

Corporate Governance and Shareholder Wealth Gains in
Public-to-Private Transactions: Canadian Evidence

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Abstract

The thesis studies corporate governance and shareholder wealth gains in Canadian going private transactions. First, we survey empirical literature on corporate governance mechanisms and summarize new corporate governance measurements. Then we examine effects of corporate governance on firm performance and firm valuation. Finally, we make comparisons of governance among different countries and uncover their various features.

The second part of the study analyzes shareholder wealth gains from public-to-private (PTP) transactions in Canada from 1996 to 2014. We find that average premiums paid are lower than those found in U.S. and UK PTP transactions. The main sources of shareholder wealth gains in Canadian PTPs are high free cash flow and firm undervaluation.

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Chapter 1 General Introduction

This dissertation studies relation between corporate governance and firm performance in Canadian public to private transactions.

There is abundant theoretical and empirical literature exploring corporate governance issues. Typical corporate governance mechanisms include board of directors, ownership structure, and director and executive compensation etc. Corporate governance is closely related to agency costs and is designed to mitigate agency problems. Therefore corporate governance has a great effect on firm's operating performance, stock performance and firm valuation.

In public-to-private transactions, one of the most widely explored issues is sources of shareholder wealth gains. Literature has documented that high free cash flow, tax savings, corporate control and firm undervaluation contribute to premiums paid or abnormal returns (DeAngelo et al., 1984; Jensen, 1986; Renneboog et al., 2007; Weir et al., 2015; Wright, 2014). Cash flow level, leverage ratio, ownership structure and firm valuation are all associated with firm's corporate governance quality. Therefore, shareholder wealth gains are correlated with firm's governance situation.

Going private deals in the UK and U.S. markets have been thoroughly investigated, but not in Canada. Ng (2010) explores Canadian public-to-private transactions from 1996 to 2007. We extend his work by incorporating deals which occurred after the recent financial crisis and contribute to the literature by exhibiting a relatively more comprehensive picture of Canadian PTPs.

The literature has well documented that ownership in Canada is more concentrated with common use of dual-class stocks and pyramidal structures (King and Segal, 2003). The difference of ownership structures between Canada and U.S. provide interesting and meaningful comparisons of corporate governance features as well as of shareholder wealth gains from going private transactions.

Chapter 2 A Review of Literature on Corporate Governance and Firm Performance

2.1 Introduction

Corporate governance is a broad concept. Jensen and Meckling (1976) provide a new definition of the firm- a nexus for a set of contracting relationships among individuals. They argue that the associated laws and contracts are established to minimize agency costs, as mechanisms to deal with the agency problem. La porta et al (2000) state that corporate governance is a set of mechanisms through which outside investors protect themselves against expropriation by managers and controlling shareholders. Becht, Bolton and Roell (2002) view corporate governance as a problem involving an agent and multiple principals. Many parties are involved in it, including managers, like CEO of that corporation, shareholders, employees, and even suppliers. The definitions of corporate governance above, both points of expropriation and problem of conflicts of interests, are main issues in the agency problem described by Jensen and Meckling (1976). Claessens and Yurtoglu (2013) summarize definitions of corporate governance in two categories. One concerns itself with behaviors of corporations, measured by performance, capital structure etc., which is more popular in researches focusing on single countries. The other is more about normative framework, like legal and juridical systems under which corporates operate, which is commonly employed in cross-country comparative studies.

There are four main parts in our literature review on corporate governance and firm performance:

- 1) Discussion about typical corporate governance mechanisms: board of directors, ownership structure, and compensation;
- 2) A summary of "corporate governance indices"- new measurements developed to evaluate overall governance level;
- 3) Examining effects of corporate governance on firm performance/value, i.e. effects of board, ownership, and overall governance level on firm performance separately;
- 4) A review of corporate governance situations across countries, focusing on Canada.

2.2 Overview of Governance Mechanisms

In this section, we will survey the literature on the corporate governance mechanisms. Shleifer et al. (1997) claim that separation of ownership and control lays foundation on corporate governance and the legal protection of investor rights and concentrated ownership are essential elements. They argue that the first mechanism is through partial concentration of ownership despite associated collusion between large shareholder and managers and potential high liquidation costs. The second mechanisms are monitoring by board of directors and executive compensation contracts. While in the US, hostile takeovers and proxy voting play an important role in executing governance. The third mechanism is clearly defined fiduciary duties and shareholder suits. Globally, successful corporate governance systems usually combine both significant legal protections of some investors and important roles for large shareholders. For example, in Germany and Japan, the main

mechanism works through large shareholders, whereas in the US it is hostile takeovers. In many countries, large creditors, such as banks, act similar to large shareholders in that substantial cash flow rights and ability to interfere major decisions in firms are combined.

2.2.1 Large Shareholder Theory

Edmans and Levit (2014) state that if managers underperform, large shareholders exert governance by intervention and exit channel, both of them increase firm value. On the contrary, large shareholders may extract private benefits which could result in lower firm value. Winton (1993) argues that block size would affect voice by more serious free-rider problem and block holders may even directly choose to liquidate if performance is unsatisfactory. Pagano and Roell (1998) show that there is a tradeoff between effect on firm value and cost of monitoring, and Burkart et al. (1997) argue that over-monitoring would decrease managers' incentives to exert governance due to lower private benefits. Therefore, large shareholder mechanism invites a tradeoff between risk diversification and monitoring incentives.

Edmans (2009) demonstrates that large shareholders are more concerned about firms' long-term value which is reflected in stock prices instead of short term earnings. Thus managers are encouraged to make more efforts on enhancing long term firm value. Aghion et al. (2004) discuss exit options in corporate finance and argue that liquidity would deter voice. Black (1990) shows by using US data that block holders could just sell their stocks if the market is liquid and if there is a lack of monitoring incentives. But monitoring is complemented by secondary market speculation in initial public offerings. Specifically, more accurate pricing can not only enhance liquidity but also provide incentives for large shareholders (Faure-Grimaud et al. 2004).

Next, we mainly focus on internal governance mechanisms- board of directors, compensation and ownership structure- to explore their roles in reducing agency problems.

2.2.2 Board of Directors

The board of directors is central to corporate governance mechanisms in the literature. Firms usually provide directors with pay-performance incentives to align interests of director members and shareholders. We will talk about three main aspects of board of directors which may affect effectiveness of monitoring: board size, board composition, and composition of committee in a firm.

2.2.2.1 Board size

Board of directors plays an important role in governance structure. The control system that board of directors make and ratify top-level decisions functions as the mechanism of separation of the management and control of the organization's most important decisions (Fama and Jensen, 1983).

Why board size matters? Lipton and Lorsch (1992) put forward the dysfunctional problem of board of directors and argues the problem would be more severe when the size increases. They recommend to limit the number of directors to ten, with a preferred size of eight or nine. Jensen (1993) also describes the issue of oversized board. He argues that boards function less effectively and it becomes easier for CEO to control boards when board size is over seven or eight. In addition to decreased control power, lack of sufficient communication and cooperation is another reason behind it. Thus oversized board also results in agency problems. Yermack (1996) shows that firms with smaller size of board exhibit higher market value, supported by the evidence from nearly 800 large US industrial corporations. Eisenberg et al (1998) use a sample of small and middle-sized Finnish firms to show that not only large US firms, but small firms also exhibit a negative relation

between board size and firm value. Evidence from European countries demonstrates that large board size would destroy corporate valuation (Conyon and Peck, 1998). And a study by De Andres et al. (2005) shows a negative relationship between firm value and the size of the board of directors in a sample of 450 non-financial companies from ten countries in Western Europe and North America.

Is there an optimal board size? Boone, Field, Karpoff, and Raheja (2007) study the determinants of board size and composition, and they find that board size reflects a tradeoff between the firm-specific benefits and costs of monitoring, suggesting that firms choose an ideal number of board members to maximize their interest. Beiner et al. (2004) investigate Swiss listed companies and conclude that board size is an independent corporate governance mechanism. However, no evidence supports the relation between board size and firm value, indicating that there might be an optimal board size. A study (Lehn et al. 2009) focusing on 82 US firms that survived from 1935 to 2000 refutes the “one-size-fits-all” hypothesis, claiming this approach would impair monitoring effectiveness, in line with the results from Coles et al. (2008). Linck et al. (2008) try to investigate the determinants of board structure based on a sample of approximately 7000 US firms from 1990 to 2004. They find that change of board size for small and medium sized firms is relatively mild; whereas board size for large firms declined in 1990s, small and large firms exhibited significantly different board structure during that period. More importantly, they argue that “board structure across firms is consistent with the costs and benefits of the board's monitoring and advising roles”.

2.2.2.2 Board composition

Board composition is highly related to outside directors, board independence and diversity of board members. The relation between the independent director composition of the board and firm

performance is well studied and the results are quite mixed. Some researchers show positive effect of outside directors on monitoring and advisory functions on shareholders (Fields and Keys, 2003). For example, Rosenstein and Wyatt (1990) and Dahya and McConnell (2007) examine wealth effects surrounding outside director appointments and discover a significantly positive share price reaction. Similarly, Elgaied and Rachdi (2008) uncover a significant relation between board independence and firm performance measured by return on assets.

However, some studies cast doubt on these arguments. For example, Boone et al. (2007) argue that board independence does not reflect the tradeoff between benefits and costs of monitoring. Dalton et al. (1998, 2011) argue that neither board composition nor board leadership structure is linked to firm financial performance. Bhagat and Black (1997) mention in a 1996 survey that 50% of the 100 largest US listed firms had only one or two inside directors, and Bhagat and Black (2002) show that firms with more independent boards do not perform better than other firms. In addition, Hermalin and Weisbach (2001) find that despite a negative relation between board size and corporate performance, board composition actually is not related to firm performance. Furthermore, empirical studies on outside directors and firm performance, are hampered by the endogeneity problem. For example, they find that outside directors are more likely to join a firm after poor performance, when firms leave product markets, or when a new CEO is chosen (Hermalin and Weisbach, 1988). In addition, there is little evidence that the strategy of low-profitability firms to increase the independence of their boards of directors works.

With respect to diversity of board members, scholars usually focus on the percentage of women and minorities. Literature has documented positive effect of board diversity on mitigation of agency issues and on firm performance.

Brancato and Patterson (1999) observe the trend that board diversity has increased over time. Board diversity has been identified as one of corporate governance mechanisms as Haggart from Motorola argues “We have to look at the connection between diversity, the success of the board, and a successful company. We should look in a broader sense at good governance, not just because it includes a broad spectrum of people, but because it means running a good company. That means the numbers show up in the financials which, in turn, means that the issue is going to make a difference to shareholders” (Brancato et al. 1999, Carter et al. 2003). Adams et al. (2009) investigate about 2000 large listed companies from 1996 to 2003. They show that female directors have fewer attendance problems than male directors and higher proportion of women board members decreases attendance problems of male members. Additionally, firm with more diverse board held more board meetings and board members have more pay-performance incentives. These findings indicate that board diversity- at least proportion of female directors- improves firm’s corporate governance level. Campbell et al. (2008) mention that firms with zero or low percentage of female board of directors have to explicitly state the reasons behind it as well as initiatives to correct the problem in their compliance report of corporate governance. According to Spain’s 2006 Unified Good Governance Code, suggesting board diversity is not only an ethical issue but also incorporated economic consideration. Carter et al. (2003) specifically tests the relation between percentage of women board members, or African Americans, Asians, and Hispanics on board and firm value. They find significantly positive effect, which suggests that board diversity indeed helps enhance corporate governance and thus, further improve firm performance.

2.2.2.3 Composition of committees

Studies with respect to composition of committees focus on the independence of three key committees of board of directors, i.e., nomination committee, compensation committee, and audit committee, as well as financial background of committee members.

Some studies document positive effects on firm performance by adding independent audit or nomination committee members with financial expertise. For example, Klein (2002) reports negative correlation between board or audit committee independence and abnormal accruals and concludes that boards structured to be more independent of the CEO are more effective in monitoring the corporate financial accounting process. Xie et al. (2003) investigate the role of Board and Audit committee in corporate governance and earnings management. They find that the proportion of audit committee members with corporate or investment banking backgrounds is negatively related to the level of earnings management. Carcello et al. (2006) also find that independent audit committee members with financial expertise are most effective in mitigating earnings management. They suggest that the firm's overall governance environment and audit committee financial experts act as substitutes for one another. Chtourou et al. (2001) argue that presence of independent nomination committee would improve board effectiveness, thus negatively related to the level of earnings management. Agrawal and Chadha (2005) also point out that independent nomination committee can improve the independence and quality of nominees. They find the probability of restatement is lower in companies whose boards or audit committees have an independent director with financial expertise, backed by evidence from a sample of 159 US listed firms.

Boards which have audit committees with financial experts also make positive contributions. Dionne and Triki (2005) discover that shareholders are better off with financially educated directors on their boards and audit committees, with additional evidence supporting the

importance of university education for the board of directors. Chan and Li (2008) find a positive link between enhanced firm value and boards which have audit committees.

Similar to members of audit committee and nominating committee, the members of compensation committee should be independent directors. These non-executive committee members are expected to act as objective decision makers who will ensure that the CEO's compensation is set at appropriate levels (Bowen, 1994). While Daily et al. (1998) examine the relationship between a firm's board and CEO's compensation and find no evidence that "captured" directors lead to greater levels of, or changes in, CEO compensation.

2.2.3 Director and Executive Compensation

Canyon (1997) provides evidence that corporate governance is related to director compensation by analyzing 213 large UK companies from 1998 to 1993. He uncovers that firms with remuneration committees demonstrate lower growth rates in top director compensation while separation of CEO and chairman makes little contribution to it. Main, Bruce and Buck (1996) construct a broader measure of executive compensation for UK firms via combining executive emoluments and executive share options. They argue that since options provide more pay-performance incentives, directors' compensation are significantly correlated to firm performance, thus improving monitoring efficiency in essence.

The connection between governance and compensation has been explored. Core, Holthausen, and Larcker (1999) find evidence that in the U.S., firms with weaker corporate governance experience worse performance, and CEOs in firms with more agency problems receive higher compensations. In line with previous researches, a recent study by Armstrong et al. (2012)

shows that firms with weak corporate governance are inclined to pay higher level of compensation to CEOs, and are more likely to use compensation consultants.

Several studies examine whether the characteristics of board and ownership structure have effects on executive compensation. A UK study (Ozkan, 2007) focuses on the effect of corporate governance on CEO pay level based on 414 large companies for the fiscal year 2003 to 2004. They find that CEOs from companies with larger board size and higher proportion of non-executive directors receive higher pay while CEOs receive lower compensation if the directors' ownership is higher. The evidence suggests that the non-executive directors makes little contribution to monitoring efficiency. Hartzell and Starks (2000) investigate the correlation between institutional investors and executive compensation. They also report a negative relation between the level of compensation and the concentration of institutional ownership, which indicates that institutions provide a monitoring role in mitigating agency problem. Sapp (2008) studies the relation between compensation of top five executives and corporate governance level by analyzing 400 listed companies in Canada. The evidence provided suggests that characteristics of the CEO, compensation committee in the firm and board of directors, as well as different types of shareholders and competitive environments influence the level of executive compensation. Cianci et al. (2011) further explore the relation between corporate governance and executive compensation before and after the adoption of Sarbanes-Oxley (SOX). They show the well documented inverse relation between corporate governance and compensation before SOX and show that the relation actually improves after SOX.

2.2.4 Ownership structure

Concentrated ownership is one of the internal corporate governance mechanisms to deal with agency problem and reduce agency costs. On one hand, concentrated ownership eliminates free-

rider problems, and thus provides controlling owners with incentives to expend resources to monitor and discipline management. However on the other hand, large shareholders may exploit their own private benefits and not act in the interest of minority shareholder and this effect is especially strong if managerial ownership is beyond certain level. Shleifer and Vishny (1997) also point out that block shareholders have the advantage of control of the firm, and have interest in profit maximization which would lower agency costs. However, it is also possible that large shareholders represent their own interest, not in line with the interest of other investors or employees in the firms.

The effect of concentrated ownership on firm value is widely investigated. Stulz (1988) models the cost of large shareholdings and entrenchment and exhibits a concave relationship between managerial ownership and firm value, which is also supported by the empirical evidence from a study by McConnell et al. (1990). Their findings are consistent with the argument that managerial ownership motivates managers to improve firm value while entrenchment effects would dominate if managers have too much equity of the firm. Singh et al. (2003) find that higher managerial ownership improves asset utilization and significantly alleviates principal-agent conflicts while outside large shareholder ownership only has a limited effect on reducing agency costs. According to S&P 500 survey data in 2000, Baek, Johnson, and Kim (2009) find that for firms with less than 5% managerial ownership, there is a negative relationship between managerial ownership and the extent of disclosure of corporate governance practices. Board of directors are selected to ensure the agency effectiveness since ownership and management has been designed to be separated. When board members own a stake, their interest would be aligned with that of other shareholders. This argument is supported by an empirical research by Rosenstein et al. (1990).

Bhagat, Carey, and Elson (1999) suggest that to consider whether director ownership improves firm value, dollar value rather than percentage of holdings should be used since in that situation, dollar amount represents the real interest of directors on board more precisely. Gillan and Starks (2003) point out the positive effects from institutional ownership. They argue that institutional investors bring in better monitoring and thus better corporate governance structures.

La Porta et al. (2002) explore the effect of concentrated ownership on firm value. They argue that in firms with higher cash flow, ownership by controlling shareholder enhances firm valuation, especially in countries with poor legal investor protection. Lemmon and Lins (2003) further investigate the influence of ownership structure on firm value during the East Asian financial crisis in late 1990s. The results show that stock returns of firms in which ownership is concentrated in top managers and their family members were significantly lower than those of other firms. The evidence indicates that corporate ownership structure plays an important role in determining the incentives of expropriation by insiders.

2.3 Corporate Governance Measurements

In addition to the traditional measurements, some new measurements of corporate governance- governance indices- have been increasingly popular in empirical studies, which provide quantitative comparison of corporate governance quality across firms. Klapper and Love (2004) construct firm-level corporate governance indices across 14 emerging markets, which turns out to be related to firm's performance and valuation. Similarly, Da Silva (2005) adopts a broad corporate governance index targeting Brazilian firms and the evidence also supports that firms with better corporate governance enjoy significantly higher performance.

There are many organizations and rating agencies which have started to make ratings of corporate governance performance, such as Governance Metrics International (2004), Institutional Shareholder Services (2003) and S&P (Khanchel, 2007). Many empirical studies establish corporate governance indices based on the governance index developed by these organizations. For example, Gompers, Ishii, and Metrick (2001) construct a “Governance Index”, G-Index, to proxy for the level of shareholder rights at about 1500 large US firms during the 1990s, where lower index stands for stronger shareholder rights. They find that the governance index is negatively correlated with firm value, profits, and sales growth; while the index is positively correlated with capital expenditure, and corporate acquisitions.

Bebchuk, Cohen, and Ferrell (2005) investigate the relative importance of the twenty-four provisions followed by the Investor Responsibility Research Center (IRRC), and create an entrenchment index based on six provisions underlying G-Index. Brown and Caylor (2006) use Institutional Shareholder Services (ISS) corporate governance dataset to build a governance score, named as Gov-Score, based on 51 firm-specific provisions representing both internal and external governance. Their results show that Gov-Score is significantly and positively associated with Tobin’s Q.

Specifically targeting Canadian firms, corporate governance indices are constructed by the *Globe and Mail and Report on Business* (ROB) in 2002 based on a “tough set of best practices culled from the corporate governance guidelines and recommendations of US and Canadian regulators, as well as major institutional investors and associations” (McFarland, 2002). The indices basically contain four main categories, board composition, compensation, shareholder rights, and disclosure.

2.4 Corporate Governance and Firm Performance

In this section, we review empirical evidence on how corporate governance quality in a firm may affect firm valuation in empirical studies. There are three parts in this section. First we examine the relation between characteristics of board of directors and firm value. Then we test the effect of ownership structure on firm performance. Hence in first two parts, we examine whether part of corporate governance mechanism alone would have positive or negative influences on firms' stock price or operating performance. Finally, we review some empirical evidence which link overall corporate governance level with firms' valuation.

2.4.1 Board Characteristics and Firm Value

There are several studies that investigate whether board characteristics such as board size would affect firm performance. Yermack (1996) finds that if board size increases, firm value would decrease on the whole. Specifically, the number of inside directors and percentage of outside directors do not affect firm value. Furthermore, outside directors enhance firm value mildly only when the number is 10 or greater and the effect is even negative if the number is between 4 to 9. Eisenberg et al. (1998) focus on small and middle sized firms in Finland and they also find a negative link between firm value and board size for small firms. Similarly, Makand and Kusnadi (2005) find a negative relation between board size and firm value in both Singapore and Malaysia. However, Kiel and Nicholson (2003) document a positive effect of board size on firm valuation.

With respect to director independency and firm value, Kiel and Nicholson (2003) find that the proportion of inside directors have positive influence on firm valuation. Rosenstein et al. (1990) report a positive stock price reaction at the announcement of appointment of an additional outside director. Black, Jang, and Kim (2006) demonstrate that Korean firms with majority outside

directors are significantly more highly valued. Byrd and Hickman (1992) find that bidding firms with over 50% percentage of outside directors would have higher announcement-date abnormal returns, except when the independent directors hold a very high proportion of board seats. Oxelheim et al. (2003) examine the effect of Anglo-American board membership on corporate performance in Swedish and Norwegian firms. The empirical results suggest that firms would achieve significantly higher value if they have outsider Anglo-American board members. One plausible reason is that Anglo-American corporate governance system takes effect more or less, with higher level of corporate governance quality.

By analyzing Fortune 1000 firms, Carter et al. (2003) demonstrate a positive relation between board diversity - the fraction of women or minorities- and firm value. Erhardt et al. (2003) examine the relationship between demographic diversity and firm financial performance for 127 large US companies. Their analysis indicate that board diversity such as percentage of women and minorities on boards of directors, is positively correlated with firms' financial performance. Adams and Ferreira (2009) find that gender diversity in boards have positive effects on board governance. In addition, firms with weaker shareholder rights enjoy positive effects of gender diversity on market valuation and operating performance. However, the average effects for all firms seems to be negative, possibly stemming from companies with greater shareholder rights.

In contrast, Shrader et al. (1997) investigate the effect of the percentage of women board members on ROA and ROE based on approximately 200 Fortune 500 firms and they demonstrate a significantly negative correlation on firm value. Ahern and Dittmar (2012) examine the effect of a new 2003 law on firm value that required the proportion of women board members in Norwegian firms' directors to be at least 40% at that time the proportion was only 9%. They observe a significant decline in stock price at the announcement as well as a continuous large decrease in

firm value measured by Tobin's Q over the following years. One possible explanation is that the mandatory requirement is against the argument that firms usually choose board members and board size to maximize firm value.

Unlike results mentioned above, Zahra and Stanton (1988) actually find no significant relationship. Similarly, Rose (2007) presents Danish evidence that there is no significant relation between female board representation or board members' educational background and firm performance. Similarly, Baysinger et al. (1985) find that there is no obvious relation between board characteristics and firm performance, in line with conclusions from Bhagat and Black (1996), Hermalin and Weisbach (1991), and Makand and Kusnadi (2005).

2.4.2 Ownership and Firm Value

There have been some debate about the effect of ownership structure on firm valuation. Demsetz and Lehn (1985) investigate corporate ownership and firm value by a sample of 511 US firms and report a linear relationship. Morck et al. (1988) find a significant non-monotonic association between managerial ownership and firm value of 371 Fortune 500 firms. Specifically, firm value first increases, then declines, and finally rises slightly as equity owned by board of directors increases. De Miguel et al. (2004) present a quadratic relationship between value and ownership concentration, thus confirming the existence of both monitoring effect and expropriation effect in Spanish firms. Furthermore, they find that Spanish insiders get entrenched at higher ownership levels than their UK and US counterparts, suggesting that different corporate governance systems may yield to various relationships between ownership structure and firm value. McConnell et al. (1990) further explore the relationship between equity ownership and firm value measured by Tobin's Q in a sample of 1173 firms in 1976 and 1093 firms in 1986. On one hand, they find a significant curvilinear relation between firm value and insider ownership, with curve slope

reaching maximum value as insider ownership climbs to approximately 40% to 50%. On the other hand, a significant positive correlation between firm value and institutional ownership is observed. These empirical evidence may suggest that ownership structure is one of the factors which affects firm value. Mehran and Hamid (1995) examine 153 randomly selected manufacturing firms from 1979 to 1980. The evidence shows that firm performance is positively correlated to managerial ownership and to the percentage of their equity-based compensation. Short and Keasey (1999) show that management in UK firms become entrenched at higher levels of ownership than their US counterparts. Consistent with findings from studies on US firms, a non-linear relationship between firm performance and managerial ownership is supported by UK evidence. Mitton (2002) argue that firms with higher outside ownership, firms with more diversified ownership structure and firms with higher level of disclosure quality demonstrate better stock price performance, by analyzing nearly 400 firms from 5 East Asia countries during the 1998 crisis.

Several other studies investigate the relation during financial crisis. For example, Lemmon et al. (2003) provide evidence from East Asia shows that during the local financial crisis in late 90s, firms which separate control and cash flow ownership but also have high level of managerial controls experience lower stock returns than others.

Lins (2003) investigates the effect of managerial sock ownership and other blockholder stock ownership on firm value by using a sample of 1433 firms from 18 emerging markets. He finds that firm value is lower if managerial control rights exceed cash flow rights while other non-management blockholders' control rights are positively linked to firm values, especially in countries with low shareholder protection. Since non-management blockholders provide external monitoring and thus reduce managerial agency costs, they are likely to play a role in exercising governance mechanisms just like institutional owners do when necessary.

Maury and Pajuste (2005) investigate the influences of multiple large shareholders on firm value by using data on Finnish listed firms. They argue that a more equal distribution of votes among large blockholders would enhance firm value, especially in family-controlled firms, suggesting that family firms are more likely to exploit their own benefits unless monitored by other shareholders.

Klein et al. (2005) use a sample of 263 firms to test whether that relation between corporate governance and firm performance holds in Canada. They find that ownership type actually does not affect firm performance, in contrast to the US evidence that family firms seem to have better performance compared to non-family firms (Anderson and Reeb, 2003). Thomsen et al. (2006) examine the relationship between blockholder ownership and largest firms' values in the European Union and the US. Compared to counterparts in the US and UK, firms in Continental Europe have quite concentrated ownership and the level of investor protection there is relatively lower. Though they do not find significant ownership value association in the US and UK firms, they observe a significant negative relation in the next period in firms where initial blockholder ownership exceeds 10% in Continental Europe, suggesting presence of conflicts of interest between blockholders and minority investors.

Villalonga and Amit (2006) also discuss how family ownership affects firm value by analyzing all Fortune-500 firms during the period from 1994 to 2000. Their main finding is that family ownership would not raise firm valuation unless the founder serves as CEO of the family firm or as Chairman with a hired CEO. Both dual share classes and pyramid structure would hurt firm value. In addition, firm value would be destroyed when descendants serve as CEOs.

2.4.3 Overall Corporate Governance Level and Firm Value

By describing laws and enforcement in different countries, La Porta et al. (2000) demonstrate that stronger shareholder protection is associated with effective corporate governance, which is incorporated in financial markets. Instead of discussing macro legal system and its effectiveness on corporate governance reforms, Bauer et al. (2004) focus on exploring the relation between quality of corporate governance and firm value in Europe. While they do not find evidence in the UK market, they do observe that European Monetary Union exhibits a strong positive relation between governance and firm value. Gompers et al. (2001) examine the situation by using US firms and find that the quality of corporate governance proxied by “Governance Index” is highly correlated with firm value measured by Tobin’s Q.

Klapper and Love (2004) investigate the correlation among firm characteristics, corporate governance and performance. They find that firm size, growth opportunity and intangibility of assets have something to do with corporate governance at firm-level. Moreover, the better corporate governance is related with better operating performance as well as market value of the firms in emerging markets.

Dittmar et al. (2007) also explore the relation by investigating US public firms from 1990 to 2003. They argue that well governed firms are more likely to improve the use of cash holdings and thus enhance firm values. Core et al. (1999) find that in the US, firms with weaker governance structure are more likely to have greater agency problems and thus experience worse performance. The positive relation between governance and firm value is especially strong in a country where shareholder protection is weak (Black, 2001). Dittmar et al. (2003) argue that in countries where shareholders rights are not well protected, firms are likely to hold up to twice as much cash as corporations in countries with good shareholder protection in a study of 1100 firms from 45 countries. Harford, Mansi and Maxwell (2008) also shed light on how firm’s corporate governance

affects firm's cash holdings in the US. They find that firms with weaker corporate governance structures hold lower level of cash reserves.

Aggarwal et al. (2010) use data from Corporate Governance Quotient (CGQ) by ISS to compare the governance level between US firms and comparable foreign firms. In line with their previous research (Aggarwal et al., 2007), only less than 13% of foreign firms have a higher governance index compared with US matching firms. More importantly, they observe that the foreign firm value falls as governance index decreases relative to the index of comparable US firms. However, Klein et al. (2005) do not find any evidence to support the argument that total governance index would affect firm performance in Canada.

A recent study indicates that East Asian and Latin American firms with weaker corporate governance experience a larger rebound in share values during the recovery period despite a big decrease of stock price during the financial crisis, which indicates the significance of managerial expropriation in linking corporate governance and firm value (Bae, Baek, Kang and Liu, 2012).

Bhagat and Bolton (2008) argue that better governance proxied by governance indices is significantly positively correlated with better contemporaneous and subsequent operating performance, though not related to future stock performance. Chhaochharia et al. (2007) find that the announcement of SOX Act in 2002 has a significant effect on firm value in the US. Specifically, firms that are less compliant with the provisions of the rules earn positive abnormal returns compared to firms that are more compliant. Larcker et al. (2007) use 39 structural measures of corporate governance like stock ownership and board characteristics and find that there are 14 dimensions to corporate governance, which may explain the inconsistent results among different studies regarding the relation between corporate governance and some accounting variables.

2.5 Corporate Governance across Countries

The literature has well documented the different levels of corporate governance across the world. Why corporate governance levels in different countries vary so much? Doidge et al. (2007) develop a model to try to explain the variance of governance across countries. They find that country characteristics rather than firm characteristics play the most important role in determining the corporate governance level in a firm.

Shleifer et al. (1997) discuss the various corporate governance mechanisms in different countries to investigate which one is more attractive to external funds to firms. They find that the corporate governance system in the US, Britain, most Continental Europe and Japan provides protection by a combination of large investors and legal system, separate from the systems in most other countries which only provide limited protection. La Porta et al. (1999) investigate ownership structure in the largest firms from 27 rich economies and find that countries with poor shareholder protection typically exhibit more concentrated control of firms than do countries with good shareholder protection.

Kaplan (1997) compares corporate governance among US, Germany and Japan. He points out that the corporate governance system in US is “market based”, while Japan and Germany carry out “relationship based” system. In other words, corporate governance is mostly fulfilled by external monitoring and board of directors in US companies. However, banks, corporate blockholders and some other long term maintained internal relations play an important role in monitoring. Aggarwal et al. (2007) launch a cross-country study and they find that on average foreign firms have worse corporate governance than matching US firms. There are around only 8% of foreign firms enjoying better quality of governance, which are mostly British or Canadian firms.

Furthermore, the results show that foreign firms are rewarded by the markets for having better governance than their US peers.

Speaking of corporate governance issue in Canada, we cannot neglect the fact that one big difference between firms in U.S. and Canada is that ownership is more concentrated in Canadian firms. Controlling-minority structure, including dual-class, stock pyramid and cross-ownership ties, is quite common in Canada (La Porta, et al., 1999).

As Bozec and Bozec (2006) show by using a sample of 244 listed firms in Canada, 186 firms (over 75%) have an ultimate owner with more than 5% the voting rights and among the 186 firms, nearly 70% have a family as the controlling shareholder. Rao and Lee-Sing (1995) also show that for a sample of firms with sales in excess of two billion US dollars, less than 10% US firms have concentrated ownership while the proportion climbs to nearly 60% in Canada.

Higher agency costs are usually associated with concentrated ownership structure, while legal protection and reputation act as potential constraints on agency costs (Bebchuk et al., 1999). On the one hand, Canada demonstrates similar ratings on many dimensions of investor protection such as comparable treatment of minority shareholders and creditors (La Porta et al., 1997, 2000); on the other hand, families taken as repositories for reputation and the most common controlling shareholders in the structure (La Porta, et al., 1999), are likely to restrain expropriation of private benefits and make sure their firms stand through generations (Bebchuk et al., 1999).

Some argue that concentrated ownership in Canadian firms significantly decrease governance problems (Chirinko et al., 2004), whereas others find that ownership type does not affect firm's corporate governance index, nor firm performance in Canada (Klein et al., 2005). Chirinko et al. (2004) mainly investigate three typical corporate governance measurements in

Canada. They find that concentrated ownership in Canadian firms is related to significantly fewer governance problems. Further group membership such as institutional characteristic of the Canadian economy indeed improves firm performance, though the result is not significant. Lastly, they do not find evidence to support that debt as a control mechanism plays a role in reducing governance problems. Bozec (2007) analyzes Canadian listed firms which are interacted with US market and the empirical evidence indicates that companies with greater US market interaction are inclined to have better corporate governance quality. His results suggest the globalization leads to market-driven convergence in corporate governance to some degree.

King and Santor (2008) explore whether ownership type would have effects on firm valuation and performance by using a sample of 613 Canadian firms from 1998 to 2005. The evidence shows that family owned firms that use single share class demonstrate similar market performance than others. However, firm valuations of family owned firms that use dual class shares are approximately 17% lower compared to that of matching widely held firms.

Legal restrictions regarding foreign ownership and security regulations are different between US and Canada. Enforcement of insider trading is weaker in Canada (King and Segal, 2003). Another study by Levin in 2004 states that “another main difference between Canadian and US regimes relies on the degree of enforcement of corporate governance rules”. Specifically, firms in Canada are required to disclose their corporate governance practices, the situation of formal compliance with governance guidelines in their annual report or information circular, which is called principle-based approach. However, the rules-based approach adopted by US is believed to be “heavily oriented toward a mandatory compliance with highly detailed regulation”.

2.6 Conclusion

There has been rapidly developing body of literature about corporate governance. This paper reviews several main aspects on corporate governance. First of all, we discuss typical governance mechanisms and try to understand how these mechanisms work to mitigate agency problems. Specifically, we examine board of directors including board size, board composition and composition of three key committees, compensation, and ownership structure in firms.

Secondly, we try to do a summary of new corporate governance measurements, mainly governance indices constructed by large organizations. The advantage of these indices is that these corporate governance indices usually consist of a comprehensive set of dimensions. While we have to admit the fact that some indices are formed by using a sample of specific firms in specific countries, which may affect their wide application. Thirdly, we conduct a comprehensive review to examine whether board characteristics, ownership structure or overall corporate governance level would have influence on firm performance or firm valuation.

Finally, we present a comparison of corporate governance across countries and try to investigate the differences of corporate governance situation globally. We specially discuss the relation between the ownership and corporate governance in Canada. The ownership type in Canadian firms is associated with higher agency costs, but constrained by legal system and concern of reputation since family firms account for a large proportion of all. Thus, it provides a unique sample to conduct research.

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Chapter 3 Public-to-Private

Transactions: Canadian Evidence

3.1 Introduction

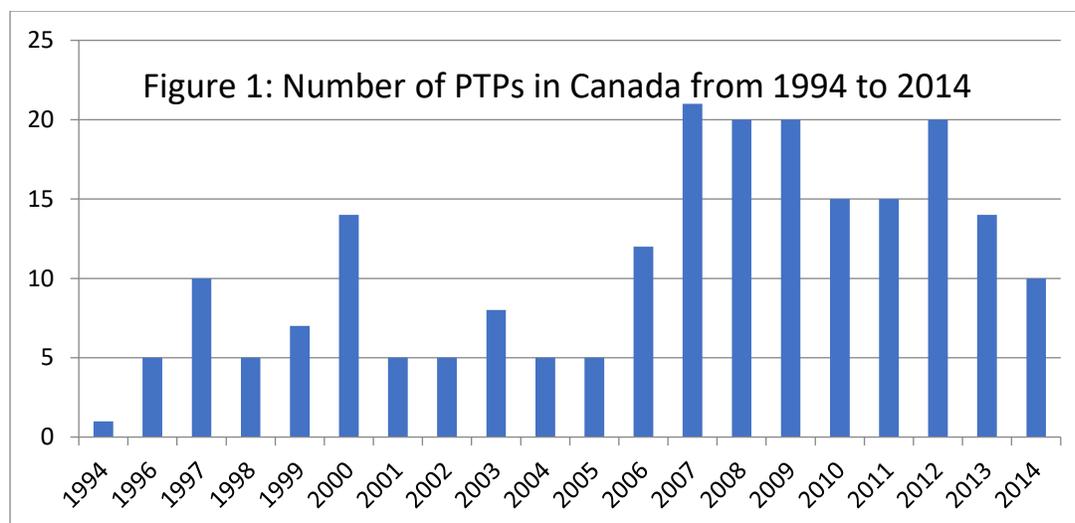
In the second chapter, we reviewed the literature on corporate governance and its impact on firm value. The literature also shows that ownership structure is an important determinant of firm value. Current studies on public-to-private transactions mainly explore shareholder wealth gains in U.S. and UK. Canadian firms have more concentrated ownership structure compared to U.S. firms. Our study focuses on going private transactions in Canada, which differs significantly from those larger markets in ownership structures and thus provides interesting and meaningful comparisons. In addition, we analyze PTP transactions over a long-time span with nearly twenty years, which provides a relatively thorough overview of going private transactions in Canada. In this chapter, we examine the implication of ownership structure of Canadian firms on public-to-private (PTP) transactions.

Starting from late 1970s, the corporate sector has experienced a growing number of going private transactions, reaching the first peak in 1988 with over \$60 billion of transaction value in US. The activity in the US going-private market has a much smaller scale in the first half of 1990s, shrinking to only less than \$4 billion (Kaplan et al., 1993). A rising trend is observed from late 1990s, with number of going private transactions reaching the comparable level in 1980s in the US buyout market. Maupin (1987), Weir et al. (2005) and Valenti et al. (2014) argue that executive

managers and CEO are likely to benefit from going private and thus they may try to encourage and push towards the deal. The trend of going private market in UK, another major stock market, is in line with US, but the scale is much bigger after middle 90s than in 1980s (Renneboog et al., 2007).

The current going private literature mainly tries to investigate the determinants of public to private transactions and to explore the sources of shareholder wealth gains in the US sample. This paper fills a gap in literature by investigating the Canadian going private market. Figure 3.1 exhibits the annual number of public to private transactions in Canada during the last 20 years from 1994 to 2014. As we can see, twenty years ago, there are only a handful of firms going private each year in Canadian market, with an annual average of about 6 transactions from 1996 to 2005. Starting from 2006, the number of public to private firms has grown substantially, reaching a peak of 21 transactions in 2007. In the U.S., the number of going private transactions decreased significantly from 2007 to 2012 (Doney and Reston, 2012; Valenti and Schneider, 2014). In contrast, Canadian market exhibits a different picture. The going private trend maintains at a relatively high frequency level, with total number of transactions over 15 per year until 2012, and it shrinks only a little bit in 2013 and 2014. Overall, in Canada, the going private scale in 2007 and thereafter is more than double of that before 2007, with average transaction number of about 17 versus less than 7 per year.

Figure 3.1 Number of PTPs in Canada from 1994 to 2014



Ng (2010) investigates Canadian public to private (PTP) transactions before 2008 and shows that undervaluation and tax benefit motivation are the main sources of shareholder gains then. In this paper, we extend his work by including deals which occurred after the recent 2008 financial crisis. Our sample data span from 1996 to 2014, with first sub-period defined between year 1996 to 2007 and second between 2008 and 2014. Thus, this paper extends and contributes to the literature by exhibiting a more comprehensive picture of Canadian PTP transactions. Moreover, this study is also one of the first to compare going private deals before and after the crisis and explore whether transaction category or characteristics of target firms have changed ever since. We follow the methodology of Renneboog, Simons, and Wright (2007) and try to answer why Canadian listed firms decide to go private and whether their determinants and motivations of going private are in line with the documented evidence in the US and UK.

Our sample consists of 121 Canadian public to private transactions from 1996 to 2014. These PTPs are subdivided into two groups based on the characters of acquirors. The first category is transactions driven by private equity firms-PE backed deals, where private equity participates in taking the firm private; the second is where firms go private through other approaches such as

private operating companies. Our main finding is that a Canadian PTP transaction increases shareholder wealth on average by approximately 30% when measured by the transaction premium, and close to 23% when measured by the share price reaction, i.e. the cumulative abnormal returns (CARs) over a 5-day window or 10-day window. Our cross-sectional regression analysis supports undervaluation hypothesis and free cash flow hypothesis with respect to sources of shareholder wealth gains. Furthermore, we find that after the recent economic crisis, both premiums paid and abnormal returns are significantly higher, and those target firms have lower percentage of management ownership and institutional ownership. In addition, firms going private with private equity backing turn out to have lower management ownership, and shareholders get smaller wealth gains from PTP transactions than those going private through other approach.

The remainder of the article is organized as follows: Section 3.2 provides the literature review and develops hypotheses, Section 3.3 describes data sources, data selection and summary statistics, Section 3.4 details the empirical methodology, Section 3.5 provides the empirical results, and Section 3.6 concludes.

3.2 Literature Review and Hypothesis Development

3.2.1 Literature Review

Like going public, going private involves weighing costs and benefits of being a public firm. Poor and unsatisfactory stock price performance is one of the reasons for firms to go private. Lack of interest in the shares from investors (Weir et al., 2005b) and lack of financial visibility (Mehran and Peristiani, 2009) may result in continuous drop of stock price and thus affect firms' ability of fund expansion, in which case the advantage of being public is unavoidably diminished.

Benefits of going private are also associated with high level of debt payments and alignment of management incentives which contributes to efficiency gains (Jensen, 1986). Bharath and Dittmar (2010) explicitly investigate how firms balance costs and benefits and decide to opt out of the public market. They find support for control and access to capital considerations, and most importantly, strong support for liquidation considerations. In addition to arguments regarding costs versus benefits of being public, there is another strand in literature exploring characteristics of going private firms. For example, Boot et al. (2008) develop a theory about the connection between investor participation and firm's decision in going private or remaining listed. They find that going private firms are more likely to have lower stock prices, higher stock price volatility and lower public-market investor participation. Sannajust et al. (2015) investigate motivations of going private transactions internationally. They discover that in the US, Europe and Asia, low growth prospects, low liquidity and high free cash-flow are the three main motivations for public to private transactions, in line with previous studies.

A key aspect of going private literature is wealth gains from the transaction. DeAngelo et al. (1984) argue that positive wealth changes following announcement of going private and negative changes on withdrawal of transaction proposal suggest benefits from going private. Premiums paid are usually used as proxy for wealth gains. There are several studies investigating premiums paid in PTP mainly in US and UK. For example, DeAngelo, DeAngelo and Rice (1984) are among the first to document that premiums paid in going private transactions in the US from 1973 to 1980 are over 50% on average. Weir et al. (2005a) exhibit an average of 45% premiums in going private transactions from 1998 to 2000 in UK. Similarly, another UK study records a 40% premium in UK buyout market (Renneboog et al., 2007). In line with gains-sharing argument, the

model developed by Boot et al. (2008) also predicts that firms would only go private when premiums are substantially high.

With documented shareholder wealth gains associated with going private transactions, some researchers try to explore the main sources of wealth gains. Tax savings due to high debt payments (DeAngelo, DeAngelo and Rice, 1984; Kaplan, 1989b; Renneboog et al., 2007), and target firm undervaluation (Renneboog et al., 2007; Ng, 2010) have been demonstrated as sources of shareholder wealth gains from going private in the context of U.S., UK and Canada.

Literature has also documented agency problems as an important factor that would affect shareholder gains. For instance, Jensen (1986) point out that a major source of stockholder gains in going private is the mitigation of agency problems associated with free cash flow since high level of free cash flow in a firm suggests management does not maximize utilization of resources. This hypothesis is supported by Lehn and Poulsen (1989) and Renneboog, Simons and Wright (2007). In accordance with Jensen's argument, a recent study by Boubaker, Cellier, and Rouatbi (2014) shows public to private transactions mitigate agency problems from inefficiencies between large and minority shareholders, in line with the evidence that firms with falling institutional ownership are more likely to go private (Mehran et al., 2009).

Managerial ownership may also play a role in influencing shareholder wealth gains. Managerial ownership is correlated with interest alignment, thus could improve asset utilization and alleviate principal-agent conflicts (Singh et al., 2003). Thus, management incentive realignment is another major source of wealth gains especially in management buyouts since reunification of ownership and control gives managers incentives to improve firm value (Renneboog et al., 2007).

In Canada, ownership structure is significantly different from that in US or UK. For example, over 75% of listed firms have an ultimate owner with more than 5% the voting rights; and among those firms with ultimate ownership, nearly 70% have a family as the controlling shareholder (Bozec and Bozec, 2006). For a sample of firms with sales in excess of two billion US dollars, less than 10% of US firms are concentrated while the proportion climbs to nearly 60% in Canada (Rao and Lee-Sing, 1995). Controlling-minority structure, including dual-class, stock pyramid and cross-ownership ties, is quite common in Canada (La Porta, et al., 1999). Higher agency costs are usually associated with such kind of structure, while legal protection and reputation act as potential constraints on agency costs (Bebchuk et al., 1999). On one hand, Canada demonstrates similar ratings on many dimensions of investor protection such as comparable treatment of minority shareholders and creditors (La Porta et al., 1997, 2000); on the other hand, families taken as repositories for reputation and the most common controlling shareholders in the structure (La Porta, et al., 1999), are likely to restrain expropriation of private benefits and make sure their firms stand through generations (Bebchuk et al., 1999). The literature has mixed results regarding the relation between this kind of ownership structure and governance issues or firm performance. Some argue that concentrated ownership in Canadian firms significantly decrease governance problems and thus associated agency costs are lower (Chirinko et al., 2004), whereas some find that ownership type does not affect firm's corporate governance index, nor firm performance at all in Canada (Klein et al., 2005). Therefore, one goal of our study is to try to explore whether different ownership structure in Canada from that in UK or U.S. at least partially contributes to different characteristics of going private firms, higher or lower premiums paid in going private than that in previously studies, and different sources of shareholder wealth gains.

There are several ways for a firm to opt out of the public market and firm characteristics may play a role in this choice. Financial flexibility is documented as an important factor for firms to go private through private equity. For example, Bharath et al. (2010) show that instead of driven by management, firms are more likely to go private through private equity if they have high leverage ratio or low capital expenditure. Regner (2006) shows in US, going private transactions are often conditional on private equity to meet debt financing demand. Small firms especially those with difficulty of fundraising sometimes have to go to private via help from private equity firms. Thus private equity could take advantage of this need to get benefit from the transactions (Renneboog et al. 2007). In line with US evidence, results from a UK study also indicate that private equity backed deals usually have a lower level cash holdings and managers seek private equity backing in case they are more constrained to finance the deal themselves (Fidrmuc et al., 2013). As a result, compared to other deals, going private transactions through private equity firms would bring in higher profitability and higher interest coverage ratios (Aslan and Kurmar, 2011).

3.2.2 Hypotheses Development

Jensen (1986) argues that conflicts of interest between insiders and shareholders could be more severe if that firm is able to generate substantial free cash flows, which indicates the firm fails to maximize utilization of resources. Lehn and Poulsen (1989) and Renneboog et al. (2007) support the argument that mitigation of agency problem associated with free cash flow is one of the major sources of wealth gains during going private transactions. Bharath and Dittmar (2010) use whether a firm pays dividend as a proxy for degree of financial constraints and find that non-dividend-paying firms are less likely to go private.

Debt ratio is another important determinant of agency cost. Jensen (1986) concludes that high leverage could help mitigate the agency cost, since managers would be more likely to act in

the interest of equity holders and try their best to realize maximization of firm value with fewer agency problems. In addition, high leverage is directly related to high tax shield, which is a main source of expected shareholder wealth gains. Kaplan (1989b) estimates that around 21% to 72% of premiums come from tax benefits in U.S. management buyouts from 1980 to 1986. Renneboog et al. (2007) conclude that in UK going private transactions from 1993 to 2007, target firms with low debt-equity ratio receive higher premiums. Based on their findings, we expect more levered firms would have lower shareholder wealth gains if they decide to go private. Our first hypothesis- free cash flow hypothesis- is as followed:

H1: Shareholder wealth gains from going private are positively related to levels of free cash flows in the target firm, but negatively related to current leverage ratio of target firms.

The undervaluation hypothesis is built on the premise that insiders, like managers, have superior information about a firm. Due to information asymmetry, managers know better about the firm value compared to ordinary outside investors. Since outside investors cannot obtain as much information at reasonable costs about a firm as managers do, the concern of buying a lemon would depress the stock price and incur agency costs. Hence asymmetric information between insiders and outside shareholders may result in a firm being wrongly valued. In addition, Lowenstein (1985), Schadler and Karns (1990), and Renneboog, Simons, and Wright (2007) point out that managers may manipulate dividends policy, and apply specific accounting methods to depress the stock price before announcement date and thus benefit from it, especially in case of management buyout transactions. Previous studies have also documented that managerial actions are associated with stock performance and/or misevaluation of the stock. For example, Dittmar (2000) find a positive relation between extent of misevaluation and volume of stock repurchases and firms with

a high level of information asymmetry are more likely to repurchase stocks. Stephens et al. (1998) find that stock repurchases are negatively related to prior stock price performance. Therefore in case of going private transactions, we expect to observe that if managers or outside investors perceive the stock undervalued, there would be a higher level of premiums offered in that transaction.

H2: Shareholder wealth gains are positively related to the degree of undervaluation of the target's stock.

Finally, controlling ownership also relates to agency costs and is expected to affect shareholder gains in PTPs. Previous studies have documented that the level of control of firms before going private is negatively correlated with shareholder wealth gains (Renneboog et al., 2007). If ownership of a firm is quite dispersed, monitoring activities may not be sufficient due to lack of incentive from any small shareholder (Grossman and Hart, 1980). Institutional ownership is also a type of corporate governance mechanism as institutional investors normally play an active role in monitoring. Similarly, equity stake owned by management could help ensure incentive alignment and governance, and thus better firm performance (Sannajust et al., 2015). Therefore, firms which have dispersed ownership, especially with low institutional or managerial ownership, could suffer more from free-rider problems, AND would be more likely to go private and benefit more from mitigated agency problems. Thus, our next hypothesis is:

H3: Shareholder wealth gains are negatively related to the degree of concentration of managerial and institutional ownership of the target firm.

3.3 Data

3.3.1 Sample Selection and Data Sources

We obtain data of Canadian PTPs from the Financial Post informant Mergers & Acquisitions database. This database contains all M&A transactions in Canada starting from 1994. We only focus on completed transactions during that period. We take several steps to scrutinize these transactions to determine whether they are PTPs. Firstly, we choose those transactions which are explicitly marked as going private, management buyouts, or leveraged buyouts. Secondly, the deal descriptions of the rest of the data are used to determine if they are going private transactions in essence. Last but not least, we check to confirm that all those selected transactions are followed by firms delisted from stock exchange. This yields a total of 217 going private transactions in Canada from 1994 to 2014. Then, we take a few more steps to screen our observations. Firms without disclosed transaction detail such as deal value, financial constrained firms and state-owned firms are eliminated. All financial/ accounting information as well as ownership data of target firms are obtained from SEDAR. In addition, stock price data are obtained from Canadian Financial Markets Research Centre (CFMRC), Globe and Mail, and Yahoo Finance. Following previous studies (Boubaker, et al. 2014), if a target firm is a financial firm (SIC code 6000-6999) or is a regulated utility firm (SIC code 4900-4999), then that transaction is excluded. Transactions with insufficient data are eliminated. Our final dataset contains 121 going private transactions in Canada with announcement dates from April 1996 to July 2014. Table 3.1 shows data screening steps.

Table 3.1 Sample Selection

| | # of observations |
|---|-------------------|
| Total sample | 217 |
| Less: no clear transaction detail (e.g. value) | -24=192 |
| Less: Financial constrained firms, state owned firms | -6=186 |
| Less: without all necessary stock price and financial information | -45=141 |
| Less: SIC begin with 60-69 or 49 | -21=121 |
| Final sample | 121 |

3.3.2 Descriptive Statistics

Table 3.2 presents summary statistics on deal value, accounting based measurements and stock price performance of target firms. We can see from Panel A that the average deal value is approximately \$430 million (all figures below are in Canadian dollars). Book to market ratio is used to measure market value and stock performance. The average ratio is over 2.5 for full sample, which indicates that a going private firm is undervalued and on average, its market capitalization is less than half of its book value. And the median value of debt to equity ratio is approximately 20%.

Since we would like to compare those public to private transactions pre and post recent economic crisis, the sample is segmented into two sub periods, the first from 1996 to 2007, and the second from January 2008 till December 2014. We have 58 PTPs before 2008 and 63 in the second sub-period. Among the 121 PTP transactions from 1996 to 2014 in Canada, there are 45 transactions backed by private equity, and 25 of them occurred after 2008. In other words, private equity participated in less than 40% going private transactions in Canadian market since 1996, lower than what Aslan et al. (2011) show in UK, where approximately 57% of all PTPs are PE backed from 1996 to 2006.

As shown in Panel B of Table 3.2, we find that average deal value and firm size- proxied by $\log(\text{total assets})$ in PTP transactions after the financial crisis are smaller, compared to that in first sub period. When we compare PE backed deals and other PTP transactions, the presented statistics in Panel C indicate that PE backed transactions have higher profitability (median value of ROA 5.26% vs 1.18%), higher leverage ratio (median value of debt equity ratio 0.2 vs 0.14) and higher tax payment (median value of tax to sales 0.94 vs 0.48), in line with the results reported by Aslan and Kurmar (2011).

Table 3.2 Canadian PTPs: Deal Characteristics by Deal Type

| | | Mean | Median | S.D | Min | Max |
|---|----------------------|--------|--------|--------|---------|---------|
| Panel A: Characters of all going private firms (n=121) | | | | | | |
| Deal Value | (\$C millions) | 431.56 | 99.24 | 859.35 | 5 | 4470.18 |
| Firm size | Log(Total Assets) | 5.06 | 5.02 | 1.42 | 1.16 | 8.66 |
| Profitability | Return on Assets (%) | -4.75 | 2.99 | 34.08 | -285.69 | 68.92 |
| Leverage | Debt Ratio | 0.19 | 0.15 | 0.18 | 0 | 0.76 |
| Taxes | Taxes (% of sales) | 0.74 | 0.61 | 5.29 | -23.18 | 13.69 |
| | Taxes (% of assets) | 0.84 | 0.33 | 3.07 | -17.94 | 10.21 |
| Cash flow | Cash to assets (%) | 10.63 | 3.18 | 16.93 | 0 | 96.04 |
| Market value | Book to market ratio | 2.52 | 0.87 | 12.72 | 0.06 | 140.18 |
| Panels B: Characters of target firms in two sub-periods | | | | | | |
| Transactions before 2008 (n=58) | | | | | | |
| Deal Value | (\$C millions) | 445.01 | 97.75 | 906.61 | 5 | 4470.18 |
| Firm size | Log(Total Assets) | 5.21 | 5.13 | 1.25 | 1.27 | 8 |
| Profitability | Return on Assets (%) | -0.4 | 4.8 | 15.51 | -66.31 | 25.86 |
| Leverage | Debt Ratio | 0.24 | 0.25 | 0.19 | 0 | 0.76 |
| Taxes | Taxes (% of sales) | 0.43 | 0.50 | 5.31 | -23.18 | 13.55 |
| | Taxes (% of assets) | 0.64 | 0.25 | 3.54 | -17.94 | 10.21 |
| Cash flow | Cash to assets (%) | 10.03 | 2.65 | 15.31 | 0 | 75.00 |
| Performance | Book to market ratio | 3.43 | 0.83 | 18.28 | 0.06 | 140.18 |
| Transactions in 2008 and thereafter (n=63) | | | | | | |
| Deal Value | (\$C millions) | 419.19 | 99.24 | 820.57 | 5.6 | 4100 |
| Firm size | Log(Total Assets) | 4.93 | 4.87 | 1.56 | 1.16 | 8.66 |
| Profitability | Return on Assets (%) | -8.76 | 1.35 | 44.63 | -285.69 | 68.92 |
| Leverage | Debt Ratio | 0.14 | 0.13 | 0.15 | 0 | 0.7 |
| Taxes | Taxes (% of sales) | 1.05 | 0.87 | 5.30 | -22.14 | 13.69 |
| | Taxes (% of assets) | 1.02 | 0.43 | 2.58 | -4.28 | 9.02 |
| Cash flow | Cash to assets (%) | 11.18 | 4.53 | 18.40 | 0 | 96.04 |
| Market value | Book to market ratio | 1.68 | 0.88 | 2.04 | 0.08 | 9.76 |
| Panel C: Characters of PE backed and non-PE backed deals | | | | | | |
| PE backed deals (n=45) | | | | | | |
| Deal Value | (\$C millions) | 605 | 273 | 933 | 15 | 4470.18 |
| Firm size | Log(Total Assets) | 5.6 | 5.52 | 1.12 | 3.87 | 8.5 |
| Profitability | Return on Assets (%) | 2.24 | 5.26 | 19.99 | -66.31 | 68.92 |
| Leverage | Debt Ratio | 0.21 | 0.2 | 0.17 | 0 | 0.7 |
| Taxes | Taxes (% of sales) | 1.61 | 0.94 | 4.00 | -8.02 | 13.69 |
| | Taxes (% of assets) | 1.36 | 1.02 | 2.72 | -4.62 | 9.02 |
| Cash flow | Cash to assets (%) | 8.74 | 3.18 | 12.66 | 0 | 52.31 |
| Market value | Book to market ratio | 1.18 | 0.72 | 1.65 | 0.11 | 8.09 |

| Non-PE backed deals (n=76) | | | | | | |
|----------------------------|----------------------|-------|------|-------|---------|--------|
| Deal Value | (\$C millions) | 329 | 54.9 | 802 | 5 | 4180 |
| Firm size | Log(Total Assets) | 4.74 | 4.56 | 1.49 | 1.16 | 8.66 |
| Profitability | Return on Assets (%) | -8.89 | 1.18 | 39.71 | -285.69 | 25.86 |
| Leverage | Debt Ratio | 0.18 | 0.14 | 0.18 | 0 | 0.76 |
| Taxes | Taxes (% of sales) | 0.17 | 0.48 | 5.95 | -23.18 | 13.55 |
| | Taxes (% of assets) | 0.53 | 0.01 | 3.24 | -17.94 | 10.21 |
| Cash flow | Cash to assets (%) | 11.74 | 3.21 | 19.23 | 0 | 96.04 |
| Performance | Book to market ratio | 3.31 | 1.02 | 15.98 | 0.06 | 140.18 |

We also analyze ownership structure of target firms since concentration of ownership is a measure of shareholder power. Bharath et al. (2010) argue that the advantages and benefits of being a listed company would diminish if there is high ownership concentration. Boubaker et al. (2014) point out going private transactions help mitigate the inefficiencies of agency problems between controlling and minority shareholders. Weir et al. (2005) suggest that high managerial ownership facilitates public-to-private transactions. Table 3.3 exhibits summary statistics on ownership concentration. It shows shares owned by non-executive directors (NED) is averaged approximately 12.6%, a little lower than ownership by executives with nearly 14%. And ownership by all executive officers and directors is around 27%, higher than institutional ownership of about 24%.

Table 3.3 Descriptive Statistics on Shareholdings of Full Sample

| | Mean | Median | S.D |
|---|--------|--------|-------|
| Ownership by NED | 12.58% | 2.25% | 21.92 |
| Executive ownership | 13.84% | 2.35% | 21.36 |
| Ownership by all officers and directors | 26.67% | 14.48% | 27.91 |
| Institutional ownership | 23.86% | 12.93% | 26.04 |

3.4 Methodology

First, we conduct some preliminary tests to examine whether there are significant differences in characteristics of target firms between PE backed transactions and non-PE backed ones, and to investigate whether any feature of public to private transactions change after the recent financial crisis. In addition, logit test is conducted to analyze determinants of the decision to going private through private equity. To test the hypotheses, we run cross-sectional regressions with two dependent variables: premiums and cumulative abnormal returns, following Renneboog et al. (2007).

3.4.1 Analysis of Premiums

Premium is defined as the natural logarithm of final price offered divided by the share price before the announcement of PTP: $\text{premium} = \ln(\text{final price offered} / \text{pre-PTP price})$. Considering that some acquirers changed their offer price during the PTP process, or the board of directors of target firms suggested rejection of the offer at very beginning, and information may have leaked before the announcement, we calculate premiums over 1-day and 10-day windows prior to the event date.

3.4.2 Analysis of CARs

Abnormal returns are calculated as the difference between the daily return and expected return: $AR_i = R_i - E[R_i]$ (1)

Where the daily return is denoted as $R_i = \ln[P_t / P_{t-1}]$ (2)

Specifically, we use the historical stock price over the period of 235 days until 41 days before the announcement of going private to estimate the coefficients in CAPM, with market price proxied by S&P/TSX Daily Composite Price Index. Then, we calculate the expected return of each

stock predicted by CAPM and thus abnormal returns are given by subtracting expected return from the daily return as shown by equation (3).

$$AR_i = R_i - E[R_i] \quad (3)$$

Finally, we get cumulative average abnormal returns over (-5,+5) and (-10, +10) windows.

$$CAR_{i, [a,b]} = \sum_{t=a}^b AR_{i,t} \quad (4)$$

Table 3.4 presents overview of premiums and cumulative abnormal returns offered in PTP transactions in our sample. We find that the average premium is slightly more than 30% from 1996 to 2014, smaller than the UK evidence: 41% reported by Renneboog et al (2007) from 1997 to 2003, and 45% exhibited by Weir et al (2005a). In the UK, the premium level is also lower than what earlier US evidence shows (33%-56%) before 1990. The average CARs for full sample are quite similar over window (-5, +5) and (-10, +10), amounting to around 23%, nearly identical to the results in the UK (Renneboog et al., 2007). We also test the null hypothesis that abnormal returns or premiums are zero, and the t-values in the last column of Table 3.4 show that the hypothesis is strongly rejected in all cases.

Table 3.4 Premiums and CARs for Full Sample

| | Mean | Median | t-value |
|-----------------|--------|--------|----------|
| Premium 1 day | 30.38% | 22.31% | 8.76*** |
| Premium 10 days | 33.00% | 24.81% | 10.67*** |
| CAR [-5, +5] | 22.23% | 16.75% | 8.43*** |
| CAR [-10, +10] | 23.55% | 18.13% | 8.68*** |

3.5 Empirical Analyses

3.5.1 Preliminary Tests

We conduct univariate tests to compare public to private transactions before and after 2008, as well as deals backed by private equity and those through other approaches. Panel A of Table 3.5 reports characteristics of target firms and the difference between these two kinds of transactions. We find that firms have significantly larger size if private equity participate in the going private transactions at the 1% level. Similarly, the average deal value of PE backed deals is approximately 600 million dollars, marginally higher than value of firms which go private through other methods at the 10% level. With respect to profitability, PE backed deals also exhibit better performance, with significantly higher return on assets (ROA). These results are consistent with what Weir et al (2013) report in a UK study, where they present evidence that PE backed deals have larger deal value and total assets, as well as higher profitability. We do not observe a significant difference in cash holdings or board size between PE backed deals and others. As shown in Panel B, there is no big difference in firm size and deal value, and the profitability of firm of going private transactions before the economic crisis and thereafter.

Table 3.5 Univariate Test on Accounting Based Measurements

| Panel A: Comparison of PE backed deals and Non-PE backed transactions | | | |
|---|-------------|------------|------------|
| Variable | PE-backed | Non-PE | Difference |
| Log(Total Assets) | 5.59669 | 4.74348 | 0.85321*** |
| Deal value (\$million) | 605 | 329 | 276* |
| Profitability (ROA) | .02239 | -.088939 | .11132* |
| Cash to assets (%) | 8.74 | 11.74 | -3.00 |
| Panel B: Comparison of PTPs in two sub-periods | | | |
| Variable | Before 2008 | 2008- 2014 | Difference |
| Log(Total Assets) | 5.2054 | 4.92766 | 0.27774 |
| Deal value (\$million) | 445 | 419 | -25.8 |
| Profitability (ROA) | -0.004 | -0.0876 | 0.08362 |
| Cash to assets (%) | 10.03 | 11.18 | -1.16 |

Table 3.6 reports comparison of ownership concentration and wealth gains between different types of transactions and during different periods. Panel A compares going private deals

before and after the crisis. We can see that ownership by non-executive directors (NED) is significantly lower in recent years at the 1% level. Similarly, in Canada, aggregate managerial ownership is around 21% after 2008, lower than that during the first sub period. Another big change on ownership after the financial crisis is that percentage of ownership by institutional investors is significantly smaller, decreasing to 18%.

With respect to shareholder wealth gains, we observe a big difference in premiums between the two sub-periods. Before 2008, the average premiums range from 21% to less than 26% over 1-day and 10-day windows, respectively, significantly at the 5% level lower than that in second period when premiums reach nearly 40%. Just like premiums, CARs from 1996 to 2008 are statistically significantly smaller in the first period, 1996-2007, than that from 2008 to 2014 over all windows. In the second sub-period, the average CARs range from 24% to 30%, while CARs are only around 16% in the earlier period.

As we know, during the recent financial crisis, global financial market melt down. Due to information asymmetry, managers have superior information about firm value. While institutional investors, defined as institutional money managers (Erkens et al. 2012), such as mutual funds, pension plans, and insurance companies, usually have a high level of professionalism, conduct comprehensive analysis and then make quite sophisticated investments. Thus it is possible that they are able to evaluate the intrinsic value of a firm more precisely than ordinary investors do. When stock price plummeted, managers and institutional investors may believe the firm is too much undervalued based on their inside information or professional analysis. Hence on one hand, managers and institutional investors with high percentage of ownership may be reluctant to get delisted for the time being due to possible market overreaction; on the other hand, at that time these blockholders may request higher premium before agreeing to decide to go private. As results

in Panel A of Table 3.6 show, after the financial crisis, going private firms have lower managerial and institutional ownership and premiums paid are higher, partly supports our undervaluation hypothesis.

It seems the situation of ownership of target firm is quite different in the U.S. Valenti and Schneider (2014) compare public-to private transactions from 2003 to 2011 in US to explore issues of corporate governance pre- and post-financial crisis. They find that institutional ownership is higher for firms which went private from 2008 to 2011, compared to firms which went private before 2008, contrary to the situation in Canada as we discussed before.

We also try to explore differences in ownership structure of target firm and shareholder wealth gains between PE backed and non-PE backed transactions, the period 2005 to mid-2007 witnessed rapid growth of private equity, with the dollar amount of going private transactions as well as secondary buyouts climbing up to nearly \$1 trillion. However, when subprime crisis occurred, the money committed to private equity dropped in 2008 (Kaplan and Per Strömberg, 2008) and it was speculated that private equity investments would decline. Therefore, during that time, private equity firms may carry out more stringent standards with limited resources, and only invest in more undervalued firms or projects with higher expected return. As a result, shareholders from target firms would likely enjoy lower wealth gains. Sometimes private equity firms are inclined to increase managers' equity stake in order to align interest with other shareholders (Kaplan et al., 2008); while studies also find that firms are more likely to go private through private equity when managers are faced with constrained financing problem (Regner, 2006; Fidrmuc et al., 2013). In that case managers have lower bargaining power to negotiate premiums that they could get from the transactions.

Table 3.6 Panel B exhibits that ownership by NED and all officers and directors in PE backed deals are significantly lower than that from non-PE backed deals, at the 5% and 1% level separately. Just as expected, premiums of PE backed PTP transactions are significantly lower than others. Similarly, abnormal returns are lower, though the difference is not significant. The indifference of cash holdings between PE backed deals and non-PE transactions suggests the reason to go private through private equity firms may not be financial constraints. Instead, the results support the argument (Kaplan et al., 2008) that private equity would like to increase management ownership after the deal to realize management incentive realignment.

Table 3.6 Univariate Test on Shareholdings, Premiums Paid and Abnormal Returns

| Panel A: Comparison of PTPs before 2008 and after 2008 | | | |
|---|-------------|-----------|------------|
| Ownership of target firm | Before 2008 | 2008-2014 | Difference |
| Ownership by NED | 0.19241 | 0.06441 | .12800*** |
| Ownership by officers and directors | 0.32642 | 0.21178 | .11464** |
| Institutional ownership | 0.30217 | 0.18004 | .122123*** |
| Average premiums and CAR | | | |
| Premium 1 day | 21.27% | 38.03% | -16.77% |
| Premium 10 days | 25.58% | 39.54% | -13.96%*** |
| CAR [-5, +5] | 16.53% | 27.46% | -10.93%** |
| CAR [-10, +10] | 16.31% | 30.20% | -13.89%*** |
| Panel B: Comparison of ownership of PE backed and Non-PE backed deals | | | |
| Ownership of target firm | PE-backed | Non-PE | Difference |
| Ownership by NED | 0.06832 | 0.15977 | -.09145** |
| Ownership by officers and directors | 0.17513 | 0.32097 | -.14584*** |
| Institutional ownership | 0.19397 | 0.26500 | -0.07103 |
| Average premiums and CAR | | | |
| Premium 1 day | 21.99% | 36.16% | -14.16%** |
| Premium 10 days | 25.74% | 37.93% | -12.18%** |
| CAR [-5, +5] | 22.13% | 22.29% | -0.15% |
| CAR [-10, +10] | 19.84% | 25.88% | -6.04% |

We further conduct logit tests to explore determinants of going private through private equity. Just as expected, firms are less willing to go private through private equity after the recent financial crisis, providing partial support for undervaluation hypothesis. The results exhibited in Table 3.7 also indicate that managerial ownership is the key factor of determining to go private through private equity firms in Canada. Overall, firms with lower managerial ownership are more likely to go private by PE. However, holding other things constant, the negative relation mentioned above would be much stronger before the recent global financial crisis. Sannajust et al., (2015) demonstrate that in the U.S., institutional blockholder comprises private equity deals, which invest heavily in these companies. One plausible explanation for the different determinant in Canada is due to the distinct corporate ownership structure compared with that in U.S.

Table 3.7 Determinants of Going Private by PE

| Variable | Model 1 | Model 2 |
|-----------------------|-----------|-----------|
| SIZE | 0.3075 | 0.3100 |
| DEBT RATIO | 0.2109 | |
| TAXASSETS | | 12.08 |
| CASHASSETS | 0.1109 | -0.7548 |
| MGMTOWN | -3.4410** | -3.3538** |
| INSTIOWN | -1.2554 | -1.7001 |
| BMR | -0.5448 | -0.4489 |
| YEAR | -4.0012 | -5.0274* |
| YEAR*SIZE | 0.3722 | 0.5721 |
| YEAR*DEBT RATIO | 0.8931 | |
| YEAR*TAXASSETS | | 0.3703 |
| YEAR*CASHASSETS | 1.1091 | 1.6944 |
| YEAR*MGMTOWN | 5.5455** | 5.6354** |
| YEAR*INSTIOWN | 2.8920 | 3.1545 |
| YEAR*BMR | 0.3525 | 0.2791 |
| <i>N</i> | 121 | 120 |
| <i>R</i> ² | 0.185 | 0.219 |

3.5.2 OLS Regression Analysis

Table 3.8 Correlation Tale

| | SIZE | CASHASSET | BMR | DEBTRATIO | TAXASSETS | YEAR | MGMTOWN | INSTOWN | PE |
|-----------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|----|
| SIZE | 1 | | | | | | | | |
| CASHASSET | -0.2697 0.0028 | 1 | | | | | | | |
| BMR | -0.0552 0.5476 | -0.0634 0.4898 | 1 | | | | | | |
| DEBTRATIO | 0.261 0.0038 | -0.2845 0.0016 | -0.0694 0.4497 | 1 | | | | | |
| TAXASSETS | -0.0187 0.8391 | 0.1224 0.1828 | -0.0601 0.5145 | -0.1831 0.0453 | 1 | | | | |
| YEAR | -0.0981 0.2844 | 0.0343 0.7087 | -0.0691 0.4511 | -0.2678 0.003 | 0.0617 0.5031 | 1 | | | |
| MGMTOWN | -0.2435 0.0071 | -0.0645 0.4821 | -0.0897 0.3279 | 0.0959 0.2956 | 0.0377 0.6826 | -0.2061 0.0233 | 1 | | |
| INSTOWN | 0.045 0.6242 | -0.0544 0.5535 | 0.1795 0.0488 | 0.0227 0.8049 | 0.1144 0.2134 | -0.2353 0.0094 | 0.1838 0.0435 | 1 | |
| PE | 0.2916 0.0012 | -0.0861 0.3477 | -0.0812 0.3762 | 0.0797 0.3851 | 0.1312 0.1531 | 0.0537 0.5582 | -0.2537 0.005 | -0.1324 0.1478 | 1 |

First, we exhibit correlation of variables in regression models in Table 3.8. As the table shows, free cash level is not significantly related to firm's valuation (BMR) or ownership structure. But debt ratio is closely correlated to amount of tax payment and dummy variable YEAR. As we discussed earlier, during and after the recent financial crisis, some firms were faced with financing constraints and were kind of forced to go private, which helps to explain the negative relation between debt ratio and YEAR. In addition, the result suggests that firms with lower managerial ownership are more likely to go private through private equity firms, consistent with what literature has documented.

Table 3.9 shows regression results from the cross-sectional regressions. As we use premiums over 1-day and 10-day windows, and CAR over (-5, +5) and (-10, +10) windows as dependent variable, four models are reported in this table. Cash holdings, size, book to market ratio, leverage ratio, tax, liquidity, management ownership, and institutional ownership are included in regressions as independent variables. We also include two dummy variables, PE and year. PE is equal to 1 if the transaction is backed by private equity and 0 otherwise; Year is equal to 0 if the transaction occurs before 2008 and 1 otherwise.

The free cash flow hypothesis is tested by including the ratio of free cash to assets in the regressions. The coefficient is expected to be positive, since firms with larger free cash flows should be more attractive to potential buyers and thus command higher premiums. Although we do not observe significant coefficients of variable of cash in CAR regressions, we find that the coefficients are positive and significant at 1% level in both premium regressions. Despite no support for this position in a UK study by Renneboog et al. (2007), we find partial support for Jensen's free cash flow hypothesis (H1) for public to private transactions in Canada given above results.

The tax benefits hypothesis predicts that firms with high current taxes and low current leverage will receive higher premiums, since they will benefit more from interest deductions associated with an increase in leverage. To test this hypothesis, we include the ratio of taxes to assets as well as leverage ratio in the regression. The coefficient on the leverage ratio is insignificant in all four models, while the coefficient on tax to assets is significantly negative in both of the premiums regressions, and positive but insignificant in two CAR regressions. The negative sign of the tax variable in premium regressions indicates that shareholders obtain more gains from firms with low tax payments, which is quite an unexpected result. Therefore, we find no support for tax benefit hypothesis (H1).

Undervaluation is measured by book to market ratio. It is expected that the larger the degree of undervaluation, the higher the premiums paid would be, and thus the coefficient should be positive. As expected, all four models produce a significantly positive coefficient on book to market ratio at least at 5% level, which strongly support our undervaluation hypothesis (H2).

To test the control hypothesis, we include percentage of ownership by institutional investors and ownership by all officers and directors in the regression. Shareholder wealth gains are expected to be negatively related to the degree of concentration of managerial ownership and institutional ownership of target firm. However, we do not find significant coefficients in any of four models, and thus show no support for the control hypothesis (H3).

Table 3.9 Cross-sectional Regressions for Premiums/CARs in Canadian Going Private Transaction

| Variable | Model (1) PREMIUM 1 day | | Model (2) PREMIUM 10 days | | Model (3) CAR [-5, +5] | | Model (4) CAR [-10, +10] | |
|----------------------------|----------------------------|----------|------------------------------|----------|---------------------------|----------|-----------------------------|----------|
| | Coef. | t-value | Coef. | t-value | Coef. | t-value | Coef. | t-value |
| LOG(TA) | -0.037 | [-1.368] | -0.0395 | [-1.500] | 0.0143 | [0.642] | 0.0054 | [0.222] |
| CASHASSETS | 1.1477*** | [4.256] | 1.0699*** | [4.080] | -0.0235 | [-0.121] | 0.1895 | [0.904] |
| BMR | 0.0513** | [2.325] | 0.0688*** | [3.264] | 0.0814*** | [4.366] | 0.0531** | [2.629] |
| DEBT RATIO | 0.1667 | [0.777] | 0.2781 | [1.465] | -0.0609 | [-0.355] | 0.1237 | [0.666] |
| TAXASSETS | -3.1684*** | [-2.821] | -2.7417** | [-2.588] | 0.1056 | [0.090] | 0.188 | [0.149] |
| YEAR | 0.2085*** | [2.850] | 0.1377** | [2.015] | 0.0573 | [0.964] | 0.1174* | [1.824] |
| LIQUIDITY | -0.0002* | [-1.790] | -0.0001 | [-1.395] | 0.0002** | [2.355] | 0 | [0.598] |
| ALLMGMTOWN | 0.0714 | [0.554] | 0.0019 | [0.015] | 0.0449 | [0.431] | -0.0387 | [-0.343] |
| INSTOWN | 0.0257 | [0.188] | -0.0041 | [-0.032] | -0.042 | [-0.381] | 0.048 | [0.402] |
| PE | -0.0838 | [-1.192] | -0.0483 | [-0.723] | 0.03 | [0.514] | -0.0194 | [-0.306] |
| CONS | 0.2621 | [1.428] | 0.2903* | [1.678] | -0.0131 | [-0.089] | 0.0262 | [0.164] |
| <i>N</i> | 85 | | 90 | | 97 | | 97 | |
| adj. <i>R</i> ² | 0.3 | | 0.281 | | 0.233 | | 0.066 | |

3.6 Discussion and Conclusion

The reported lower premiums in Canada than those found in the U.S. and UK could be a result of different kinds of ownership structure. The literature has well documented that ownership in Canada is more concentrated with more use of dual-class stock and pyramidal structures (King and Segal, 2003). The more concentrated ownership in Canada, accompanied by adverse selection problems, reduces the benefits to remain public for a firm. When pressure from fund raising via getting listed, firms may be forced to go private. Thus shareholders get less benefits from it since acquirors may take advantage of it.

Levin (2004) states that degree of enforcement of corporate governance rules is different in U.S. and Canada, where rules-based approach is adopted by U.S. firms and principle-based approach in Canada. The different requirements of governance compliance could also affect investors' investment plan and thus shareholder wealth gains in various countries.

With respect to sources of shareholder wealth gains, our analysis supports free cash flow hypothesis and undervaluation hypothesis, but does not support control hypothesis or tax motivation hypothesis. Control and tax savings motivations are reported in UK (Renneboog et al., 2007; Sannajust et al., 2015) but not in Canada. While if we only look into the deals in the first sub-period (1996 to 2008), the (unreported) results indicate that higher premiums are linked with target firms with low leverage ratio, which supports control hypothesis, consistent with what Ng (2010) reports, in accordance with empirical evidence that tax benefit is one of the main sources of shareholder wealth gains in both U.S. and UK PTP transactions. We extend Ng's work (2010) by incorporating deals occurred following the 2008 financial crisis into our sample. Our results indicate that after the crisis, going private motivations may have changed and tax savings is not

priority consideration any more. It needs caution to interpret our empirical findings since we have a relatively small sample size.

We also contribute to the literature by analyzing different approaches in going private, through private equity firms or private operating firms. We find that PE backed deals are usually associated with lower management ownership and exhibit lower premiums, compared to non-PE backed transactions.

Furthermore, it turns out that in Canada, after the recent financial crisis, going private firms have lower managerial and institutional ownership, and premiums would be higher. However, Valenti and Schneider (2014) report the opposite relation in the U.S. market. That might be explained by different extent of ownership concentration between Canada and U.S. Stock prices plummeted during the crisis. The post-crisis era has witnessed more concentrated institutional ownership in going private firms in the U.S., which indicates insiders are inclined to take advantage of the prevailing undervaluation. In this way, they may quickly get benefits from going private transactions and reinvest the proceeds. In contrast, it is plausible that firms in Canada with concentrated managerial and institutional ownership are reluctant to go private unless provided with higher premium after the crisis. Stronger control over the firm, firm's undervaluation beyond reasonable limit and belief in recovery may be the main driven sources behind it.

Table 3.10 Variable Definition

| Name | Definition |
|------------|---|
| CAR | Cumulative abnormal return. CAR [-5, +5] represents cumulative abnormal returns from 5 days prior to the event date to 5 days after the event date. |
| SIZE | Natural logarithm of total assets. |
| DEBT RATIO | Debt scaled by total assets. |
| TAXASSETS | The ratio of taxes paid to total assets. |
| CASHASSETS | The ratio of cash relative to total assets. |
| MGMTTOWN | Management ownership. |
| NED | Non-executive directors. |
| INSTIOWN | Institutional ownership. |
| BMR | Book-to-market ratio |
| PREMIUM | Natural logarithm of final price offered divided by the share price before the announcement of PTP: $\text{premium} = \ln(\text{final price offered} / \text{pre-PTP price})$. |
| PE | A dummy variable which equals one if the deal is backed by private equity (PE), otherwise zero. |
| YEAR | A dummy variable which equals one if the deal happened after the year of 2008, zero otherwise. |

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