

## The Wealth Effects of Reducing Private Placement Resale Restrictions

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### Abstract

Recently, the U.S. Securities and Exchange Commission reduced resale restrictions on Rule 144 private placements from 12 months to 6 months with the intention of lowering the cost of equity capital for issuing firms. In Canada, similar regulatory changes were adopted several years ago, providing a unique opportunity to test the wealth effects of reducing private placement resale restrictions. We find that shortening resale restrictions reduces the liquidity portion of offer price discounts and thus lowers the cost of equity capital for issuing firms, but has a larger negative effect of reducing existing shareholder wealth measured by announcement-period abnormal returns. Moreover, we show that the legislation-induced easing of resale restrictions reduces the costly signal that helps to overcome the Myers and Majluf (1984) underinvestment problem, causing smaller firms with greater information asymmetry to choose not to issue equity and thus potentially passing up positive net present value investment opportunities.

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## 1. Introduction

Private placements are an important source of raising equity capital for smaller firms with high information asymmetry (Chemmanur and Fulghieri, 1999; Wu, 2004; Cronqvist and Nilsson, 2005). Unlike public equity offerings, private placements of common stock by publicly listed companies are typically associated with positive announcement effects and are issued at considerable discounts from the issuing firm's stock market price.<sup>1</sup> The monitoring and certification hypotheses are the most widely cited explanations for these findings. According to the monitoring hypothesis (Wruck, 1989), the positive announcement effects are a consequence of reduced agency costs motivated by the private placement induced increase in ownership concentration. Private placement discounts reflect compensation for monitoring services provided by private investors. Under the certification hypothesis, Hertz and Smith (1993) extend the Myers and Majluf (1984) model of information asymmetry between managers and outside investors regarding the firm's true value and show that private placement discounts and the positive stock price effects reflect the resolution of this asymmetry.

An alternative hypothesis is managerial entrenchment (Barclay et al., 2007). According to this hypothesis, management places stock with friendly investors at a discount so that they will not "rock the boat"; positive announcement effects are mainly driven by private investors that become active investors in firm affairs.

Another factor in the determination of private placement discounts is the existence of restrictions on the resale of the shares, imposing illiquidity on the investors (Silber, 1991). Recently, securities regulators in various jurisdictions have been easing private placement resale restrictions with the intention of making private placements more attractive to investors and also

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<sup>1</sup> We use the pairs of terms "common share" and "common stock", and "discount" and "offer price discount" interchangeably throughout the paper.

to reduce the cost of equity capital for issuers by reducing the liquidity discount. For example, the U.S. Securities and Exchange Commission (SEC) on February 15, 2008 amended resale restrictions associated with Rule 144 private placements effectively reducing the resale restriction period from 12 months to 6 months.<sup>2</sup> In Canada, similar regulatory changes were adopted several years earlier, on November 30, 2001, providing a unique opportunity to test the wealth effects associated with legislation-induced reductions in private placement resale restrictions.

Using a unique sample of 1,173 private placements of equity from Canada, this paper provides evidence that although shortening resale restrictions reduces the liquidity portion of offer price discounts, it has a larger negative effect of reducing existing shareholder wealth measured by announcement-period abnormal returns. Moreover, we show that the easing of resale restrictions reduces the costly signal that helps to overcome the Myers and Majluf (1984) underinvestment problem, causing smaller firms with greater information asymmetry to choose not to issue equity and thus potentially passing up positive net present value investment opportunities. The Canadian experience with past institutional and regulatory changes provides insights into what regulators, firms, and investors can potentially expect in the U.S., and other markets that are considering adopting similar rule changes.

The rules governing private placements of equity by Canadian publicly listed companies are similar to U.S. equity private placements issued under Regulation D of Rule 144. In both countries, privately placed equity issues can only be sold to qualified investors and those investors face restrictions on the resale of the shares.

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<sup>2</sup> The Securities and Exchange Commission in their final report on making the change in resale restrictions effective, state: “We believe that the amendments will increase the liquidity of privately sold securities, make capital investment more attractive, and decrease the cost of capital for all issuers without compromising investor protection.” (Release No. 33-8869; File No. S7-11-07)

In addition to privately placing common stock, Canadian public companies also issue a second type of privately placed equity, known as *special warrants*. As with all Canadian private placements of equity, special warrants are issued without a prospectus and sold only to qualified investors. Unlike regular stock warrants, special warrants have an exercise price of zero, making them exchangeable for common stock of the issuer at no additional cost. However, the issuer promises to file a prospectus so that when the special warrants are exercised, the newly issued common stock are freely tradable. In a typical special warrant offering, the issuer promises that the warrants will be exercisable into freely traded common stock within 4 months. A special warrant deal offers the speed of a private placement to the issuer and at the same time offers investors the promise that they are buying stock with a shorter restricted period than a regular private placement of common stock.<sup>3</sup> Special warrants are in effect hybrid private/public offerings.

The Canadian regulations governing the resale of private placements of equity by publicly listed companies have undergone significant change.<sup>4</sup> At the start of the sample period, Jan 1, 1993, until Nov 29, 2001, any privately placed equity of Canadian publicly listed companies was subject to a 12 month restricted period, unless issuers circumvented the restricted period with a special warrant offering. Therefore, investors were prohibited from reselling the privately placed common stock in the public market for 12 months after their issuance. On Nov 30, 2001, Multilateral Instrument 45-102 (MI, henceforth) was implemented, shortening the resale restriction period from 12 months to 4 months for private placements of common stock by public companies.

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<sup>3</sup> In effect, these are like Regulation D issues in the U.S. *with* a guaranteed registration.

<sup>4</sup> To avoid confusion we define “private placements of equity” as the broad sample of private placements which includes “private placements of common stock” and “special warrants”, the latter two being the sub-groups of private placements we examine.

We document a major decrease in the issuance of special warrants after resale restrictions were reduced on Nov 30, 2001. Special warrants, which comprised approximately 82% of total private equity placements to passive investors from Jan 1, 1993 to Nov 29, 2001, became almost nonexistent after MI came into effect on Nov 30, 2001, reflecting a strong desire for liquid shares by investors.<sup>5</sup> We also find that issuers making special warrant offerings, similar to issuers making public offerings, are larger firms with less information asymmetry than common stock private placement issuers. Since MI came into effect, issuers making common stock private placements are also larger firms with less information asymmetry than issuers making common stock private placements in the pre-MI period, implying that the legislation-induced reduction in resale restrictions changed the types of firms making private placements.

We first examine the wealth effects of having private placements associated with different resale restriction lengths in the marketplace. We find substantially higher offer price discounts for private placements of common stock than special warrants before MI came into effect by about 6% to 7%, reflecting the longer resale restrictions on the privately placed common stock than the effective restricted period for special warrants. However, existing shareholder wealth as measured by announcement-period abnormal returns are significantly more positive for private placements of common stock than special warrants, reflecting the more costly signal associated with longer resale restrictions. These differences are similar to prior U.S. studies comparing unregistered and registered private placements (Wruck, 1989; Hertz and Smith, 1993). Importantly, the pre-MI results imply that private placements with different resale restriction lengths provide issuing firms an important signaling mechanism.

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<sup>5</sup> We categorize the buyers of private placements as *passive*, *strategic*, *active*, *insiders* and *venture/private capital* in the spirit of Barclay et al. (2007). This paper focuses on *passive* investors.

Next, we examine the wealth effects of the regulatory easing of resale restrictions. We find higher discounts for common stock private placements in the period Jan 1, 1993-Nov 29, 2001, before the legislative change, when resale restrictions were 12 months, compared to the period after, for which resale restrictions are only 4 months, by about 6.5% to 9.0%. The regulatory change in resale restrictions therefore reduced the cost of capital for private placements, in part, by reducing the liquidity discount. However, we also document significantly less positive announcement-period abnormal returns for common stock private placements in the post-MI period than in the pre-MI period. Taken together, these results show that the easing of resale restrictions implies negative wealth effects for existing shareholders of issuing firms.

Private placements with longer resale restrictions serve an important purpose. In particular, they provide smaller firms with greater asymmetric information a mechanism by which to provide more costly signaling. By reducing private placement resale restrictions and ultimately driving special warrants out of the market, firms that previously relied on the costlier signal choose not to issue equity. Our evidence provides strong support for this; firms making common stock private placements in the post-MI period are larger firms with less information asymmetry, much like firms making special warrant issues in the pre-MI period. In the final section of the paper we formally test this conjecture by implying probabilities in the post-MI period based on the parameter estimates from a logistic regression that determines the choice of offering type in the pre-MI period, special warrant or private placement of common stock. We show that the majority of firms would be special warrant issuers in the post-MI period had the legislation-induced shortening of resale restrictions not come into effect. Therefore, the easing of resale restrictions augments the Myers and Majluf (1984) underinvestment problem that the private placement market had partially circumvented (Hertzel and Smith, 1993).

The remainder of the paper is organized into the following sections. Section 2 describes the Canadian private placement market. Section 3 discusses the information hypothesis. Section 4 describes the data and presents descriptive statistics. Section 5 presents our empirical tests and findings. Section 6 discusses the implications of MI 45-102. Conclusions are drawn in Section 7.

## **2. A Brief Background on Canadian Private Placements**

Private placements are an alternative to public equity offerings. They are offerings made through certain statutory exemptions which allow the securities to be sold without a prospectus.

Under Canadian securities law the sales of private placements are limited to various prescribed accredited purchasers. The definition of such purchasers generally refers to sophisticated and knowledgeable investors with substantial funds, including financial institutions, corporations and wealthy individuals. Limiting prospectus-exempt offers to accredited investors is intended to protect unsuspecting investors from being taken advantage of by unscrupulous issuers. In addition, in order to prevent the use of private placements as “backdoor public offerings”, bypassing the more costly prospectus offering, private placements are subject to restrictions on resale. Consequently, until the end of the statutory restricted period, privately placed shares can only be sold to other accredited investors. After the elapse of the restricted period, the privately placed equity can be resold to any and all investors in the marketplace.

The restricted period for privately placed securities of publicly listed companies (also known as “reporting issuers”) has experienced substantial change in Canada. Prior to Nov 30, 2001, the restricted period for a private placement of equity by a publicly listed company was 12 months. On Nov 30, 2001, the restricted period for private placements of all stocks that were

listed for trading on a recognized stock exchange was cut to 4 months. The change was implemented through Multilateral Instrument 45-102 (MI).

Special warrants are a type of equity private placement unique to Canada. They are private/public hybrid transactions, designed to provide an issuer with the quick access to funds normally associated with private placements, while providing purchasers with freely tradable securities sooner than the 12 month restricted period associated with regular private placements.

Special warrants are also sold for cash under an exemption from the prospectus requirements. The special warrants are convertible into common stock and the conversion is qualified pursuant to a prospectus being filed. The proceeds from the sale of the special warrants are either received on the closing date of the special warrants or may be held in escrow pending clearance of the prospectus. The special warrants are usually refundable to the purchasers of the special warrants if a receipt for the prospectus is not obtained from the securities regulator by a stated deadline (usually 120 days or 4 months following the purchase of the special warrants). Alternatively, interest may be charged for each day that a receipt for the prospectus is not obtained following the agreed upon deadline. Therefore, under a special warrant transaction the restricted period associated with the underlying shares is the length of time necessary to prepare and obtain a receipt for a prospectus.<sup>6</sup> Prior to Nov 30, 2001, when the restricted period for common stock private placements was 12 months, the effective restricted period for special warrants was substantially shorter (up to 4 months).<sup>7</sup>

One might ask why a prospectus cannot be filed to qualify securities previously issued in a private placement, thereby eliminating the need to use special warrants to allow for the shares to become freely tradable. Unlike in the United States where the regulatory system requires the

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<sup>6</sup> See Insight Education Services seminar papers (1990) for a more complete discussion of the structure of special warrant private placements.

<sup>7</sup> See Insight Education Services seminar papers, 1990.



registration or qualification of actual securities, the Canadian system requires qualification by prospectus of *distributions*.<sup>8</sup> Therefore, under the various securities laws in Canada it is not possible to issue securities on a private placement and then subsequently file a prospectus to qualify its resale prior to the expiration of the applicable restricted period.<sup>9</sup> Securities commissions forcefully point out that once a private placement offering takes place, there is no distribution to be qualified by a prospectus, since the distribution was already completed in the initial placement. In the special warrant transaction, the issuance of the underlying shares upon the exercise of the special warrant is considered to be a first trade and a distribution which a prospectus may qualify. As a result, the shares obtained through the exercising of the special warrants are freely tradable.<sup>10</sup>

### **3. Resale Restrictions and the Information Hypothesis**

Myers and Majluf (1984) demonstrate that equity issues convey management's belief that the firm is overvalued. Therefore, managers of undervalued firms with profitable investment opportunities but lacking financial slack will choose not to issue equity whenever the share of existing assets transferred to new stockholders exceeds the share of increased firm value retained by existing stockholders. By not issuing, managers are choosing to forego the investment opportunities. This "underinvestment problem" disappears if managers can costlessly convey their private information to the market.

Hertzel and Smith (1993) extend the Myers and Majluf (1984) framework and show that private placements mitigate the underinvestment problem and even signals undervaluation. They show that private placement discounts reflect information costs borne by private investors and

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<sup>8</sup> This simply means the first trade of securities.

<sup>9</sup> As noted securities laws are provincially regulated in Canada. Therefore, no one law covers all of Canada but the provincial laws share some similarities and in some cases have adopted national standards.

<sup>10</sup> See Insight Education Services seminar papers, 1987, for a more complete discussion.

positive announcement-day abnormal returns reflect the willingness of private placement investors to commit funds to the firm, thereby signaling management's belief that the firm is undervalued.

In order for the signal of undervaluation to be credible the prospect of false signaling must be precluded so that overvalued firms cannot benefit by placing shares with private investors who then resell these shares in the public market before the true state of nature is revealed. The resale restrictions in private placements provide one such guarantee by making the signal costly.

Given the costly signal implied by resale restrictions raises an interesting question: is the recent easing of resale restrictions by securities regulators beneficial or harmful to issuing firms? On the one hand, easing resale restrictions may reduce the cost of capital by providing more liquid shares. On the other hand, certain firms may be forced to pass up positive net present value (NPV) investment opportunities because of the loss of costly signaling.

The recent experience in Canada provides a unique setting to test the value impact of reduced resale restrictions on private placements for shareholders. Special warrants were created to bypass the 12 month restricted period for private placements of equity. They are in effect like U.S. registered private placements. Special warrants are associated with resale restrictions of up to 4 months while private placements of common stock were associated with resale restrictions of 12 months prior to Nov 30, 2001. Therefore, the discount should be higher for common stock private placements than special warrants in the pre-MI period, since a longer required holding period provides an incentive for private placement investors to incur additional costs to assess firm prospects and also because of a larger liquidity discount. However, as noted above, longer resale restrictions make signaling more costly because of the lower likelihood of opportunistic

resale. Therefore, common stock private placements should also have more positive announcement effects than special warrants in the pre-MI period. This implies that private placements with different resale restriction lengths serve an important purpose by providing an alternative flotation method with costlier signaling.

MI reduced resale restrictions on privately placed common stock from 12 months to 4 months. Based on the information and liquidity costs noted above, offer price discounts for common stock private placements should be smaller in the post-MI period, when the restricted period dropped from 12 months to 4 months, consistent with a reduced cost of capital. However, the easing of resale restrictions should also lead to less positive announcement effects for common stock private placements post-MI than common stock private placements pre-MI, a cost borne by existing shareholders of issuing firms.

The legislation-induced easing of resale restrictions eliminated the costly signal associated with the 12 month restricted period for common stock private placements pre-MI. Based on the theoretical work of Chemmanur and Fulghieri (1999), Wu (2004) and Cronqvist and Nilsson (2005) show that smaller firms with more asymmetric information are more likely to make private placement offerings than public offerings due to the higher information production costs associated with public offerings. Extending this framework to the current context, private placements with fewer restrictions on resale should have higher information production costs than private placements with longer restrictions on resale. Therefore, firms making special warrant offerings in the pre-MI period should be larger firms with less information asymmetry than firms making common stock private placements. Furthermore, firms making common stock private placements post-MI should be larger firms with less information asymmetry than firms

making common stock private placements pre-MI, implying that smaller firms with more asymmetric information will choose not to issue equity after the legislative change.

## **4. Data and Descriptive Statistics**

### *4.1. Data*

Data on private placements of common stock, special warrants, and public seasoned equity offerings (SEOs) by companies listed on the Toronto Stock Exchange (TSX) announced between Jan 1, 1993 and Dec 31, 2005 are collected from the Financial Post (FP) Advisor database, which provides detailed offer characteristics. Firm attributes such as market capitalization and stock returns are obtained from the TSX/CFMRC database. To ensure that pure secondary offerings do not bias certain results, the sample includes only primary and combined primary and secondary offerings.<sup>11</sup>

Information on the identity of the private placement investors was collected from the press reports in Factiva and LexisNexis for each offering. We also verified offering details such as announcement dates, closing dates, offer price, and the number of shares offered.

We exclude from our sample unit offerings, flow through shares, and offerings with missing announcement dates, pricing dates and/or closing dates. This leaves us with an overall sample of 2,010 offerings, consisting of privately placed common stock, special warrants, and public SEOs.

Table 1 reports the number of issues and proceeds raised segmented by the type of offering and by the announcement year. Focusing on the common stock private placements and special warrants, several findings are noteworthy. Out of the 1,173 private placement offerings,

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<sup>11</sup> For robustness, we also conducted all of our analysis exclusively for primary offerings. Our results remain qualitatively the same.

56% were special warrants, raising about \$14.1 billion, approximately \$6.6 billion more than privately placed common stock.

A closer examination of Table 1 reveals a clear time trend. In particular, 93% of the 656 special warrants are offered pre-MI. Special warrants are almost non-existent post-MI. This irregularity is not coincidental. As discussed earlier, MI came into effect on Nov 30, 2001, shortening the restricted period for all private placements of common stock from 12 months to 4 months. The dramatic drop in the use of special warrants and corresponding increase in privately placed common stock suggests that special warrants were created to bypass the pre-MI 12 month restricted period for privately placed common stock. This highlights the desire for liquidity by private placement investors.

Table 1 also indicates that public SEOs outnumber private placements of common stock and special warrants, respectively, over the entire sample period. However, adding together types of private placements, private placements outnumber public SEOs each year, and from 1993 to 1996, special warrants outnumber public SEOs. This suggests that private placements are a popular source of financing for Canadian companies. We note that although the number of private placements is large, proceeds raised are substantially less than for public SEOs. Over the entire sample period, Jan 1, 1993-Dec 31, 2005, firms making public common stock offerings raised about six times more cash than special warrants, and about 11 times more than common stock private placements.

As noted above, the identity of the purchasers of the private placements was collected from the press reports for each offering. Our procedure for categorizing private placement investors is in the spirit of Barclay et al. (2007). Table 2 lists the five categories of private placement investors that were identified: (1) *Passive investors* (identity of investor is not

disclosed in press report), (2) *Strategic investors* (strategic alliance partners, joint venture partners, and/or customers), (3) *Active investors* (nominated to the board of directors upon purchase of the private placement), (4) *Insiders* (managers and/or existing shareholders), (5) *Venture/Private Capital* (purchase by a single venture capitalist or private equity firm).

Panel A shows that in the period Jan 1, 1993-Dec 31, 2005, passive investors are the representative sample, making up 87% of all private placements. This is very similar to the proportion of passive investors reported in Barclay et al. (2007) for U.S. private placements. In their sample, passive investors represent 83% of the sample. In addition, Panel A shows that 97% of the special warrants are made to passive investors. The relatively high number of special warrant issues sold to passive investors suggests that liquidity is most important for this group of investors.

We focus on passive investors in the remainder of the paper because they are arm's length investors. Therefore, we exclude 148 private placements where purchasers are classified as either *strategic*, *active*, *insiders*, or *venture capital/private equity*. Since the purpose of this paper is to document the wealth effects of the legislation-induced easing of resale restrictions, including non-arm's length offerings would confound the empirical analysis. The recent private placement literature has shown that the announcement effects and discounts for non-arm's length private placements are indeed different than the announcement effects and discounts for arm's length private placements. For example, Wruck and Wu (2009) show that many new relationships are formed through the private placement agreement and that these relationships drive the positive stock price response at announcement; placements lacking new relationships are non-events. Wruck and Wu (2009) also show that private placement price discounts vary based on relationships. Furthermore, Krishnamurthy et al. (2005) show that price discounts are

smaller and announcement effects are more positive in private placements to affiliated versus unaffiliated investors, and Barclay et al. (2007) find that price discounts are smaller and announcement effects are more positive in placements to active versus passive investors.

As pointed out in Barclay et al. (2007), our categorization has its limitations. In particular, finding no information on the purchasers in the press reports does not guarantee arm's length transactions. We note however that all of the offerings in our sample received press coverage. Also, to the extent that we have misclassified some placements so that non-disclosure is actually not an arm's length transaction, then this should not pose a problem if misclassification is randomly distributed among common stock private placements and special warrants in the pre-MI period, and among common stock private placements before and after the legislative change in resale restrictions. Moreover, if we non-randomly misclassified passive investors as arm's length investors when in fact they are non-arm's length investors for common stock private placements pre-MI, then our classification should bias against finding a larger discount and more positive announcement effects for longer resale restrictions. The abovementioned papers show that non-arm's length investors purchase offerings at substantially smaller price discounts or even at a premium (Barclay et al., 2007; Krishnamurthy et al., 2005) and announcement effects are more positive for non arm's length placements (Wruck and Wu, 2009; Barclay et al., 2007; Krishnamurthy et al., 2005).<sup>12</sup>

Finally, we exclude 180 observations due to one or more unpopulated variables for the empirical tests. This leaves us with a final sample of 942 private placements and 740 public SEOs sold to passive investors.

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<sup>12</sup> For robustness, we also examined price discounts and announcement returns for the non-arm's length investors that we identified. Consistent with these prior studies we find mixed results with generally smaller price discounts, and in many cases premiums, from the previous day's market closing price. In addition, announcement effects are generally more positive. For brevity, we do not include these results in the paper, but would gladly make these results available to the interested reader upon request.

Figure 1 graphs the yearly number of privately placed common stock, special warrants, and public SEOs to passive investors. The time trend noted above is clearly visible. Before MI came into effect on Nov 30, 2001, special warrants outnumber privately placed common stock each year and there is a sharp decline in the number of special warrants post-MI and a corresponding increase in the number of privately placed common stock offerings. This is consistent with special warrants being created to provide investors with more liquid private placement offerings. The number of public SEOs is relatively stable over the entire sample period.

#### *4.2. Descriptive statistics*

Table 3 presents descriptive statistics for the various controls used throughout the paper. Statistics are reported for private placements of common stock and special warrants pre-MI and for private placements of common stock post-MI.

Focusing on the pre-MI period, the average proceeds raised (PROCEEDS) for the special warrant sample is \$20.1 million, compared to average proceeds of \$6.2 million for the privately placed common stock sample. Measured in the month prior to the issue, the average market capitalization (MV) of firms issuing special warrants is \$102.5 million compared to \$78.7 million for firms making private placements of common stock. We also compute the relative issue size, RELSIZE, which is defined as the number of shares offered scaled by the firm's total number of shares outstanding in the month prior to the announcement of the equity offering. Although the mean difference is statistically insignificant, the median difference is statistically significant and larger for special warrants.

We use two main proxies for information asymmetry: (1) RVOL, the standard deviation of market-model residuals measured over a 230-day period prior to the announcement of the



equity offering; and (2) SPREAD, the average percentage bid-ask spread scaled by the midpoint of the two quotes over a 60-day period prior to the announcement of the equity offering. We also use the logarithm of the firm's market capitalization ( $\text{Ln}(\text{MV})$ ) as an additional proxy in our empirical tests.<sup>13</sup> In the pre-MI period, RVOL is 7.3% for the equity of firms making private placements of common stock compared to 5.1% for special warrants. Similarly, SPREAD is 6.3% for the equity of firms making private placements of common stock compared to 3.9% for special warrants. The descriptive statistics for our information asymmetry proxies suggest that private placements of common stock are associated with greater information asymmetry than special warrants.

As in Bethel and Krigman (2008) we also control for the order processing and inventory components of bid-ask spreads by including share turnover (TURNOVER), defined as daily trading volume as a percentage of shares outstanding measured over the 60 trading days prior to the announcement date. TURNOVER is lower for common stock private placements compared to special warrants (0.2% versus 0.3%, respectively).

Systematic (market) risk, BETA, is estimated using the market-model from day -250 through day -20 that precede each announcement (day 0). We find that BETA is higher for special warrants compared to common stock private placements (0.7 compared to 0.4, respectively), but this difference is statistically insignificant. We also control for market volatility, MVOL, measured over the 60 trading days prior to the announcement of the equity offer. We find MVOL to be about the same for common stock private placements and special warrants (0.7%).

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<sup>13</sup> One or more of these measures has been used in prior studies (e.g. Denis, 1991; Blackwell, Marr, and Spivey, 1990; Bethel and Krigman, 2008; Wu, 2004).

The offer price discount (DISCOUNT), measured as the percentage difference from the offer price to the firm's market price the day before the pricing date of the offering reveals stark differences.<sup>14</sup> Private placements of common stock are issued with an average DISCOUNT of 19.0% while special warrants are issued with an average DISCOUNT of 7.4%, a difference of 11.5 percentage points for a difference in the restricted period of approximately 8 months. These differences may be due to liquidity or to certification or a combination of both.

Announcement effects (CAR) are measured as the cumulative abnormal return based on the conventional market-model event-study methodology. The model is estimated with a linear regression of the firm's stock returns on the TSX/CFMRC value weighted return index. The estimation period includes day -250 through day -20, with day 0 being the initial public announcement of the private placement. Abnormal returns are calculated for each event day and cumulative abnormal returns are formed by summing and then averaging the daily abnormal returns. Based on a 3-day event window, (-1,1), we find significantly more positive announcement effects for common stock private placements (6.5%) than special warrants (1.8%). This is consistent with the idea that longer resale restrictions provide more credible signals of firm value.

Table 3 also reports descriptive statistics for private placements of common stock in the post-MI period, when the restricted period for common stock private placements was reduced from 12 months to 4 months. We find higher average proceeds (PROCEEDS), firm size (MV), and TURNOVER for common stock private placements after the legislative reduction in the restricted period. We also find firms making private placements of common stock after MI are

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<sup>14</sup> Specifically, the offer price discount is defined as  $(P_{-1} - P_{offer})/P_{offer}$ , which is scaled up by a factor of 100, where  $P_{-1}$  is the market price the day before the pricing date and  $P_{offer}$  is the offer price.

associated with lower information asymmetry, as proxied by RVOL and SPREAD. This suggests a shift in the types of firms making private placements of common stock post-MI.

The average DISCOUNT for common stock private placements is 8.3% post-MI, compared to 19.0% pre-MI. Note also that post-MI, the average DISCOUNT for private placements of common stock is similar to the average DISCOUNT for special warrants in the pre-MI period (7.4%), when the restricted period of the special warrants was also about 4 months. The difference in DISCOUNT for common stock private placements pre-MI versus post-MI suggests that the legislation-induced reduction in resale restrictions lowered the cost of equity capital for issuing firms. However, comparing the mean CAR post-MI of 1.2% with the mean CAR pre-MI of 6.5% suggests that existing shareholder wealth also declined after the legislative shortening of resale restrictions for common stock private placements, due to the loss of costly signaling.

## **5. Empirical Results**

### *5.1. The Determinants of Private Placement Type*

The descriptive statistics in Table 3 indicate that firms offering common stock private placements are smaller and have greater information asymmetry than firms offering special warrants in the Pre-MI period, and similarly, common stock private placements pre-MI are smaller and have greater information asymmetry than firms offering common stock private placements post-MI. This suggests that MI affected the types of firms now making common stock private placements. To provide further insight, we now turn to multivariate logistic regressions to control for these various firm and offer characteristics.

The logistic regressions in Table 4 model the choice of offering, privately placed common stock or special warrants, in the pre-MI period, as a function of a set of independent

variables reflecting firm and offer characteristics that determine this choice. The dependent variable takes on a value of one if privately placed common stock is offered, and 0 if special warrants are offered.

The results presented in Table 4 are consistent with our univariate findings; the coefficients on our information asymmetry proxies, *RVOL* and *SPREAD*, are statistically significant and positive. This says that firms with greater information asymmetry are more likely to issue private placements of common stock than special warrants. This is consistent with the theoretical model of Chemmanur and Fulghieri (1999) and the empirical findings in Wu (2004) and Cronqvist and Nilsson (2005) that firms characterized by high information asymmetry choose private placements instead of public offerings in order to reduce information production costs. The intuition straightforwardly extends to the current context since special warrants are like hybrid private/public offerings. Therefore, we would expect the information production costs for special warrants to be greater than for common stock private placements.

We also find *RELSIZE* and  $\ln(MV)$  to be significantly negative. Therefore, larger firms that issue relatively more shares are more likely to issue special warrants. This result is also intuitive. If information asymmetries are smaller in larger firms and information costs are lower, then larger firms would consequently be more likely to offer special warrants. Hertz and Smith (1993) use *RELSIZE* as a proxy for information costs. Thus, firms with higher information costs (high *RELSIZE*) are less likely to issue special warrants and are more likely to make common stock private placements, consistent with the intuition above. Alternatively, it may be practically more difficult for firms to issue a larger fraction of illiquid stock. Therefore firms making larger fractional placements would be more likely to issue special warrants.

In Table 5, the logistic regressions model the determinants of offering type for private placements of common stock post-MI versus private placements of common stock pre-MI. The dependent variable takes on a value of one if privately placed common stock is offered in the post-MI period, and 0 if privately placed common stock is offered in the pre-MI period. These results are also consistent with the univariate results presented in Table 3, and highlight a fundamental shift in the types of firms making private placements of common stock post-MI versus pre-MI. Once resale restrictions were reduced from 12 months to 4 months, firms making common stock private placements are associated with lower information asymmetry, as indicated by the highly and significantly negative coefficients on RVOL and SPREAD in Models 1 and 2, respectively. Moreover, RELSIZE is significantly positive in each of the specifications, and Ln(MV) is also positive and significant. Therefore, much like special warrant offerings pre-MI, larger firms that issue relatively more shares are more likely to issue common stock private placements post-MI versus pre-MI. This says that the legislation-induced easing of private placement resale restrictions lead smaller firms associated with greater information asymmetry not to issue equity in the post-MI period. We turn to multivariate tests of DISCOUNT and CAR to determine whether this is due to the lack of costly signaling in the post-MI period.

### *5.2. The wealth effects of private placements of common stock versus special warrants, Jan 1, 1993 – Nov 29, 2001*

In order to determine the wealth effects of the legislative shortening of resale restrictions, we first need to understand the wealth effects of having two types of private placements in the marketplace, one associated with longer resale restrictions than the other. Therefore, in this section we seek to determine the wealth effects of common stock private placements versus special warrant private placements in the pre-MI period, when the only method of bypassing the 12 month restricted period for private placements was by making a special warrant offering.

Only after examining these differences can we determine the value impact of the legislation-induced easing of resale restrictions.

### *5.2.1. Private Placement Discounts*

The univariate statistics in Table 3 suggest that private placements of common stock are issued with substantially higher offer price discounts than special warrants in the pre-MI period. However, in the previous subsection we showed that there are significant differences in firm and offer characteristics depending on the type of issue. Therefore, in this section we use OLS regressions to examine the difference in private placement discounts (DISCOUNT) while controlling for the various firm and offer characteristics.

The controls are the same as those defined in Section 4. In addition, we include a binary variable, PPSTOCK, taking on the value of one for private placements of common stock, and a value of zero for special warrants. The coefficient on PPSTOCK measures the liquidity discount and compensation for higher information costs borne by private investors. This follows since common stock private placements have resale restrictions of 12 months and special warrants have resale restrictions of up to 4 months. Therefore, the coefficient on PPSTOCK is expected to be positive.

The regression results are presented in Table 6. We estimate specifications for each information asymmetry proxy, RVOL and SPREAD, as well as the natural logarithm of firm size, Ln(MV). Our variable of interest is PPSTOCK. The coefficient on PPSTOCK is between 6.0% and 7.0%, depending on the specification, and highly significant in each specification. Therefore, consistent with the univariate results in Table 3, private placements of common stock, which are restricted from resale in the public market for 12 months, are associated with substantially higher discounts than special warrants, which are restricted from resale for a period

of up to 4 months. This is after controlling for other variables which are statistically significant and found to be important determinants of discounts in the literature.

Hertzel and Smith (1993) use RELSIZE as a proxy for information costs, arguing that if new investments are more difficult to value than assets in place, then it is likely that the cost of information is potentially higher and investors will expend more resources to determine firm value, requiring a higher discount. Alternatively, issuing a larger fraction of illiquid stock may be practically more difficult from a firm's perspective so that a higher discount may be needed to compensate purchasers of private placements. We find a significantly positive coefficient on RELSIZE in each specification.

The coefficients on RVOL and SPREAD are positive and statistically significant in Models 1 and 2. This is consistent with the idea that since issuing firms with higher information asymmetry are harder to value, private placement purchasers will require a higher discount as compensation. Similarly, we find a significantly negative coefficient on Ln(MV) in Model 3, suggesting that offerings by larger firms, which presumably have lower information asymmetry, are associated with smaller discounts. We also find a significantly positive coefficient on MVOL. Since issuing firms are harder to value when markets are more volatile, a higher discount is required by investors.

We also include the variable PRIOR, defined as the number equity issues that the firm had between Jan 1, 1993 and the current issue. This is included since D'Mello et al. (2003) show that subsequent announcements of equity offerings reduce adverse selection costs. The coefficient on PRIOR is negative and marginally significant. This says that equity offerings by firms that have issued equity before are offered at smaller price discounts. The smaller discounts for subsequent offers can be attributed to reduced adverse selection costs.

The coefficient on BETA is positive and marginally significant. Therefore, firms that have higher systematic risk issue equity with higher price discounts. This result is intuitive, since investors require greater compensation (i.e. higher offer price discounts) for agreeing to purchase equity from a firm that has more systematic risk. Our results are therefore robust to the inclusion of various controls.

### *5.2.2. Announcement-period abnormal returns*

The previous sub-section showed that common stock private placements are issued with higher price discounts than special warrants. However, the univariate results in Table 3 also show that common stock private placements are associated with substantially higher announcement-period abnormal returns than special warrants. In this section we examine announcement-period abnormal returns using multivariate tests to control for various firm and offer characteristics.

Table 7 reports OLS regressions with abnormal stock returns from day -3 to day 3 as the dependent variable for three specifications.<sup>15</sup> The variable names are as defined in the previous sub-section. The coefficient on PPSTOCK is positive and statistically significant in each specification, after controlling for firm and offer characteristics. This says that the market reaction is more positive for announcements of common stock private placements than special warrants. Intuitively, private placements of common stock in the pre-MI period (Jan 1, 1993-Nov 29, 2001) are associated with longer resale restrictions than special warrants so that private placements of common stock convey a more credible signal of firm value leading to more positive announcement effects. Therefore, existing shareholders gain from the more positive

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<sup>15</sup> We use the 7-day event window in our multivariate tests instead of the 3-day event window reported in Table 3 in order to highlight that our results are robust to various event windows. The OLS regressions are robust to various event windows.



stock reaction because the market value of their share holdings increases. This also explains why firms might want to issue private placements of common stock instead of special warrants, even with the significantly higher discounts. Although firms raise less in proceeds, there is a net increase in existing shareholder wealth due to the more positive signal of firm value.

The coefficient on RELSIZE is positive and statistically significant in each specification. This says that the market reacts more positively for larger fractional placements. Hertz and Smith (1993) use RELSIZE as a proxy for the degree of undervaluation. Therefore, the positive coefficient is consistent with the information hypothesis. The coefficient on TURNOVER is negative and significant in each specification. If share turnover reflects higher transactions costs then the market should react more negatively to the announcement of a new equity offering.

The difference in announcement effects between common stock private placements and special warrants pre-MI highlights the value impact of costly signaling on existing shareholder wealth. Firms that make common stock private placements provide a stronger signal of firm value than firms offering special warrants. These results are consistent with the prior literature. For example, Wruck (1989) and Hertz and Smith (1993) document more positive announcement effects for unregistered private placements versus registered private placements in the U.S. Therefore, a private placement market with securities of different resale restriction lengths serves an important purpose by providing an alternative flotation method with costlier signaling. We now turn to tests that determine the wealth effects of MI.

### *5.3. The wealth effects of MI 45-102*

#### *5.3.1. Private placement discounts*

Securities regulators reduced private placement resale restrictions with the intention of making private placements more attractive to investors and by reducing the liquidity portion of

offer price discounts, to reduce the cost of capital for issuing firms. In this section we use a differences-in-differences estimation methodology to test whether the shortening of the resale restricted period by adopting MI resulted in a reduction in common stock private placement offer price discounts.<sup>16</sup>

The univariate differences-in-differences are presented in Table 8. Since MI affected common stock private placements, we refer to the sample of private placements of common stock as the treatment group. In the first level of differences, we subtract the average discount measured before the legislative change from the average discount measured after the legislation for the sample of private common stock placements:  $\Delta_{Discount}^{Private} (= 8.25\% - 19.00\% = -10.75\%)$ , revealing about an 11 percentage point decrease in the offer price discount. However, taken on its own,  $\Delta_{Discount}^{Private}$  could be a misleading estimator of the legislation's impact since other changes contemporaneous with the legislative change affect this estimate. In order to deal with this, we select a control group, the sample of public SEOs, since the legislative change did not affect public offerings. The change in average offer price discount for the public equity control group measured before and after the legislative change,  $\Delta_{Discount}^{Public}$ , captures the impact of contemporaneous shocks (i.e. economic shocks, a time trend, etc.) affecting the control group:  $\Delta_{Discount}^{Public} (= 5.05\% - 3.37\% = 1.68\%)$ . If these shocks affect the treatment and control groups in similar ways, then we can use the difference in the public discount,  $\Delta_{Discount}^{Public}$ , to capture the impact of the contemporaneous shocks on privately placed common stock. Therefore, the difference between  $\Delta_{Discount}^{Public}$  and  $\Delta_{Discount}^{Private}$  nets out these contemporaneous shocks allowing us to identify the impact of the legislative change on common stock private placement discounts:

$$\Delta_{Discount}^{Private} - \Delta_{Discount}^{Public} (= -10.75\% - 1.68\% = -12.43\%)$$

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<sup>16</sup> See Bertrand and Mullainathan (1999) for a practical illustration of the differences-in-differences methodology.

Netting out the difference in discounts from the control sample, the differences-in-differences produces a statistically significant 12.4 percentage point decrease in discounts for common stock private placements due to the legislative change. The substantial decrease in the net discount provides evidence that the easing of resale restrictions reduced the cost of capital for issuers.

Although the univariate results are insightful, a more robust test is to implement the differences-in-differences approach in a regression framework, allowing us to control for firm and offer characteristics the literature has found to be important determinants of private placement discounts. Therefore, we estimate:

$$DISCOUNT_j = \beta_0 + \beta_1 TIME_j + \beta_2 PRIVATE_j + \beta_3 PRIVATE_j * TIME_j + \gamma_i X_{ij} + \varepsilon_j \quad (1)$$

where the dependent variable is the offer price discount, as defined above,  $X_i$  are controls for firm and offer characteristics, with  $i$  indexing controls  $i=1, \dots, n$ . TIME, is a binary variable taking on the value of one for offerings between Nov 30, 2001 and Dec 31, 2005, and zero for offerings between Jan 1, 1993 and Nov 29, 2001. PRIVATE is a binary variable taking on the value of one for private placements of common stock, and zero for public SEOs.  $\beta_1$  represents the difference in discounts for public equity offerings before and after the legislative change.  $\beta_2$  represents the difference in discounts between common stock private placements and public SEOs in the period Jan 1, 1993–Nov 29, 2001. Our estimate of the impact of the legislative change, MI 45-102, on discounts is  $\beta_3$ , the coefficient on the interaction term, PRIVATE\*TIME.

It captures the difference in the changes of the discounts over time:  $\Delta_{Discount}^{Private} - \Delta_{Discount}^{Public}$ .

The regression results are presented in Table 9. We estimate specifications for each information asymmetry proxy, RVOL and SPREAD, as well as Ln(MV). The basic results are presented in Models 1-3. Several findings are noteworthy. First, the coefficient on TIME is

positive and statistically significant. This says that for the sample of public equity offerings, the average discount is significantly higher in the period Nov 30, 2001-Dec 31, 2005 than in the period Jan 1, 1993-Nov 29, 2001. Therefore, although the legislative change did not affect public SEOs, there appears to be a general increase in discounts. The increase in discounts through time for public SEOs is consistent with the prior literature (e.g. Altinkılıç and Hansen, 2003; Corwin, 2003). Second, the coefficient on PRIVATE is positive and statistically significant. This says that in the period Jan 1, 1993-Nov 29, 2001, the average discount for private placements of common stock was higher than the average discount for public equity offerings, which are not associated with restrictions on resale. Third, the coefficient on the interaction term PRIVATE\*TIME, the estimate of the legislation's effect is negative and statistically significant. Therefore, consistent with our univariate results, MI reduced the average discount for common stock private placements by about 6.5%-9.0%, after controlling for firm and offer characteristics, depending on the specification.

We document a positive coefficient on RELSIZE, indicating that when the cost of information is higher private placement investors require larger discounts. The coefficients on RVOL and SPREAD are also positive and statistically significant. This says that investors purchasing shares from a firm with greater information asymmetry, as measured by RVOL and SPREAD, require a higher discount as compensation for purchasing shares from a firm that is more difficult to value. We also find a significantly negative coefficient on Ln(MV), suggesting that offerings by larger firms, which presumably have lower information asymmetry, are associated with smaller discounts.

The differences-in-differences results show that MI, which reduced resale restrictions from 12 months to 4 months, reduced the discounts on common stock private placements. These

results provide strong evidence that liquidity represents a portion of private placement discounts and that the legislative easing of resale restrictions reduced the cost of capital for issuing firms.

### *5.3.2 Announcement-period abnormal returns*

To understand the wealth effects of MI on existing shareholder wealth we need to examine announcements-period abnormal returns on common stock private placements pre-MI versus post-MI. As in the prior sub-section examining private placement discounts, we use the differences-in-differences estimation methodology to examine the impact of a change in resale restrictions on announcement-period abnormal returns.

Table 10 presents the univariate differences-in-differences estimation results for announcement-period abnormal returns. We find positive announcement effects for common stock private placements in both the pre-MI and post-MI periods. These results are consistent with what others have documented for private placements of equity (e.g. Wruck, 1989; Hertz and Smith, 1993). The announcement-period abnormal returns for public equity offerings on the other hand are found to be negative. The negative announcement effects for public equity offerings is consistent with the Myers and Majluf (1984) information hypothesis that public equity offerings signal overvalued shares.<sup>17</sup>

We glean insight on the legislative shortening of resale restrictions by comparing the wealth effects of common stock private placements in the pre-MI versus post-MI period. The results show that announcement-period abnormal returns were significantly more positive pre-MI compared to post-MI (10.7% compared to 3.8%, respectively). This is intuitive since the signal from the announcement of common stock private placements is more credible in the period when

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<sup>17</sup> Several papers document negative announcement effects for public equity offerings. See for example, Asquith and Mullins, 1986; Masulis and Korwar, 1986; Eckbo and Masulis, 1992; Heron and Lie, 2004; Bethel and Krigman, 2008.

resale restrictions are longer. The differences-in-differences estimate of the impact of MI ( $=\Delta_{CAR}^{Private} - \Delta_{CAR}^{Public}$ ) is  $-5.1\%$  and statistically significant. This says that the legislative shortening of resale restrictions had a *negative* value impact on the shareholder wealth of common stock private placement issuers. This follows from the legislation-induced reduction in resale restrictions providing less costly signals of firm value. Issuing firms that relied on a 12 month restricted period pre-MI and signaled quality by not making special warrant placements can no longer signal undervaluation since all common stock private placements are associated with a 4 month restricted period in the post-MI period.

Table 3 showed that firm and offer characteristics for common stock private placement issuers are significantly different pre-MI versus post-MI. We therefore turn to multivariate differences-in-differences estimation to examine the impact of the change in resale restrictions on announcement-period abnormal returns. The OLS regression results are presented in Table 11. The coefficient on TIME, the difference in announcement-period abnormal returns for public equity offerings post-MI versus pre-MI, is negative and statistically significant. This says that even for public equity offerings announcement effects were more negative post-MI than pre-MI. This could be attributed to the economic climate post-MI. The coefficient on PRIVATE is positive and statistically significant in each specification. This captures the difference in announcement effects between common stock private placements and public equity offerings in the pre-MI period. It should not be surprising that private placements are associated with higher announcement effects than public equity offerings based on the findings in this paper and the prior literature (e.g. Hertzell and Smith, 1993; Wruck, 1989). After controlling for firm and offer characteristics, the coefficient on TIME\*PRIVATE is negative and of the correct sign, but statistically insignificant. This says that the reduction in positive announcement-period abnormal

returns in the post-MI period is more driven by differences in specific firm and offer characteristics.

The results may appear to suggest that firms are better off because the easing of resale restrictions reduced the liquidity discount and hence the cost of capital, yet there was no value destruction on the wealth of existing shareholders. However, this line of reasoning is false since the legislative change caused a fundamental shift in the types of firms issuing common stock private placements. In particular, smaller firms with greater information costs are less likely to issue equity in the post-MI period, which may augment the underinvestment problem the private placement market previously circumvented. The following section illustrates this point.

## **6. Implications of MI 45-102**

The descriptive statistics in Table 3 and the logistic regression results in Table 5 show that the characteristics of firms making common stock private placements in the post-MI period are not the same as the characteristics of firms making common stock private placements in the pre-MI period. As previously noted, in the Myers and Majluf framework high-quality firms have incentives to reveal their qualities to increase their market values through costly signaling. Hertz and Smith (1993) show that private placements provide this costly signal. In the current context, the opportunity for firms to issue common stock private placements instead of special warrants prior to MI provided smaller, high information asymmetry firms a flotation method that conveyed a costlier signal. The longer resale restrictions meant higher discounts, but firms with sufficiently high information costs were willing to pay the higher cost of capital for positive information revelation. This is evidenced by the significantly higher market reaction to common stock private placements compared to special warrants in the pre-MI period.

The shortening of resale restrictions from a 12 month restricted period to a 4 month restricted period eliminated the benefits of an alternative flotation method that reduced costly information asymmetry, since presently all common stock private placements are associated with a 4 month restricted period and the use of special warrants has all but disappeared. Since firms with greater information costs relied on the costlier signal, these issuers in particular suffer from the legislation-induced easing of resale restrictions, potentially causing these firms to forego positive net present value investment projects. This is perhaps one of the reasons why the differences-in-differences estimate for announcement effects is insignificant once controlling for firm and offer characteristics. That is, although we document a reduction in positive announcement effects in the post-MI period, as shown in the univariate differences-in-differences estimates, this reduction is driven by firm and offer characteristics as suggested by the insignificant sign on the interaction term PRIVATE\*TIME in the multivariate tests. This did not pose a problem in our analysis of discounts because the purchasers of private placements are sophisticated investors who can disentangle the quality of the issue and demand the necessary discount. On the other hand, the market's reaction is based on all market participants.

The legislation induced easing of resale restrictions causes a market failure in which firms that offered common stock private placements pre-MI are now driven out of the market. Table 12 offers further insight into this conjecture. First, we estimate a logistic regression in the pre-MI period to determine the likelihood of making a special warrant offering versus a common stock private placement. We use the parameter estimates from this logistic regression and imply predicted probabilities of firms that would issue special warrants in the post-MI period, had MI 45-102 not come into effect. The results are presented for various cutoff points. Predicted probabilities below the cutoff point are treated as predictors of common stock private placements



and predictors at or above the cutoff point are considered to be predictors of special warrants. A cutoff point of 0.50 is often chosen. Consistent with our intuition, the results illustrate that the majority of the offerings would be special warrant private placements if MI 45-102 did not come into effect. This is important from a policy perspective because the legislative change suppressed an important signaling mechanism, and the cohort of firms most negatively affected is smaller firms with greater asymmetric information.

## **7. Conclusion**

This paper highlights how the easing of resale restrictions by regulators affects shareholder wealth. We use a sample of 1,173 private placements of equity from Canada to examine the impact of Multilateral Instrument 45-102 (MI), a legislative change that came into effect on Nov 30, 2001 and shortened resale restrictions on privately placed common stock.

We show that before MI came into effect special warrants, a unique type of private placement in Canada created to bypass the longer 12 month restricted period for common stock private placements, comprised approximately 82% of all private equity placements to passive investors. This indicates the desire for liquid shares by private placement investors. We further show that firms making special warrant private placements in the pre-MI period are larger and associated with less information asymmetry than firms making common stock private placements. Moreover, firms making common stock private placements in the post-MI period are also larger and associated with less information asymmetry than firms making common stock private placements in the pre-MI period. Therefore, the legislation-induced shortening of resale restrictions affected the types of firms currently making private placement offerings in favor of larger firms with less asymmetric information.

We compare private placement discounts between common stock private placements and special warrants in the pre-MI period (Jan 1, 1993-Nov 29, 2001). During this period, private placements of common stock were restricted from resale in the public market for 12 months, while special warrants were restricted from resale in the public market for 4 months. After controlling for various firm and offer characteristics found to be important determinants of private placement discounts in the literature, we find substantially higher offer price discounts for private placements of common stock than special warrants. The difference in discounts ranges between 6.0% and 7.0% depending on the model used to control for firm and other offer characteristics. In addition, announcement effects are significantly more positive for common stock private placements compared to special warrants in the pre-MI period, consistent with longer resale restrictions providing more costly signaling. Therefore, the market could differentiate between firms based on the type of placement.

We next examine the wealth effects of MI. Using a differences-in-differences test we document lower discounts for common stock private placements post-MI versus pre-MI, when resale restrictions were shortened by 8 months. Using a sample of public SEOs as the control group, the results are robust to both univariate and multivariate tests. The difference in discounts ranges between 6.5%-9.0% depending on the model. These numbers are very similar in magnitude to the difference in discounts documented between common stock private placements and special warrants in the period Jan 1, 1993-Nov 29, 2001, for which the difference in resale restrictions is also 8 months. Moreover, we document reduced mean announcement-period abnormal returns for common stock private placements in the post-MI period compared to the pre-MI period based on a univariate differences-in-differences estimation. However, we find the differences-in-differences estimate to be insignificant once we control for firm and offer

characteristics such as firm size, information asymmetry proxies, and other controls found to be important in the literature. This says that the reduction in announcement-period abnormal returns is more driven by the changing mix of firms making common stock private placements in the post-MI period.

Our evidence shows that after the legislation-induced shortening of resale restrictions, smaller firms with greater information asymmetry are choosing not to issue equity. We provide support for this by implying the number of special warrant issues post-MI had MI 45-102 not come into effect. We find that the majority of issues would be special warrants. Therefore, firms that in the pre-MI period issued common stock private placements – smaller firms with greater information asymmetry – are made worse off by the change in legislation since they can no longer convey quality through costly signaling. The easing of resale restrictions augments the underinvestment problem pointed out in Myers and Majluf (1984).

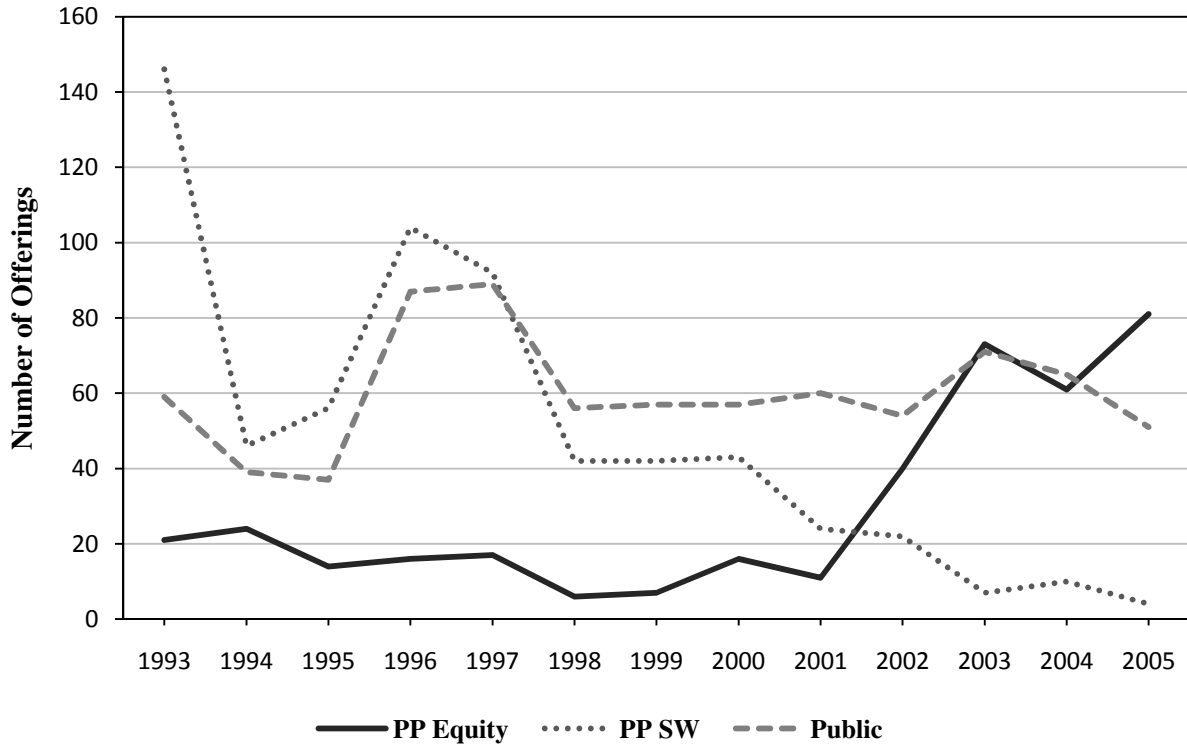
This paper has important economic and policy implications. The Canadian experience with past institutional and regulatory changes provides insights into what regulators, firms, and investors can potentially expect in the U.S., and other markets that are considering adopting similar rule changes.

## References:

- Altinkılıç, Oya and Robert S. Hansen, 2003, Discounting and underpricing in seasoned equity offers, *Journal of Financial Economics* 69, 285 – 323.
- Asquith, Paul, and David W. Mullins, Jr., 1986, Equity issues and offering dilution, *Journal of Financial Economics* 15, 61-89.
- Barclay, Michael J., Clifford G. Holderness and Dennis P. Sheehan, 2007, Private placements and managerial entrenchment, *Journal of Corporate Finance* 13, 461 – 484.
- Bertrand, Marianne, and Sendhil Mullainathan, 1999, Is there discretion in wage setting? A test using takeover legislation, *The Rand Journal of Economics* 30 (3), 535 – 554.
- Bethel, Jennifer E., and Laurie Krigman, 2008, Managing the Costs of Issuing Common equity: The Role of Registration Choice, *Quarterly Journal of Finance and Accounting* 47 (4), 57-85.
- Blackwell, David W., Wayne Marr and Michael Spivey, 1990, Shelf Registration and the Reduced Due Diligence Argument: Implications of the Underwriter Certification and the Implicit Insurance Hypotheses, *The Journal of Financial and Quantitative Analysis* 25 (2), 245 – 259.
- Chemmanur, T.J., and P. Fulghieri, 1999, A theory of the going-public decision, *Review of Financial Studies* 12, 249 – 279.
- Corwin, Shane A., 2003, The determinants of underpricing for Seasoned Equity Offers, *The Journal of Finance* 58 (5), 2249 – 2279.
- Cronqvist, Henrik and Mattias Nilsson, 2005, The choice between rights offerings and private equity placements, *Journal of Financial Economics* 78 (2), 375 – 407.
- Denis, David J., 1991, Shelf Registration and the Market for Seasoned Equity Offerings, *The Journal of Business* 64 (2), 189 – 212.
- D’Mello, Ranjan, Oranee Tawatnuntachai, and Devrim Yaman, 2003, Does the sequence of seasoned equity offerings matter? *Financial Management* 34 (4), 59-86.
- Eckbo, B. Espen and Ronald W. Masulis, 1992, Adverse selection and the rights offer paradox, *Journal of Financial Economics* 32, 293-322.
- Heron, Randall A., and Erik Lie, 2004, A comparison of the motivations for and the information content of different types of equity offerings, *Journal of Business* 77, 605-632.
- Hertzel, M., and R.L. Smith, 1993, Market discounts and shareholder gains for placing equity privately, *Journal of Finance* 48, 459 – 486.
- Insight Education Services seminar papers, 1987, Private Placements: Current Issues & New Developments.

- Insight Education Services seminar papers, 1990, Private Placements: Maximizing Your Financial Potential.
- Krishnamurthy S., P. Spindt, V. Subramaniam, and T. Woidtke, 2005, Does investor identity matter in equity issues? Evidence from private placements, *Journal of Financial Intermediation* 14, 210-238.
- Masulis, Ronald W., and Ashok N. Korwar, 1986, Seasoned equity offerings: An empirical investigation, *Journal of Financial Economics* 15, 91-118.
- Myers, Stewart C., and Nicholas S. Majluf, 1984, Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financial Economics* 13, 187-221.
- Silber, W.L., 1991, Discounts on restricted stock: the impact of illiquidity on stock prices, *Financial Analysts Journal*, 47, 60 – 64.
- Wruck, Karen H., 1989, Equity ownership concentration and firm value: evidence from private equity financings, *Journal of Financial Economics* 23, 3 – 27.
- Wruck, Karen H., and YiLin Wu, 2009, Relationships, corporate governance, and performance: Evidence from private placements of common stock, *Journal of Corporate Finance*, 15(1), 30-47.
- Wu, YiLin, 2004, The choice of equity-selling mechanisms, *Journal Of Financial Economics* 74, 93 – 119.

### Yearly number of privately placed common stock, special warrants and public SEOs



**Figure 1: Yearly number of privately placed common stock, special warrants and public SEOs**  
This figure displays the yearly number of offerings for a sample of 1807 private placements of common stock (PP Equity), special warrants (PP SW), and public SEOs (Public) sold to passive investors from Jan 1, 1993-Dec 31, 2005 by TSX-Listed Firms.

**Table 1: Number of private placements of common stock, special warrants, public SEOs, and proceeds raised by year, Jan 1, 1993-Dec 31, 2005**

This table reports the annual number of privately placed common stock (PP Stock), special warrants (SW), public SEOs and proceeds raised by TSX-listed firms between Jan 1, 1993 and Dec 31, 2005. Only primary and combined primary and secondary offerings are included. Pure secondary offerings are excluded.

Year	PP Stock		SW		Public SEOs			Total	
	N	Proceeds (\$MM)	N	Proceeds (\$MM)	N	Proceeds (\$MM)	N	Proceeds (\$MM)	
1993	32	111.26	147	2,720.23	62	5,393.46	241	8,224.95	
1994	35	141.99	47	968.07	42	3,438.66	124	4,548.71	
1995	27	161.82	56	788.71	40	2,838.45	123	3,788.97	
1996	24	195.18	104	2,327.07	91	7,081.31	219	9,603.56	
1997	31	264.34	93	2,420.96	96	10,322.87	220	13,008.17	
1998	18	324.06	46	1,400.08	61	5,712.91	125	7,437.05	
1999	19	273.68	43	672.33	62	10,405.13	124	11,351.14	
2000	33	193.29	47	1,223.29	61	6,901.34	141	8,317.92	
2001	27	215.30	27	367.22	63	6,667.41	117	7,249.94	
2002	47	548.69	24	551.84	59	8,769.85	130	9,870.39	
2003	80	1,982.35	8	221.10	75	6,093.22	163	8,296.67	
2004	62	1,136.89	10	282.47	69	6,577.80	141	7,997.16	
2005	82	1,989.39	4	184.41	56	3,681.34	142	5,855.14	
Total	517	7,538.23	656	14,127.78	837	83,883.76	2010	105,549.77	

**Table 2: Summary statistics for the purchasers of common stock private placements and special warrants**

This table reports summary statistics for a sample of 1173 common stock private placements (PP Stock) and special warrants (SW) segmented by the time period and the type of purchaser. Panel A reports offerings between Jan 1, 1993 and Dec 31, 2005. Panel B reports offerings between Jan 1, 1993 and Nov 29, 2001. Panel C reports offerings between Nov 30, 2001 and Dec 31, 2005. *Passive* refers to purchasers that are undisclosed, arm's length investors. *Strategic* refers to purchasers that are strategic alliance partners, joint venture partners and/or customers. *Active* refers to purchasers that are nominated to the board of directors upon purchase of the private placement. *Insider* refers to purchasers that are managers and/or existing shareholders. *Venture/Private Capital* refers to a purchase by a single venture capitalist or private equity firm.

Purchaser Type	PP Stock	% of Purchaser Type	SW	% of Purchaser Type	Total	% of Total Purchasers
<b>Panel A: Jan 1, 1993-Dec 31, 2005</b>						
Passive	387	37.8	638	61.9	1025	87.4
Strategic	26	92.9	2	7.1	28	2.4
Active	27	84.4	5	15.6	32	2.7
Insider	43	84.3	8	15.7	51	4.3
Venture/Private Capital	34	91.9	3	8.1	37	3.2
Total	517		656		1173	100.0
<b>Panel B: Jan 1, 1993-Nov 29, 2001</b>						
Passive	128	17.8	593	82.2	721	85.2
Strategic	23	92.0	2	8.0	25	3.0
Active	23	82.1	5	17.9	28	3.3
Insider	33	82.5	7	17.5	40	4.7
Venture/Private Capital	31	96.9	1	3.1	32	3.8
Total	238		608		846	100.0
<b>Panel C: Nov 30, 2001-Dec 31, 2005</b>						
Passive	259	85.2	45	14.8	304	93.0
Strategic	3	100.0	----	0.0	3	0.9
Active	4	100.0	----	0.0	4	1.2
Insider	10	90.9	1	9.1	11	3.4
Venture/Private Capital	3	60.0	2	40.0	5	1.5
Total	279		48		327	100.0



**Table 3: Descriptive statistics of firm, offer and return characteristics**

This table reports descriptive statistics for common stock private placements and special warrants segmented by the time period. PROCEEDS is the total amount raised from the issue, before deduction of issue expenses and cash fees, excluding the proceeds from any over-allotment taken. RELSIZE is the amount of shares offered scaled by the firm's total number of shares outstanding in the month prior to the announcement of the equity offer, scaled up by a factor of 100. MV is the market value of equity and is calculated as the stock price at the end of the month prior to the announcement of the equity offer multiplied by the number of shares outstanding at that time. RVOL is the standard deviation of market-model residuals measured over a 230-day period beginning 250 days prior to the announcement of the offering. SPREAD is defined as the average percentage bid-ask spread scaled by the midpoint of the two quotes that define the spread over a 60-day period prior to the announcement of the equity offer. TURNOVER is defined as the average daily trading volume as a percent of shares outstanding measured over the 60 trading days prior to the announcement of the equity offer. BETA is estimated from the market-model over a 230-day period beginning 250 days prior to the announcement of the offering. MVOL is the standard deviation of the CFMRC/TSX value-weighted market return index over the 60 trading days prior to the announcement of the equity offer. DISCOUNT is the percentage difference between the offer price and the firm's stock price the day before the pricing date. CAR is the 3-day cumulative announcement-period abnormal return. The column entitled Test of Differences reports p-values based on simple two sample t-test's for differences in means, and Wilcoxon-Mann-Whitney test for differences in medians.

		Pre-MI		Post-MI		Test of Differences (1) and (2)	Test of Differences (1) and (3)
		Jan 1, 1993–Nov 29, 2001		Nov 30, 2001–Dec 31, 2005			
		PP Stock (1)	SW (2)	PP Stock (3)			
PROCEEDS (\$MM)	Mean	6.24	20.13	17.81		0.00	0.00
	Median	3.60	13.00	10.05		0.00	0.00
RELSIZE (%)	Mean	20.89	31.15	19.77		0.19	0.69
	Median	12.90	20.74	13.71		0.00	0.21
MV (\$MM)	Mean	78.66	102.49	121.99		0.08	0.06
	Median	31.76	63.20	67.25		0.00	0.00
RVOL (%)	Mean	7.34	5.09	4.46		0.00	0.00
	Median	5.79	4.32	3.99		0.00	0.00
SPREAD (%)	Mean	6.32	3.90	3.36		0.00	0.00
	Median	4.48	3.07	2.51		0.00	0.00
TURNOVER (%)	Mean	0.23	0.29	0.28		0.06	0.11
	Median	0.16	0.20	0.21		0.05	0.09
BETA	Mean	0.44	0.66	0.70		0.14	0.16
	Median	0.58	0.65	0.57		0.53	0.75
MVOL (%)	Mean	0.73	0.68	0.61		0.20	0.00
	Median	0.57	0.57	0.56		0.52	0.84
DISCOUNT (%)	Mean	19.00	7.44	8.25		0.00	0.00
	Median	11.01	5.36	5.19		0.00	0.00
CAR <sub>(-1,1)</sub> (%)	Mean	6.46	1.81	1.24		0.00	0.01
	Median	1.14	-0.23	-0.31		0.05	0.05
N		116	551	231			

**Table 4: Logistic regression of the choice of offer type, common stock private placements versus special warrants**

The dependent variable in each model equals one if a firm issues privately placed common stock, and 0 if the firm issues special warrants. RELSIZE is the amount of shares offered scaled by the firm's total number of shares outstanding in the month prior to the announcement of the equity offer, scaled up by a factor of 100. Ln(MV) is the logarithm of the firm's market capitalization in the month prior to the announcement of the equity offer. TURNOVER is defined as the average daily trading volume as a percent of shares outstanding measured over the 60 trading days prior to the announcement of the equity offer. SPREAD is defined as the average percentage bid-ask spread scaled by the midpoint of the two quotes that define the spread over a 60-day period prior to the announcement of the equity offer. RVOL is the standard deviation of market-model residuals measured over a 230-day period beginning 250 days prior to the announcement of the offering. PRIOR is defined as the number of issues that the firm had between Jan 1, 1993 and the current issue, where the issues were of the same type as the current issue. BETA is estimated from the market-model over a 230-day period beginning 250 days prior to the announcement of the offering. MVOL is the standard deviation of the CFMRC/TSX value-weighted market return index over the 60 trading days prior to the announcement of the equity offer.  $\chi^2$ -statistics are in parentheses. Note: \*, \*\*, \*\*\* represent statistical significance at the 10%, 5%, and 1% levels, respectively.

	Model 1	Model 2	Model 3
RELSIZE	-0.03*** (16.69)	-0.04*** (23.80)	-0.04*** (22.75)
Ln(MV)			-0.97*** (51.57)
TURNOVER	-1.60*** (10.08)	-0.05 (0.01)	-0.40 (0.61)
SPREAD		0.31*** (55.13)	
RVOL	0.25*** (42.74)		
PRIOR	0.31** (6.22)	0.37*** (8.54)	0.42*** (10.52)
BETA	-0.10 (1.09)	-0.06 (0.43)	-0.05 (0.22)
MVOL	-0.22 (0.54)	-0.06 (0.04)	0.23 (0.59)
INTERCEPT	-1.88*** (32.79)	-2.19*** (41.17)	16.18*** (44.96)
N	667	667	667
Pseudo- $R^2$	0.09	0.11	0.11

**Table 5: Logistic regression of the determinants of common stock private placements post-MI versus common stock private placements pre-MI**

The dependent variable in each model equals one if a firm issues privately placed common stock post-MI, and 0 if the firm issues privately placed common stock pre-MI. RELSIZE is the amount of shares offered scaled by the firm's total number of shares outstanding in the month prior to the announcement of the equity offer, scaled up by a factor of 100. Ln(MV) is the logarithm of the firm's market capitalization in the month prior to the announcement of the equity offer. TURNOVER is defined as the average daily trading volume as a percent of shares outstanding measured over the 60 trading days prior to the announcement of the equity offer. SPREAD is defined as the average percentage bid-ask spread scaled by the midpoint of the two quotes that define the spread over a 60-day period prior to the announcement of the equity offer. RVOL is the standard deviation of market-model residuals measured over a 230-day period beginning 250 days prior to the announcement of the offering. PRIOR is defined as the number of issues that the firm had between Jan 1, 1993 and the current issue, where the issues were of the same type as the current issue. BETA is estimated from the market-model over a 230-day period beginning 250 days prior to the announcement of the offering. MVOL is the standard deviation of the CFMRC/TSX value-weighted market return index over the 60 trading days prior to the announcement of the equity offer.  $\chi^2$ -statistics are in parentheses. Note: \*, \*\*, \*\*\* represent statistical significance at the 10%, 5%, and 1% levels, respectively.

	Model 1	Model 2	Model 3
RELSIZE	0.02** (6.21)	0.02** (6.10)	0.02*** (6.68)
Ln(MV)			0.76*** (27.22)
TURNOVER	0.38 (0.40)	-0.35 (0.36)	-0.20 (0.12)
SPREAD		-0.27*** (31.12)	
RVOL	-0.32*** (33.98)		
PRIOR	0.10 (0.64)	0.04 (0.10)	-0.06*** (0.17)
BETA	0.18 (1.88)	-0.01 (0.01)	0.06 (0.23)
MVOL	-0.89** (4.12)	-0.94** (4.65)	-1.20*** (8.06)
INTERCEPT	2.37*** (31.52)	2.16*** (27.63)	-12.34*** (22.18)
N	347	347	347
Pseudo- $R^2$	0.15	0.14	0.12

**Table 6: Determinants of the offer price discount, Jan 1, 1993-Nov 29, 2001**

This table reports OLS regression results with the offer price discount as the dependent variable. RELSIZE is the amount of shares offered scaled by the firm's total number of shares outstanding in the month prior to the announcement of the equity offer, scaled up by a factor of 100. PPSTOCK is a binary variable taking on the value of one for private placements of common stock, and 0 for special warrants. Ln(MV) is the logarithm of the firm's market capitalization in the month prior to the announcement of the equity offer. TURNOVER is defined as the average daily trading volume as a percent of shares outstanding measured over the 60 trading days prior to the announcement of the equity offer. SPREAD is defined as the average percentage bid-ask spread scaled by the midpoint of the two quotes that define the spread over a 60-day period prior to the announcement of the equity offer. RVOL is the standard deviation of market-model residuals measured over a 230-day period beginning 250 days prior to the announcement of the offering. PRIOR is defined as the number of issues that the firm had between Jan 1, 1993 and the current issue, where the issues were of the same type as the current issue. BETA is estimated from the market-model over a 230-day period beginning 250 days prior to the announcement of the offering. MVOL is the standard deviation of the CFMRC/TSX value-weighted market return index over the 60 trading days prior to the announcement of the equity offer. Robust t-statistics are in parentheses. Note: \*,\*\*,\*\*\* represent statistical significance at the 10%, 5%, and 1% levels, respectively.

	Model 1	Model 2	Model 3
RELSIZE	0.07*** (3.17)	0.07*** (2.81)	0.08*** (3.20)
PPSTOCK	6.46*** (4.40)	6.61*** (4.64)	7.22*** (4.97)
Ln(MV)			-1.50*** (-3.00)
TURNOVER	2.39 (1.35)	6.31*** (3.34)	5.27*** (2.81)
SPREAD		0.79*** (3.33)	
RVOL	0.98*** (4.71)		
PRIOR	-0.92* (-1.76)	-0.87 (-1.63)	-0.91 (-1.64)
BETA	0.59 (1.30)	0.80* (1.76)	0.80* (1.78)
MVOL	3.03** (2.37)	4.03*** (3.17)	4.70*** (3.68)
INTERCEPT	-2.01* (-1.66)	-1.95 (-1.54)	27.57*** (2.93)
N	667	667	667
Adjusted R <sup>2</sup>	0.19	0.17	0.15

**Table 7: Determinants of cumulative abnormal returns, Jan 1, 1993-Nov 29, 2001**

This table reports OLS regression results with the 7-day cumulative abnormal return (CAR) as the dependent variable. RELSIZE is the amount of shares offered scaled by the firm's total number of shares outstanding in the month prior to the announcement of the equity offer, scaled up by a factor of 100. PPSTOCK is a binary variable taking on the value of one for private placements of common stock, and 0 for special warrants. Ln(MV) is the logarithm of the firm's market capitalization in the month prior to the announcement of the equity offer. TURNOVER is defined as the average daily trading volume as a percent of shares outstanding measured over the 60 trading days prior to the announcement of the equity offer. SPREAD is defined as the average percentage bid-ask spread scaled by the midpoint of the two quotes that define the spread over a 60-day period prior to the announcement of the equity offer. RVOL is the standard deviation of market-model residuals measured over a 230-day period beginning 250 days prior to the announcement of the offering. PRIOR is defined as the number of issues that the firm had between Jan 1, 1993 and the current issue, where the issues were of the same type as the current issue. BETA is estimated from the market-model over a 230-day period beginning 250 days prior to the announcement of the offering. MVOL is the standard deviation of the CFMRC/TSX value-weighted market return index over the 60 trading days prior to the announcement of the equity offer. Robust t-statistics are in parentheses. Note: \*, \*\*, \*\*\* represent statistical significance at the 10%, 5%, and 1% levels, respectively.

	Model 1	Model 2	Model 3
RELSIZE	0.12*** (2.97)	0.10** (2.51)	0.10*** (2.60)
PPSTOCK	4.66** (2.48)	4.07** (2.20)	4.23** (2.22)
Ln(MV)			-1.07* (-1.66)
TURNOVER	-6.90** (-2.51)	-5.56** (-2.03)	-6.02** (-2.26)
SPREAD		0.44 (1.21)	
RVOL	0.18 (0.53)		
PRIOR	-0.82 (-1.13)	-0.69 (-0.95)	-0.67 (-0.91)
BETA	-0.65 (-0.88)	-0.59 (-0.81)	-0.58 (-0.80)
MVOL	1.75 (0.88)	1.74 (0.90)	2.14 (1.08)
INTERCEPT	-0.30 (-0.14)	-1.12 (-0.48)	19.59 (1.62)
N	667	667	667
Adjusted R <sup>2</sup>	0.06	0.06	0.06

**Table 8: Univariate differences-in-differences estimation for the offer price discount, Jan 1, 1993- Dec 31, 2005**

This table reports univariate differences-in-differences estimation results for the offer price discount, defined as  $(P_{-1} - P_{offer})/P_{offer}$ , which is scaled up by a factor of 100, where  $P_{-1}$  is the market price the day before the pricing date and  $P_{offer}$  is the offer price. PRIVATE refers to private placements of common stock and PUBLIC refers to public equity offerings. T-statistics are reported in parentheses.

	Pre-MI Jan 1, 1993–Nov 29, 2001	Post-MI Nov 30, 2001–Dec 31, 2005	$\Delta$ (Discount)
PRIVATE	19.00 (6.24)	8.25 (5.86)	-10.75 (3.67)
PUBLIC	3.37 (18.50)	5.05 (14.77)	1.67 (4.75)
$\Delta$ (Discount)	15.63 (10.30)	3.20 (2.26)	-12.43 (-5.99)

**Table 9: Multivariate differences-in-differences estimation for the offer price discount, Jan 1, 1993- Dec 31, 2005**

This table reports OLS regression results with the offer price discount as the dependent variable. RELSIZE is the amount of shares offered scaled by the firm's total number of shares outstanding in the month prior to the announcement of the equity offer, scaled up by a factor of 100. Ln(MV) is the logarithm of the firm's market capitalization in the month prior to the announcement of the equity offer. TURNOVER is defined as the average daily trading volume as a percent of shares outstanding measured over the 60 trading days prior to the announcement of the equity offer. SPREAD is defined as the average percentage bid-ask spread scaled by the midpoint of the two quotes that define the spread over a 60-day period prior to the announcement of the equity offer. RVOL is the standard deviation of market-model residuals measured over a 230-day period beginning 250 days prior to the announcement of the offering. PRIOR is defined as the number of issues that the firm had between Jan 1, 1993 and the current issue, where the issues were of the same type as the current issue. BETA is estimated from the market-model over a 230-day period beginning 250 days prior to the announcement of the offering. MVOL is the standard deviation of the CFMRC/TSX value-weighted market return index over the 60 trading days prior to the announcement of the equity offer. TIME is a binary variable taking on the value of one for offerings between Nov 30, 2001 and Dec 31, 2005, and 0 for offerings between Jan 1, 1993 and Nov 29, 2001. PRIVATE is a binary variable taking on the value of one for private placements of common stock, and 0 for public equity offerings. Robust t-statistics are in parentheses. Note: \*, \*\*, \*\*\* represent statistical significance at the 10%, 5%, and 1% levels, respectively.

	Model 1	Model 2	Model 3
RELSIZE	0.09*** (3.79)	0.09*** (3.67)	0.10*** (3.63)
Ln(MV)			-1.18*** (-4.81)
TURNOVER	-1.93* (-1.95)	1.00 (0.97)	-0.30 (-0.31)
SPREAD		0.94*** (3.55)	
RVOL	1.05*** (5.51)		
PRIOR	-0.03 (-0.18)	0.08 (0.47)	0.07 (0.44)
BETA	0.40 (0.87)	0.92** (2.05)	0.97** (2.13)
MVOL	-0.19 (-0.27)	0.53 (0.74)	1.25* (1.75)
TIME	1.12*** (2.66)	1.91*** (4.28)	1.64*** (3.84)
PRIVATE	7.55*** (5.43)	7.89*** (5.50)	8.68*** (6.14)
PRIVATE*TIME	-6.74*** (-4.37)	-7.55*** (-4.91)	-8.55*** (-5.51)
INTERCEPT	-1.02 (-1.05)	-1.36 (-1.33)	23.39*** (4.59)
N	1087	1087	1087
Adjusted R <sup>2</sup>	0.27	0.26	0.24

**Table 10: Univariate differences-in-differences estimation of cumulative abnormal returns, Jan 1, 1993-Dec 31, 2005**

This table reports univariate differences-in-differences estimation results for the 7-day cumulative abnormal return (CAR). PRIVATE refers to private placements of common stock and PUBLIC refers to public equity offerings. T-statistics are reported in parentheses.

	Pre-MI Jan 1, 1993–Nov 29, 2001	Post-MI Nov 30, 2001–Dec 31, 2005	$\Delta$ (CAR)
PRIVATE	10.70 (2.67)	3.81 (4.07)	-6.89 (-2.20)
PUBLIC	-1.10 (-2.31)	-2.88 (-4.77)	-1.78 (-2.22)
$\Delta$ (CAR)	11.80 (5.44)	6.69 (6.07)	-5.12 (-2.10)



**Table 11: Multivariate differences-in-differences estimation for cumulative abnormal returns, Jan 1, 1993-Dec 31, 2005**

This table reports OLS regression results with the 7-day cumulative abnormal return (CAR) as the dependent variable. RELSIZE is the amount of shares offered scaled by the firm's total number of shares outstanding in the month prior to the announcement of the equity offer, scaled up by a factor of 100. Ln(MV) is the logarithm of the firm's market capitalization in the month prior to the announcement of the equity offer. TURNOVER is defined as the average daily trading volume as a percent of shares outstanding measured over the 60 trading days prior to the announcement of the equity offer. SPREAD is defined as the average percentage bid-ask spread scaled by the midpoint of the two quotes that define the spread over a 60-day period prior to the announcement of the equity offer. RVOL is the standard deviation of market-model residuals measured over a 230-day period beginning 250 days prior to the announcement of the offering. PRIOR is defined as the number of issues that the firm had between Jan 1, 1993 and the current issue, where the issues were of the same type as the current issue. BETA is estimated from the market-model over a 230-day period beginning 250 days prior to the announcement of the offering. MVOL is the standard deviation of the CFMRC/TSX value-weighted market return index over the 60 trading days prior to the announcement of the equity offer. TIME is a binary variable taking on the value of one for offerings between Nov 30, 2001 and Dec 31, 2005, and 0 for offerings between Jan 1, 1993 and Nov 29, 2001. PRIVATE is a binary variable taking on the value of one for private placements of common stock, and 0 for public equity offerings. Robust t-statistics are in parentheses. Note: \*, \*\*, \*\*\* represent statistical significance at the 10%, 5%, and 1% levels, respectively.

	Model 1	Model 2	Model 3
RELSIZE	0.09** (2.18)	0.07* (1.74)	0.10** (2.33)
Ln(MV)			-0.47 (-1.33)
TURNOVER	-1.96 (-1.09)	0.88 (0.49)	-1.00 (-0.59)
SPREAD		1.08*** (3.13)	
RVOL	0.72** (2.36)		
PRIOR	0.37 (1.35)	0.47* (1.73)	0.42 (1.54)
BETA	-0.51 (0.64)	-0.14 (-0.19)	-0.14 (-0.18)
MVOL	-1.26 (-1.17)	-1.09 (-1.06)	-0.27 (-0.26)
TIME	-2.66*** (-3.05)	-2.11** (-2.49)	-2.23*** (2.63)
PRIVATE	4.76*** (2.82)	3.40** (1.98)	6.29*** (3.20)
PRIVATE*TIME	1.15 (0.57)	1.51 (0.76)	-0.38 (-0.18)
INTERCEPT	-3.20 (-1.97)	-3.90** (-2.27)	6.76 (0.91)
N	1087	1087	1087
Adjusted R <sup>2</sup>	0.09	0.11	0.08

**Table 12: Implied Number of Equity Private Placements and Special Warrant Private Placements in the period Nov 30, 2001-Dec 31, 2005**

This table reports the implied number of common stock private placements (PPSTOCK) and special warrant private placements (SW) in the period Nov 30, 2001-Dec 31, 2005, had MI 45-102 not come into effect. The implied frequency is computed from predicted probabilities based on parameter estimates from a logistic regression in the period Jan 1, 1993-Nov 29, 2001. The implied number of PPSTOCK and SW are presented for various probability cutoff points where  $P(SW)$  represents the predicted probability that the issue is a special warrant.

Probability	Implied Number of PPSTOCK	Implied Number of SW
$P(SW) > 0.50$	13	218
$P(SW) > 0.60$	26	205
$P(SW) > 0.70$	34	197
$P(SW) > 0.80$	70	161
$P(SW) > 0.90$	137	94