus on key executives, flagged by *KEYEXECFLAG*=1 in Capital IQ. In identifying the gender of executives, we use prefixes such as Mr., Mrs., Ms., etc. that are provided by the database, and exclude executives with neutral prefixes (e.g., Dr., Prof., etc.). We successfully identify the gender of 95.3% key executives for Canadian firms that are reported by Capital IQ.

positions among treatment firms following the disclosure regulation. In addition, we perform a DiD analysis using the benchmark samples of PSM U.S. firms and non-U.S. firms, and find insignificant coefficients on $Post \times Treat$ (untabulated), confirming the results in Table 9.⁴² In sum, we find no evidence of changes in female executives following the disclosure regulation.

6. Conclusion

We investigate the effect of Canada's 2014 regulation requiring firms to disclose specific governance practices regarding gender diversity. We find that female representation on boards and governance-related committees increases after the regulation, especially among firms whose disclosures indicate a stronger commitment to boardroom gender diversity. Foreign pension funds and independent institutions increase their holdings following the regulation, and this increase is also more pronounced among firms with a stronger disclosed commitment.

In addition, the sensitivity of CEO turnover to performance increases following the disclosure regulation, and the improved sensitivity is more pronounced among firms with a greater increase in female directorships. Furthermore, the stock market reacts positively to the major events associated with the adoption of the disclosure regulation, and that the positive reaction is stronger among firms without female directors prior to the regulation. Overall, our findings suggest that mandatory disclosure of specific gender diversity practices can alter firm behavior by enabling credible commitment and facilitating stakeholder discipline.

⁴² We do not use venture firms as the benchmark in this analysis as hand-collecting information on key executives is challenging. This is because firms have flexibility in defining "executive officers" under the disclosure regulation and it is difficult to determine who is classified as an executive officer.

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Appendix A

Sample Disclosures following Canada's 2014 Gender Diversity Disclosure Regulation

Excerpts from Acadian Timber Corporation's proxy circular for fiscal year ended December 31, 2014 (emphasis added).

STATEMENT OF CORPORATE GOVERNANCE PRACTICES

Governance Practices

A description of the Corporation's corporate governance practices is set out below in response to the requirements of National Instrument 58-101 – *Disclosure of Corporate Governance Practices* and in the form set forth in Form 58-101F1 Corporate Governance Disclosure....

Form 58-101F1 Corporate Governance Matters	Acadian Timber Corp. Governance Practices
1. The Board Disclose the identity of Directors who are independent.	The Board considers a Director to be independent where he or she has no direct or indirect "material relationship" with the Corporation or its subsidiaries which could reasonably be expected to interfere with the exercise of the Director's independent judgment. On this basis, the Board has determined that the following Directors are independent:
...	
10. Director Term Limits and Mechanisms of Board Renewal Disclose whether or not the Corporation has adopted term limits for the Directors on its Board or other mechanisms of Board renewal and, if so, include a description of those Director term limits or other mechanisms of Board renewal. If the Corporation has not adopted director term limits or other mechanisms of Board renewal, disclose why it has not done so.	The Corporation does not have any term limits or other mechanisms of Board renewal, as the Board believes that the imposition of term limits for its directors may lead to the exclusion of potentially valuable members of the Board. While there is a benefit to adding new perspectives to the Board from time to time, there are also benefits to having continuity and Directors having in depth knowledge of each facet of the Corporation's business, which necessarily takes time to develop.
11. Policies Regarding the Representation of Women on the Board Disclose whether the Corporation has adopted a written policy relating to the identification and nomination of women Directors. If the Corporation has not adopted such a policy, disclose why it has not done so.	While the Corporation recognizes the value of and supports the principle of diversity, it has not adopted a written policy relating to the identification and nomination of women Directors. The Board does not believe that strict rules in the identification and nomination process necessarily ensure the selection of the best candidates.

<p>12. Consideration of Women in the Director Identification and Selection Process</p> <p>Disclose whether and, if so, how the Board or nominating committee considers the level of representation of women on the Board in identifying and nominating candidates for election or re- election to the Board. If the Corporation does not consider the level of representation of women on the Board in identifying and nominating candidates for election or re-election to the Board, disclose the Corporation's reasons for not doing so.</p>	<p>The CNCG Committee's identification and selection process is based on a variety of different criteria, including diversity of background and opinion, skills, experience and other relevant factors. As such, consideration of the level of women on the Board is one factor among many that plays a role in the CNCG Committee's decision-making process.</p>
<p>13.Consideration Given to the Representation of Women in Executive Officer Appointments</p> <p>Disclose whether and, if so, how the Corporation considers the level of representation of women in executive officer positions when making executive officer appointments. If the Corporation does not consider the level of representation of women in executive officer positions when making executive officer appointments, disclose the Corporation's reasons for not doing so.</p>	<p>The CNCG Committee considers a multitude of factors, including the level of representation of women in executive officer positions.</p>
<p>14.Issuer's Targets Regarding the Representation of Women on the Board in Executive Officer Positions</p> <p>Disclose whether the Corporation has adopted targets regarding women on the Corporation's Board or in executive officer positions of the Corporation. If the Corporation has not adopted targets, disclose why it has not done so.</p>	<p>The Corporation has not adopted targets regarding women on the Corporation's Board or in executive officer positions given the relatively small number of Directors and executive officers, However, 50%, or two of the four, executive officers of the Corporation are female.</p>
<p>15. Number of Women on the Board and in Executive Officer Positions</p> <p>Disclose the number and proportion (in percentage terms) of Directors on the Corporation's Board who are women.</p> <p>Disclose the number and proportion (in percentage terms) of executive officers of the Corporation, including all major subsidiaries of the Corporation, who are women.</p>	<p>Currently, the Board does not have any female Directors. With respect to executive officer positions, there are currently three women (50%) and three men (50%) who are executive officers of the Corporation.</p>

Source: SEDAR

Appendix B Variable Definitions

Variable	Definition
Variables of Interest	
<i>N. female directors</i>	Number of female directors on the board. Source: BoardEx.
<i>%female directors</i>	Percentage of female directors on the board. Source: BoardEx.
<i>Having at least one female director</i>	Firm-year indicator variable equal to one if the firm has at least one female director on the board, and zero otherwise. Source: BoardEx.
<i>N. female, gov. comm.</i>	Number of female members on the four governance-related committees (governance, audit, compensation, and nominating). Source: BoardEx.
<i>Diversity commitment_Post</i>	Sum of <i>Term limit</i> , <i>Diversity policy</i> , <i>Diversity consideration</i> , and <i>Diversity target</i> in the post-regulation period.
<i>Term limit_Post</i>	Firm-year indicator equal to one if a firm discloses the adoption of director term limits and other mechanisms of board renewal in the post-regulation period, and equal to zero if a firm discloses no adoption.
<i>Diversity policy_Post</i>	Firm-year indicator equal to one if a firm discloses the adoption of a written board diversity policy in the post-regulation period, and equal to zero if a firm discloses no adoption.
<i>Diversity consideration_Post</i>	Firm-year indicator equal to one if a firm discloses considerations of the representation of women in the director identification and selection process in the post-regulation period, and equal to zero if a firm discloses no consideration.
<i>Diversity target_Post</i>	Firm-year indicator equal to one if a firm discloses the adoption of targets regarding the representative of women on the board in the post-regulation period, and equal to zero if a firm discloses no adoption.
Other Firm-Level Variables	
<i>Post</i>	Indicator variable equal to one for the post-regulation period of December 2015 to November 2019, and zero for the pre-regulation period of December 2010 to November 2014.
<i>Treat</i>	Indicator variable equal to one for Canadian TSX-listed firms and zero for benchmark firms.
<i>Inst. ownership</i>	Percentage of institutional ownership.
<i>Indp. directors</i>	Percentage of independent directors.
<i>CEO-Chair</i>	Indicator variable equal to one if a firm's CEO is also the chairman/chairwoman of the board, and zero otherwise.
<i>Board size</i>	Natural logarithm of the number of directors.
<i>Market-book</i>	Ratio of the market value of equity to the book value of equity.
<i>Leverage</i>	Short-term debt plus long-term debt divided by total assets.
<i>Firm size</i>	Natural logarithm of total assets in million U.S. dollars.
<i>ROA</i>	Pre-tax income divided by total assets.
<i>Ret</i>	Annual stock returns adjusted by two-digit-SIC industry return for Canadian and U.S. firms and by market return for the non-U.S. firms.
<i>Pre-commit firms</i>	Indicator equal to one if a firm discloses any diversity-related considerations in selecting directors in the last fiscal year prior to December 2014, and zero otherwise, and equal to zero otherwise.

<i>2-year Ret</i>	Industry-adjusted stock returns estimated over the past two years before the CEO turnover year for Canadian and U.S. firms and market-adjusted returns for the non-U.S. firms.
<i>LnAge</i>	Natural logarithm of CEO's age.
<i>LnTenture</i>	Natural logarithm of CEO's tenure.
<i>TSX index</i>	Indicator variable equal to one if a firm is included in the TSX index, and zero otherwise.
<i>CAR_US</i>	Abnormal returns measured as the sum of differences between raw daily returns and expected returns over the window [0, +1] days for an individual event, where the expected returns are calculated based on parameters estimated from a market model that regresses a firm's raw daily returns on value-weighted market daily returns of U.S. firms over the 120 trading days prior to July 2013.
<i>CAR_NONUS</i>	Abnormal returns measured as the sum of differences between raw daily returns and expected returns over the window [0, +1] days for an individual event, where the expected returns are calculated based on parameters estimated from a market model that regresses a firm's raw daily returns on value-weighted market daily returns of firms from the 11 non-Canadian economies (Argentina, Brazil, Chile, China, Indonesia, South Korea, Mexico, New Zealand, Philippines, Taiwan, and United Arab Emirates) over the 120 trading days prior to July 2013.
<i>CAR_CAN</i>	Abnormal returns measured as the sum of differences between raw daily returns and expected returns over the window [0, +1] days for an individual event, where the expected returns are calculated based on parameters estimated from a market model that regresses a firm's raw daily returns on value-weighted market daily returns of all Canadian firms over the 120 trading days prior to July 2013.
<i>ACAR_US</i>	Aggregated abnormal returns calculated as the sum of <i>CAR_US</i> over the five regulatory events.
<i>ACAR_NONUS</i>	Aggregated abnormal returns calculated as the sum of <i>CAR_NONUS</i> over the five regulatory events.
<i>ACAR_CAN</i>	Aggregated abnormal returns calculated as the sum of <i>CAR_CAN</i> over the five regulatory events.
<i>All-male board_{pre}</i>	Indicator variable equal to one if a firm has no female director in the last fiscal year prior to December 2014, and zero otherwise.
<i>All-male gov. comm._{pre}</i>	Indicator variable equal to one if a firm has no female member on the four governance-related committees in the last fiscal year prior to December 2014, and zero otherwise.
<i>N. female executives</i>	Number of female key executives. Source: Capital IQ.
<i>%female executives</i>	Percentage of female key executives. Source: Capital IQ.
<i>Having at least one female executive</i>	Firm-year indicator variable equal to one if the firm has at least one female key executive, and zero otherwise. Source: Capital IQ.

Appendix C

The Propensity-Score-Matching (PSM) Procedure

This appendix describes the propensity-score-matching (PSM) procedure. We estimate a logistic model to predict the probability of being a treatment firm in the year before the regulation became effective in December 2014, using the treatment sample of Canadian TSX-listed firms and the control sample from the U.S. We require each firm to have at least one observation in each of pre- and post-regulation periods. The prediction model regresses the likelihood of being a treatment firm on the firm-level control variables (i.e., *Inst. ownership*, *Ind. director*, *CEO-Chair*, *Board size*, *Market-book*, *Leverage*, *Firm size*, *ROA*, *Ret*, and $\log(1 + N. \text{ of female directors})$). Following prior studies (Rosenbaum and Rubin 1984; Austin 2011), we start with a caliper width equal to 30% of the standard deviation of the propensity score (yielding a caliper width of approximately 0.05) without replacement. We then narrow the width until we find that most of the differences of covariates between the matched samples are insignificant. This arrives at the largest caliper width of 0.0005. This procedure results in a PSM sample that consists of 273 treatment firms and 273 matched U.S. firms.

Panel A reports the estimation results of the logistic regressions. The explanatory power of the logistic model decreases from 17.7% before the match to 0.7% after the match. Panel B presents the covariate balance metrics of the PSM sample in the year of matching, year $t-1$. The mean differences between the two samples are insignificant across all of the covariates except percentage of independent directors (*Ind. director*).

Appendix C, Continued

Panel A: Logit Regression Used to Compute the Propensity Score

Dep var.= Prob.(<i>Treat</i>)	Pre-match	Post-match
<i>Inst. ownership</i>	-1.766*** (-6.14)	0.107 (0.32)
<i>Ind. director</i>	-0.402 (-1.09)	0.175 (0.28)
<i>CEO-Chair</i>	-0.606*** (-8.44)	-0.024 (-0.19)
<i>Board size</i>	-0.073 (-0.27)	-0.076 (-0.22)
<i>Market-book</i>	-0.015 (-1.01)	-0.013 (-0.46)
<i>Leverage</i>	-0.247 (-0.39)	0.157 (0.23)
<i>Firm size</i>	0.165*** (5.95)	0.049 (1.03)
<i>ROA</i>	-0.199 (-1.15)	-0.273 (-1.07)
<i>Ret</i>	0.093 (0.79)	0.100 (0.79)
<i>Log(1+ N. of female directors)</i>	-0.115 (-1.39)	-0.022 (-0.26)
OBS. (#firms)	3,194	546
Pseudo R ²	0.177	0.007

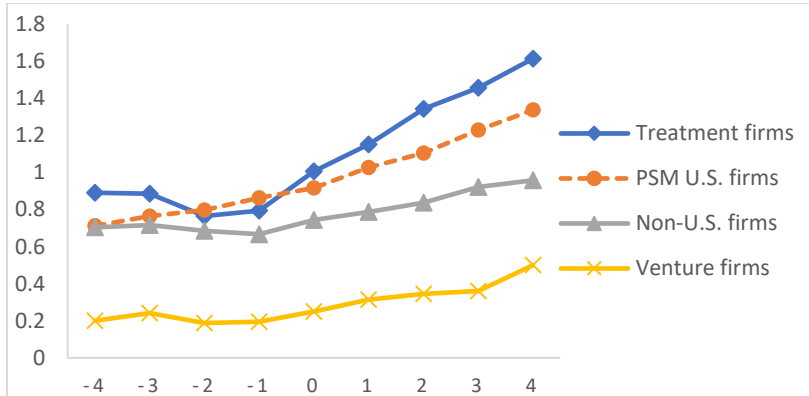
Panel B: Statistics for the PSM Sample

Variable	Treatment firms (N = 273)	U.S. firms (N = 273)	Diff.	t-stats.
<i>Inst. ownership</i>	0.307	0.283	0.024	1.10
<i>Ind. director</i>	0.733	0.705	0.028**	2.21
<i>CEO-Chair</i>	0.223	0.223	0.000	0.00
<i>Board size</i>	2.135	2.156	-0.020	-0.71
<i>Market-book</i>	2.436	2.632	-0.196	-0.65
<i>Leverage</i>	0.183	0.169	0.014	0.87
<i>Firm size</i>	6.702	6.389	0.313	1.57
<i>ROA</i>	-0.036	-0.040	0.004	0.20
<i>Ret</i>	0.143	0.111	0.032	0.72
<i>Log(1+ N. of female directors)</i>	0.894	0.868	0.026	0.27

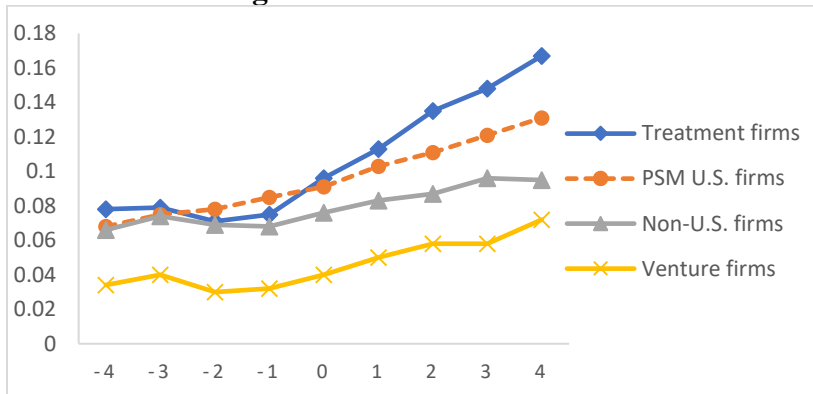
Panel A reports the results of the logistic regressions. Panel B presents the covariate balance metrics of the PSM sample in the year of matching, year *t-1*. See Appendix B for variable definitions. The *z*-stats reported in parentheses are calculated based on robust standard errors clustered by industry. ***, **, and * indicate significance at the 1%, 5%, and 10% two-tailed levels, respectively.

Figure 1
Female Directorships Surrounding the Adoption of Canada's 2014 Gender Diversity Disclosure Regulation

Panel A: Number of Female Directors



Panel B: Percentage of Female Directors



Panel C: Percentage of Firms Having at Least One Female Director

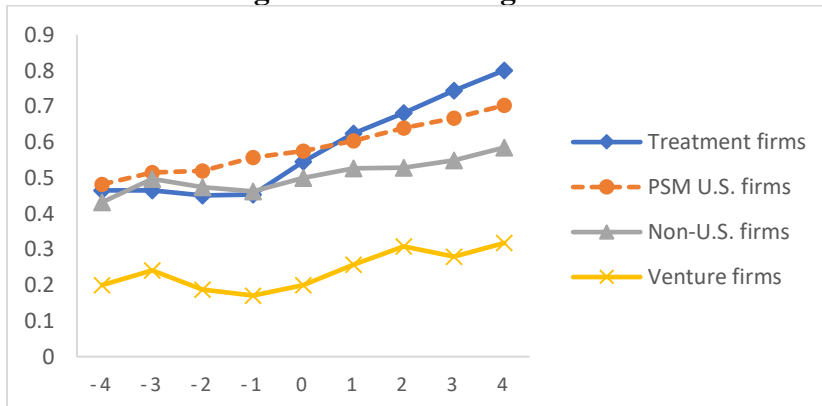


Figure 1 presents the trend of female directors for the treatment sample, propensity-score-matched (PSM) U.S. sample, non-U.S. sample, and Canadian firms listed on the TSX Venture Exchange (“Venture firms”) surrounding the year (*Year 0*) in which Canada’s corporate gender diversity disclosure regulation became effective. Panels A and B present the average annual number and percentage of female directors, respectively, and Panel C presents the annual percentage of firms having at least one female director.

Table 1
Sample Distribution

Year	Treatment firms	PSM U.S. firms	Non-U.S. firms	Venture firms
Pre-regulation				
<i>Year -4</i> (Dec. 2010 – Nov. 2011)	228	222	88	25
<i>Year -3</i> (Dec. 2011 – Nov. 2012)	254	237	197	29
<i>Year -2</i> (Dec. 2012 – Nov. 2013)	324	252	306	32
<i>Year -1</i> (Dec. 2013 – Nov. 2014)	360	255	405	41
Subtotal	1,166	966	996	127
Post-regulation				
<i>Year +1</i> (Dec. 2015 – Nov. 2016)	356	255	404	35
<i>Year +2</i> (Dec. 2016 – Nov. 2017)	324	222	399	26
<i>Year +3</i> (Dec. 2017 – Nov. 2018)	289	192	395	25
<i>Year +4</i> (Dec. 2018 – Nov. 2019)	267	172	354	22
Subtotal	1,236	841	1552	108
Total	2,402	1,807	2,548	235

This table presents the sample distribution across the four samples by year surrounding Canada's gender diversity disclosure regulation. Year 0 is the first year when the regulation became effective, i.e., the fiscal year ending between December 2014 and November 2015.

Table 2
Descriptive Statistics

Panel A: Summary Statistics

Variable	Treatment firms (N = 2,402)		PSM U.S. firms (N = 1,807)		Non-U.S. firms (N = 2,548)		Venture firms (N = 235)	
	Mean	STD	Mean	STD	Mean	STD	Mean	STD
<i>N. female directors</i>	1.107	1.302	0.959	1.045	0.800	0.986	0.281	0.537
<i>%female directors</i>	0.108	0.111	0.094	0.099	0.082	0.102	0.045	0.086
<i>Having at least one female director</i>	0.585	0.493	0.579	0.494	0.516	0.500	0.238	0.427
<i>Post</i>	0.515	0.500	0.465	0.499	0.609	0.488	0.460	0.499
<i>Inst. ownership</i>	0.287	0.242	0.317	0.297	0.173	0.147	0.062	0.111
<i>Indp. directors</i>	0.729	0.135	0.720	0.160	0.385	0.199	0.612	0.156
<i>CEO-Chair</i>	0.188	0.391	0.245	0.430	0.422	0.494	0.286	0.453
<i>Board size</i>	2.142	0.309	2.159	0.348	2.225	0.312	1.730	0.247
<i>Market-book</i>	2.397	2.898	2.464	2.954	4.208	10.65	2.667	5.786
<i>Leverage</i>	0.196	0.179	0.176	0.183	0.259	0.168	0.128	0.212
<i>Firm size</i>	6.632	2.224	6.515	2.414	8.730	1.749	2.869	1.461
<i>ROA</i>	-0.052	0.336	-0.030	0.213	0.057	0.074	-0.197	0.881
<i>Ret</i>	0.140	0.617	0.101	0.571	0.069	0.394	0.181	0.890
<i>All-male board_{pre}</i>	0.525	0.499	0.442	0.497	0.531	0.499	0.819	0.387

Table 2, Continued

Panel B: Univariate Analysis of Female Directors

	Treatment firms	PSM U.S. firms	Non-U.S. firms	Venture firms
N. female directors				
<i>Pre-period</i>	0.825	0.787	0.686	0.205
<i>Post-period</i>	1.373	1.157	0.873	0.370
<i>Change (post-pre)</i>	0.548***	0.370***	0.187***	0.165**
<i>DiD change (treatment-benchmark)</i>	<i>n.a.</i>	0.178***	0.361***	0.383***
% female directors				
<i>Pre-period</i>	0.075	0.077	0.070	0.014
<i>Post-period</i>	0.139	0.115	0.090	0.027
<i>Change (post-pre)</i>	0.064***	0.038***	0.020***	0.013**
<i>DiD change (treatment-benchmark)</i>	<i>n.a.</i>	0.026***	0.044***	0.051***
Having at least one female director				
<i>Pre-period</i>	0.457	0.520	0.470	0.197
<i>Post-period</i>	0.706	0.648	0.546	0.287
<i>Change (post-pre)</i>	0.249***	0.128***	0.076***	0.090*
<i>DiD change (treatment-benchmark)</i>	<i>n.a.</i>	0.121***	0.173***	0.159***

Panel A presents descriptive statistics of key variables for the four samples. Panel B presents the univariate results comparing the number and percentage of female directors as well as the indicator for having at least one female director in the pre- and post-regulation periods across the treatment firms and the three benchmark firms. See Appendix B for variable definitions. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 3
Mandatory Gender Diversity Disclosure and Female Representation on the Boards

Panel A: OLS Regression Analysis of the Number of Female Directors

Sample =	Dep var = <i>N. female directors</i>			
	Treatment firms only	Treatment firms + PSM U.S. firms	Treatment firms + Non-U.S. firms	Treatment firms + Venture firms
	(1)	(2)	(3)	(4)
<i>Post</i>	0.591^{***} (13.31)	0.290 ^{***} (7.05)	0.188 ^{***} (4.11)	0.179 ^{***} (3.24)
<i>Post × Treat</i>		0.305^{***} (4.51)	0.393^{***} (6.31)	0.408^{***} (5.95)
<i>Inst. ownership</i>	0.177 (1.02)	0.137 (1.10)	0.328 ^{**} (2.40)	0.194 (1.16)
<i>Indp. director</i>	0.185 (0.83)	0.398 [*] (1.84)	0.115 (0.79)	0.135 (0.67)
<i>CEO-Chair</i>	0.015 (0.18)	-0.033 (-0.52)	0.038 (0.66)	0.016 (0.21)
<i>Board size</i>	0.709 ^{***} (4.45)	0.570 ^{***} (4.21)	0.434 ^{***} (4.03)	0.673 ^{***} (4.50)
<i>Market-book</i>	0.024 ^{***} (2.89)	0.014 ^{**} (1.97)	0.003 (0.95)	0.017 ^{**} (2.58)
<i>Leverage</i>	-0.323 [*] (-1.83)	0.009 (0.06)	-0.193 (-1.31)	-0.277 [*] (-1.70)
<i>Firm size</i>	0.085 ^{**} (2.21)	0.101 ^{***} (2.81)	0.043 (1.39)	0.061 [*] (1.80)
<i>ROA</i>	0.028 (0.59)	-0.038 (-0.53)	0.003 (0.07)	0.018 (0.72)
<i>Ret</i>	0.005 (0.25)	-0.017 (-1.09)	0.023 (1.36)	-0.002 (-0.14)
Firm FEs	Yes	Yes	Yes	Yes
OBS.	2,402	3,483	4,950	2,637
Adjusted R ²	0.837	0.821	0.777	0.842

Table 3, Continued

Panel B: OLS Regression Analysis of the Percentage of Female Directors

Sample =	Dep var = %female directors			
	Treatment firms only	Treatment firms + PSM U.S. firms	Treatment firms + Non-U.S. firms	Treatment firms + Venture firms
	(1)	(2)	(3)	(4)
<i>Post</i>	0.065^{***} (13.96)	0.033 ^{***} (6.89)	0.022 ^{***} (4.74)	0.021 ^{***} (2.67)
<i>Post × Treat</i>		0.033^{***} (4.63)	0.042^{***} (6.51)	0.044^{***} (4.91)
<i>Inst. ownership</i>	0.017 (0.86)	0.008 (0.59)	0.034 ^{**} (2.01)	0.020 (1.01)
<i>Indp. director</i>	0.031 (1.26)	0.044 ^{**} (2.02)	0.020 (1.16)	0.023 (1.05)
<i>CEO-Chair</i>	0.000 (0.00)	-0.001 (-0.08)	0.006 (0.89)	0.000 (0.01)
<i>Board size</i>	0.043 ^{***} (3.04)	0.023 [*] (1.87)	0.013 (1.30)	0.042 ^{***} (3.17)
<i>Market-book</i>	0.002 ^{**} (2.22)	0.001 [*] (1.72)	0.000 (0.14)	0.001 [*] (1.95)
<i>Leverage</i>	-0.032 [*] (-1.66)	0.002 (0.10)	-0.020 (-1.23)	-0.029 (-1.64)
<i>Firm size</i>	0.007 (1.41)	0.010 ^{**} (2.25)	0.004 (0.94)	0.004 (0.95)
<i>ROA</i>	0.003 (0.60)	-0.003 (-0.34)	-0.001 (-0.12)	0.002 (0.56)
<i>Ret</i>	0.001 (0.43)	-0.002 (-1.19)	0.003 (1.59)	0.000 (0.07)
Firm FEs	Yes	Yes	Yes	Yes
OBS.	2,402	3,483	4,950	2,637
Adjusted R ²	0.758	0.766	0.723	0.770

Table 3, Continued

Panel C: Probit Regression Analysis of the Probability of Having at Least One Female Director

Sample =	Dep var = <i>Prob. (Having at least one female director)</i>			
	Treatment firms only	Treatment firms + PSM U.S. firms	Treatment firms + Non-U.S. firms	Treatment firms + Venture firms
	(1)	(2)	(3)	(4)
<i>Post</i>	0.972^{***} (10.63)	0.430 ^{***} (4.58)	0.203 ^{***} (3.06)	0.437 ^{***} (2.69)
<i>Post × Treat</i>		0.541^{***} (3.80)	0.619^{***} (6.15)	0.512^{***} (2.74)
<i>Treat</i>		-0.072 (-0.49)	0.063 (0.40)	-0.413 (-1.31)
<i>Inst. ownership</i>	0.043 (0.16)	-0.409* (-1.92)	0.295 (1.48)	0.149 (0.55)
<i>Indp. director</i>	1.158 ^{**} (2.55)	1.028 ^{***} (2.83)	0.982 ^{***} (4.08)	0.965 ^{**} (2.16)
<i>CEO-Chair</i>	-0.094 (-0.65)	-0.151 (-1.30)	0.036 (0.39)	-0.052 (-0.37)
<i>Board size</i>	1.865 ^{***} (7.86)	1.723 ^{***} (7.97)	1.403 ^{***} (9.14)	1.923 ^{***} (8.01)
<i>Market-book</i>	0.036* (1.77)	0.020 (1.02)	0.003 (0.52)	0.020 (1.22)
<i>Leverage</i>	-0.618 (-1.64)	-0.416 (-1.39)	-0.202 (-0.79)	-0.233 (-0.63)
<i>Firm size</i>	0.162 ^{***} (3.62)	0.239 ^{***} (5.95)	0.054* (1.95)	0.116 ^{***} (2.62)
<i>ROA</i>	0.270* (1.89)	0.098 (0.48)	0.373 ^{***} (2.77)	0.274 ^{**} (2.00)
<i>Ret</i>	-0.085 (-1.56)	-0.061 (-1.59)	-0.020 (-0.55)	-0.074 (-1.60)
Industry FEs	Yes	Yes	Yes	Yes
OBS.	2,402	3,483	4,950	2,637
Pseudo R ²	0.335	0.361	0.176	0.331

This table presents the results of the effects of Canada's gender diversity disclosure regulation on female directorships. In Panels A, B, and C, the dependent variable is the number of female directors, the percentage of female directors, and the probability of having at least one female director, respectively. All firm-year independent variables are measured in year $t-1$. See Appendix B for variable definitions. The t -stats reported in parentheses are calculated based on robust standard errors clustered by firm. ^{***}, ^{**}, and ^{*} indicate significance at the 1%, 5%, and 10% two-tailed levels, respectively.

Table 4
Gender Diversity Disclosure as a Credible Commitment Device

Panel A: Descriptive Statistics of the Board Diversity Commitment Index and Individual Items, Dec. 2014 – Nov. 2018 (N=1,035)

	Description and corresponding disclosure item in Form 58-101F1	Mean
<i>Diversity commitment_Post</i>	Sum of <i>Term limit</i> , <i>Diversity policy</i> , <i>Diversity consideration</i> , and <i>Diversity target</i>	1.668
<i>Term limit_Post</i>	Firm-year indicator equal to one if a firm discloses the adoption of director term limits and other mechanisms of board renewal in the post-regulation period, and equal to zero if a firm discloses no adoption (Item 10).	0.566
<i>Diversity policy_Post</i>	Firm-year indicator equal to one if a firm discloses the adoption of a written board diversity policy in the post-regulation period, and equal to zero if a firm discloses no adoption (Item 11).	0.287
<i>Diversity consideration_Post</i>	Firm-year indicator equal to one if a firm discloses considerations of the representation of women in the director identification and selection process in the post-regulation period, and equal to zero if a firm discloses no consideration (Item 12).	0.675
<i>Diversity target_Post</i>	Firm-year indicator equal to one if a firm discloses the adoption of targets regarding the representative of women on the board in the post-regulation period, and equal to zero if a firm discloses no adoption (Item 14).	0.139

Table 4, Continued

Panel B: Analysis of Specific Gender Diversity Disclosures as a Commitment Device

	Dep var = <i>N. female directors</i>					
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Post</i>	0.315*** (5.03)	0.531*** (10.16)	0.517*** (11.28)	0.445*** (7.63)	0.554*** (11.89)	0.283*** (4.42)
<i>Diversity commitment_Post</i>	0.176*** (5.36)					0.165*** (4.92)
<i>Term limit_Post</i>		0.150*** (2.67)				
<i>Diversity policy_Post</i>			0.360*** (4.73)			
<i>Diversity consideration_Post</i>				0.259*** (4.14)		
<i>Diversity target_Post</i>					0.402*** (3.30)	
<i>Pre-commit_firms</i> × <i>Post</i>						0.114 (1.28)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes	Yes	Yes
OBS.	2,034	2,034	2,034	2,034	2,034	2,034
Adjusted R ²	0.845	0.838	0.842	0.840	0.840	0.845

Panel A reports the descriptive statistics on the board diversity commitment index and the individual items under Canada's gender diversity disclosure regulation. Panel B reports the cross-sectional results conditional on the board diversity commitment index and its components. The diversity commitment index and the four individual indicators are measured in year $t-1$. See Appendix B for definitions on other variables. In Panel B, the t -stats reported in parentheses are calculated based on robust standard errors clustered by firm, respectively. ***, **, and * indicate significance at the 1%, 5%, and 10% two-tailed levels, respectively.

Table 5
Gender Diversity Disclosure and Institutional Ownership

Panel A: Descriptive Statistics of Institutional Ownership

Year	Observations	Ownership held by foreign pension funds & indp. institutions	Ownership held by other institutions
Pre-regulation			
<i>Year -4</i> (Dec. 2010 – Nov. 2011)	190	0.131	0.176
<i>Year -3</i> (Dec. 2011 – Nov. 2012)	215	0.127	0.166
<i>Year -2</i> (Dec. 2012 – Nov. 2013)	278	0.107	0.165
<i>Year -1</i> (Dec. 2013 – Nov. 2014)	316	0.108	0.166
Subtotal	999	0.116	0.168
Post-regulation			
<i>Year +1</i> (Dec. 2015 – Nov. 2016)	291	0.124	0.182
<i>Year +2</i> (Dec. 2016 – Nov. 2017)	272	0.134	0.185
<i>Year +3</i> (Dec. 2017 – Nov. 2018)	252	0.147	0.179
<i>Year +4</i> (Dec. 2018 – Nov. 2019)	220	0.144	0.163
Subtotal	1,035	0.136	0.178
Total	2,034	0.126	0.173

Table 5, Continued

Panel B: Analysis of the Effect of Gender Diversity Disclosure on Institutional Ownership

Dep var =	Ownership held by foreign pension funds & indp. institutions					Own. by other inst.
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Post</i>	0.013*	0.025***	0.020***	0.018***	0.022***	0.008
	(1.82)	(3.53)	(3.21)	(2.61)	(3.71)	(0.80)
<i>Diversity commitment_Post</i>	0.007**					-0.002
	(2.00)					(-0.63)
<i>Term limit_Post</i>		-0.001				
		(-0.10)				
<i>Diversity policy_Post</i>			0.019**			
			(2.29)			
<i>Diversity consideration_Post</i>				0.011		
				(1.38)		
<i>Diversity target_Post</i>					0.019**	
					(2.00)	
<i>Indp. director</i>	-0.044	-0.044	-0.045	-0.045	-0.043	-0.001
	(-1.07)	(-1.07)	(-1.09)	(-1.08)	(-1.05)	(-0.03)
<i>CEO-Chair</i>	0.008	0.008	0.008	0.008	0.007	0.022
	(0.48)	(0.48)	(0.48)	(0.46)	(0.43)	(1.52)
<i>Board size</i>	-0.012	-0.012	-0.012	-0.013	-0.013	0.022
	(-0.63)	(-0.65)	(-0.63)	(-0.70)	(-0.67)	(1.21)
<i>Market-book</i>	0.003**	0.003**	0.003**	0.003**	0.003**	0.004*
	(2.10)	(2.36)	(2.26)	(2.26)	(2.22)	(1.78)
<i>Leverage</i>	-0.035	-0.042	-0.040	-0.042	-0.037	-0.057*
	(-0.84)	(-1.02)	(-0.95)	(-1.00)	(-0.89)	(-1.91)
<i>Firm size</i>	0.023***	0.025***	0.024***	0.024***	0.025***	0.022***
	(2.95)	(3.14)	(3.03)	(3.10)	(3.18)	(3.10)
<i>ROA</i>	0.005	0.005	0.005	0.005	0.005	0.005
	(0.51)	(0.55)	(0.57)	(0.55)	(0.50)	(0.30)
<i>Ret</i>	0.000	0.000	0.000	0.000	0.000	0.006*
	(0.15)	(0.05)	(0.14)	(0.09)	(0.07)	(1.65)
Firm FEs	Yes	Yes	Yes	Yes	Yes	Yes
OBS.	2,034	2,034	2,034	2,034	2,034	2,034
Adjusted R ²	0.816	0.815	0.816	0.816	0.816	0.773

Panel A presents the descriptive statistics of institutional ownership by year surrounding Canada's gender diversity disclosure regulation. Year 0 is the first year when the regulation became effective, i.e., the fiscal year ending between December 2014 and November 2015. Panel B reports the regression results of the effect of diversity disclosure on different types of institutional ownership conditional on the board diversity commitment index and the individual items. The diversity commitment index, the four individual indicators, and all firm-year independent variables are measured in year $t-1$. The t -stats reported in parentheses are calculated based on robust standard errors clustered by firm, respectively. ***, **, and * indicate significance at the 1%, 5%, and 10% two-tailed levels, respectively.

Table 6
Mandatory Gender Diversity Disclosure and Women on Governance-Related Committees

Panel A: Analysis of the Number of Women on Governance-Related Committees

Dep var = <i>N. female, gov. committees</i>	Treatment firms only	Treatment firms + PSM U.S. firms	Treatment firms + Non-U.S. firms	Treatment firms + Venture firms
	(1)	(2)	(3)	(4)
<i>Post</i>	0.524*** (11.81)	0.274*** (6.49)	0.101*** (3.64)	0.095*** (2.65)
<i>Post × Treat</i>		0.247*** (3.65)	0.412*** (8.00)	0.162*** (3.95)
<i>Inst. ownership</i>	0.135 (0.82)	0.131 (1.10)	0.262** (2.17)	0.127 (1.49)
<i>Indp. director</i>	0.287 (1.36)	0.524*** (2.61)	0.163 (1.42)	0.157 (1.60)
<i>CEO-Chair</i>	-0.049 (-0.58)	-0.084 (-1.37)	-0.033 (-0.70)	-0.029 (-0.66)
<i>Board size</i>	0.502*** (3.86)	0.459*** (4.32)	0.198** (2.36)	0.256*** (4.37)
<i>Market-book</i>	0.025*** (2.90)	0.010 (1.47)	0.004 (1.19)	0.007** (2.07)
<i>Leverage</i>	-0.275 (-1.54)	0.116 (0.72)	-0.004 (-0.03)	-0.056 (-0.66)
<i>Firm size</i>	0.119*** (3.04)	0.094*** (2.62)	0.069*** (2.60)	0.035* (1.87)
<i>ROA</i>	-0.008 (-0.18)	-0.032 (-0.43)	-0.016 (-0.36)	-0.003 (-0.22)
<i>Ret</i>	0.007 (0.38)	-0.011 (-0.73)	0.019 (1.37)	0.001 (0.08)
Firm FEs	Yes	Yes	Yes	Yes
OBS.	2,402	3,483	4,950	2,637
Adjusted R ²	0.787	0.796	0.781	0.789

Table 6, Continued

Panel B: Analysis of Specific Gender Diversity Disclosures as a Commitment Device

	Dep var = <i>N. female, gov. committee</i>				
	(1)	(2)	(3)	(4)	(5)
<i>Post</i>	0.259*** (4.39)	0.455*** (8.96)	0.451*** (10.34)	0.385*** (7.17)	0.476*** (10.88)
<i>Diversity commitment_Post</i>	0.162*** (4.63)				
<i>Term limit_Post</i>		0.146*** (2.63)			
<i>Diversity policy_Post</i>			0.317*** (4.02)		
<i>Diversity consideration_Post</i>				0.232*** (3.92)	
<i>Diversity target_Post</i>					0.399*** (2.84)
Controls	Yes	Yes	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes	Yes	Yes
OBS.	2,034	2,034	2,034	2,034	2,034
Adjusted R ²	0.794	0.786	0.791	0.788	0.790

This table presents results of the effects of Canada's gender diversity disclosure regulation on female memberships on the governance-related committees. Panel A reports the regression results of the effects of Canada's gender diversity disclosure regulation on female directorships on governance-related committees, and Panels B reports cross-sectional results conditional on the board diversity commitment index and the individual items. The diversity commitment index, the four individual indicators, and all firm-year independent variables are measured in year $t-1$. See Appendix B for variable definitions. The t -stats reported in parentheses are calculated based on robust standard errors clustered by firm. ***, **, and * indicate significance at the 1%, 5%, and 10% two-tailed levels, respectively.

Table 7
Mandatory Gender Diversity Disclosure and CEO Turnover-Performance Sensitivity

Panel A: Analysis of CEO Turnover-Performance Sensitivity

Dep var = <i>Prob.(CEO turnover)</i>	Treatment firms only	Treatment firms + PSM U.S. firms	Treatment firms + Non-U.S. firms	Treatment firms + Venture firms
	(1)	(2)	(3)	(4)
<i>2-year Ret</i>	-0.016 (-0.24)	-0.446** (-2.33)	-0.428*** (-2.74)	-0.106 (-0.81)
<i>Post × 2-year Ret</i>	-0.444*** (-3.42)	0.204 (0.84)	0.230 (1.10)	-0.284 (-1.53)
<i>Post × 2-year Ret × Treat</i>		-0.697** (-2.38)	-0.694*** (-2.80)	-0.128 (-0.58)
<i>2-year Ret × Treat</i>		0.396* (1.92)	0.387** (2.28)	0.085 (0.60)
<i>Post × Treat</i>		-0.257 (-1.53)	-0.213 (-1.19)	0.039 (0.09)
<i>Treat</i>		-0.194 (-1.32)	-0.367* (-1.91)	-0.189 (-0.63)
<i>Post</i>	-0.166 (-1.52)	0.118 (1.09)	0.079 (0.56)	-0.203 (-0.50)
<i>Inst. ownership</i>	0.192 (0.72)	-0.278 (-1.38)	0.035 (0.15)	0.133 (0.51)
<i>Indp. directors</i>	-0.406** (-2.13)	-0.320** (-2.53)	-0.564*** (-4.48)	-0.330* (-1.91)
<i>CEO-Chair</i>	0.277 (0.61)	0.639 (1.61)	-0.098 (-0.38)	0.443 (1.00)
<i>Board size</i>	0.380 (1.50)	0.334* (1.81)	0.114 (0.63)	0.314 (1.30)
<i>Market-book</i>	-0.024 (-1.05)	-0.002 (-0.13)	0.001 (0.19)	-0.026 (-1.33)
<i>Leverage</i>	0.654** (2.10)	0.318 (1.24)	0.312 (1.11)	0.648** (2.14)
<i>Firm size</i>	-0.056 (-1.24)	-0.019 (-0.54)	0.012 (0.36)	-0.048 (-1.12)
<i>LnAge</i>	0.307 (0.68)	-0.687** (-2.00)	-0.032 (-0.10)	0.234 (0.60)
<i>LnTenture</i>	-0.057 (-0.78)	-0.079 (-1.33)	-0.043 (-0.76)	-0.067 (-0.93)
<i>TSX index</i>	0.111 (0.81)	0.140 (1.07)	0.053 (0.42)	0.117 (0.87)
Industry FEs	Yes	Yes	Yes	Yes
OBS.	1,839	3,063	2,778	1,975
Pseudo R ²	0.066	0.094	0.089	0.067

Table 7, Continued

Panel B: Cross-Sectional Analysis

Dep var = <i>Prob.(CEO turnover)</i>	Incr. in female directors		Incr. in female members on gov. comm.	
	High (1)	Low (2)	High (3)	Low (4)
<i>2-year Ret</i>	0.045 (0.52)	-0.115 (-1.43)	0.049 (0.58)	-0.158 (-1.54)
<i>Post</i> × <i>2-year Ret</i> (β_1)	-0.669*** (-3.43)	-0.203 (-1.22)	-0.594*** (-3.25)	-0.123 (-0.73)
<i>Post</i>	-0.074 (-0.48)	-0.273 (-1.56)	-0.102 (-0.67)	-0.253 (-1.35)
Tests on the diff. in β_1	<i>p-value</i> = 0.080		<i>p-value</i> = 0.066	
Controls, industry FEs	Yes	Yes	Yes	Yes
OBS.	931	908	1,071	768
Pseudo R ²	0.073	0.113	0.078	0.127

Panel C: Measuring *Post* Based on the Actual Increase in Female Directors Post Regulation

Dep var = <i>Prob.(CEO turnover)</i>	Measuring <i>Post</i> based on the actual increase in female directors		Measuring <i>Post</i> based on the actual incr. in female members on gov. comm.	
	Treatment firms + PSM U.S. firms	Treatment firms + Non-U.S. firms	Treatment firms + PSM U.S. firms	Treatment firms + Non-U.S. firms
Sample =	(1)	(2)	(3)	(4)
<i>2-year Ret</i>	-0.356** (-2.11)	-0.427*** (-2.74)	-0.362** (-2.11)	-0.424*** (-2.71)
<i>Post</i> × <i>2-year Ret</i>	0.113 (0.50)	0.226 (1.08)	0.119 (0.52)	0.225 (1.08)
<i>Post</i> × <i>2-year Ret</i> × <i>Treat</i>	-0.741** (-2.13)	-0.659** (-2.43)	-1.018*** (-2.82)	-0.809*** (-2.85)
<i>2-year Ret</i> × <i>Treat</i>	0.275 (1.46)	0.344** (2.02)	0.308 (1.63)	0.355** (2.10)
<i>Post</i> × <i>Treat</i>	-0.077 (-0.44)	-0.044 (-0.23)	-0.029 (-0.16)	-0.000 (-0.00)
<i>Treat</i>	-0.270** (-2.05)	-0.399** (-2.14)	-0.284** (-2.15)	-0.405** (-2.17)
<i>Post</i>	0.093 (0.89)	0.077 (0.55)	0.100 (0.96)	0.077 (0.55)
Controls, industry FEs	Yes	Yes	Yes	Yes
OBS.	3,063	2,778	3,063	2,778
Adjusted R ²	0.090	0.086	0.096	0.090

This table presents results of the effects of Canada's gender diversity disclosure regulation on CEO turnover-performance sensitivity. Panel A reports Probit regression results. Panel B reports the cross-sectional analyses conditional on the increase in female directors and in female governance committee members. In columns (1)–(2) ((3)–(4)) of Panel C, *Post* is alternatively defined as one in and after the first post-regulation year for the treatment firms when the number of female directors (the number of female members on the governance-related committees) increases, and zero otherwise. All firm-year independent variables are measured in year *t*-1. See Appendix B for variable definitions. *z*-stats, reported in parentheses, are calculated based on robust standard errors clustered by firm.

***, **, and * indicate significance at the 1%, 5%, and 10% two-tailed levels, respectively.

Table 8
Market Reactions to Events Related to Canadian Gender Diversity Disclosure Regulation

Panel A: Two-Day Abnormal Returns around Individual Regulatory Events (N = 381 Firms)

Event date	Description	CAR_US	CAR_NONUS	CAR_CAN
#1. 7/30/2013	Proposals set out in the Ontario Securities Commission (OSC) Staff Consultation Paper 58-401 Disclosure Requirements Regarding Women on Boards and in Senior Management (Consultation Paper) was published for a 60-day comment period.	-0.0035 (-1.44) [0.255]	-0.0058** (-2.41) [0.263]	0.0103*** (4.24) [0.015]
#2. 10/16/2013	OSC convened a public roundtable to discuss the model of disclosure requirements set out in the Consultation Paper.	0.0068*** (2.67) [0.195]	0.0177*** (7.03) [0.014]	0.0083*** (3.33) [0.044]
#3. 1/16/2014	OSC published for a 90-day comment period proposed amendments to Form 58-101F1.	0.0240*** (9.40) [0.014]	0.0211*** (8.34) [0.006]	0.0100*** (4.26) [0.026]
#4. 7/3/2014	The securities regulatory authorities in Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Québec and Saskatchewan published for a 60-day comment period proposed amendments to Form 58-101F1.	0.0007 (0.48) [0.557]	0.0070*** (3.63) [0.188]	0.0026* (1.80) [0.271]
#5. 10/15/2014 10/16/2014	The Amendments were published on the OSC website at http://www.osc.gov.on.ca . The Amendments were published on the OSC Bulletin.	0.0119*** (4.29) [0.094]	0.0164*** (5.86) [0.024]	0.0002 (0.07) [0.410]
		ACAR_US	ACAR_NONUS	ACAR_CAN
Events #1-5	Aggregated abnormal returns (ACAR) (<i>t-stats</i>) [bootstrapping <i>p-values</i>]	0.0407*** (7.00) [0.046]	0.0574*** (9.78) [0.004]	0.0256*** (4.41) [0.026]

Table 8, Continued

Panel B: Cross-Sectional Analysis of the Market Reactions

Dep var =	ACAR_US		ACAR_NONUS		ACAR_CAN	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>All-male board_{pre}</i>	0.027** (2.08)		0.024* (1.82)		0.025* (1.76)	
<i>All-male gov. comm._{pre}</i>		0.027** (2.16)		0.029** (2.08)		0.024* (1.88)
<i>Inst. ownership_{pre}</i>	0.047* (1.95)	0.050* (1.95)	0.048* (2.01)	0.050* (1.99)	0.037 (1.46)	0.040 (1.47)
<i>Indp. directors_{pre}</i>	-0.044** (-2.11)	-0.039* (-1.75)	-0.050* (-1.86)	-0.043 (-1.51)	-0.037 (-1.69)	-0.033 (-1.39)
<i>CEO-Chair_{pre}</i>	0.013 (0.87)	0.011 (0.75)	0.007 (0.40)	0.005 (0.29)	0.014 (0.88)	0.012 (0.77)
<i>Board size_{pre}</i>	-0.005 (-0.17)	-0.006 (-0.21)	-0.001 (-0.05)	0.001 (0.03)	-0.001 (-0.04)	-0.003 (-0.09)
<i>Market-book_{pre}</i>	0.006** (2.26)	0.005** (2.13)	0.004* (1.97)	0.004* (1.82)	0.006** (2.32)	0.005** (2.20)
<i>Firm size_{pre}</i>	-0.007 (-1.49)	-0.007 (-1.53)	-0.009* (-1.79)	-0.008* (-1.82)	-0.008 (-1.39)	-0.008 (-1.42)
<i>ROA_{pre}</i>	-0.038 (-1.26)	-0.039 (-1.32)	-0.040 (-1.56)	-0.041 (-1.64)	-0.035 (-1.04)	-0.036 (-1.10)
<i>Ret_{pre}</i>	-0.001 (-0.05)	-0.000 (-0.01)	-0.005 (-0.28)	-0.005 (-0.26)	0.002 (0.13)	0.003 (0.17)
<i>TSX index</i>	0.007 (0.54)	0.007 (0.52)	0.002 (0.12)	0.002 (0.11)	0.011 (0.86)	0.011 (0.84)
Industry FEs	Yes	Yes	Yes	Yes	Yes	Yes
OBS.	381	381	381	381	381	381
Adj. R ²	0.128	0.127	0.166	0.169	0.074	0.073

This table presents the analysis of the market reaction to events leading up to Canada's gender diversity disclosure regulation. Panel A reports two-day (day [0, +1]) abnormal returns around the five regulatory events. Panel B reports cross-sectional regression results of the market reaction to the diversity regulation events, with all independent variables measured in the last year prior to July 30, 2013, when the first event took place. See Appendix B for variable definitions. The *t-stats* reported in parentheses are calculated based on robust standard errors clustered by industry. ***, **, and * indicate significance at the 1%, 5%, and 10% two-tailed levels, respectively. In Panel A, bootstrapped one-tailed *p-values* following Zhang (2007) are reported in brackets.

Table 9
Mandatory Gender Diversity Disclosure and Female Representation in Executive Officer Positions

Dep var =	<i>N. female executives</i>	<i>% female executives</i>	<i>Prob. (Having at least one female executive)</i>
	(1)	(2)	(3)
<i>Post</i>	0.051 (1.20)	0.010 (1.23)	0.098 (1.24)
<i>Inst. ownership</i>	-0.125 (-0.82)	-0.037 (-1.35)	-0.642** (-2.30)
<i>Indp. director</i>	-0.011 (-0.06)	0.030 (0.75)	0.018 (0.04)
<i>CEO-Chair</i>	0.101 (1.46)	0.029* (1.72)	0.050 (0.35)
<i>Board size</i>	0.143 (1.22)	0.023 (0.95)	0.554** (2.25)
<i>Market-book</i>	0.011 (1.21)	0.002 (1.11)	0.022 (1.12)
<i>Leverage</i>	-0.080 (-0.39)	-0.030 (-0.76)	-0.044 (-0.11)
<i>Firm size</i>	0.024 (0.54)	0.002 (0.26)	0.033 (0.63)
<i>ROA</i>	0.006 (0.12)	-0.000 (-0.03)	0.127 (0.87)
<i>Ret</i>	-0.011 (-0.60)	0.001 (0.14)	-0.092* (-1.69)
FEs	Firm	Firm	Industry
OBS.	1,809	1,809	1,809
Adjusted/Pseudo R ²	0.697	0.643	0.071

This table presents results of the effects of Canada's gender diversity disclosure regulation on the representation of women in executive positions. In columns (1) through (3), the dependent variable is the number of female executives, the percentage of female executives, and the probability of having at least one female executive, respectively. All firm-year independent variables are measured in year $t-1$. See Appendix B for variable definitions. The t -stats reported in parentheses are calculated based on robust standard errors clustered by firm. ***, **, and * indicate significance at the 1%, 5%, and 10% two-tailed levels, respectively.