

**Deferred Compensation for Outside Directors in Canada:
Antecedents and Consequences**

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A Thesis

in

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ABSTRACT

Deferred Compensation for Outside Directors in Canada: Antecedents and Consequences

Samer Khalil, Ph.D.
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This thesis investigates the antecedents and consequences from adopting deferred compensation plans in corporate boardrooms. It focuses on the compensation paid to a class of directors, outside directors, that is mainly entrusted with monitoring managerial decision making, in addition to compensating, hiring, and firing top executives when circumstances warrant. Outside directors' compensation came under extreme scrutiny following the recent scandals and accounting irregularities in corporate America. Various stakeholders note that cash compensation does not lead to an effective monitoring of top management resulting in a significant trend toward equity based pay at the board level.

Relying on agency and institutional theories, I develop a theoretical framework (chapter 4) to investigate the antecedents and consequences from adopting a deferred share unit plan for outside directors in Canada. From an agency perspective, I hypothesize that the adoption decision depends on the agency problem at the board level, and the ownership structure of the firm. I further hypothesize that the adoption results in a positive stock market reaction that varies with the degree to which the share unit plan resolves this problem. Within an institutional perspective, I propose that the adoption decision is associated with the institutional pressures a firm faces. I also hypothesize that adopting firms record positive abnormal returns with a magnitude that varies with the adopting

firm category (early versus late adopter) and the theoretical perspective used to disclose the adoption decision.

Three essays provide evidence as follows. The first essay (chapter 5) includes a case study that investigates the antecedents and consequences in 11 firms operating in three different industries. The second essay (chapter 6) uses logit analysis to compare the agency and institutional characteristics of a sample of 123 adopting firms to that of a control sample matched based on firm size and industry. The third essay (chapter 7) relies on standard event study methodology and multiple regression analysis to examine the stock market reaction around the adoption announcement date.

Consistent with my propositions, results show that the likelihood of adoption is higher in firms that have a stronger moral hazard at the board level and in firms facing significant mimetic and normative pressures. Results also show that adopting firms record positive abnormal returns around the adoption announcement date that vary with the plans' attributes. These findings highlight the importance of integrating both economic and social perspectives when examining the antecedents and consequences from adopting organizational compensation practices.

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Table of Contents

CHAPTER 1	INTRODUCTION.....	1
1.1	CONTEXT	1
1.2	RESEARCH QUESTIONS.....	4
1.3	THESIS OVERVIEW: THEORY, METHODOLOGY, AND FINDINGS	4
1.4	CONTRIBUTIONS.....	7
CHAPTER 2	CORPORATE GOVERNANCE: AN OVERVIEW	9
2.1	INTRODUCTION.....	9
2.2	AGENCY THEORY	9
2.2.1	Corporate governance mechanisms.....	10
2.2.1.1	External mechanisms	11
2.2.1.2	Internal mechanisms.....	13
2.3	GOVERNANCE REFORMS.....	15
CHAPTER 3	DEFERRED SHARE UNIT PLANS FOR OUTSIDE DIRECTORS IN CANADA: DESCRIPTION AND MOTIVATION	18
3.1	INTRODUCTION.....	18
3.2	DESCRIPTION.....	18
3.3	MOTIVATION	20
CHAPTER 4	CONCEPTUAL FRAMEWORK: DEFERRED SHARE UNIT PLANS FOR OUTSIDE DIRECTORS IN CANADA: ANTECEDENTS AND CONSEQUENCES.....	24
4.1	INTRODUCTION.....	24

4.2	THEORETICAL FRAMEWORK.....	25
4.2.1	Economic perspective: Agency theory.....	25
4.2.1.1	Outside directors: Agents of the shareholders	25
4.2.1.2	Outside directors: Effective monitors of top management?.....	28
4.2.1.3	Antecedents	29
4.2.1.3.1	Antecedents: Moral hazard	29
4.2.1.3.2	Antecedents: Conflict of interests	31
4.2.1.3.3	Antecedents: Ownership structure	34
4.2.1.4	Consequences	35
4.2.1.4.1	Stock market reaction.....	35
4.2.1.4.1.1	Stock market reaction: Plans' attributes	37
4.2.2	Social perspective: Institutional theory.....	38
4.2.2.1	Antecedents	39
4.2.2.1.1	Antecedents: Coercive pressures.....	40
4.2.2.1.2	Antecedents: Mimetic pressures	41
4.2.2.1.3	Antecedents: Normative pressures	41
4.2.2.2	Consequences	42
4.2.2.2.1	Stock market reaction.....	42
4.2.2.2.1.1	Stock market reaction: Adopter category.....	43
4.2.2.2.1.2	Stock market reaction: Corporate disclosure	43
4.3	SUMMARY	44
CHAPTER 5	CASE STUDY: DEFERRED SHARE UNIT PLAN FOR OUTSIDE DIRECTORS IN CANADA: ANTECEDENTS AND CONSEQUENCES	47

5.1	INTRODUCTION.....	47
5.2	METHODOLOGY.....	47
5.3	OVERVIEW	48
5.3.1	Banking industry.....	48
5.3.1.1	Regulation	49
5.3.1.2	Financial information.....	50
5.3.2	Steel manufacturing industry	50
5.3.2.1	Industry analysis.....	51
5.3.2.3	Financial information.....	52
5.3.3	Retail grocery industry.....	53
5.3.3.1	Industry analysis.....	53
5.3.3.2	Financial information.....	54
5.4	ANTECEDENTS AND CONSEQUENCES.....	55
5.4.1	Economic perspective: Agency theory.....	55
5.4.1.1	Antecedents.....	55
5.4.1.1.1	Antecedents: Moral hazard	55
5.4.1.1.2	Antecedents: Conflict of interests	57
5.4.1.1.3	Antecedents: Ownership Structure.....	58
5.4.1.1.4	Summary	59
5.4.1.2	Consequences.....	60
5.4.1.2.1	Stock market reaction.....	60
5.4.1.2.1.1	Stock market reaction: Plans' attributes.....	61
5.4.1.2.1.2	Summary	62

5.4.2	Social perspective: Institutional theory	63
5.4.2.1	Antecedents	63
5.4.2.1.1	Antecedents: Coercive pressures.....	63
5.4.2.1.2	Antecedents: Mimetic pressures	64
5.4.2.1.3	Antecedents: Normative pressures	65
5.4.2.1.3	Summary	66
5.4.2.2	Consequences	66
5.4.2.2.1	Stock market reaction.....	66
5.4.2.2.1.1	Stock market reaction: Adopter category.....	66
5.4.2.2.1.2	Stock market reaction: Corporate disclosure	67
5.4.2.2.1.3	Summary	69
5.5	SUMMARY	69
CHAPTER 6	DEFERRED SHARE UNIT PLANS FOR OUTSIDE DIRECTORS IN CANADA: ANTECEDENTS	71
6.1	INTRODUCTION.....	71
6.2	LITERATURE REVIEW.....	73
6.3	RESEARCH METHOD.....	74
6.3.1	Sample.....	74
6.3.2	Model and variable definition	75
6.3.2.1	Measurement of control variables.....	76
6.4	RESULTS	77
6.4.1	Sample.....	77
6.4.2	Descriptive statistics.....	78

6.4.3	Correlation matrix	81
6.4.4	Mutli-variate analysis.....	82
6.5	SENSITIVITY ANALYSIS.....	85
6.6	DISCUSSION AND CONCLUSIONS.....	87
CHAPTER 7	DEFERRED SHARE UNIT PLANS FOR OUTSIDE DIRECTORS IN CANADA: CONSEQUENCES.....	92
7.1	INTRODUCTION.....	92
7.2	LITERATURE REVIEW.....	95
7.3	RESEARCH METHOD.....	97
7.3.1	Sample.....	97
7.3.2	Stock market reaction.....	97
7.3.2.1	Stock market reaction: Significance.....	97
7.3.2.2	Stock market reaction: Determinants	99
7.3.2.2.1	Model and variable definition	99
7.3.2.1.2	Measurement of control variables.....	100
7.4	RESULTS	102
7.4.1	Sample.....	102
7.4.2	Descriptive statistics.....	102
7.4.3	Correlation matrix	102
7.4.4	Stock market reaction: Significance.....	103
7.4.5	Stock market reaction: Determinants.....	104
7.5	ADDITIONAL TESTS	106
7.6	SENSITIVITY ANALYSIS.....	107

7.7	DISCUSSION AND CONCLUSIONS.....	109
CHAPTER 8	DISCUSSION AND CONCLUSIONS	113
7.1	SYNTHESIS	113
8.2	IMPLICATIONS.....	115
8.3	LIMITATIONS	116
8.4	FUTURE RESEARCH AVENUES.....	117
8.5	CONCLUSION	118
References	119
List of Figures	xiii
List of Tables	xiv

List of Abbreviations

CCGG	Canadian Coalition for Good Governance
CDIC	Canada Deposit Insurance Corporation
CEO	Chief Executive Officer
CFO	Chief Financial Officer
COB	Chairman of the board of directors
DSU	Deferred Share Unit
FCAC	Financial Consumer Agency of Canada
OSC	Ontario Securities Commission
OSFI	Office of the Superintendent of Financial Institutions
OTPP	Ontario Teachers' Pension Plan
TSE	Toronto Stock Exchange
TSX	Toronto Stock Exchange Index

List of Figures

Figure 1	Theoretical framework	133
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List of Tables

Table 1	Agency characteristics- Preliminary sample	56
Table 2	Stock market reaction- Preliminary sample	60
Table 3	Deferred share unit plans' attributes- Preliminary sample.....	62
Table 4	Institutional characteristics- Preliminary sample	65
Table 5	Deferred share unit plans by year and industry- Overall sample	77
Table 6	Descriptive statistics- Overall sample.....	78
Table 7	Correlation matrix	81
Table 8	Deferred share unit plans- Antecedents- Matched sample.....	82
Table 9	Sensitivity analysis: Deferred share unit plans- Antecedents	86
Table 10	Deferred share unit plans- Antecedents- Random sample	86
Table 11	Descriptive statistics: Stock market reaction- Overall sample.....	102
Table 12	Stock market reaction: Determinants- Overall sample	105
Table 13	Stock market reaction – Mean difference in daily abnormal returns by plans' attributes and firm category.....	106
Table 14	Stock market reaction – Mean difference in cumulative abnormal returns by plans' attributes and firm category.....	107
Table 15	Sensitivity analysis: Stock market reaction- Overall sample	108
Table 16	Sensitivity analysis: Stock market reaction- Overall sample.....	108

CHAPTER 1

INTRODUCTION

1.1 CONTEXT

Corporate governance has attracted considerable attention over the past years. Professional consultants and the business press regularly publish reports investigating the quality of the governance structures in leading firms (*Globe and Mail*, October 13, 2004, B17; Felton, 2004). Institutional investors and corporate governance activists repeatedly issue corporate governance guidelines that theoretically enhance board effectiveness and promote better monitoring of top management (Canadian Coalition for Good Governance– CCGG; Ontario Teachers’ Pension Plan– OTPP). Credit rating agencies, firms selling liability insurance for executives and directors, and audit firms increasingly compute corporate governance scores and factor them into their ratings, premiums, and clients’ risk assessment (Cohen et al., 2002; Burns, 2003).

This focus is partially driven by the number of firms having questionable financial or accounting practices - Enron, WorldCom, Kmart, Tyco, Xerox, Global Crossing, Quest and Adelphia just to name a few¹-, the large losses suffered by investors following these scandals², and the dwindling confidence in financial markets and institutions³ (Dykes,

¹ Canada had its share of scandals with Cinar’s \$179 million investments without board approval, Bre-X’s fraudulent disclosure of a gold discovery, and Livent’s \$100-million accounting fraud (Winter, 2003).

² George (2002) reports that five of the above listed companies destroyed more than \$460 billion in shareholders’ value while moving towards bankruptcy. Tosi et al. (2003) note that two of their executives face charges linked to fraud, excessive compensation, and falsification of expenses for approximately \$ 600 million, while thousands of their employees and suppliers lost their livelihood and businesses.

³ In a recent survey, Garten (2003) shows that more than 30% of the 671 participating investors had little

2003). Academic researchers, institutional investors, and governance activists attribute these irregularities to a failure in the governance mechanisms that theoretically exist to monitor top management. At the external level, they criticize audit firms for failing to provide the assurance services they are entrusted with. At the internal level, they reproach outside directors for failing to represent shareholders' interests and to protect shareholders' wealth. They assert that outside directors sometimes suffer from an agency problem that hinders the effective monitoring and oversight of top management. In some instances, outside directors face a moral hazard with respect to the amount of time they spend in generating and reviewing the information needed for decision making purposes⁴. In others, they are subject to a conflict of interests that undermines their willingness to monitor top management.

To reform the existing governance structures and to restore investors' confidence in financial markets and institutions, policy makers and regulators have enacted a series of legislations and listing requirements that empower outside directors and strengthen corporate governance policies⁵ (Barnes et al., 2003; Felton 2004). In addition, firms have restructured their board compensation practices to link directors' interests with those of the shareholders. In line with agency theory recommendations, firms have adopted stock based compensation plans resulting in a significant trend toward equity based pay in

confidence in the stock market, audit firms, and those running leading firms in the economy.

⁴ "An outside director is a director who is not an employee of the company and has no operational responsibilities within the company" (TSX Group).

⁵ These include the nomination of unrelated outside directors for board membership, the assignment of unrelated outside directors to board committees, the separation of the executive and chairman of the board position, in addition to modifications that focus on the role of top management in ensuring the accuracy and quality of reported financial information (Barnes et al., 2004).

corporate boardrooms.

Pearl Meyer and Partners report shows that 78 percent of the top 200 US firms allow their directors to choose either the form or the timing of compensation for the year 2002. Similarly, Mercer Human Resource reports that 68 percent of the 350 surveyed US companies in 2002 offer board members the opportunity to voluntarily elect to receive equity in lieu of cash. The Conference Board shows that 87 percent of the 606 U.S. companies surveyed in 2003 make some form of stock payment to their outside directors.

In Canada, Rod (1997) notes that 70 percent of the firms on the Toronto Stock Exchange 100 index offer a mix of cash and stock for their directors, compared to 55 percent in 1996, and 0 percent in 1993. In a more recent survey, Mercer Human Resource Consulting reports that 76 percent of the companies on the TSX 100 index already have or are planning to introduce deferred share unit plans in 2003, compared to 61 percent in 2002, and 59 percent in 2001. Mercer reports a similar trend among S&P/TSX composite index' companies where 44 percent of the firms had already adopted deferred share unit plans in 2003, as compared to 38 percent in 2002, and 35 percent in 2001.

Deferred share unit plans allow corporate directors to convert part of their cash compensation into share units (nominal shares) that are held until retirement or termination. Some deferred share unit plans are mandatory. They require directors to defer a minimum percentage of cash compensation into share units. Others are coupled with stock ownership guidelines. They require directors to hold a minimum number (dollar value) of share units and/or shares within a specific period of time.

Deferred share unit plans have many attractive features. First, they avoid the complexities and drawbacks associated with other forms of equity based compensation such as stock options and stock grants (Forgie, 1998; Dalton and Daily, 2001). Second, deferred share unit plans provide tax advantages for the firm and its directors by postponing the deduction (income) for future periods. Finally, deferred share unit plans align directors' interests with those of the shareholders through long term equity ownership.

1.2 RESEARCH QUESTIONS

The recency of this trend toward deferred compensation plans and their distinguishing characteristics open the way for two basic questions. First, what are the characteristics of firms that adopt deferred share unit plans for outside board members? It is intriguing to identify the characteristics of those firms given the fact that while some firms adopt deferred compensation plans, many others do not. Second, how do investors react to the adoption decision and what factors moderate their reaction? It is interesting to examine whether investors react positively to the adoption decision, and whether investors' reaction varies with the attributes of the plan under consideration.

1.3 THESIS OVERVIEW: THEORY, METHODOLOGY, AND FINDINGS

This thesis investigates the antecedents and consequences from adopting a deferred share unit plan for outside directors in Canada over the period 1997-2003. In chapter 2, I present an overview of the corporate governance literature including a discussion of agency theory, corporate governance mechanisms, in addition to the recent regulatory and compensation trends in corporate boardrooms. Chapter 3 includes a description of

deferred share unit plans, and the motivation behind investigating deferred share unit plans for outside directors in Canada. In chapter 4, I develop a theoretical framework based on agency and institutional theories (Fig. 1). Within an agency perspective, I propose that the adoption decision depends on the agency problem that outside board members face, and on the firm's ownership structure. I also propose that the adoption decision generates a positive stock market reaction that varies with the degree to which the plan successfully resolves the agency problem. From an institutional perspective, I propose that the likelihood of adoption is higher in firms that are subject to stronger institutional pressures. I also hypothesize that the stock market reaction depends on the adopting firms' category (early versus late adopter), and on whether the firm uses an institutionalized theoretical perspective to disclose the adoption decision.

Chapter 5 presents the results of a clinical study involving Canadian firms that have adopted a deferred share unit plan over the period 1997–2003. The clinical study provides preliminary evidence in a sample including 11 firms operating in three different industries. The first, the banking industry, is a highly regulated industry with certain barriers over competition and ownership. The second, the steel manufacturing industry, is characterized by capital intensity with significant environmental regulations. The third, the retail grocery industry, is characterized by being relatively less regulated, and by having significant family ownership. Preliminary results show that sample firms have a significant agency problem at the board level, and are subject to strong institutional pressures. However, abnormal returns are not consistently positive, and do not seem to vary with the agency and institutional characteristics of sample firms.

In Chapter 6, I use logit analysis to compare the agency and institutional characteristics of sample firms to those of a control sample matched based on firm size and industry (Gaver, 1992; Vafeas, 1999). In line with the agency perspective, results show that the likelihood of adopting a deferred share unit is higher in firms where outside directors face a stronger moral hazard problem. However, and in contrast to my predictions, the adoption decision does not seem to be higher in firms where outside directors face a significant conflict of interests, or in firms that have a non managing block holder. In agreement with the institutional perspective, results show that the likelihood of adoption is higher in firms facing stronger institutional pressures.

In chapter 7, I investigate whether adopting firms earn positive abnormal returns at and around the announcement date. I also examine whether the stock market reaction varies with the deferred share unit plan attributes, the adopting firm category (early versus late adopter), and the theoretical perspective used to disclose the adoption decision. In line with both perspectives, event study results show that adopting firms earn positive abnormal returns at and around the adoption announcement date. In support of the agency perspective, regression analyses show that abnormal returns are positively associated with the degree to which the adopted plan resolves the agency problem at the board level. In contrast to the institutional perspective, abnormal returns are not higher in firms that are late adopters, and in firms that rely on an agency theory perspective to disclose the adoption decision.

Chapter 8 provides the discussion and conclusion. The first section includes a synthesis including an overview of the context, theoretical framework, and main findings. The

second one discusses the implications arising from the main findings, and the limitations of the research model. The final section presents future research avenues and conclusions.

1.4 CONTRIBUTIONS

The thesis contributes to our understanding of corporate governance in the following ways. First, the thesis adds to the scant literature on directors' compensation by examining the antecedents and consequences from adopting equity based compensation at the board level. Fish and Shivdasani (2004) note that most of the existing literature investigates the antecedents and consequences from adopting equity based compensation for corporate executives. Kumar and Sivaramakrishnan (2002) report that very few empirical studies examine the compensation paid for outside board members.

Second, the thesis contributes to the literature by examining the antecedents and consequences resulting from adopting a deferred share unit plan in Canada. Most of the limited empirical evidence investigates the antecedents and consequences from adopting stock option plans for outside directors in a US context (Fish and Shivdasani, 2004). To the best of my knowledge, no empirical research investigates the antecedents and consequences from adopting a deferred share unit plans in a US or Canadian context. Deferred share units are different from stock option since they are less complex to value, they are not as dilutive, and they avoid the problems associated with underwater stock options⁶ (Hall, 2003).

⁶ Firms with underwater stock options - options for which the exercise price is lower than the market price – face problems related to retaining and motivating top management. They also face problems with the shareholders that strongly oppose the re-pricing of underwater stock options (Hall, 2003).

Third, the thesis contributes to the literature by analyzing the antecedents and consequences resulting from the adoption decision using a dual theoretical framework. In addition to being more comprehensive, a dual framework extends prior research by investigating whether institutional processes, such as the institutionalization of organizational practices and the utilization of socially legitimate theoretical paradigms, influence the adoption decision and firm value (Zajac and Westphal, 1998; Zajac and Westphal, 2004).

Fourth, the thesis contributes to the literature by investigating whether the stock market reaction varies with the attributes of the deferred share unit plan. This thesis explicitly distinguishes between deferred share unit plans on the basis that stricter plans (mandatory plans and/or plans that are coupled with stock ownership guidelines) are more successful in aligning directors' interests with those of the shareholders. By doing so, we address one of the main concerns raised by Westphal et al. (1997). The authors criticize researchers for treating organizational actions as discrete phenomena, and neglecting variations in the form of adoption.

Finally, the thesis contributes to practice by providing empirical evidence as to whether investors differentiate between compensation plans that have different attributes. The findings suggest that investors favour stricter plans that provide a better alignment of directors' interests with those of the shareholders. Abnormal returns over the various time windows are consistently higher in firms that adopt deferred share unit plans that are mandatory and/or plans that are coupled with ownership guidelines.

CHAPTER 2

CORPORATE GOVERNANCE: AN OVERVIEW

2.1 INTRODUCTION

The separation of ownership and control is the identifying characteristic of most publicly held corporations. Corporate entities start as local ventures, owned, controlled, and managed by a few entrepreneurs. Over time, successful entities grow to become national enterprises, owned by thousands of individual shareholders, and run by professional managers that may have little equity stake in the firms they manage (Berle and Means, 1932; Bhagat et al., 1999).

With the impossibility of having a complete contract that identify what decisions managers must take during future contingencies, managers end up having substantial residual control rights (Shleifer and Vishny, 1997). The owners, the shareholders, do not exercise control over the day to day operations and the long term policy of the firm. However, control vests in professional managers that have the skills and expertise needed to manage these corporations and create shareholders' value (Berle and Means, 1932).

2.2 AGENCY THEORY

Within an agency theory framework, the separation of ownership and control and the minimal managerial ownership create a situation conducive to managerial opportunism (Shleifer and Vishny, 1997; Jensen and Meckling, 1976). Adam Smith (1776) suggests that when executives do not manage their own money, they do not watch over it with the

same anxious vigilance as if it was their own. Berle and Means (1932) argue that the separation of ownership and control creates a conflict of interests in corporate enterprises. Jensen and Meckling (1976) demonstrate that a manager who owns less than 100% of the residual cash flow rights of the firm leads to significant agency costs.

Grossman and Hart (1988) describe the private benefits of control. Managers sometimes use their discretion opportunistically to obtain personal benefits such as consuming perquisites, expanding the firm beyond what is rational, and reinvesting free cash flows in projects that have a negative net present value (Shleifer and Vishny, 1997). They also benefit by obtaining excessive compensation and resisting turnover even if they are no longer competent or qualified (Ittner et al., 2003; Dykes, 2003). Finally, managers may obtain private benefits through transactions under out of market conditions with companies they own (Belcredi and Caprio, 2004).

2.2.1 Corporate governance mechanisms

To resolve the agency problem that top managers face, an array of mechanisms theoretically exists outside and inside the firm (Denis, 2001). External mechanisms include the legal system, the labour market, the market for corporate control, in addition to the presence of large investors (creditors and equity holders). As for the internal mechanisms, they include managerial equity ownership, equity ownership by internal block holders, and most importantly the board of directors (Denis and McConnell, 2003).

The effectiveness of these mechanisms as well as their ability to resolve agency problems existing at the executives' level came into question following the recent financial

irregularities and scandals in corporate America. Various stakeholders question whether managerial entrenchment and the limitations of corporate governance mechanisms aggravate the agency problem that top managers face, and create a secondary agency problem at the board level (Bryan and Klein, 2005; Linn and Park, 2003).

2.2.1.1 External mechanisms

The most basic corporate governance mechanism is the system of laws and regulations that govern the corporate form of enterprises (Bushman and Smith, 2001). An important legal right that shareholders have is the managers' duty of loyalty, where managers have a duty to act in the shareholders' best interests (Shleifer and Vishny, 1997). Despite its importance, this right does not perfectly reduce the agency problem that top managers face. Jensen (1993) argues that the existing legal system cannot effectively handle the opportunistic behaviour of managers. Courts are typically reluctant to question the judgment of a firm's management without strong evidence that decisions are made in bad faith, a condition that is very difficult to prove in court (Shleifer and Vishny, 1997).

The managerial labour market represents another mechanism that motivates managers to create shareholders' value and protect shareholders' wealth (Bushman and Smith, 2001; Halpern, 1999). Executives have reputation in the labour market linked to the financial performance of the firms they manage, and to the extraction of private rents such as excess compensation, perquisites, or transactions under out of market conditions (Daily et al., 2003; Bebchuk et al., 2002). The mergers and acquisitions literature suggests that these reputational concerns did not prohibit executives from concluding transactions that have a negative net present value (Loughran and Vijh, 1997). In addition, reputational

concerns did not stop them from using compensation consultants' surveys and complex compensation arrangements to camouflage the value of their compensation (Bebcuck et al., 2002; Dykes, 2003).

The market for corporate control is another mechanism that provides managers with the incentive to create shareholders' value (Halpern, 1999). Takeover targets typically include poorly performing firms whose top management is replaced once the takeover succeeds (Denis, 2001). However, takeovers are not always easy to conclude since they need a liquid capital market that provides acquirers with enough capital in a short period of time. Takeovers may also be driven by managerial entrenchment and hubris, rather than organizational efficiency motives (Shleifer and Vishny, 1997).

Finally, large investors enhance the alignment of interests between managers and the shareholders (shleifer and Vishny, 1997). Large creditors have the incentive and power to actively monitor top management. They combine substantial cash flow rights with control rights when a firm defaults or violates debt covenants, and during business reorganization and bankruptcy (Shleifer and Vishny, 1997). Their presence also provides management with an incentive to operate efficiently and generate the cash flows needed to meet regular cash payments (Weston et al., 2001). Scant empirical evidence supports the contention that large creditors enhance corporate governance through increasing the likelihood of management turnover following poor performance, and by enhancing firm performance (Shleifer and Vishny, 1997).

Large external equity holders own a significant amount of stock, and have the incentive to invest the time and resources needed to monitor top management and influence

managerial decision making⁷ (Tosi et al., 2003; Daily et al., 2003; Denis and McConnell, 2003). Institutional investors are now emerging as key equity holder in a large number of corporations (Denis, 2001; Yermack, 2004). Existing empirical evidence partially supports the importance of institutional ownership in corporate governance. Denis (2001) and Huson et al. (2001) argue that institutional investors have a positive effect on monitoring top management compensation.

The presence of large investors, however, is not cost free (Denis and McConnell, 2003; Ingley and Van der Walt, 2004). Large investors represent their own interests which may not necessarily coincide with those of other shareholders. They may treat themselves preferentially by paying special dividends, greenmail, and targeted share repurchase (Shleifer and Vishny, 1997). In addition, not all large investors demonstrate an inclination to actively challenge top management. Only those that are not subject to actual or potential influence from management are likely to engage in active monitoring and oversight (Daily et al., 2003; David et al., 1998).

As a conclusion, the mere presence of external corporate governance mechanisms is not sufficient to reduce the agency problem that executives face. The limitations of these mechanisms and managerial entrenchment reduce their effectiveness and lead to excessive agency costs for the shareholders (Jensen, 1993).

2.2.1.2 Internal mechanisms

Internal mechanisms apparently carry the same limitations. For instance, managerial equity ownership alleviates agency costs by aligning managers' interests with those of the

⁷ The same advantages and disadvantages apply for an internal non-management block holder.

shareholders (Core et al., 1999; Morck et al., 1989). However, beyond a certain level, managerial equity ownership leads to the entrenchment of management and reduces the effectiveness of the market for corporate control⁸ (Perry, 1999; Denis, 2001). Managers with significant ownership can enjoy the benefits of control without fearing shareholders' retribution. Managers with substantial equity ownership may also become risk-averse, leading to an underinvestment in value increasing risky projects (Denis, 2001).

The board of directors is another internal mechanism that theoretically alleviates the agency problem that top managers' face (Denis, 2001). It constitutes the first line of defence that shareholders have against managerial opportunism. As monitors of top management, outside board members are responsible for monitoring managerial decision making, and for overseeing the financial reporting process⁹. They constitute a proactive, finely tuned, and cost efficient mechanism that could be tailored to meet the circumstances of a firm (Denis, 2001).

The basic assumption is that outside directors are immune from the agency problem that top managers face. Outside directors are assumed to have the motivation to diligently generate and review the necessary information needed for decision making purposes (Stout, 2003; Yermack, 2004). They are also assumed to be free from any conflict of interests that hinder the objective evaluation and monitoring of top management (Perry, 1999). It is taken as granted that the legal and reputational concerns outside directors'

⁸ Conrad Black, controlling shareholder at Hollinger, managed to appoint formally 'independent' directors that sanctioned a \$ 225 million in management fees for Hollinger's executives and a \$ 60 million non-compete fees paid to Black and another executive (Ivey Business Journal Online, Sept/Oct, 2004, B1).

⁹ Inside directors (board members that are employees of the company) do not play an active role in monitoring top management. The control the CEO has over inside directors' career advancement reduces their willingness to monitor and challenge top management (Hambrick and Jackson, 2000).

face successfully align their interests with those of the shareholders, and ensure the effective monitoring of top management.

Academic researchers and governance activists increasingly question the validity of this assumption. They suggest that the motivational and reputational concerns that outside directors' face do not necessarily alleviate the agency problem at the board level. They note that, in the absence of a monitoring body that oversees board operations, outside directors face a moral hazard with respect to the effort they expend in generating and reviewing the information needed for decision making purposes (Hambrick and Jackson, 2000). They also propose that outside directors face a conflict of interests that hinders the objective evaluation and monitoring of top management (Perry, 1999; Stout, 2003).

2.3 CORPORATE GOVERNANCE REFORMS

To enhance a board's ability to monitor and control top management, most industrial countries have introduced new codes of governance addressing board and committee independence, board leadership, and board members' nomination¹⁰ (Barnes et al., 2003; McKinsey and Company 2004). The Ontario Securities Commission (OSC) recently published new measures that encourage firms to increase the proportion of unrelated outside directors on board and board committees, and to separate the executive and chair

¹⁰ The U.S. enacted the Sarbanes-Oxley Act on July 30, 2002. This Act applies to publicly traded companies and to audit firms. Among other things, it led to the creation of the Public Company Accounting Oversight Board that oversees the audit of public companies. It also prohibits an auditor from performing specified non-audit services concurrently with an audit, and forbid an audit partner from being the lead or reviewing auditor for more than five consecutive years. Finally, it requires the assignment of unrelated outside directors to the audit committee which appoints, compensates and oversees the audit firm. Other European countries have adopted similar laws. In Canada, securities regulators passed Multilateral Instrument 52-109,110, 111 which include rules that are somehow comparable to those required by the Sarbanes-Oxley Act in the U.S.

person positions¹¹. These measures also require the board of directors to appoint unrelated, financially literate directors on the audit committee, and the CEO/CFO to certify that the financial statements fairly represent the company's financial condition, and are free from any material misstatement or omission (Beck, 2004; Barnes, 2004).

These reforms seem to alleviate the structural problems existing at the board level such as board independence and board leadership. However, they fail to address the existing motivational problems, and the potential conflict of interests that outside directors may face. Outside directors are normally successful, talented, and busy professionals that may not have the time needed to diligently generate and/or review the information needed for decision making purposes (Elson, 1999). They may also face conflict of interests arising from managerial entrenchment and from their professional and social relationship with other executives and board members (Westphal, 1999).

To address these concerns, firms have restructured their board compensation practices to motivate outside directors and to align their interests with those of the shareholders. They have expanded the pool of participants in equity based pay resulting in a significant increase in the number of firms that compensate their directors using stock options, stock grants, or deferred share units (Core et al., 1999). Kerr (2003) notes that firms increasingly require their directors to convert part of their cash compensation into shares

¹¹ Canada's attempt to improve the governance of publicly held corporations started in 1994 with the publication of the Dey Report. The report, entitled "Where were the directors", includes 14 recommendations focusing on the board of directors and its relationship with shareholders and management. In 2000, a joint committee on corporate governance issued a new report, the Saucier Report, which focuses more on the competencies and functions of the board rather than its structure. Its main task was to examine the effectiveness of the Dey recommendations, re-evaluate corporate governance in light of a new political and economic landscape, and update the Toronto Stock Exchange (TSE) listing requirements on corporate governance (Sussex Circle Inc., 2002).

or deferred share units.

Given the recency of this trend, a limited body of research examines the factors associated with the adoption of deferred compensation plans for outside in Canada. In addition, scant empirical evidence examines the stock market reaction around the adoption announcement date. Chapter 3 provides a description of deferred share unit plans, and discusses the motivation behind investigating the antecedents and consequences from adopting a deferred share unit plan for outside directors in Canada, while chapter 4 develops the theoretical framework and presents the related hypotheses.

CHAPTER 3

DEFERRED SHARE UNIT PLANS FOR OUTSIDE DIRECTORS IN CANADA: DESCRIPTION AND MOTIVATION

3.1 INTRODUCTION

This chapter provides a description of deferred share unit plans including their common features and their distinguishing characteristics. It also presents the motivation behind investigating the antecedents and consequences from adopting a deferred share unit plan for outside directors in Canada.

3.2 DECSRIPTION

In general, deferred share unit plans allow corporate directors to convert part of their cash compensation into deferred share units based on the firm's share price. The company maintains a nominal account for the deferred amount that is credited with additional share units when a dividend is declared (Forgie, 1998; Ronald and Toppel, 1998). Following a director's termination or retirement, the company pays the credited units in cash, stock, or a combination of the two based on the firm's stock price over a pre-determined period specified at the deferral date (Forgie, 1998).

Some deferred share unit plans are mandatory, while others are elective. In addition, while some deferred share unit plans are coupled with stock ownership guidelines, others are not. Mandatory plans require directors to defer a specific percentage of their cash compensation into share units. Deferred share unit plans that are coupled with stock ownership guidelines require directors to hold a minimal number (dollar value) of shares

or share units within a relatively short period of time.

As an example, effective January 1997, the Bank of Montreal adopted a mandatory plan that requires directors to defer a portion of their cash compensation into deferred share unit. The board of directors relied on agency, institutional and human resource perspectives to disclose the adoption decision. The agency perspective is clear in their reference to the need to align directors' interests with those of the shareholders, while the institutional and human resources perspectives are present in their referral to the recent trend towards equity based pay and the need to attract and retain qualified board members. They disclosed the adoption decision as follows:

“In recent years, there has been a clear trend in North America for corporations to implement stock plans with a view to encourage non-employee directors to have a meaningful investment in the corporations they serve. The objectives of these plans are to enhance the corporations' ability to attract and retain high quality individuals to serve as members of the board of directors and at the same time to align the interest of non-employee directors with those of the shareholders. In keeping with the bank's commitment to its shareholders to maintain leading edge governance practices, the bank is implementing for fiscal year 1997 a stock plan for non-employee directors. Under the plan, eligible non-employee directors will be required to receive at least 50 % of their annual directors retainers in the form of common shares of the bank or deferred share units. A deferred share unit is a bookkeeping entry, equivalent to the value of a common share, credited to an account to be maintained for the individual director until retirement. Eligible directors may elect in any year to have from a minimum of 50 % of their annual retainers to a maximum of 100 % of their director retainers and meeting fees paid in common shares or deferred share units” (Proxy circular, 1997).

Similarly, effective January 1, 2000, IPSCO Inc. adopted a mandatory deferred share unit plan that is coupled with a stock ownership guideline. IPSCO's board did not rely on any theoretical perspective to disclose the adoption decision. The disclosure is the following:

“The Board approved a Deferred Share Unit Plan under which Directors receive some or all of their annual retainer in the form of deferred share units (“DSUs”).

DSUs are bookkeeping entries on the books of the Company, each of which has a value equal to the value of a common share of the Company. Directors are entitled to receive an annual retainer of US \$28,000 per year, one-half of which must be received by way of DSUs. Directors may elect to receive the balance of their annual retainer in the form of DSUs. Directors are also credited with additional DSUs with a value equivalent to the amount of dividends which would have been paid on the DSUs credited to their DSU account. The value of DSUs awarded to Directors is only payable to Directors at the time of retirement from the Board, at which time the Directors may receive the value the DSUs created to them, calculated with reference to the trading price of Common Shares at that time, less applicable withholding taxes, in cash or in shares purchased in the open market or, at the option of the Company and subject to applicable regulatory and shareholder approval, Common Shares issued by the Company. In conjunction with the establishment of the Deferred Share Unit Plan, the Board also determined that each Director must hold 5,000 Common Shares of the Company or a combination of Common Shares and DSUs within five years or, in the case of new Directors, within five years” (Proxy circular, 2000).

Finally, for the year 2000, Loblaw Companies Limited adopted an elective share unit plan for its outside directors. Loblaw’s board relied on agency theory to disclose the adoption decision by referring to the need for aligning directors’ interests with those of the shareholders. They disclosed the adoption decision as follows:

“In order to align the interest of directors with those of shareholders, effective January 1, 2000, directors may elect annually to take their annual retainer and committee retainer in the form of deferred share units, the price of which is determined by the market value of the Corporation’s Common Shares at the time of payment of the director’s fees. Each quarter the number of deferred share units equal to the number of Common Shares that could be purchased in the open market for the dollar amount of the quarterly fee will be credited to the director’s account. Upon retirement as a director, the director’s entitlement to shares as represented by deferred share units, will be purchased in the open market on the director’s behalf” (Proxy circular, 2000).

3.3 MOTIVATION

Deferred share unit plans have many distinguishing features. First, deferred share unit plans avoid the complexities and drawbacks associated with other forms of equity based compensation (Forgie, 1998; Dalton and Daily, 2001). For instance, deferred share unit

plans are much less complex to value than stock options, are not as dilutive as stock options and stock grants, and avoid the problems associated with underwater stock options¹² (Hall, 2003). Second, deferred share unit plans provide tax advantages for the firm and its directors. Canada Revenue Agency considers that firms can deduct the payment only when cash is paid to the director, or when they reimburse a broker for buying the shares in the open market (Forgie, 1998; Colquhoun et al., 2003). Thus, firms that are currently in a low income tax bracket may prefer to defer their deductions to future periods by adopting deferred share unit plans. Similarly, under regulation 6801 (d) of the Income Tax Act, directors are subject to income tax when the units are paid out either in cash, or when shares are purchased in the open market (Colquhoun et al., 2003). Finally, deferred share unit plans align directors' interests with those of the shareholders through long term equity ownership. Equity ownership allows board members to share in the appreciation of the share price over the long term, while incurring a financial cost if the share price goes down (Elson, 1999).

The Canadian governance context is unique for three main reasons. First, board monitoring is extremely important in Canada given the existence of dual class shares and stock pyramid. These structures may result in a conflict of interests at the board level since the controlling shareholder normally has substantial voting power¹³ (*Globe and Mail*, October 11, 2002, B5; Halpern, 1999). They may also result in a conflict of interests for the controlling shareholder since the latter has a level of control that does not

¹² Firms with underwater stock options - options for which the exercise price is lower than the market price - face problems related to retaining and motivating top management. They also face problems with the shareholders that strongly oppose the re-pricing of underwater stock options (Hall, 2003).

¹³ Dual class share structures provide shareholders with uneven voting powers in 52 of the 220 companies listed on the S&P/TSX index (National Post, June 11, 2003, pp. IN.1.Fr.).

correspond to the level of risk assumed (Halpern, 1999). Belcredi and Caprio (2004) and Doidge (2004) suggest that multiple voting shares may result in private benefits (agency costs) for the controlling (non-controlling) shareholders¹⁴.

Second, board interlock¹⁵ is common in Canada since the pool of current and potential directors is restricted to a relatively small group of executives and professionals (Beck, 2004). Interlocking directors may be less vigilant in their monitoring and oversight since i) they may have stronger social ties with other interlocking directors and ii) they may want to avoid vigilant monitoring by interlocking directors that serve on the board of their own companies (Westphal, 1999).

Third, Canada has been more lenient than the US in reforming its corporate governance guidelines following the recent corporate scandals (Barnes et al., 2003; Beck, 2004). The optional compliance with the listing guidelines in Canada is in contrast with the mandatory listing requirements adopted by major US stock exchanges¹⁶ (Barnes et al., 2003). More specifically, Canadian firms are not required to comply with the stock exchange listing requirements. However, Canadian firms are encouraged to consider these guidelines when formulating their governance practices, and are required to disclose how they meet the objectives of the formulated listing requirements. Securities regulators believe that corporate disclosure allow firms to tailor governance practices to

¹⁴ Private benefits of control include excessive compensation, consulting contracts, and transactions under out of market conditions with companies owned by the controlling shareholder (Belcredi and Caprio, 2004; *National Post*, Feb 21, 2003, FP.1.Fr; Apr 5, 2003, FP.4; Jan 25, 2005).

¹⁵ Board interlock exists when two executives from two companies sit on each other's boards. An interlock may also exist when a director serves on two or more corporate boards.

¹⁶ Beck (2004) argues that this flexibility is appropriate in Canada where businesses are smaller and less widely held.

fit their own circumstances, while providing investors with enough information to assess the quality of the governance processes in place (Barnes et al., 2004).

These facts highlight the importance of the board of directors in corporate governance, and the need to provide compensation plans that motivates directors and that aligns their interests with those of the shareholders (Barnes et al., 2003). In the following chapter, I use insights from agency and institutional theories to develop a theoretical framework that investigates the antecedents and consequences from adopting a deferred share unit plan for outside directors in Canada. A clinical case study follows in chapter 5, while chapters 6 and 7 empirically test the hypotheses developed in chapter 4.

CHAPTER 4

CONCEPTUAL FRAMEWORK DEFERRED SHARE UNIT PLANS FOR OUTSIDE DIRECTORS IN CANADA: ANTECEDENTS AND CONSEQUENCES

4.1 INTRODUCTION

Researchers from a variety of disciplines seek to identify the factors that facilitate the spread of technological and administrative practices within organizations (Abrahamson, 1991). Some, relying on agency theory, attempt to identify the economic and organizational factors that encourage the adoption of certain practices by organizations (Vafeas, 1999). Others, relying on institutional and network perspectives, investigate the role of social rather than economic factors in driving organizational actions (Young et al., 2001). However, each of the two streams focuses on a particular set of determinants resulting in a partial understanding of the factors that promote the adoption decision. While agency theory ignores organizational complexities, institutional theory fails to account for organizational goals and managerial opportunism (Kostova and Roth, 2002).

To overcome this limitation, Westphal and Zajac (1994) integrate agency and institutional theory to examine the factors that promote the adoption and use of long term incentive plans for executives. Similarly, Westphal and Zajac (1998) integrate agency and institutional theory to investigate the stock market reaction to the adoption of long term incentive plans for corporate executives. Carpenter and Feroz (2003) integrate resource dependence and institutional theory to identify the factors that lead US states governments to adopt Generally Accepted Accounting Principles for external financial

reporting purposes. Finally, Bender (2004) relies on both economic and social rationales to examine the factors that lead firms to adopt performance related pay for their executives. Along the same lines, this paper integrates agency and institutional theories to examine the antecedents and consequences from adopting a share unit plan for outside directors in Canada over the period 1997-2003.

4.2 THEORETICAL FRAMEWORK

4.2.1 Economic perspective: Agency theory

Agency theory focus on the design of optimal employment contracts that maximize shareholders' value by reducing agency costs between a principal and his/her agent (Jensen and Meckling, 1976). Agency costs arise when there is a conflict between the goals of the principal and those of the agent, and it is difficult or expensive for the principal to verify what the agent is actually doing (Eisenhardt, 1989; Shleifer and Vishny, 1997). Agency scholars propose that monitoring by the principal, or whoever represents his interests, and incentive pay resolve the agency problem and align agent's interests with those of the principal (Eisenhardt, 1989).

4.2.1.1 Outside directors: Agents of the shareholders

Within an agency framework, outside directors are agents of the shareholders. They theoretically monitor top management and alleviate the agency problem that corporate executives face¹⁷ (Morck et al., 1989; Jensen and Meckling, 1976). They constitute what

¹⁷ Inside directors (board members that are employees of the company) do not always play an active role in monitoring top management since the CEO has significant control over their career advancement,

individual shareholders with limited knowledge and voting power need: a group of people with the ability and authority to monitor managerial actions and prevent managers from pursuing their own interests at the expense of the shareholders (Denis, 2001). Their role is mainly regulated by the two core fiduciary responsibilities they have toward the shareholders: the duty of care and the duty of loyalty. A director's duty of care provides that directors must perform their duties with care comparable to that of an ordinarily prudent person under similar circumstances (Kumar and Sivaramakrishnan, 2002). A director's duty of loyalty provides that directors must perform their duties in good faith and in the best interests of the corporation and its shareholders (Perry, 1999).

As monitors of top management, outside directors are responsible for overseeing management's strategic decision making and financial reporting, in addition to establishing executive compensation, hiring and firing top management when circumstances warrant (DeFond and Hung, 2004). Board members oversee managerial decision making by investigating and sanctioning the strategic decisions made by a firm's top management (Kumar and Sivaramakrishnan, 2002). They rely on their expertise and on the services of financial intermediaries to evaluate the suitability of proposed strategic plans including mergers and acquisitions, business expansion, in addition to business reorganization and restructuring (Hermalin and Weisbach, 2003).

The audit committee of the board oversees the financial reporting process (Xie et al., 2003). The audit committee review the corporation's financial statements, audit process, and internal accounting control during its regular meetings with the firm's outside

termination, and compensation (Hambrick and Jackson, 2000). Tosi et al. (2003), however, argue that senior executives having CEO aspiration could be the most serious challengers of the CEO.

auditors and internal financial managers (Klein, 2002; Xie et al., 2003). Its members rely on their financial expertise, internal accounting controls, and the services of external auditors to ascertain that the reported figures represent the actual situation of the firm (Klein, 2002). Policy makers and regulators recently argue that the presence of outside directors that have the necessary financial sophistication enhances the effectiveness of the audit committee in preventing fraudulent accounting and inappropriate earnings management (Peasnell et al., 2000; Church, 2004).

The compensation committee is responsible for tailoring compensation contracts that encourage managers to protect shareholders' interests and create shareholders' value (Core et al., 2003; Delves, 2004). The compensation committee uses the information it collects and that provided by compensation consultants to determine the level and mix of top management compensation. Theoretically, compensation committees control managerial opportunism by designing compensation packages that are closely linked to corporate performance (Fama, 1980). Policy makers and regulators highlight the importance of independent outside directors and compensation consultants in designing appropriate executive compensation packages.

Finally, corporate directors are responsible for firing poorly performing executives (Yermack, 2004). Defond and Hung (2004) note that a critical task of the board is to identify and terminate poorly performing executives. Hermalin and Weisbach (2003) argue that directors play a crucial role in replacing a firm's executives. Daily et al. (2003) suggest that a primary task for an effectively functioning board is the removal of poorly performing executives. Huson et al. (2001) propose that a primary outcome of board

monitoring is executive turnover following poor organizational performance. Finally, Bahgat et al. (1999) argue that an integral part of the monitoring process is to replace corporate executives when circumstances warrant.

4.2.1.2 Outside directors: Effective monitors of top management?

To monitor top management, outside directors typically need to invest significant time and effort in generating the information needed, and reviewing the supplementary information provided by management, financial intermediaries and consultants¹⁸ (Ferris et al., 2003). They also need to be free from any conflict of interests that compromise their willingness to use the information at hand in monitoring managerial opportunistic behaviour (Kumar and Sivaramakrishnan, 2002).

Outside directors are assumed to have the motivation to diligently generate and review the information needed, and to make decisions that are in the best interests of the shareholders (Hambrick and Jackson, 2000; Stout, 2003). Fama and Jensen (1983) suggest that the reputational concerns outside directors' face align their interests with those of the shareholders. Hambrick and Jackson (2000) argues that the personal attributes of outside directors, and the legal and reputational concerns they face successfully align their interests with those of the shareholders, and provide the incentives to represent shareholders' interests. Meltzer and Ash (1998) note that outside directors are motivated by the prestige derived from board membership, the pursuit of knowledge, experience, and networking. The disclosure of executives and directors' compensation practices supports this assumption. Compensation committees strive to

¹⁸ Leblanc (2004) and Young et al. (2003) argue that directors need to invest a significant amount of time to understand the complexity of the issues discussed in corporate board meetings.

highlight the importance of attracting, retaining, and aligning top management's interests with those of the shareholders. However, they rarely address the need to motivate outside directors, and focus on the need to attract and retain qualified board members.

Academic researchers question the validity of this assumption. They argue that outside directors do not always have the necessary motivation and sufficient interests to diligently monitor top management. Hempel and Fay (1994) note that, as in the case of the executive officer, outside directors do not necessarily act in the shareholders' best interests. Denis (2001) argues that it is not clear whether the outside directors have enough incentive to do their job properly. Bebchuk et al. (2002) conclude that outside directors do not always have the economic incentives to diligently monitor top management. Finally, Hillman and Dalziel (2003) propose that outside directors do not have sufficient incentives to monitor top management and protect shareholders' interests. They conclude that outside directors face a moral hazard and/or conflict of interests that results in a secondary agency problem at the board level (Fich and Shivdasani, 2004).

4.2.1.3 Antecedents

4.2.1.3.1 Antecedents: Moral hazard

Outside directors face a moral hazard with respect to the time they invest in information generation and review (Bebchuk et al., 2002; Boumosleh, 2005). In the absence of a monitoring body, shareholders can not easily verify the amount of time board members invest in information generation and review¹⁹. They can not ensure that directors

¹⁹ Leblanc (2004) describes corporate boards as the "most closed" institutions in industrial countries.

diligently generate and review the information needed for decision making purposes (Eisenhardt, 1989; Gevurtz, 2004).

The moral hazard is expected to be more significant in high growth firms, in firms that provide liability insurance for their outside directors, and in firms where outside directors have a nominal equity stake. First, the moral hazard is higher in high growth firms where executives possess private information and their actions are less clearly observable (Boone et al., 2004). Linn and Park (2003) argue that firms with higher growth opportunities are relatively costly for outside directors to monitor. Bryan et al. (2000) and Bryan and Klein (2005) note that high growth firms typically have higher levels of information asymmetry. Yang et al. (2004) note that the cost of monitoring is higher in firms having greater information asymmetry. The existing empirical evidence shows that outside directors receive more equity based pay when monitoring is costly (Bryan and Klein, 2005; Fich and Shivdasani, 2004; Becher et al., 2003). Hence, I hypothesize that:

Hypothesis 1a: High growth firms are more likely to adopt a deferred share unit plan than low growth firms.

Second, the moral hazard outside directors' face is higher in firms that provide directors' liability insurance. Under corporate law, outside directors are held liable when they take decisions with clear negligence or when they take advantage of shareholders' trust²⁰ (Perry, 1999; Stout, 2003). The presence of liability insurance dilutes the punitive power of corporate law by protecting directors from shareholders' litigation (Perry, 1999; Stout, 2003). Bhagat et al. (1987) argue that outside directors may have little interest in the

²⁰ Keenan (2003) reports that shareholders litigation is common where shareholders sued more than 40 percent of the outside directors serving on the boards of Fortune 1,000 firms.

company's affairs if they assume no personal liability for corporate actions. O'Sullivan (1997) notes that directors' insurance insulate outside directors from the disciplinary power of shareholders' litigation. Core (1997) argues that outside directors reduce their already unobservable effort in the presence of liability insurance due to a decline in the probability of a disciplinary lawsuit. I hypothesize that:

Hypothesis 1b: Firms that provide liability insurance for outside directors are more likely to adopt a deferred share unit plan than firms that do not.

Finally, the moral hazard is more significant when outside directors have a nominal equity stake in the firm on whose board they sit (Jensen, 1993; Stout, 2003). Dalton and Daily (2001) note that directors with nominal or no stock holdings are generally not fulfilling their fiduciary obligations towards the stockholders. Carey et al. (1996) propose that directors with nominal equity ownership have little incentives to engage in active monitoring and oversight. Chen (2002) suggests that outside directors that own little equity stake monitor top management less vigilantly. Finally, Malette and Fowler (1992) suggest that directors with a minimal equity stake have little motivation to enhance shareholders' wealth. Based on that, I hypothesize the following:

Hypothesis 1c: Firms where outside directors have smaller equity ownership are more likely to adopt a deferred share unit plan than firms where outside directors have a larger equity stake.

4.2.1.3.2 Antecedents: Conflict of interests

Outside directors are also subject to a conflict of interests that hinders their willingness to

objectively evaluate top management. Yermack (2004) notes that a significant fraction of a director's wealth is linked to the income stream from board membership. Elson (1996) notes that the compensation derived from board membership compromise outside directors' independence from management. Daily et al. (1998) argue that directors who challenge the CEO place their board seats, personal and professional relationships at risk.

The conflict of interests is expected to be higher in the presence of multiple voting shares, the absence of a nominating committee, and the presence of duality. First, outside directors are more likely to face a conflict of interests in the presence of multiple voting shares since the holder of these shares normally controls a significant voting power while having a minimal equity stake in the firm (*Globe and Mail*, October 11, 2002, B5). For instance, the controlling shareholders at Cinar Corporation, Micheline Charest and Ronald Weinberg, used to own only 12 percent of Cinar's equity but to control 63.7 percent of the votes (*The Ottawa Citizen*, Apr 30, 2002, D.1.FRO). Similarly, the controlling shareholders at Magna International Inc. and Bombardier Inc. own 0.8 and 20 percent of their companies' equity, while they control 66.2 and 55 percent of the voting power respectively (*National Post*, Jun 11, 2003, IN.1.Fr.; *CanWest News*, May 21, 2003, 1). Anecdotal evidence suggests that controlling shareholders use their voting power to appoint their nominees for board membership. In 2002, the controlling shareholders at Cinar voted in favour of their nine nominees for board membership, and forced minority shareholders to accept them at the shareholders meeting (*The Ottawa Citizen*, Apr 30, 2002, D.1.FRO). In 2003, the controlling shareholder at Onex Corporation, CEO Gerald Shwartz, appointed his wife on Onex board despite the controversy that preceded (*The Northern Miner*, May 19/25, 2003, 89, 13, 4). Hence, I hypothesize that

Hypothesis 2a: Firms having multiple voting shares are more likely to adopt a deferred share unit plan than firms which do not have multiple voting shares.

Second, outside directors are more likely to face a conflict of interests when the CEO has a major say in nominating board members (Tosi et al., 2003; Malette and Fowler, 1992). O'Reilly et al. (1988) note that, in the absence of a nominating committee, executives play a significant role in the nomination of outside directors for board membership. Elson (1996) and Gerety et al. (2001) suggest that directors who owe their current position and future nomination on board to top management do not actively monitor top management. The recently enacted listing requirements also suggest that an independent nominating committee enhances board members' independence and consequently board monitoring and oversight (TSX Group). Thus, I hypothesize that

Hypothesis 2b: Firms having a nominating committee are less likely to adopt a deferred share unit plan than firms that do not have a nominating committee.

Finally, outside directors are more likely to face a conflict of interests when a single person occupies the CEO and COB position. Westphal (1999) argues that duality reduces board members' independence and increases the power of the CEO. Finkelstein and Hambrick (1996) suggest that duality provides the CEO with additional power over the board of director. Jensen (1993) and O'Sullivan (1997) argue that board members can not effectively perform their key functions in the presence of duality. Thus, I hypothesize that

Hypothesis 2c: Firms where a single person acts as a CEO and COB are more likely to adopt a deferred share unit plan than firms where different persons act

as CEO and COB.

4.2.1.3.3 Antecedents: Ownership structure

Agency theory scholars suggest that the moral hazard and conflict of interests outside directors face result in a secondary agency problem that hinders the effective monitoring of top management (Elson, 1999). They propose that the principal, i.e., the shareholders, resorts to equity based pay to align directors' interests with those of the shareholders²¹ (Jensen, 1993; Elson, 1996; Cordeiro et al., 2000). Individual shareholders do not have the incentive and power to monitor top management (Tosi et al., 2003). First, individual shareholders suffer from the free rider problem since any gain received from monitoring top management is outbalanced by the costs incurred (Tosi et al., 2003). Second, individual shareholders lack the power to occupy a board seat and alter board compensation practices through the board of directors (Hambrick and Finkelstein, 1995).

Managing block holders²² have little economic incentives to adopt equity based pay for outside directors. First, a managing block holder is himself the agent, and does not suffer from an information asymmetry problem. Carlson and Bathala (1997) argue that managing block holders are fully knowledgeable of their firms' financial and operational position. Mace (1986) argues that in the presence of a managing block holder, the board of directors primarily provides advice rather than monitoring and control. Second, equity

²¹ If left to them, directors are not likely to adopt compensation schemes that increase the riskiness of their compensation package (Harris and Raviv, 1979; Craighead et al., 2004). Tosi et al. (2003) suggest that management control outside directors by providing excessive compensation that is mostly paid in cash. Yermack (2004) suggests that although directors are not as risk averse as executives are, they still prefer to have the same payoffs. The author assumes that when having the choice between cash and equity based compensation, directors normally select to maximize their cash compensation.

²² A managing block holder is a block holder that owns more than 10 % of the shares outstanding and occupies a top management position.

based compensation increases outside directors' risk and the costs associated with directors' turnover and recruitment (Fich and Shivdasani, 2004; Dalton and Daily, 2001).

Non-managing block holders²³ seem to have the right incentives and power to alter outside directors' compensation structure. To start with, non-managing block holders do not suffer from the free rider problem individual shareholders face. Next, non managing block holders heavily rely on board monitoring due to the information asymmetry arising from the separation of ownership and control (Lin and Park, 2003). Finally, non managing block holders have the power to alter compensation practices in a way that align directors' interests with those of the shareholders (Craighead et al., 2004). The existing empirical research shows that firms with a non managing block holder are more likely to use stock option plans to compensate outside directors (Fich and Shivdasani, 2004; Perry, 1999). Thus, I hypothesize the following:

Hypothesis 3: The presence of a non-managing block holder increases the likelihood of adopting a deferred share unit plan at the board level.

4.2.1.4 Consequences

4.2.1.4.1 Stock market reaction

Academic researchers stipulate that equity based compensation that results in stock ownership reduces agency costs by enhancing the alignment of directors' interests with those of the shareholders (Jensen, 1993; Frances, 1995). Yermack (2004) suggests that equity ownership aligns the interests of board members and the shareholders, and

²³ A non-managing block holder is a block holder that owns more than 10 % of the shares outstanding, and that does not occupy a top management position.

enhances their willingness to monitor top management. Hillman and Dalziel (2003) note that equity based compensation is a basic antecedent of board monitoring. Elson (1999) propose that stock ownership balance out any loyalties directors feel towards management as compared to the shareholders. Finally, Bhagat et al. (1999) argue that equity ownership provide directors with the incentive to exercise effective oversight.

The existing empirical evidence supports these contentions. For instance, Boumosleh (2005) finds that incentive compensation for directors enhances board monitoring and aligns their risk preferences with those of the shareholders. Milliron (2000) finds that the proportion of equity based compensation for executives is higher in firms where outside directors have a larger ownership or have more incentive pay. Bhagat et al. (1999) finds a correlation between executive turnover following poor organizational performance and directors' equity ownership. Perry (1999) finds that the likelihood of executive turnover increases when unrelated directors receive equity based pay. Beatty and Zajac (1994) find that equity ownership provides directors with an incentive to protect shareholders' interests in initial public offerings. Elson (1993) documents the presence of an inverse relationship between equity holding of compensation committee members and over-compensation of corporate executives. Shivdasani (1993) finds that the likelihood of a disciplinary takeover is less likely in firms where outside directors have a large equity stake. Finally, Morck et al. (1988) shows that equity ownership by outside directors enhances firm value. Thus, given the potential economic benefits from adoption, I hypothesize the following:

Hypothesis 4: Firms adopting a deferred share unit plan for outside directors in Canada

record positive abnormal returns at and around the adoption announcement date.

4.2.1.4.1.1 Stock market reaction: Plan's attributes

The magnitude of the stock market reaction is not expected to be uniform across firms, but is expected to vary with the economic benefits derived from the adoption decision (Zajac and Westphal, 2004). These benefits depend on the extent to which deferred share unit plans resolve the agency problem at the board level. Stricter deferred share unit plans are expected to provide higher marginal benefits since they are more effective in aligning directors' interests with those of the shareholders.

Corporate disclosure shows that deferred share unit plans are not homogeneous. They could be mandatory, and could be coupled with stock ownership guidelines. Mandatory plans require directors to defer a specific percentage of their cash compensation into share units. Deferred share unit plans coupled with stock ownership guidelines require directors to hold a minimal number of share units within a relatively short period of time.

Hence, deferred share unit plans provide different signals to investors depending on the plan's attributes. For instance, mandatory plans provide a superior signal given that many firms adopt equity based compensation plans for impression management purposes: they adopt compensation plans that are never used²⁴ (Westphal & Zajac, 1998). Deferred share unit plans that are coupled with stock ownership guidelines are also superior since they require directors to hold a minimal number of shares within a relatively short period of

²⁴ Decoupling also occurs in the case of share repurchase plans where firms adopt share repurchase plans and ultimately buy little or no shares afterwards (Zajac and Westphal, 2004).

time²⁵. Stock ownership provides investors with a highly visible index of board members' commitment and confidence in the future of the company (Gray and Holloway, 2001). Based on that, I hypothesize the following:

Hypothesis 5a: Abnormal returns are higher for firms adopting mandatory deferred share unit plans than firms adopting elective deferred share unit plans.

Hypothesis 5b: Abnormal returns are higher for firms adopting a deferred share unit plan that is coupled with stock ownership guidelines than firms adopting a deferred share unit plan with no stock ownership guidelines.

4.2.2 SOCIAL PERSPECTIVE: INSTITUTIONAL THEORY

In this section, I argue that the factors outlined by agency theory do not fully explain the antecedents and consequences from adopting a deferred share unit for outside directors in Canada. Relying on institutional theory, I suggest that the social framework within which firms operate provides additional insights about the factors associated with the adoption decision and the resulting consequences.

Within an institutional framework, organizational decisions may be driven by social pressures existing in the environment within which a certain firm operates (Carpenter and Feroz, 2001). More specially, organizations and market participants may create socially acceptable practices that spread within a given population of firms. As these practices are increasingly adopted by organizations, they gain legitimacy and their presence becomes

²⁵ Dalton and Daily (2001) caution about the potential costs arising from equity based pay. The authors suggest that firms may have problems in attracting and retaining qualified board members. They may also need to pay higher compensation to compensate outside directors for the higher risk assumed.

taken for granted creating pressures for adoption (Zajac and Westphal, 2004). As a result, the social pressures existing in the environment within which a firm operates may have a direct influence on firms' structures, policies and practices (Carpenter and Feroz, 2001). More specifically, the adoption decision may be driven by an aspiration to acquire legitimacy by complying with socially acceptable practices or norms.

Social factors may also have an effect on the investment decisions by market participants and ultimately on shareholders' wealth and firm value (Zajac and Westphal, 2004). For instance, the adoption of socially acceptable practices and the reliance on a socially legitimate rationale to disclose organizational actions increases organizational legitimacy and influences the perception of actors in the financial markets (Halpern, 1999). This increased legitimacy facilitates the acquisition of resources and enhances the competitiveness of adopting firms, ultimately affecting firm value (Halpern, 1999).

Thus, within an institutional framework, I suggest that institutional factors might be associated with the adoption decision and might also influence the stock market reaction around the adoption announcement date.

4.2.2.1 Antecedents

Institutional theory highlights the importance of social factors in shaping organizational actions (Westphal et al., 1997). Institutional scholars note that organizational practices, policies, and structures become institutionalized as they gain legitimacy across organizations. They suggest that legitimated practices are transmitted by coercive, mimetic, and normative pressures (Carpenter and Feroz, 2001).

4.2.2.1.1 Antecedents: Coercive pressures

Coercive pressures arise from organizations that have the power to influence a firm's decision making (Carpenter and Feroz, 2001). Institutional investors and corporate governance activists play an increasingly important role in promoting corporate governance best practices. They are exceedingly vocal about the importance of aligning directors' interests with those of the shareholders especially in the presence of multiple voting shares. Richard Rooney, president of Burgundy Asset Management Ltd., suggests that the presence of multiple voting shares weakens the governance structures in leading Canadian firms (*National Post*, June 11, 2003, IN.1.Fr.). Robert Bertram, executive vice-president of the Ontario Teacher's Pension Plan, states that OTPP describes firms with multiple voting shares as firms having "faulty governance structures" (*National Post*, April 5, 2003, FP.4). Dale Richmond, CEO of Ontario Municipal Employees Retirement System, argues that multiple voting shares allow the holder to make decisions with few economic consequences (*Globe and Mail*, October 11, 2002, B5). Thus, institutional block holder(s) in firms having multiple voting shares are expected to exert higher coercive pressures to align directors' interests with those of the shareholders. Hence, I hypothesize the following:

Hypothesis 6: The presence of an institutional block holder in firms having multiple voting shares increases the likelihood of adopting a deferred share unit plan at the board level.

4.2.2.1.2 Antecedents: Mimetic pressures

Mimetic pressures arise from the presence of fashion setting organizations that play an active role in developing organizational awareness, and in promoting the adoption of organizational practices across firms (DiMaggio and Powell, 1983). Abrahamson (1991) argues that compensation consultants are important fashion setters that promote the diffusion of compensation practices. Leblanc (2004) suggests that external advisors, such as compensation consultants, expose board members to recent developments in their respective fields. Based on that, I hypothesize the following:

Hypothesis 7: Firms that rely on the services of compensation consultants are more likely to adopt a deferred share unit plan than firms that do not rely on the services of a compensation consultant.

4.2.2.1.3 Antecedents: Normative pressures

Normative pressures arise from organizational networks that provide relevant information about recent organizational practices (Palmer et al., 1993). Board interlocks constitute an important organizational network that helps in transmitting important information about organizational practices, their implementation, advantages and drawbacks (Davis, 1996). The business press suggest that many Canadian firms have the same people sitting on their board of directors (*The Globe and Mail*, 9 Oct. 2002, B.1; 10 Oct. 2004, B.17). Beck (2004) notes that interlocking directors is common place in Canada since executives often sit on multiple boards. The existing empirical research shows that board interlocks are associated with the adoption of takeover defences (Davis, 1991), multi-divisional organizational structure (Palmer et al., 1993), and corporate acquisition activity (Haunschild, 1993). Thus, I hypothesize the following:

Hypothesis 8: The likelihood of adopting a deferred share unit plan is higher in the presence of a board interlock with firms that already adopted or concurrently adopt a deferred share unit plan.

4.2.2.2 Consequences

4.2.2.2.1 Stock market reaction

Within an institutional framework, the stock market reaction to organizational practices is socially constructed based on the social benefits arising from the adoption of legitimized practices (Westphal and Zajac, 2004). Institutional scholars suggest that the appearance of conformity with socially accepted practices is sufficient to reap the economic benefits from compliance (Westphal and Zajac, 1998). Empirical research shows that firms adopting without using long term incentive plans (share repurchase plans) record significant abnormal returns around the adoption announcement date (Westphal and Zajac, 1998; Zajac and Westphal, 2004). This positive reaction is attributed to the compliance with legitimate practices that apparently reduce uncertainty about managerial motives and commitment to the firms' success.

The academic literature, business surveys, and consulting firms' reports suggest that equity based pay for outside directors is becoming institutionalized as it is gaining increased legitimacy among financial markets participants (Fish and Shivdasani, 2004; Mercer Human Resources Consulting, 2004). Thus, within an institutional framework and in line with the fourth hypothesis, firms adopting deferred share unit plans for outside directors in Canada are hypothesized to record positive abnormal returns around the

adoption announcement date.

4.2.2.2.1.1 Stock market reaction: Adopter category

The stock market reaction is expected to vary with the institutionalization of the plan, and with the conformity of organizational disclosure with prevailing institutional logics. To start with, institutional scholars note that legitimacy gains depend on the prevalence of organizational practices within a given population (Zajac and Westphal, 2004). They suggest that organizational practices gain symbolic value over time as more firms adopt a certain practice, and as it becomes fully institutionalized. Westphal and Zajac (1998) and Zajac and Westphal (2004) show that the stock market reaction to the adoption of long term incentive plans (share repurchase plans) is positively associated with the degree to which the plan is institutionalized. Thus, I propose the following:

Hypothesis 9: Late adopters record higher abnormal returns than early adopters.

4.2.2.2.1.2 Stock market reaction: Corporate disclosure

Next, Institutional theorists note that legitimacy gains depend on the degree to which organizational disclosure conforms to prevailing institutional logics or paradigms (Zajac and Westphal, 2004). Over the past decade, agency theory has become the dominant paradigm in corporate governance (Zajac and Westphal, 1995). The agency perspective gained additional legitimacy following the recent corporate scandals, and the focus on the agency problems arising from the separation of ownership and control (Zajac and Westphal, 2004; Fish and Shivdasani, 2004). Thus, firms that disclose the adoption of organizational practices using an agency theory perspective conform to a socially

accepted disclosure logic or paradigm (Zajac and Westphal, 2004). The existing empirical evidence shows that firms which disclose the adoption of executives' long term incentive plan (share repurchase plan) using an agency perspective record higher abnormal returns around the adoption announcement date (Zajac and Westphal, 1995; Zajac and Westphal, 2004). Based on that, I propose the following:

Hypothesis 10: Firms using agency based perspective to disclose the adoption of deferred share unit plans record higher abnormal returns than firms using other theoretical perspectives to disclose the adoption decision.

4.3 SUMMARY

Relying on agency and institutional theory, I developed a framework that investigates the antecedents and consequences from adopting a deferred share unit plan for outside directors in Canada. Within an agency framework, I hypothesize that the adoption decision is more likely in firms where outside directors face a stronger agency problem, and in firms that have a non managing block holder. I also propose that investors react positively to the adoption decision, and hypothesize that the stock market reaction is higher in firms that adopt stricter deferred share unit plans. From an institutional perspective, I hypothesize that firms are more likely to adopt deferred share unit plans when they are subject to significant coercive, mimetic, and normative pressures. I further hypothesize that the stock market reaction is more positive for late adopters and for firms that disclose the adoption decision using an agency based perspective.

Summary of Hypotheses

Deferred share unit plan for outside directors in Canada: Antecedents

	Hypotheses	Log (Odds) (Predicted Sign)
Agency perspective		
Moral Hazard		
Growth opportunities	1a	+
Presence of liability insurance	1b	+
Directors' Equity ownership	1c	-
Conflict of interests		
Presence of multiple voting shares	2a	+
Presence of a nominating committee	2b	-
Presence of duality	2c	+
Ownership structure		
Presence of non managing block holder(s)	3	+
Institutional perspective		
Coercive pressures	6	+
Mimetic pressures	7	+
Normative pressures	8	+

Deferred share unit plan for outside directors in Canada: Consequences

	Hypotheses	Abnormal returns (Predicted Sign)
Stock market reaction	4	+
Agency perspective		
Plan Characteristics		
Mandatory plan	5a	+
Plan coupled with ownership guideline	5b	+
Institutional perspective		
Adopter category		
Early adopter	9	-
Corporate disclosure		
Agency theory perspective	10	+

CHAPTER 5

CASE STUDY DEFERRED SHARE UNIT PLANS FOR OUTSIDE DIRECTORS IN CANADA: ANTECEDENTS AND CONSEQUENCES

5.1 INTRODUCTION

Despite the significant trend towards deferred compensation plans at the board level and the existing controversy as to whether it aligns directors' interests with those of the shareholders, a limited body of research investigates the characteristics of adopting firms. In addition, little empirical evidence documents the consequences from adopting deferred compensation plans in corporate boardrooms. Relying on the theoretical framework developed in chapter 4, this chapter examines the antecedents and consequences from adopting a deferred share unit plan for outside directors in a sample of Canadian firms operating in the banking, steel manufacturing, and retail grocery industry.

5.2 METHODOLOGY

The sampling strategy attempts to create a certain variance across sample firms by selecting firms that operate in different industries (Morissette, 1996). Industries are classified based on their nature (service, manufacturing, trading), their economic importance in Canada, and based on whether they are regulated or not. This sampling process which is based on selected sampling criteria is superior to that using a convenience sample since it does not compromise the external validity of the clinical study (Morissette, 1996).

The resulting sample includes firms operating in three different industries: banking, steel manufacturing and retail grocery. The banking industry is a service industry that is highly regulated with restrictions on competition and ownership. The steel manufacturing industry is a manufacturing industry that is capital intensive and that is subject to strict environmental regulation, while the retail grocery industry is a trading industry which is less regulated, and which has significant family ownership.

The number of firms included in the clinical study draws a balance between external and internal validity. While a larger number of firms allows a better understanding of the antecedents and consequences from adopting a deferred share unit plan at the board level (external validity), a smaller number of firms allows a greater depth in analysis (internal validity). Thus, in agreement with Cook and Campbell (1979) sampling approach, I use a sample of 11 firms that provides strong external validity and that allows drawing conclusions related to the population of firms listed on the Globe and Mail survey.

The following section presents an overview of the three industries including the profile of each industry, and a short description of the operation and financial position of sample firms. The section that follows relies on the theoretical framework developed in chapter 4 to investigate the economic and social characteristics of sample firms, and to examine the stock market reaction around the adoption announcement date.

5.3. OVERVIEW

5.3.1. Banking industry

The Canadian banking industry started in 1817 with the establishment of Canada's first

chartered bank by a small group of local merchants in Montreal. Since then, the banking industry has increased in breadth and has played a significant role in economic development and growth. In 2004, the banking industry encompassed 19 domestic banks, 23 foreign bank subsidiaries and 21 foreign bank branches that employed over 237,000 people, paid \$ 23 billion in salaries and benefits, and spent \$10.7 billion on goods and service (Canadian Bankers Association).

5.3.1.1. Regulation

The banking industry is regulated under the Federal Bank Act²⁶ (Industry Canada). The Federal Bank Act distinguishes between domestic banks, foreign bank subsidiaries and foreign bank branches, and imposes certain restrictions on the ownership of domestic banks. Large banks (banks with equity in excess of \$5 billion) must remain “widely held” where an individual investor is permitted to own up to 20 per cent of the voting shares, and up to 30 per cent of the non-voting shares. Medium-sized banks (banks with equity between \$1 billion and \$5 billion) are allowed to have individual shareholdings of up to 65 per cent of the voting shares, while small banks (banks with equity of less than \$1 billion) have no ownership restrictions.

Canadian banks operate under the supervision of three federal supervisory bodies: the Office of the Superintendent of Financial Institutions (OSFI), the Financial Consumer Agency of Canada (FCAC), and Canada Deposit Insurance Corporation (CDIC). The OSFI is entrusted with protecting the rights and interests of depositors, and with fostering public confidence in financial markets. The FCAC ensures the compliance of regulated

²⁶ Banks are also required to comply with international standards such as the Basel Capital Accord.

financial services sector with federal consumer protection measures, while the CDIC insures deposits made at banks, trust and loan companies, and pays them in the event a member financial institution fails.

5.3.1.2 Financial information

The largest domestic banks are well capitalized²⁷. They maintain capitalization levels that exceed the 7 percent Tier 1 capital ratio and the 10 percent total capital ratio set by the Bank for International Settlements (Canadian Bankers Association). In 2004, the six largest banks accounted for almost 90 percent of the total assets managed by the banking industry with \$ 1.6 trillion in assets. The Royal Bank is the largest bank in Canada with \$ 429 billion in total assets at the end of 2004, followed by the Toronto-Dominion Bank with total assets of \$ 311 billion, and Scotia Bank with \$ 279 billion in total assets.

The six largest domestic banks reported record earnings in 2004. The \$ 13.3 billion is higher than the \$ 11.07 billion earned in 2003, and the \$ 9.68 billion earned in 2001. The average return on assets reached as high as 0.81 % in 2004, compared to 0.69 % in 2003, and 0.44 % in 2002, while the average rate of return on common equity was 18.31 % in 2004, above the 15.88 % in 2003, and the 9.90 % in 2002. Scotia bank had the highest return on assets over the past two years, while the Canadian Imperial Bank of Commerce had the highest return on equity for the year 2003.

5.3.2 Steel manufacturing industry

The steel industry plays a significant role in the Canadian economy by providing

²⁷ The list includes Bank of Montreal, Canadian Imperial Bank of Commerce, Royal Bank of Canada, Scotia Bank, Toronto-Dominion Bank, and The National Bank of Canada.

employment opportunities, and supplying the inputs needed for a wide array of industries including the automotive, construction, and oil and gas industry. In 2001, the Canadian steel industry paid \$ 2.2 billion in wages, produced total steel shipments valued at \$ 13 billion, and consumed up to \$ 7.5 billion in materials and supplies (Industry Canada).

Last year, the global demand for steel products grew by 8% to reach a 1 billion tons record. This surge in demand was driven by higher construction and manufacturing activity, and by China's emergence as the world's largest steel consumer. The result is three fold. First, steel manufacturing companies recorded significant profits as steel prices rose to unprecedented levels. Second, steel manufacturing companies faced serious challenges in securing access to reliable supplies of inputs given the increase in the cost of these commodities. Third, the industry witnessed a wave of restructuring and consolidation leading to the emergence of larger, more efficient players that produce a significant proportion of total production capacity.

5.3.2.1 Industry Analysis

The steel manufacturing industry is a capital intensive industry that requires significant investments in properties, equipments, and human resources. However, this barrier to entry does not reduce the serious challenges that steel manufacturing firms face to maintain their competitiveness and leadership. First, the steel manufacturing industry is highly competitive where Canadian firms compete with foreign and domestic steel manufacturers based on price, quality and ability to meet customers' product specifications and delivery schedules. In recent years, competition has expanded beyond the steel industry to include firms that produce products having similar applications such

as concrete, plastic, aluminium and other composite materials.

Second, the steel manufacturing industry is highly sensitive to general economic conditions since it depends on the level of manufacturing activity in the automotive, construction, packaging, consumer goods, and oil and gas. Finally, the steel manufacturing industry is subject to extensive environmental regulation that may adversely affect firm performance and competitiveness through penalties from non-compliance with environmental laws. Firms also face increased financial charges given the changes in environmental legislation that require additional permits, approvals, or investments in environmental friendly production techniques and equipments following the Kyoto Protocol focusing on the reduction of “greenhouse gases” in 2005.

5.3.2.2 Financial Information

Established in 1912, Dofasco Inc. is Canada’s largest supplier of flat rolled, tubular and other specialty steel for automotive applications. Dofasco is also a leader in supplying tinsplate for the food packaging market and steel products for the Canadian construction market. Consolidated net income for the year ended December 31, 2004 was \$376.9 million or \$4.92 per share, more than three times last year’s industry-leading net income of \$117.7 million or \$1.55 per share.

Gerdau Ameristeel Corporation is the second largest steel producer in North America with annual manufacturing capacity of more than 8.4 million tons of steel products. For the year ended December 31, 2004, Gerdau Ameristeel realized net income of \$337.7 million, or \$1.45 per share fully diluted, on net sales of \$3.0 billion. This record

performance stands in stark contrast to the net loss of \$26.7 million, or \$0.14 per share fully diluted, that the Company experienced in 2003.

Finally, IPSCO Inc. operates throughout the United States and Canada, and produces carbon steel slabs, hot rolled discrete plate and coil, cut-to-length plate, finished tubular products and processed scrap. In 2004, IPSCO's revenues almost doubled to \$2.5 billion and net income increased to \$439 million or \$8.24 per share compared to \$0.09 in 2003.

5.3.3 Retail grocery industry

The Canadian retail grocery industry has witnessed significant changes over the past decade. On the one hand, competition has increased from non-grocers and mass merchandisers that offer a wide range of convenience food and grocery products. On the other, consumers' needs have changed with changes in demographics, lifestyle choices and preferences resulting in a shift from conventional supermarkets to discount stores, and stores that have a larger retail square footage (Industry Canada).

The Canadian grocery industry is dominated by two players: Sobeys Inc., a leading national grocery retailer and food distributor with sales of \$11.05 billion and a strong presence across Canada, and Loblaw Companies Limited, Canada's largest food distributor and a leading provider of merchandise products and services. The Canadian grocery industry constitutes 60 percent of the \$ 109 billion food industry.

5.3.3.1 Industry Analysis

The retail grocery industry is a challenging business with considerable competition and

relatively low margins. For instance, firms in the retail grocery industry face increasing competition from mass merchandisers, warehouse clubs, drug stores, and specialty stores that continuously increase their offerings of products associated with traditional supermarkets. They are also subject to competitive pressures from new entrants and from larger, more efficient firms emerging from industry consolidation.

Firms operating in the retail grocery industry also face pressures with respect to the execution of their real estate programs. They face serious challenges with respect to the acquisition and development of real estate properties that directly influence their ability to achieve sales targets. Finally, firms operating in the retail grocery industry are subject to seasonal demand fluctuations, where inventory levels, sales volume and product mix are influenced to some degree by certain holiday periods in the year.

5.3.3.2 Financial Information

Sobeys Inc., founded in Atlantic Canada in 1907, is a leading national grocery retailer and food distributor that owns or franchises more than 1,300 stores in all 10 provinces. In 2004, Sobeys achieved sales of \$11.05 billion, an increase of \$632 million or 6.1 percent over sales for the fiscal year 2003. Sobeys recorded increased sales in all operating regions, where same-store sales increased by 1.4 percent despite little or no food price inflation throughout the fiscal year.

Loblaw Companies Limited, a subsidiary of George Weston Limited, is Canada's largest food distributor and a leading provider of general merchandise products and services. It is one of Canada's largest private sector employers with 130,000 full-time and part-time

employees in more than 1,000 corporate and franchised stores. In 2004, total sales increased by 3.9% to reach \$26.2 billion while operating income increased by 12.6% and reached \$1,652 millions. Basic net earnings per common share reached \$3.53, a 15.0% increase over that of the previous year.

5.4 ANTECEDENTS AND CONSEQUENCES

I rely on the theoretical framework developed in chapter 4 to examine the agency and institutional characteristics of sample firms one year prior to the adoption of a deferred share unit plan at the board level. I also examine whether sample firms record positive abnormal returns around the adoption announcement date, and investigate whether abnormal returns vary with the agency and institutional characteristics of sample firms.

5.4.1 Economic perspective: Agency theory

5.4.1.1 Antecedents

5.4.1.1.1 Antecedents: Moral Hazard

I examine the agency related characteristics of sample firms by investigating proxies for the moral hazard, conflict of interests, in addition to the ownership structure of sample firms. To proxy for the moral hazard that outside directors face, I use three variables: the market to book value of equity (proxy for firms' growth opportunities), the presence of directors and officers liability insurance, and the percentage share ownership by outside directors. Table 1 show that all commercial banks have a market to book ratio that is greater than one. For instance, and one year prior to the adoption of the deferred share

unit plan, the National Bank of Canada had the lowest market to book ratio of 1.18, while the Royal Bank of Canada had the highest ratio equal to 2.79. Similarly, both firms operating in the retail grocery industry had a market to book value that is greater than 1 where Sobeys and Loblaw had a market to book ratio equal to 1.36 and 3.96 respectively. However, this is not the case for firms operating in the steel manufacturing industry where Gerdau Ameristeel had a market to book value of equity equal to 0.78, while those for Dofasco and IPSCO were 1.13 and 1.05 respectively.

[Table 1]

As for directors' liability insurance, table 1 show that the majority of sample firms had liability insurance one year prior to the adoption decision. The policy coverage and the applicable deductible vary across sample firms. For instance, the Bank of Montreal provides each director with policy coverage equal to \$ 15 million and a \$ 10,000 deductible. Similarly, The Canadian Imperial Bank of Commerce protects its directors with an insurance policy that has a limit of \$150 million per claim with no deductible. The National Bank of Canada provides coverage of \$ 50 million with a \$1,000,000 deductible, while the Royal Bank has a liability insurance limit of \$ 75 million with no deductible. As for the Bank of Nova Scotia and the Toronto-Dominion Bank, they do not provide any liability insurance.

In the steel manufacturing industry, Dofasco Inc. provides its directors with liability insurance for a maximum of \$100 million and a \$500,000 deductible per occurrence. Gerdau Ameristeel's liability insurance has a limit of \$ 25 million in each policy year, with no deductible for directors and a deductible of \$ 500,000 for the Company. In

addition, IPSCO Inc. has insurance coverage with a yearly limit of US\$ 50 million with a US\$ 100,000 deductible for each claim. As for firms operating in the retail grocery industry, Sobeys provides its directors with liability insurance of \$ 50 million with no deductible, while Loblaw does not provide liability insurance for its directors.

With respect to stock ownership, table 1 show that outside directors own a small percentage of the shares outstanding in all sample firms. For instance, and one year prior to the adoption of a deferred share unit plan, outside directors at the Bank of Montreal owned 0.02 % of the shares outstanding. Share ownership goes down to a minimum of 0.01 % at the Bank of Nova Scotia, and reaches a maximum of 0.19 % at the Royal Bank of Canada. The trend is similar in firms operating in the steel manufacturing and retail grocery industry. For instance, Dofasco's outside directors owned 0.03 % of the shares outstanding, while directors at Gerdau Ameristeel and IPSCO owned 0.15 % and 0.12 % of the shares outstanding respectively. In addition, while Sobeys' outside directors held 0.50 % of the shares outstanding, those at Loblaw owned 0.02 % only.

In summary, sample firms have relatively high market to book ratio, provide liability insurance for their outside directors, and their outside directors own a small percentage of the shares outstanding. Thus, outside directors in sample firms may be subject to a moral hazard arising from the presence of high growth opportunities, the presence of liability insurance, and the relatively small percentage share ownership.

5.4.1.1.2 Antecedents: Conflict of Interests

To proxy for the conflict of interests outside directors' face, I consider whether a firm had

multiple voting shares, a nominating committee, and whether a single person acts as a CEO and as a COB one year prior to the adoption decision. Table 1 show that none of the sample firms had multiple voting shares. However, all firms had a nominating committee or a corporate governance committee that is entrusted with the nomination of new board members. This finding is in line with governance activists recommendations to establish an independent committee that is responsible for the identification and nomination of new board members.

Finally, and one year prior to the adoption decision, duality was pervasive in the banking industry where the chief executive officer occupied the chairman of the board position in the six domestic banks. However, duality is less present in the steel manufacturing industry and retail grocery industry, where all sample firms had a different person that occupy the chairman of the board position.

As a conclusion, multiple voting shares are not present in any of the sample firms. In addition, all sample firms had a nominating or a governance committee that is entrusted with the nomination of new board members, while duality is only present in all commercial banks. Thus, and using the hypothesized proxies, outside directors do not seem to face a significant conflict of interests in the selected sample firms.

5.4.1.1.3 Antecedents: Ownership structure

With respect to the ownership structure, the data in table 1 show that all commercial banks are widely held. However, this is not the case for firms operating in the steel manufacturing and retail grocery industry. For instance, two of three firms operating in

the steel manufacturing industry had an institutional block holder one year prior to the adoption of a deferred share unit plan. Trimark Investment owned around 14 % of Dofasco's outstanding shares, while Trimark Investment and Ontario Teachers Pension Plan owned 18.9 % and 12.1 % of Gerdau's outstanding shares respectively. Similarly, both Sobeys and Loblaw had a managing block holder one year prior to the adoption decision. Empire Company Limited, a company controlled by the Sobey family, owned around 61 % of Sobeys' outstanding shares. Similarly, George Weston Limited, controlled by Galen Weston through Wittington Investments, owned around 63 % of Loblaw's outstanding shares.

To conclude, all six commercial banks are widely held with no major block holder. Two of the three firms operating in the steel manufacturing industry had a non managing block holder, while the two firms operating in the retail grocery industry had a managing block holder. As a result, the sample firms' ownership structure does not seem to vary consistently with the hypothesis presented in the theoretical framework.

5.4.1.1.4 Summary

In summary, the clinical study shows that the moral hazard outside directors' face is relatively significant in sample firms. Findings also show that outside directors in sample firms are not clearly subject to a significant conflict of interests. This conclusion may be driven by the fact that sample firms do not have any variation with respect to the presence of multiple voting shares and to the absence of a nominating committee. Results show that the ownership structure does not seem to be associated with the adoption decision as well. This finding might be due to the fact that the theoretical framework focuses on the

monitoring role played by outside directors and ignores the role they play as resource providers (Hillman and Dalziel, 2003). Within a resource dependence framework, firms rely on equity based compensation to provide outside board members with the incentives to actively secure the financial and non-financial resources available in the firms' environment. Hence, despite these initial insights, multivariate analysis provides a richer context to analyze the association between the adoption decision and proxies for the agency problem at the board level.

5.4.1.2 Consequences

5.4.1.2.1 Stock market reaction

The adoption of a deferred share unit plan is hypothesized to generate a positive stock market reaction at and around the adoption announcement date. The stock market reaction is expected to vary with the plan's attributes. Looking at table 2, the results show that the adoption decision does not seem to generate positive abnormal returns around the adoption announcement date. Abnormal returns are not consistently positive at the proxy statement, and one day following the proxy statement date. In addition, cumulative abnormal returns are mostly negative over the various time windows.

[Table 2]

For instance, three out of the eleven firms had significantly positive returns at the adoption announcement date²⁸ where abnormal return for the Canadian Imperial Bank of Commerce is 0.082 (p-value < 0.01), while those for Dofasco Inc. and Loblaw Companies

²⁸ t-statistics are calculated as per Ruback (1982), while t-critical is equal to $t(\alpha, 150)$.

are 0.031 (p-value < 0.10) and 0.007 (p-value < 0.10) respectively. However, the Royal Bank of Canada had negative abnormal returns (-0.024, p-value < 0.10), while abnormal returns were not significantly different from 0 for the remaining firms. With respect to the abnormal returns one day following the proxy statement date, table 2 shows that abnormal returns for the Royal Bank of Canada and Sobeys Inc. were 0.021 (p-value < 0.10) and 0.030 (p-value < 0.05) respectively. However, abnormal returns for the Canadian Imperial Bank of Commerce were -0.033 (p-value < 0.05), while those for Loblaw Companies were -0.040 (p-value < 0.05).

The trend is comparable over the three time windows. For instance, the Canadian Imperial Bank of Commerce was the only firm that had positive cumulative abnormal returns over the three time windows. Most of the remaining firms had either negative abnormal returns over one or more windows, or had mixed abnormal returns over the three windows. For instance, abnormal returns for IPSCO Inc. were significantly negative over the (t-1, t+1) window while they are not significantly different from 0 over the other two windows. The National Bank of Canada had positive abnormal returns over the (t-5, t+5) window, while the Bank of Montreal and the Bank of Nova Scotia had negative abnormal returns over two of the three time windows.

5.4.1.2.1.1 Stock market reaction: Plans' attributes

The theoretical framework hypothesizes that the stock market reaction is higher in firms that adopt mandatory plans, and in firms that adopt plans that are coupled with stock ownership guidelines (table 3). Looking at the daily and cumulative abnormal returns of sample firms in table 2, the stock market reaction does not seem to vary systematically

with the attributes of the deferred share unit plans. For instance, the Canadian Imperial Bank of Commerce which adopted a share unit plan that is coupled with share ownership guidelines record positive abnormal returns at the proxy statement date and over the three time windows. In addition, the National Bank of Canada which adopted a comparable plan records positive abnormal returns over the (t-5, t+5) window. In contrast, other firms that adopted mandatory deferred share unit plans and/or deferred share unit plans that are coupled with stock ownership guidelines record negative abnormal returns around the adoption announcement date. For example, the Bank of Montreal which adopted a mandatory deferred share unit plan that require directors to defer at least 50 percent of their annual retainer exhibit negative cumulative abnormal returns over two of the three time windows. The situation is somehow comparable for the Royal Bank of Canada which adopted a deferred share unit plan that is coupled with share ownership guidelines requiring directors to hold shares and/or deferred share units with a value of not less than eight times their annual retainer. The Royal Bank exhibits negative abnormal return at the proxy statement date, while exhibiting positive abnormal returns one day following the proxy statement date and negative abnormal returns over one of the three time windows. Similarly, IPSCO Inc. which adopted a mandatory plan that is coupled with ownership guidelines had significantly negative abnormal returns over the (t-1, t+1) window.

[Table 3]

5.4.1.2.1.2 Summary

In summary, the preliminary analysis shows that the adoption decision does not consistently generate positive abnormal returns at and around the adoption announcement

date. In addition, the stock market reaction does not seem to vary systematically with the plans' attributes. Daily abnormal returns and cumulative abnormal returns are not consistently higher in firms that adopt stricter deferred share unit plans that enhance the alignment of directors' interests with those of the shareholders.

These results may be due to two reasons. First, investors' reaction may be associated with the additional information disclosed in the proxy circular rather than being dependent on the adoption of the share unit plan and its attributes. Second, the stock market reaction may be associated with the increase in the risk assumed by outside directors and with the costs related to the attraction and retention of qualified board members.

5.4.2 Social perspective: Institutional theory

5.4.2.1 Antecedents

I examine the social characteristics of sample firms by investigating proxies for the coercive, mimetic and normative pressures that sample firms face. To proxy for coercive pressure, I examine whether sample firms with multiple voting shares had an institutional block holder one year prior to the adoption. As for the proxies related to mimetic and normative pressures, I examine whether sample firms had a compensation consultant one year prior to the adoption decision, and whether sample firms had board interlock with adopting firms at or one year prior to the adoption decision.

5.4.2.1.1 Antecedents: Coercive pressures

As discussed before, none of the firms had multiple voting shares (Table 1). Commercial

banks are widely held with one class of shares that carries a single vote. Firms operating in the steel manufacturing industry had institutional block holder(s) and common shares that carry a single vote. Finally, firms operating in the retail grocery industry had a single voting class of shares, and a family block holder. The Sobey family and the Weston family are major shareholders in firms that have significant ownership in Sobeys and Loblaw. As a result, and given the sampling result, it is not possible to investigate the association between coercive pressures and the adoption decision.

5.4.2.1.2 Antecedents: Mimetic pressures

Regarding mimetic pressures, table 4 shows that all firms in the three industries rely on the services of compensation consultants. The six largest domestic banks rely on independent compensation consultants that gather information related to the compensation practices of comparable financial institutions in Canada and the United States. The situation is similar for firms operating in the steel manufacturing industry. Dofasco's and Gerdau's compensation committee rely on compensation consultants to obtain information on the compensation practices for a comparator group consisting of large autonomous Canadian industrial organizations, while IPSCO's compensation committee relies on the services of compensation consultants when deemed to be necessary. The same applies to firms operating in the retail grocery industry where Sobeys' board considers the recommendations of independent compensation when designing their compensation packages, while loblaw's compensation committee relies on the services of independent consultants to assess the competitiveness of its compensation practices. Thus, it seems that mimetic pressures from compensation

consultants are positively associated with the adoption decision.

[Table 4]

5.4.2.1.3 Antecedents: Normative pressures

With respect to board interlock, the data in table 4 show that five of the six commercial had interlocking directorates with firms that already adopted a deferred share unit plan. For instance, the National Bank of Canada had an interlocking director with Domtar Inc. which adopted a deferred share unit plan in the preceding year, the Bank of Nova Scotia had interlocking directors with Dofasco, an early adopter, and the Canadian Imperial Bank of Commerce had an interlock with Westcoast energy which adopted a deferred share unit plan in the preceding year. Similarly, the Canadian Imperial Bank of Commerce and the Royal Bank had board interlock with firms that adopted a deferred share unit plan in the same year. This is not the case, however, for the Bank of Montreal, an early adopter, which had no board interlock with other adopting firms.

In the steel manufacturing industry, IPSCO Inc., Dofasco, and Gerdau Ameristeel did not have any interlocking directorate at or one year prior the year of adoption. However, Gerdau Ameristeel had board interlock with Suncor Inc., a firm that adopted a deferred share unit plan in the same year. This is similar to Sobeys and Loblaw which has interlocking directorate with Empire Company Limited and Geroge Weston Limited which adopted a deferred share unit plan in the same years. As a result, normative pressures from board interlock seem to be positively associated with the adoption decision.

5.4.2.1.4 Summary

To conclude, given the sampling results, the analysis did not investigate the association between coercive pressure and the likelihood of adopting a deferred share unit plan for outside directors. However, the analysis examines the association between mimetic and normative pressures and the likelihood of adoption. Results show that sample firms are subject to strong mimetic and normative pressures from the reliance on the services of compensation consultants and from the presence of board interlock with other adopting firms at or one year prior to the adoption decision.

Consequences

5.4.2.2.1 Stock market reaction

The theoretical framework hypothesizes that the adoption of a deferred share unit plan generates a positive stock market reaction around the adoption announcement date. In addition, the stock market reaction is hypothesized to vary with the adopting firm category, and with the rationale used to disclose the adoption decision. Prior analysis showed that abnormal returns are not consistently positive at and around the adoption announcement date. Hence, the following section examines whether the stock market reaction varies with the adopter category and with the rationale used to disclose the adoption decision.

5.4.2.2.1.1 Stock market reaction: Adopter category

With respect to the adopting firms' category, I examine whether abnormal returns and

cumulative abnormal returns are higher for late adopters. Table 4 show that four of the six banks were classified as early adopters, where the Bank of Montreal, the Canadian Imperial of Commerce, the Royal Bank of Canada, and the Toronto-Dominion bank adopted a deferred share unit plan for the fiscal year 1997 or 1998²⁹. In addition, Dofasco Inc. adopted its deferred share unit plan for the fiscal year 1998, and was accordingly classified as an early adopter. All remaining sample firms were classified as late adopters since they adopted a deferred share unit plan in 1999 and onward.

Late adopters do not seem to record higher abnormal returns than early adopters. For instance, and in the exception of Sobeys and Loblaw, none of the late adopters recorded positive abnormal returns at or one day following the proxy statement date. In addition, many late adopters, such as the Bank of Nova Scotia, Gerdau, and IPSCO had negative abnormal returns over one or more time windows. In contrast, various early adopters such as the Canadian Imperial Bank of Commerce, the Royal Bank of Canada, and Dofasco had positive abnormal returns at or one day following the proxy statement date. The Canadian Imperial Bank of Commerce, an early adopter, records positive cumulative abnormal returns over the various time windows. Thus, daily and cumulative abnormal returns do not seem to vary systematically with the adopting firm category.

5.4.2.2.1.2 Stock market reaction: Corporate disclosure

Regarding corporate disclosure, I examine whether firms that use an agency based perspective to disclose the adoption decision record higher daily and cumulative abnormal returns around the adoption announcement date. Corporate disclosure shows

²⁹ Early adopters are classified based on the adoption decision date. Early adopters include the first 20 percent of sample firms that adopted a deferred share unit over the period 1997-2003 (Rogers, 1995).

that while some firms disclosed the adoption decision using one or more theoretical perspectives, others did not rely on any theoretical perspective when disclosing the adoption decision. In the case of the Bank of Montreal, the institutional perspective clearly shows in their reference to the significant trend towards equity based pay in North America. The agency perspective is also clear in their disclosure where they highlight the importance of aligning directors' interests with those of the shareholders through equity ownership ³⁰ (Table 4). The disclosure by other banks was not as explicit and rich. For instance, the Bank of Nova Scotia, the Canadian Imperial Bank of Commerce, the Royal Bank of Canada, and the Toronto Dominion Bank relied solely on an agency perspective to disclose the adoption decision. The four banks highlighted the importance of aligning directors' interests with those of the shareholders through stock ownership. Finally, the National Bank of Canada did not use any theoretical perspective to disclose the adoption decision.

All three firms in the steel manufacturing industry did not use an agency, institutional, or a human resource perspective to disclose the adoption decision. Finally, while Sobeys did not use any perspective to disclose the adoption decision, Loblaw relied on an agency perspective to disclose the adoption decision.

Abnormal returns and Cumulative abnormal returns do not seem to vary systematically with the theoretical perspective used to disclose the adoption decision. For instance, the Bank of Montreal, the Bank of Nova Scotia, and the Royal Bank of Canada rely on an agency based perspective to disclose the adoption decision, and record negative

³⁰ To classify a firm as using an agency based perspective, I search the disclosure of the adoption decision for key concepts related to agency theory such as alignment of interests, agency costs, conflict of interests (Zajac and Westphal, 2004; Westphal and Zajac, 1998).

cumulative abnormal returns over one or more time windows. However, the Canadian Imperial Bank of Commerce which used a similar perspective records positive cumulative abnormal returns over the various time windows. In contrast, the National Bank of Canada did not use an agency based perspective, and record positive cumulative abnormal returns over one of the time windows.

5.4.2.2.1.3 Summary

Preliminary results show that abnormal returns do not consistently vary with the adopting firm category and with the rationale used to disclose the adoption decision. Findings show that the adopting firm category and the degree of institutionalization of the deferred share unit plan do not significantly affect firm value. This may be due to the fact that investors focus on the adoption decision rather than the time of adoption or the theoretical perspective used to disclose the adoption decision. In addition, it is important to control for the characteristics of the share unit plan under consideration and for the additional information disclosed in the proxy circular. Hence, multiple regression analysis is expected to provide a better understanding of the association between abnormal return, agency and institutional proxies.

5.5 SUMMARY

This clinical study relied on the theoretical framework developed in chapter 4 to examine the social and economic characteristics in a sample of 11 adopting firms, and to investigate the stock market reaction around the adoption announcement date. At the antecedents level, preliminary analysis suggests that outside directors face a significant

moral hazard due to high growth opportunities, the presence of liability insurance and the low percentage share ownership. In addition, sample firms are subject to significant institutional pressures arising from the presence of compensation consultants, and from the presence of board interlock with firms that previously or concurrently adopted a deferred share unit plan at the board level. However, preliminary analysis does not show a strong association between the conflict of interests, the firms' ownership structure, and the likelihood of adopting a deferred share unit plan at the board level.

At the consequences level, preliminary findings show that abnormal returns are not consistently positive at and around the proxy statement date. In addition, results do not suggest that daily and cumulative abnormal returns systematically vary with the plans' attributes, the adopting firm category, and the rationale used to disclose the adoption decision. Daily abnormal returns at and one day following the proxy statement date, and cumulative abnormal returns over the various time windows do not consistently vary in the hypothesized directions.

CHAPTER 6

DEFERRED SHARE UNIT PLANS FOR OUTSIDE DIRECTORS IN CANADA: ANTECEDENTS

6.1 INTRODUCTION

The corporate governance landscape has witnessed significant changes over the past years. In addition to changes in corporate board structure and leadership, firms have restructured their board compensation practices leading to a major movement toward stock based compensation in corporate boardrooms (Byrne, 1996; Dalton and Daily, 2001). Posnak (2001) and Kerr (2003) suggest that firms increasingly require board members to take part of their compensation in the form of shares or share units. Mercer Human Resources consulting confirms this trend where 44 percent of the firms listed on the S&P/TSX adopted deferred share unit plan in 2003, compared to 38 percent in 2002, and 35 percent in 2001.

Academic researchers and institutional investors suggest that firms adopt equity based pay to resolve the agency problem at the board level. They argue that outside directors do not have the necessary motivation to diligently generate and review the information needed for decision making purposes, and are not sufficiently independent from strongly entrenched managers (Boumosleh, 2005). However, others suggest that firms adopt equity based pay to comply with legitimate compensation practices. They note that outside directors are already motivated to monitor top management, and have their interests aligned with those of the shareholders (Hambrick and Jackson, 2000).

Despite this movement toward equity based pay and the existing controversy, a limited body of research examines why certain firms adopt certain compensation plans while others do not. Core et al. (1999) argue that little is known about the determinants of adopting equity based compensation at the board level. Brick et al. (2002) and Linn and Park (2003) suggest that scant research examines the factors that determine the compensation for outside board members. Barringer and Milkovich (1998) note that, beyond surveys of compensation practices, researchers devote little attention to understand why some firms adopt certain compensation plans while others do not.

This chapter investigates the antecedents of adopting a deferred share unit plan for outside directors in Canada over the period 1997-2003. I compare the agency and institutional characteristics of 123 adopting firms to those of a control sample matched based on firm size and industry (Brozovsky and Sopariwala, 1995). I predict that the likelihood of adopting a deferred share unit plan is higher in firms having an agency problem at the board level, firms having a non managing block holder, and firms facing significant institutional pressures. In line with the agency perspective, results show that the likelihood of adoption is higher in the presence of an agency problem at the board level, and in the presence of a non managing block holder. In agreement with the institutional perspective, results show that firms facing stronger institutional pressures are more likely to adopt a deferred share unit plan at the board level.

This chapter proceeds as follows. Section 2 reviews the literature. Section 3 presents a description of the sample, statistical method, and variable definition. Section 4 presents the descriptive statistics and results. Section 5 includes the discussion and conclusion.

6.2 LITERATURE REVIEW

The prior literature investigating the antecedents of adopting equity based compensation plans is split into two main streams. The first, more recent, stream seeks to identify the antecedents of adopting equity based compensation for outside board members³¹. For instance, Fich and Shivdasani (2004) find that firms with high growth opportunities and those with institutional shareholdings are more likely to adopt a stock option plan at the board level. Vafeas (1999) show that the likelihood of adopting incentive plans for outside directors increases with the fraction of outside directors on board. Perry (1999) finds that independent directors and institutional ownership increase the likelihood of adopting stock based pay for outside directors.

The second stream of research examines the antecedents of adopting long term incentive plans for top management. The existing literature mostly focuses on the association between firm financial characteristics, firm governance structure, and the adoption decision. For instance, Brozovsky and Sopariwala (1995) finds that firms adopting performance plans for their executives have a smaller investment opportunity set, underinvest in research and development, and use performance plans to counter balance the short term focus created by stock options. Westphal and Zajac (1994) find that firms with powerful CEOs and those with poor organizational performance are more likely to adopt long term incentive plans for their executives. Finally, Gaver (1992) finds that firms having stagnant opportunity sets, and those having lapsed stock options are more likely to

³¹ A related stream examines the factors that determine the level and structure of outside directors (Hempel and Fay, 1994; Bryan et al., 2000; Cordeiro et al., 2000; Brick et al., 2002; Ryan and Wiggins, 2003; Linn and Park, 2003; Becher et al., 2004; Bryan and Klein, 2005). Findings show a positive association between equity based pay, and institutional ownership, growth opportunities, the percentage of outside directors, and deregulation in the banking industry.

adopt performance plans for their executives.

6.3 RESEARCH METHOD

6.3.1 Sample

The population includes all firms listed on the Globe and Mail survey of the largest 1000 publicly traded Canadian firms over the period 1997-2003. To determine whether a firm adopted a deferred share unit plan for outside directors, I examine the “Directors’ Compensation” section in each firm’s proxy circular over the period 1997-2003³². Securities legislation requires publicly held enterprises to disclose directors’ remuneration in their annual proxy circular. The resulting sample includes 123 firms that adopted a deferred share unit plan at the board level.

With respect to the control sample, control firms are matched with sample firms based on firm size and industry affiliation in the year preceding the year of adoption (Brozovsky and Sopariwala, 1995; Vafeas, 1999). Matching is expected to control for the potential influence of firm size and industry on the adoption decision. The perfect match is that for firms operating in the same industry and having the closest sales figures (Vafeas, 1999). As a result, for every year, I select a number of non-adopting firms (firms that did not have a deferred share unit plan up to 2003) that is equal to the number of adopting firms in that year while matching based on firm size and industry.

Given the nature of our sample (largest publicly traded Canadian firms), it was not always possible to match based on firm size and industry. In many instances, control

³² At the time of data collection, all proxy circulars were available on www.sedar.com starting 1997.

firms were smaller than sample firms³³. In addition, control firms did not always have the same three or four digit SIC code as sample firms. As a result, matching based on firm size and three/four digit SIC code was possible for only 64 out of the 123 firms.

6.3.2 Model and Variable definition

I use logistic regression where the dependent variable is a dichotomous variable taking the value of 1 in case a firm adopted a deferred share unit plan for outside directors, and 0 otherwise. Unless otherwise stated, explanatory and control variables are measured at the end of the year preceding the year of adoption using Compustat (financial data) and proxy circulars (governance data) resulting in the following model:

$$\text{Log (Odds)} = \alpha + \beta_1 \cdot \text{MBEQUITY} + \beta_2 \cdot \text{INSURANCE} + \beta_3 \cdot \text{LNSHAREOWN} + \beta_4 \cdot \text{MULTIPLE} + \beta_5 \cdot \text{NOMINATING} + \beta_6 \cdot \text{DUALITY} + \beta_7 \cdot \text{INSTITUTION} + \beta_8 \cdot \text{OTHERBLOCK} + \beta_9 \cdot \text{MANAGEBLOCK} + \beta_{10} \cdot \text{MULTIPLE} \cdot \text{INSTITUTION} + \beta_{11} \cdot \text{CONSULTANTS} + \beta_{12} \cdot \text{INTERLOCK} + \text{CONTROL VARIABLES}$$

Log (Odds):	Log of the probability to adopt a deferred share unit plan divided by 1 minus the probability to adopt a deferred share unit plan.
MBEQUITY:	Share price times number of outstanding shares at year end divided by the year end equity book value (Lin and Park, 2003).
INSURANCE:	Dummy equals 1 in the presence of directors' insurance, 0 otherwise.
LNSHAREOWN:	Log of the average percentage of shares owned by outside directors (Vafeas, 1999).

³³ Vafeas (1999) had the same problem where firm size is statistically significant between sample and control firms.

MULTIPLE:	Dummy equals 1 in the presence of multiple voting shares, 0 otherwise.
NOMINATING:	Dummy equals 1 in the presence of a nominating committee, 0 otherwise.
DUALITY:	Dummy equals 1 in case of duality, 0 otherwise.
INSTITUTION:	Dummy variable equals 1 in the presence of institutional investors with more than 10 percent ownership, 0 otherwise.
OTHERBLOCK:	Dummy equals 1 in the presence of other non managing block holders which owns more than 10 percent, 0 otherwise.
MANAGEBLOCK:	Dummy equals 1 in the presence of a managing block holder (block holder that occupy that CEO position or is part of top management) with more than 10 percent ownership, 0 otherwise.
MULTIPLE*INSTITUTION:	Dummy equals 1 in the presence of multiple voting shares and institutional block holder(s), 0 otherwise.
CONSULTANTS:	Dummy equals 1 in the presence of a compensation consultant at or one year prior to adoption, 0 otherwise.
INTERLOCK:	Dummy equals 1 in the presence of board interlock with a company that already adopted or concurrently adopt a deferred share unit plan, and 0 otherwise.

6.3.2.1 Measurement of control variables

Prior research shows that larger firms, firms having a liquidity crisis, and firms that fall in a low income tax bracket are more likely to grant equity based pay at the board level (Bryan and Klein, 2005; Core et al., 2003; Ittner et al., 2003). I use the log of sales to proxy for firm size (Vafeas, 1999), the free cash flows scaled by the market value of the firm to proxy for liquidity (Bryan and Klein, 2005), and the net loss carry forward scaled

by the market value of the firm to proxy for a firm's income tax bracket (Bryan and Klein, 2005).

The prior literature also suggests that firms having a higher proportion of outside directors on board and firms with high leverage are more (less) likely to grant equity based pay at the board level (Bryan and Klein, 2005; Perry, 1999). In addition, prior research suggests that the adoption decision is a function of the existing compensation structure and firm performance (Vafeas, 1999; Perry, 1999). As a result, I control for the percentage of outside directors on board and firm leverage. I also include a dummy variable that takes the value of 1 in case a firm had a directors' stock option plan prior to the adoption decision and 0 otherwise. Finally, I control for firm performance by using stock returns for the year preceding the adoption decision. All control variables are measured in the year preceding the year of adoption using Compustat data except the percentage of outside directors which was obtained from proxy circulars.

6.4 RESULTS

6.4.1 Sample

Sample and control firms are listed on the Globe and Mail survey of the largest 1000 publicly traded Canadian firms over the period 1997–2003. Table 5 shows that sample firms operate in a wide range of industries, and increasingly adopt a deferred share unit plan to compensate their outside directors. In 1997, seven firms had a deferred share unit plan to compensate their outside directors. The number has increased to 123 by 2003.

[Table 5]

6.4.2 Descriptive Statistics

Table 6 provides descriptive statistics related to the compensation practices in Canadian corporate boardrooms. Panel A shows that, on average, outside directors receive an annual retainer of \$14,160, while the mean retainer paid to committee chairs and committee members is \$ 2,291 and \$ 850 respectively. The mean compensation paid for the chairman of the board is \$ 30630, while directors receive a board meeting fee of \$ 968, and a committee meeting fee of \$ 884 respectively. The mean cash payments for outside directors are significantly different between sample and control firms with a p-value < 0.00. This is not surprising given that sample firms are significantly larger than control firms³⁴ (p-value < 0.00).

[Table 6]

Sample and control firms use equity based pay to compensate their outside directors as well. The data in panel B show that 97 firms use stock options to compensate their outside directors, 56 of which are control firms (p-value > 0.10). As for the deferred share unit plans, the data show that 33 of the 123 sample firms have a mandatory deferred share unit plan. Thirty six firms have a deferred share unit plan that is coupled with stock ownership guidelines, while 13 firms only have a plan that is both mandatory and coupled with stock ownership guidelines.

The uni-variate tests provide preliminary support for the moral hazard hypothesis. In line with my proposition, table 6 (Panel A) shows that sample firms have a higher market to

³⁴ Prior research shows that firm size is a primary determinant of directors' compensation (Hempel and Fay, 1994).

book value of equity, market to book value of assets, and variance in stock returns than control firms ($p\text{-value} < 0.05$). However, and contrary to my expectations, the presence of directors' liability insurance and its magnitude over its dollar value scaled by the market value of equity is not statistically different between sample and control firms ($p\text{-value} > 0.10$). Panel B shows that 100 sample firms had liability insurance for their outside directors, as opposed to 83 control firms only. Panel A shows that the ratio of liability insurance to the market value of equity was 0.068 and 0.048 for control and sample firms respectively ($p\text{-value} > 0.10$). Finally, and contrary to my prediction, Panel A shows that outside directors in sample firms own a larger percentage of the shares outstanding than those in control firms ($p\text{-value} < 0.05$).

The uni-variate tests show that the conflict of interests at the board level is not significantly higher in sample firms. Contrary to my propositions, the data in panel B shows that the presence of multiple voting shares is not statistically significant between sample and control firms ($p\text{-value} > 0.10$) where multiple voting shares are present in 19 sample firms and 17 control firms. In addition, the data shows that nominating committees are more common in sample than control firms. A nominating committee is present in 105 sample firms, while it is present in 61 control firms only ($p\text{-value} < 0.00$). Finally, though the difference is not statistically significant, duality seems to be more present in control firms, where it exists in 49 control firms as opposed to 30 sample firms only ($p\text{-value} > 0.10$).

With respect to the ownership structure, Panel A shows that mean institutional ownership is 6 percent, while that of managing block holder(s) reaches around 22 percent. In

addition, institutional shareholder(s)' maximum ownership reaches 55 percent of the shares outstanding, while that of managing block holder(s) is almost 87 percent of the shares outstanding. Non managing block holder(s) has a mean ownership of 2.96 percent with maximum ownership reaching as high as 69.9 percent. Panel A shows that share ownership by institutions, non-managing, and managing block holders is not significantly different between sample and control firms ($p\text{-value} > 0.10$). Similarly, Panel B shows that the presence of institutional, non-managing and managing block holder(s) is not statistically significant among the two groups ($p\text{-value} > 0.10$).

Regarding institutional pressures, the data shows that institutional pressures are relatively higher in sample firms. Although coercive pressures arising from the presence of institutional investors and multiple voting shares is not significantly different between sample and control firms ($p\text{-value} > 0.10$), Panel B shows that mimetic and normative pressures are higher in sample firms. The data shows that compensation consultants are present in 90 sample firms as compared to 14 control firms only ($p\text{-value} < 0.00$). Similarly, board interlocks are more present in sample firms with 76 sample firms having a board interlock with other adopting firms as compared to 29 control firms only ($p\text{-value} < 0.00$).

With respect to the control variables, Panel A shows that sample firms are significantly larger than control firms ($p\text{-value} < 0.00$) suggesting that our matching did not perfectly control for the influence of firm size on the adoption decision. Prior research had similar problems given the fact that adopting firms are basically the largest publicly traded firms (Vafeas, 1999). Mean free cash flow is around 0.7 percent of the market value of equity,

while the maximum reaches as high as 160 percent of the market value of equity. Sample firms have significantly lower free cash flows than control firms (p-value < 0.05). Mean loss carry forward equals 10.7 percent while the maximum reaches 176 percent of the market value of equity. Leverage has a mean of 41.5 percent and a maximum of 114 percent. Finally, the percentage of outside directors is higher in sample firms as compared to that in control firms (p-value < 0.05). In addition, sample firms had higher one year total stock return stock performance than control firms (p-value < 0.05).

6.4.3 Correlation Matrix

Table 7 (Panel A) presents the spearman bi-variate correlations for the main variables of interest³⁵. The correlation matrix shows that adopting firms have a larger market to book value of equity, a larger percentage share ownership by outside directors, and provide more frequently liability insurance for their directors than non adopting firms. In addition, adopting firms are more (less) likely to have a nominating committee (duality). Furthermore, adopting firms apparently rely more on the services of compensation consultants, and have board interlocks with other adopting firms. Finally, adopting firms are larger, have less free cash flows, have more outsiders on board, and perform better than control firms.

[Table 7]

Table 7 shows that the likelihood of adoption is not significantly associated with the ownership structure of the firm. However, the correlation matrix shows that institutional

³⁵ Multi-collinearity does not seem to be an issue since most of the significant correlations are smaller than 0.40.

and other non-managing block holder(s) are less present in firms having a managing block holder(s). In addition, the presence of a managing block holder is positively associated with the presence of multiple voting shares, while being negatively associated with the presence of a nominating committee and the percentage of outside directors on board. These findings suggest that firms with managing block holder(s) potentially have weaker corporate governance structures.

6.4.4 Multivariate Analysis

The dependent variable is a dummy variable that takes the value of 1 in case a firm is a sample firm, 0 otherwise. The independent variables include proxies for the economic and social factors that are associated with the adoption of a deferred share unit plan, in addition to control variables that potentially influence the adoption decision.

Table 8 shows the results for the base model (Column one) where the market to book value of equity and stock return are used as a proxies for the firm's growth opportunities and firm performance respectively. The model is highly significant with a chi-square equal to 203.13 (p-value < 0.00). The Hosmer and Lemeshow test assess the goodness of fit of the model. The Chi-square statistic is not significant (7.47, p-value > 0.10) showing that the model fits well the data. The Cox & Snell R^2 shows that the model explains around 56 percent of the variation in the log (odds) of adoption, while it correctly classifies 87 percent of the cases.

[Table 8]

The results partially support the moral hazard hypotheses. In agreement with my first

hypothesis (H1a), firms with higher growth opportunities are more likely to adopt a deferred share unit plan for their outside directors. The data show that the parameter estimate for the market to book value of equity is positive and significant (0.31, p-value<0.10). This finding is line with prior research showing that the likelihood of adopting equity based compensation at the board level is higher in firms that have higher growth opportunities (Fich and Shivdasani, 2004). In line with my second hypothesis (H1b), firms that provide directors with liability' insurance are more likely to adopt a deferred share unit plan for outside directors (1.46, p-value< 0.05). However, in contrast to my third hypothesis (H1c), the likelihood of adoption is higher in firms where outside directors have a larger percentage share ownership (0.51, p-value> 0.00). A potential explanation is that adopting firms might have a board culture that encourages share ownership. Thus, board members that had previously owned a larger percentage of their firms' outstanding shares are more likely to adopt a deferred share unit plan that further encourages share ownership by outside directors (Dimma, 1999).

Our results do not provide any support for the conflict of interests' hypothesis. With respect to hypothesis (H2a), the presence of multiple voting shares does not significantly increase the likelihood of adoption given the positive but insignificant parameter estimate (0.36, p-value> 0.10). In contrast to hypotheses (H2b), the parameter estimate for the presence of nominating committee is positive and significant (2.31, p-value< 0.00) suggesting that firms having a nominating committee are more likely to adopt a deferred share unit plan for outside directors. This finding is in line with the prior literature suggesting that firms with a nominating committee have more independent board members that take actions which increase shareholders' wealth (Gerety et al., 2001). As

for hypothesis (H2c), duality does not seem to significantly increase the likelihood of adoption given the negative and insignificant parameter estimate (-0.45, p-value > 0.10).

Findings also fail to provide any support for the ownership structure hypothesis. Although the parameter estimates for the presence of institutional investors and other non managing block holder(s) are positive as hypothesized in (H3), they were not significant at the 10 percent significance level. This finding is in contrast with the prior literature showing that institutional investors increase the likelihood of adopting equity based pay at the board level (Fich and Shivdasani, 2004). In addition, and in contrast to our hypothesis, the presence of a managing block holder increases the likelihood of adopting a deferred share unit plan for outside directors (0.98, p-value < 0.05). This finding might be due to two different reasons. First, a managing block holder may adopt a deferred share unit plan to motivate outside directors to excel as resource providers rather than as monitors³⁶. Second, a managing block holder may adopt a deferred share unit plans to manage the impression of investors by adopting compensation practices that apparently enhance board monitoring and oversight (Halpern, 1999).

The results provide strong support for the social perspective. In line with hypotheses (H7, H8), compensation consultants and board interlocks significantly increase the likelihood of adoption given the parameter estimates (p-value) equal to 1.43 (p-value < 0.00) and 3.07 (p-value < 0.00) respectively. These results suggest that firms subject to higher mimetic (H7) and higher normative pressures (H8) are more likely to adopt a deferred share unit plan at the board level. However, and in contrast to (H6), the presence of institutional investors does not significantly influence the likelihood of adopting a

³⁶ Hillman and Dalzell (2003) suggest that board members are monitors and resource providers.

deferred share unit plan in firms having multiple voting shares (1.06, p-value > 0.10).

With respect to the control variables, larger firms are more likely to adopt a deferred compensation plan to compensate their outside directors (0.29, p-value < 0.05). In addition, firms are more likely to adopt a deferred share unit when they have a liquidity constraint. The cash flow position of a firm seems to influence the likelihood of adoption given the significantly negative parameter estimate (-1.18, p-value < 0.05). Similarly, firms that fall in a low income tax bracket are more likely to adopt a deferred share unit plan at the board level (1.51, p-value < 0.00). However, firm leverage, the percentage of outside directors on board, board compensation structure and firm performance do not seem to be associated with the likelihood of adoption.

6.5 SENSITIVITY ANALYSIS

As a first sensitivity analysis, I use the return on equity and the return on assets as alternative measures of firm performance. The results are shown in table 8. The models are highly significant with a Chi-square statistics (p-value) equal to 202.85 (0.00) and 204.27 (0.00) respectively. The fit measures show an overall good fit with the Hosmer and Lemeshow Test Chi-square statistic equal to 4.79 (p-value > 0.10) and 5.00 (p-value > 0.10) respectively. The sign and significance of the parameter estimates for the main variables of interest did not change, and are comparable to those obtained in the base model. As with the base model, results provide partial support for the agency perspective, while providing strong support for the institutional perspective.

As additional sensitivity tests, I use the market to book value of assets (table 9) as an

alternative measure of growth opportunities. Table 9 shows that the sign and significance of the main variables of interest are comparable to the base model. The only difference is in the parameter estimate for the return on equity is positive and significant (0.01, p-value < 0.10) suggesting that firms having larger return on equity are more likely to adopt a deferred share unit plan at the board level.

[Table 9]

I also use the variance in stock return as another measure of growth opportunities (Results not tabulated). The basic results are also comparable to the base model. All three models are significant with comparable explanatory power. However, and in contrast to the previous models, the parameter estimate for other block holder(s) is positive and significant. This finding supports our third hypothesis (H3) and suggests that non-managing block holders that face significant information asymmetry seek to align directors' interests with those of the shareholders. In addition, and in support of hypothesis (H6), the parameter estimate for the interaction effect suggests that institutional investors are more likely to exert coercive pressures to adopt a deferred share unit plan in firms that have multiple voting shares. As for the control variables, the parameter estimates for the return on equity and the return on assets also became positive and significant suggesting that adopting firms perform better than non-adopting firms.

[Table 10]

In addition, I replace the dummy variable proxying for liability insurance with the dollar value of the liability insurance scaled by firm sales. I replace the dummy variable

proxying for the firms' ownership structure with continuous variables measuring the percentage ownership by institutional, other non-managing, and managing block holders. Finally, I replace the dummy variable proxying for the presence of multiple voting shares with a dummy that takes the value of 1 in the presence of multiple voting shares, non-voting shares, or pyramid structure. The overall results are the same supporting the conclusions drawn from the previous models.

As a final sensitivity test, I replace my matched sample with a control sample randomly selected using a choice based sampling method (Gaver, 1992; Palepu, 1986; Zimjewski, 1984). For every year, I randomly select a number of non-adopting firms that is equal to the number of adopting firms in that year. The basic conclusions remain the same providing partial support for the agency perspective, while providing strong support for the institutional perspective (Table 10).

6.6 DISCUSSION AND CONCLUSIONS

In contrast to executive compensation, outside directors' compensation started receiving attention recently. To the best of my knowledge, there is no existing research that examines the factors that are associated with the adoption of a deferred share unit plan for outside directors in the U.S. or Canada. This chapter presents the first empirical evidence about the factors associated with the adoption of a deferred share unit plan to compensate outside directors in Canada.

The results provide partial support for the economic perspective. In line with my predictions, the presence of a moral hazard at the board level increases the likelihood of

adopting a deferred share unit plan to compensate outside directors in Canada. Contrary to my prediction, the conflict of interests at the board level does not seem to increase the likelihood of adopting a deferred share unit plan for outside directors in Canada. Finally, the results provide partial support for the ownership structure hypothesis where the presence of non managing block holder(s) significantly increases the likelihood of adoption.

Additional findings extend the prior literature investigating the association between institutional factors and organizational decision-making. The results provide strong support for the social perspective where mimetic and normative pressures significantly increase the likelihood of adoption. In line with my predictions, mimetic pressures arising from the presence of compensation consultants and normative pressures resulting from the presence of board interlocks significantly increase the likelihood of adoption. In partial support for hypothesis (H6), the findings show that coercive pressures by institutional investors are higher in firms having multiple voting shares.

Summary of findings

	Measure	Hypothesis	Log (Odds) (Predicted Sign)	Results
<i>Agency perspective</i>				
<i>Moral Hazard</i>				
	<i>Growth opportunities</i>	Market to book value of equity measured as the share price times number of outstanding shares at year end divided by the year end equity book value (Lin and Park, 2003).	1a +	+
	<i>Liability insurance</i>	Dummy equals 1 in the presence of directors' insurance, 0 otherwise.	1b +	+
	<i>Directors' Equity Own</i>	Log of the average percentage of shares owned by outside directors (Vafeas, 1999).	1c -	+
<i>Conflict of interests</i>				
	<i>Multiple voting shares</i>	Dummy equals 1 in the presence of multiple voting shares, 0 otherwise.	2a +	ns
	<i>Nominating committee</i>	Dummy equals 1 in the presence of a nominating committee, 0 otherwise.	2b -	+
	<i>Duality</i>	Dummy equals 1 in case of duality, 0 otherwise.	2c +	ns

	Measure	Hypothesis	Log (Odds) (Predicted Sign)	Results
Ownership structure				
<i>Institutional block holder</i>	Dummy equals 1 in the presence of institutional investors with more than 10 percent ownership, 0 otherwise.	3	+	+
<i>Other Block holder</i>	Dummy equals 1 in the presence of other non managing block holders which owns more than 10 percent, 0 otherwise.			
<i>Manage Block</i>	Dummy equals 1 in the presence of a managing block holder (block holder that occupy that CEO position or is part of top management) with more than 10 percent ownership, 0 otherwise.			
Institutional perspective				
<i>Coercive pressure</i>	Dummy equals 1 in the presence of multiple voting shares and institutional block holder(s), 0 otherwise.	6	+	+
<i>Mimetic pressure</i>	Dummy equals 1 in the presence of a compensation consultant at or one year prior to adoption, 0 otherwise.	7	+	+
<i>Normative pressure</i>	Dummy equals 1 in the presence of board interlock with a company that already adopted or concurrently adopt a deferred share unit plan, and 0 otherwise.	8	+	+
Control Variables				
<i>Firm size</i>	Log of sales to proxy for firm size (Vafeas, 1999)		+	+
<i>Liquidity</i>	Free cash flows scaled by the market value of the firm to proxy for liquidity (Bryan and Klein, 2005).		-	-

	Measure	Hypothesis	Log (Odds) (Predicted Sign)	Results
<i>Income tax bracket</i>	the net loss carry forward scaled by the market value of the firm to proxy for a firm's income tax bracket (Bryan and Klein, 2005).		-	+
<i>Leverage</i>	Total liability over total assets (Bryan and Klein, 2005).		-	ns
<i>Outside directors</i>			+	ns
<i>Compensation plan</i>	Dummy equals 1 in case a firm had a directors' stock option plan prior to the adoption decision and 0 otherwise.		+	ns
<i>Firm performance</i>	Stock returns, Return on Assets, Return on Equity for the year preceding the adoption decision		+	+

ns: not supported

CHAPTER 7

DEFERRED SHARE UNIT PLANS FOR OUTSIDE DIRECTORS IN CANADA: CONSEQUENCES

7.1 INTRODUCTION

The board of directors attracts considerable attention following the recent corporate scandals and accounting irregularities (Fish and Shivdasani, 2004; Campbell et al., 2004). The focus lies on a class of directors, referred to as outside directors, that theoretically monitors top management to alleviate agency costs arising from the separation of ownership and control. As monitors of management, outside directors are entrusted with overseeing management's strategic decision making and financial reporting, in addition to establishing executive compensation, hiring and firing top management when circumstances warrant (Hermalin and Weisbach, 2003).

A variety of stakeholders increasingly question whether outside directors successfully alleviate the agency costs arising from the separation of ownership and control. Academic researchers and the business press criticize outside directors for failing to safeguard the financial reporting process, to control executive compensation, and to design compensation contracts that align management's interests with those of the shareholders (Benston and Hartgraves, 2002; Core et al., 2003; *National Post*, Feb 21, 2003, FP.1.Fr). They suggest that i) management's control over the proxy process and ii) the low equity stake outside board members typically hold in firms on whose board they sit reduces board members' independence, exacerbates the incentive problem they face,

and creates a secondary agency problem at the board level¹ (Perry, 1999).

To address these concerns and to reform corporate governance processes, policy makers and regulators have enacted a series of regulations and listing requirements focusing on increasing the independence of outside directors, the assignment of independent outside directors to board committees, and the separation of the executive and chair person positions (Toronto Stock Exchange listing guidelines, 2003; Sarbanes-Oxley Act, 2002). In addition, firms have altered their compensation practices resulting in a movement towards equity based pay in corporate boardrooms. Mercer Human Resources Consulting (2004) report that 76 percent of the firms on the TSX 100 index have or are planning to introduce a deferred share unit plan in 2003, compared to 61 percent in 2002, and 59 percent in 2001. Mercer reports a similar trend among the 223 companies on the S&P/TSX composite index where 44 percent had a share unit plan in 2003, compared to 38 percent in 2002, and 35 percent in 2001.

Shareholders interest groups and institutional investors concur that equity based pay resolves the agency problem at the board level by promoting directors' stock ownership (Elson, 1999). The CCGG argues that directors can more effectively represent shareholders' interests if they are also shareholders. Ontario Teachers' Pension Plan (OTPP) believes that share ownership enhances the alignment of directors' interests with those of the shareholders. Ontario Municipal Employees Retirement System (OMERS) suggests that share ownership promotes better monitoring by tying board members' wealth to the organization's long term success. The scant academic literature provides

¹ The separation of ownership and control creates a primary agency problem for top management (Perry, 1999).

partial support for these propositions where empirical evidence and theoretical models show that incentive pay enhances board monitoring and oversight (Boumosleh, 2005; Bryan and Klein, 2005; Gillette et al., 2003; Kumar and Sivaramakrishnan, 2002; Perry, 1999).

However, sceptics question whether equity based pay enhances board monitoring and reduces agency costs arising from the separation of ownership and control (Dalton and Daily, 2001). Lorsch and MacIver (1989) suggest that outside directors derive their motivation from intrinsic and psychological rewards, the fiduciary duties they have toward the shareholders, in addition to the concerns they have about their reputation in the labour market. Meltzer and Ash (1998) report that directors rank compensation at the bottom of the motivators' list after the prestige derived from board membership, the pursuit of knowledge, experience, and networking. Hambrick and Jackson (2000) note that outside directors are already motivated to monitor top management, and have their interests aligned with those of the shareholders. The existing literature partially support these viewpoints where empirical evidence shows that firms having a majority of outside directors make better acquisitions (Byrd and Hickman, 1992), record higher abnormal returns following poison pills adoption (Brickley et al., 1994), and enhance target shareholders' wealth in tender offers (Cotter et al., 1997).

Despite the growing trend towards equity based pay in corporate board rooms and the scepticism as to whether it alleviates agency costs in corporate enterprises, a limited body of research examines whether investors reward firms that seek to enhance the alignment of directors' interests with those of the shareholders. Little is known as to whether the

reward, in case investors did reward adopting firms, is homogeneous across firms. Scant empirical evidence investigates the factors that influence the magnitude of the reward, in case a reward did exist.

To address these questions, I investigate the stock market reaction to the adoption of deferred share unit plans for outside directors in Canada. Using insights from agency and institutional theory, I hypothesize that adopting firms earn positive abnormal returns at and around the announcement date. From an agency perspective, I hypothesize that the stock market reaction varies with the deferred share unit plan attributes. From an institutional perspective, I hypothesize that the stock market reaction varies with the adopting firm category and with the rationale used to disclose the adoption decision. In line with both perspectives, results show that adopting firms earn positive abnormal returns at and around the adoption announcement date. In support of the agency perspective, findings show that abnormal returns are positively associated with the degree to which the adopted plan resolves the agency problem.

This chapter proceeds as follows. Section 2 presents a review of the literature. Section 3 discusses the research method including a description of the sample, statistical method, and variable definition. Section 4 includes the descriptive statistics and results. Section 5 presents additional tests, while sensitivity analysis follows in section 6, and the discussion and conclusions follow in section 7.

7.2 LITERATURE REVIEW

Prior research mainly relies on agency theory to examine the stock market reaction to the

adoption of equity based compensation for directors and executives². Researchers argue that the separation of ownership and control results in a primary agency problem at the executives' level, and a secondary agency problem at the board level (Fish and Shivdasani, 2004). They note that equity based pay resolves the existing agency problem through equity ownership, and hypothesize that the adoption decision generates positive abnormal returns around the adoption announcement date (Gerety et al., 2001).

At the board level, Gerety et al. (2001) examine the stock market reaction to the adoption of directors' incentive plans in a sample of 289 U.S. firms. The authors find a significantly negative stock market reaction in firms that do not have a nominating committee. In a more recent paper, Fich and Shivdasani (2004) examine the stock market reaction to the adoption of stock option plans for a sample of 2,088 U.S. firm-year observations over the period 1997–1999. The authors find that the adoption decision results in a positive stock market reaction and a favourable revision of analysts' earnings forecasts. At the executive level, researchers mostly find that the adoption of long term compensation plans generates positive abnormal returns around the adoption announcement date (Kumar and Sopariwala, 1992). As an exception, Gaver et al. (1992) did not find a significant stock market reaction for a sample of 209 U.S. firms that have adopted executives' performance plans over the period 1971 to 1980.

In contrast to prior research, and using insights from agency and institutional theory, Westphal and Zajac (1998) examine the stock market reaction to the adoption of long

² A related stream of research examines the implications from adopting equity based compensation plans for outside directors on firm performance and investment decision (Bhagat et al., 1999; Brick et al., 2002; Bryan and Klein, 2004; Boumosleh, 2005; Brian and Klein, 2005), and executive turnover (Perry, 1999, Bhagat et al., 1999).

term incentive plans for corporate executives. The authors hypothesize and find that adopting firms exhibit significantly positive abnormal returns around the adoption announcement date. They attribute their findings to the reduction in agency costs at the executive level, and to the compliance with institutionalized practices that are considered to be legitimate by stock market participants. As such, this chapter relies on agency and institutional theories to investigate the significance and determinants of the stock market reaction around the adoption of deferred share unit plans at the board level.

7.3 RESEARCH METHOD

7.3.1 Sample

The population includes all firms listed on the Globe and Mail survey of the largest 1000 publicly traded Canadian firms over the period 1997-2003. To determine whether a firm adopted a deferred share unit plan for outside directors, I examine the “Directors’ Compensation” section in each firm’s proxy circular over 1997-2003. Securities legislation requires publicly held enterprises to disclose the directors’ remuneration in the annual proxy circular distributed to the shareholders (Legal & Commercial Publishing Limited, 2004). The resulting sample includes 123 firms that adopted a deferred share unit plan for outside directors over the period 1997-2003.

7.3.2 Stock market reaction

7.3.2.1 Stock market reaction: Significance

In line with prior research, I assume that the adoption decision becomes publicly

available to market participants at or following the proxy statement date³ (Gerety et al, 2001). Thus, and in agreement with the prior literature, I measure the stock market reaction at the proxy statement date (t0), 5 days prior and 5 days following the proxy statement date, and over short time windows including (t0, t+1) window and (t-1, t+1), (t-3, t+3), (t-5, t+5) windows centered on the proxy statement date (Gaver et al., 1992; Kumar and Sopariwala, 1992).

I measure abnormal returns that are associated with the adoption decision using a standard event study methodology. In the absence of adoption, a firm's return is determined as follows:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it}$$

Where R_{it} is the rate of return for firm i on day t , R_{mt} is the market return on day t , β_i is the systematic risk of firm i , and ϵ_{it} is a serially independent disturbance term with $E(\epsilon_{it}) = 0$. I estimate the parameters of the model using daily stock returns and TSE value weighted market index as a measure of market return over day - 170 to day - 21 relative to the event date (Kumar and Sopariwala, 1992; Gaver et al., 1992). Both daily returns and TSE value weighted market index are obtained from the TSE database.

I estimate abnormal daily return for each firm as follows:

$$AR_{it} = R_{it} - a_i - b_i R_{mt} \quad \text{Where } a_i \text{ and } b_i \text{ are the least squares estimates of the parameters.}$$

As per Warner et al. (1988), I standardize mean daily abnormal returns and mean cumulative abnormal returns to control for the increased variability from predicting

³ The proxy date obtained from the proxy circular. It is the date at which the proxy circular was signed.

abnormal returns outside the estimation period (Patell, 1976; Gaver et al., 1992). I calculate the following Z statistics to test whether mean standardized daily abnormal returns (MSDAR) and mean standardized cumulative abnormal returns (MSCAR) are greater than zero:

$$Z_t = (\text{SQRT}(N) / N) \sum_1^N \text{SDAR}_{i,t}$$

$$Z_{(t, t+K)} = (\text{SQRT}(N) / N) \sum_1^N \text{SCAR}_{i,(t,t+K)}$$

7.3.2.2 Stock market reaction: Determinants

7.3.2.2.1 Model and variable definition

As per Gerety et al. (2001), I use ordinary least square regression to identify the factors that influence the magnitude of the stock market reaction at and around the adoption announcement date. The dependent variable is the cumulative abnormal returns over the (t0, t+1) and (t-1, t+1) windows⁴. As for the explanatory and control variables, and unless otherwise stated, they are measured as lagged variable in the year prior to adoption. Financial data is obtained from Compustat while governance related data is collected from proxy circulars leading to the following model:

$$\text{ABNORMAL RETURNS} = \alpha + \beta_1 * \text{MANDATORY} + \beta_2 * \text{OWNGUIDELINES} + \text{EARLY} + \text{DISCLOSURE} + \text{CONTROL VARIABLES}$$

Where:

⁴ These time windows allow controlling for potential information leakage prior to the proxy date and for the stock market to impound the disclosed information in stock prices (Gerety et al., 2001).

Dependent variable

ABNORMAL RETURNS Cumulative abnormal returns over the (t0, t+1) and (t-1, t+1) windows (Gerety et al., 2001).

Explanatory Variables

MANDATORY Dummy takes the value of 1 in case the deferral is mandatory, and 0 otherwise.

OWNGUIDELINES Dummy takes the value of 1 in case the adoption decision is coupled with stock ownership guidelines, and 0 otherwise.

EARLY Dummy takes the value of 1 in case a firm is among the first 20 percent of sample firms adopting a share unit plan, and 0 otherwise (Rogers, 1995).

DISCLOSURE Dummy takes the value of 1 in case a firm used an agency perspective to disclose the adoption decision, and 0 otherwise (Zajac and Westphal, 2004). Keyword search for agency perspective terms (align interests, reduce agency costs) included in directors' compensation section.

7.3.2.2.2 Measurement of Control Variables

The existing literature suggests that the stock market reaction may be a function of the additional information disclosed in the proxy circular (Kumar and Sopariwala, 1992; Lin et al., 2003). Prior research shows that the appointment of outside directors on board is value relevant for investors. For instance, Rosenstein and Wyatt (1990) find a positive stock market reaction around the appointment of an outside director on board. In a more recent paper, Lin et al. (2003) examine the stock market reaction to the appointment of outside directors in a sample of 714 appointments over the period 1993-1996. In contrast to Rosenstein and Wyatt (1990), the findings show that shareholders do not benefit from the appointment of independent outside directors on board. However, the authors find that the stock market reaction is more favourable when the appointee possesses strong ex ante monitoring incentives. Hence, I include a variable that measures the change in the

percentage of outside directors on board in the year of adoption relative to the prior year.

The existing literature also suggests that investors react to the adoption and modification of compensation plans for corporate executives. For instance, Larcker (1983) and Kumar and Sopariwala (1992) find that investors react positively to the adoption of performance plans for executives. Brickley et al. (1985) show that firms record significantly positive abnormal returns around the adoption of long-term compensation plans for corporate executives. Tehranian and Waegelien (1985) document that shareholders benefit from the adoption of bonus plans for corporate executives. DeFusco et al. (1990) find that firms exhibit positive abnormal returns around the adoption or the modification of stock option plans for corporate executives. In contrast to these findings, Battistel and King (1995) results show that abnormal returns are not significantly positive for firms adopting bonus plans for corporate executives, while Gaver et al. (1992) fail to find a positive stock market reaction around the adoption of long term performance plans for top management. As a result, I include a dummy variable that takes the value of 1 in case a firm adopted a new compensation plan for top management, 0 otherwise. I also include a second dummy variable that takes the value of 1 in case a firm modified the existing compensation plans, 0 otherwise. Finally, I control for the percentage change in salary plus bonus for the executive officer in the year of adoption relative to the prior year.

Finally, the existing literature suggests that the stock market reacts to the adoption of poison pills for corporate executives. For instance, Ryngaert (1988) and Malatesta and Walkling (1988) show that the adoption of poison pills is coupled with a reduction in firm value. Comment and Schwert (1995) find significantly negative abnormal returns are

for firms that are under takeover speculation. However, Datta and Iskandar-Datta (1996) and Forjan and Van Ness (2004) do not find significant abnormal returns around the adoption announcement date. Thus, I include a dummy variable that takes the value of 1 for firms that adopt a poison pill for its executives in the year of share unit plan adoption, and 0 otherwise.

7.4 RESULTS

7.4.1 Sample

The sample includes 123 firms that have adopted a deferred share unit plan over the period 1997–2003. As shown in table 5, sample firms operate in a wide range of industries, and increasingly adopt a deferred share unit plan at the board level over time.

7.4.2 Descriptive statistics

Table 11 presents the descriptive statistics for the un-standardized (standardized) mean daily and cumulative abnormal returns at and around the proxy statement date. Panel A shows that the mean daily abnormal returns are mostly negative prior to the proxy statement date. The mean daily abnormal returns become positive at and one day following the proxy statement date. Similarly, Panel B shows that mean cumulative abnormal returns are highest over the $(t_0, t+1)$ and $(t-1, t+1)$ windows.

[Table 11]

7.4.3 Correlation matrix

Table 7 (Panel B) presents the Spearman bi-variate correlations for the main variables of interest. The correlation matrix shows that cumulative un-standardized abnormal returns over the period (t0, t+1) and (t-1, t+1) are positively correlated. In addition, cumulative abnormal returns over both time windows are positively associated with the plans' attributes suggesting that investors value stricter plans that enhance the alignment of directors' interests with those of the shareholders. In addition, cumulative abnormal returns over both time windows are positively correlated with the adoption of new compensation plans.

7.4.4 Stock Market Reaction: Significance

Table 11 shows that mean daily abnormal returns are insignificant for the 5 days preceding the proxy statement date. Un-standardized mean daily abnormal returns become positive and significant at the proxy statement date with a mean (p-value) equal to 0.467 (p-value < 0.10). In addition, both un-standardized (standardized) mean daily abnormal are highly significant and positive one day following the proxy statement date with a mean (p-value) equal to 0.784 (p-value < 0.01) and 0.153 (p-value < 0.05) respectively. These results are comparable to those obtained by Fich and Shivdasani (2004) who found a positive stock market reaction to the adoption of stock option plans at the board level.

Table 11 also shows that both un-standardized and standardized mean cumulative abnormal returns are positive and significant over the (t0, t+1) and (t-1, t+1) windows. Un-standardized (standardized) mean cumulative abnormal returns over the (t0, t+1) window equals to 1.249 (p-value < 0.01) and 0.263 (p-value < 0.01) respectively.

Similarly, un-standardized (standardized) mean cumulative abnormal returns has a mean (p-value) equal to 1.011 (p-value < 0.05) and 0.261 (p-value < 0.01) respectively. Finally, standardized mean cumulative abnormal returns is positive and significant for the (t-3, t+3) and (t-5, t+5) windows with a mean (p-value) equal to 0.154 (p-value < 0.05) and 0.121 (p-value < 0.10) respectively. The overall results support hypothesis (H4) suggesting a positive stock market reaction at and around the adoption of deferred share unit plans for outside directors in Canada.

7.4.5 Stock Market Reaction: Determinants

As per Gerety et al. (2001), I run Ordinary Least Square (OLS) regression where the dependent variable equals to the cumulative abnormal returns over the (t0, t+1) window, and (t-1, t+1) window centered on the proxy statement date. The explanatory variables include proxies for the attributes of the deferred share unit plan, in addition to the adopting firm category, and the theoretical perspective used to disclose the adoption decision. The model also includes control variables that may be associated with abnormal returns including the change in the percentage of outside directors, the change in compensation practices, in addition to the adoption of a poison pill.

Table 12 shows that explanatory and control variables explain 6.10 percent of the variation in abnormal returns over the period (t0, t+1). The model is significant with an F statistic (p-value) equal to 1.87 (p-value < 0.10). In addition, explanatory and control variables explain 4.10 percent of the variation in abnormal returns over the period (t-1, t+1). However, the model is not significant with an F statistic (p-value) equal to 1.57 (p-value > 0.10).

[Table 12]

In agreement with the plans' attributes hypotheses, results show that firms adopting stricter deferred share unit plans record higher mean cumulative abnormal over both time windows. In support of hypothesis (H5a), firms adopting mandatory plans record higher mean cumulative abnormal returns over the (t0, t+1) and (t-1, t+1) windows with parameter estimates (p-value) equal to 0.28 (p-value< 0.00) and 0.18 (p-value< 0.05) respectively. In addition, and in agreement with hypothesis (H5b), firms adopting share unit plans that are coupled with stock ownership guidelines record positive abnormal returns over the period (t-1, t+1) with a parameter estimate (p-value) equal to 0.16 (p-value< 0.10).

Results do not provide support for the firms' adopting category hypothesis (H9) where findings show that the stock market reaction is not significantly association with the adopting firm category. In addition, and contrary to the corporate disclosure hypothesis (H10), firms that use an agency perspective do not record higher mean cumulative abnormal returns over both time windows. This finding is in contrast with Westphal and Zajac (1995) who find a higher stock market reaction for firms using an agency theory rationale to disclose the adoption of long term incentive plans for corporate executives. A potential explanation is that investors are interested in the plans' attributes rather than being interested in the firm category and the disclosure rational.

With respect to the control variables, results show that firms adopting new compensation plans record positive abnormal returns around the adoption announcement date. However, abnormal are not associated with the change in the percentage of outside

directors on board, with the modification of existing compensation plans, with the percentage change in salary plus bonus, and with the adoption of shareholder right.

7.5 ADDITIONAL TESTS

As in Brickley et al. (1985), I investigate whether the stock market reaction varies with the characteristics of the adopted plan. I investigate whether abnormal returns are higher for mandatory plans, and for plans that are coupled with stock ownership guidelines. In addition, and in line with Gaver et al. (1992), I examine whether the stock market reaction varies with the adopting firm category: early versus adopters, industry pace setters versus non industry pace setters. Early adopters include the first 20 percent of firms that have adopted a deferred share unit plan over the period 1997–2003 (Rogers, 1995). Industry pace setters include firms that first adopt a deferred share unit plan within their 3 digit SIC code industry (Gaver et al., 1992).

In contrast to Brickley et al. (1985), the results show that mean daily abnormal returns vary with the plan's characteristics. Investors seem to react more positively to share unit plans that enhance the alignment of directors' interests with those of the shareholders. Table 13 shows that the mean difference is positive and significant at the proxy statement date (2.19, p-value < 0.05) and one day following the proxy date (1.19, p-value < 0.00).

[Table 13]

Table 13 also shows that firms adopting share unit plans that are coupled with stock ownership guidelines record positive and significant mean daily abnormal returns at the proxy statement date. The mean difference is positive and significant with a parameter

estimate (p-value) equal to 1.85 (p-value < 0.00). With respect to the adopter category, table 13 shows that early adopters exhibit high abnormal returns two days following the proxy statement date where the mean difference is significantly greater than 0 (1.35, p-value < 0.10). This is in contrast with institutional theory prediction that late adopters reap higher legitimacy gains from adopting legitimized practices.

Regarding the industry pace setters, table 13 shows that pace setting organizations record lower mean abnormal returns at the proxy statement date where the mean difference is negative and significant (-1.191, p-value < 0.05). Assuming that non pace setters are equivalent to late adopting firms, this finding is in line with institutional theory suggesting that late adopters reap legitimacy gains from adopting legitimized practices.

The analysis of the mean cumulative abnormal returns over various time windows shows a similar pattern. Table 14 shows that mean cumulative returns are higher for firms adopting mandatory deferred share unit plans or deferred share unit plans that are coupled with share ownership guidelines. The results for late adopters and for industry non-pace setters are also comparable to the results obtained for mean daily abnormal returns. For instance, table 14 shows that mean cumulative abnormal returns are not statistically different for early versus late adopters, while non pace setting firms record higher cumulative returns over the (t0, t+1) window.

[Table 14]

7.6 SENSITIVITY ANALYSIS

For sensitivity analysis, I use cumulative stock returns and cumulative market adjusted

stock returns over the (t0, t+1) and (t-1, t+1) time windows as dependent variables. First, I use cumulative stock returns and cumulative market adjusted stock returns over the window (t0, t+1). Table 15 shows that both models are significant with an F statistic (p-value) equal to 2.84 (p-value <0.00) and 2.25 (p-value <0.05) respectively. The models explain 12.20 % and 8.60 % of the variation in cumulative stock returns and market adjusted stock returns over the (t0, t+1) time window respectively. The parameter estimate for mandatory plans is positive and significant in both models, while that for stock ownership guidelines is positive and significant in the cumulative market adjusted model only. Finally, cumulative returns are positively associated with the adoption of a new compensation plan.

[Table 15]

Second, I use cumulative stock returns and cumulative market adjusted stock returns over the window (t-1, t+1). Table 16 shows that both models are statistically significant with an F statistic (p-value) that is equal to 2.58 (p-value < 0.05) and 3.91 (p-value < 0.00). The models explain 10.70 percent and 18.00 percent of the variation in cumulative stock returns and cumulative market adjusted stock returns respectively. The parameter estimates for the plan attributes are positive and significant in both models showing that firms that adopt mandatory plans and plans that are coupled with stock ownership guidelines record higher cumulative returns over the (t-1, t+1) window. In addition, results show that cumulative returns are positively associated with the adoption of new compensation plans for top management.

[Table 16]

As additional sensitivity tests (un-tabulated results), I examine whether abnormal returns over the windows (t-5, t+5) and (t-7, t+7) vary with the plan attributes, the adopting firm category, and the theoretical perspective used to disclose the adoption decision. I also examine whether abnormal returns at the proxy statement date (t0) vary with the plan attributes, the adopting firm category, and the theoretical perspective used to disclose the adoption decision. The results are basically the same where abnormal returns, stock returns, and market adjusted stock returns are higher for firms adopting mandatory plans and firms adopting plans that are coupled with stock ownership guidelines. As further sensitivity analysis, I run the base model with a dummy variable that takes the value of 1 in case a firm adopted a stock option for its directors, 0 otherwise. Finally, I include a dummy variable that takes the value of 1 in case a firm had financial press releases over the period (t-1, t+1). The basic results remain unchanged where the parameter estimates for the plans' attributes are positive and significant.

7.7 DISCUSSION AND CONCLUSIONS

Relying on a dual theoretical perspective, this chapter investigates whether shareholders benefit from the adoption of deferred share unit plans for outside directors in Canada. More specifically, this chapter examines whether adopting firms record positive abnormal returns at and around the adoption announcement date. In agreement with agency and institutional theory predictions, the results show that adopting firms record positive abnormal returns at and around the adoption announcement date. In support of the agency perspective, the findings show that the stock market reaction varies with the deferred share unit plan attributes. The results suggest that investors distinguish between

various compensation plans and reward firms adopting stricter deferred share unit plans that enhance the alignment of directors' interests with those of the shareholders. In contrast to the institutional perspective, the data shows that abnormal returns do not vary with the adopting firm category or with the rationale used to disclose the adoption decision.

This chapter contributes to the scant literature on directors' compensation by examining a recent development in directors' compensation using a dual theoretical framework. The chapter also contributes to the literature by investigating whether investors' reaction vary with the institutional characteristics of adopting firms. However, it shares the same limitations raised in prior research examining similar topics. For instance, it is hard to identify the date at which the information about the adoption decision becomes available to market participants. In addition, it is not possible to control for all the information included in the proxy circular and firm disclosures other than press releases.

Summary of findings

	Measure	Hypothesis	Abnormal returns (Predicted Sign)	Results
Stock market reaction	Abnormal returns over days -11 to days + 11 and over various time windows: (t-1, t+1), (t-3, t+3), (t-5, t+5), (t-11, t+11).	4	+	+
Agency perspective				
<i>Mandatory plan</i>	Dummy equals 1 in case the deferral is mandatory, and 0 otherwise.	5a	+	+
<i>Plan coupled with ownership guideline</i>	Dummy takes the value of 1 in case the adoption decision is coupled with stock ownership guidelines, and 0 otherwise.	5b	+	+
Institutional perspective				
<i>Adopter category</i>	Dummy takes the value of 1 in case a firm is among the first 20 percent of sample firms adopting a share unit plan, and 0 otherwise (Rogers, 1995).	9	+	ns
<i>Corporate disclosure</i>	Dummy takes the value of 1 in case a firm used an agency perspective to disclose the adoption decision, and 0 otherwise (Zajac and Westphal, 2004). Keyword search for agency perspective terms (align interests, reduce agency costs) included in directors' compensation section.	10	+	ns

	Measure	Hypothesis	Abnormal returns (Predicted Sign)	Results
Control Variables				
<i>Change in outside directors</i>	Change in the percentage of outside directors on board in the year of adoption relative to the prior year.		+/-	nsg
<i>Adopt other compensation plan</i>	Dummy equals 1 in case a firm adopted a new compensation plan for top management, 0 otherwise.		+/-	+
<i>Modify compensation plan</i>	Dummy equals 1 in case a firm modified the existing compensation plans, 0 otherwise.		+/-	-
<i>Change in salary and bonus</i>	Percentage change in salary plus bonus for the executive officer in the year of adoption relative to the prior year.		+/-	nsg
<i>Adopt poison pill</i>	Dummy equals 1 for firms that adopt a poison pill for its executives in the year of share unit plan adoption, and 0 otherwise.		+/-	nsg

ns: Not supported

nsg: Not significant

CHAPTER 8

DISCUSSION AND CONCLUSIONS

8.1 SYNTHESIS

Over the past decade, corporate governance has received considerable attention from academic researchers, governance activists in addition to the business and financial media. Such focus has intensified following the recent accounting scandals in corporate America leading to significant changes in the corporate governance landscape in most industrial countries. In North America, policy makers and regulators enacted new regulations, listing requirements, and corporate governance guidelines¹. Corporations also restructured their compensation practices by increasing the proportion of equity based pay in corporate boardrooms.

The voluntary nature of this practice has generated a heated debate with respect to the motives behind it, and whether it enhances board monitoring and oversight. Agency theory scholars suggest that firms adopt equity based pay to resolve the agency problem at the board level (Elson, 1999). They also note that the adoption decision enhances board monitoring and oversight by increasing the equity stake that corporate directors have in firms on whose board they sit. However, others question whether firms adopt equity based pay to comply with practices that are legitimized by financial markets' participants. They conclude that equity based pay does not enhance board monitoring and oversight

¹ In the U.S., policy makers and regulators enacted the Sarbanes-Oxley Act and new listing requirements on the NYSE and the NASDAQ. In Canada, securities regulators passed Multilateral Instruments 52-109,110,111 which includes rules that are somehow comparable to those required by the Sarbanes-Oxley Act in the U.S. They also established new listing standards and corporate governance guidelines under the National Policy 58-201.

since board members are already motivated to effectively monitor top management (Hambrick and Jackson, 2000).

Relying on agency and institutional theory, this thesis develops a theoretical framework that investigates the antecedents and consequences from adopting a deferred share unit plan for outside directors in Canada. From an agency perspective, the framework hypothesizes that the likelihood of adoption is higher in firms where outside directors face a stronger agency problem, and in firms that have a non managing block holder. In addition, the stock market reaction is higher in firms that adopt stricter deferred share unit plans. Within an institutional perspective, the likelihood of adopting a deferred share unit plan is higher in firms that are subject to significant institutional pressures, while the stock market reaction is hypothesised to vary with the adopting firm category and with the rationale used to disclose the adoption decision.

The findings provide partial support for both perspectives. For instance, and at the antecedents' level, results show that the likelihood of adoption is higher in firms having a significant agency problem, and in firms that are subject to stronger institutional pressures. Firms with high growth opportunities, firms that provide their outside directors with liability insurance have a higher likelihood for adopting a deferred share unit plan at the board level. In addition, firms that rely on the services of compensation consultants and those having board interlock with adopting firms have a higher likelihood of adoption.

At the consequences level, results show that the stock market reaction is positive and significant at the and around the proxy statement date. In line with the agency

perspective, firms adopting stricter deferred share unit plans record higher cumulative abnormal returns, cumulative stock returns, and cumulative market adjusted stock returns over various time windows. In contrast to the institutional perspective, abnormal returns do not vary with the plan attributes or with rational used to disclose the adoption decision.

8.2 IMPLICATIONS

These results provide important insights for academics and practitioners. First, one can infer that many corporate boards act in the best interests of the shareholders, and take actions that promote the protection of shareholders' wealth and the creation of shareholders' value. Findings suggest that corporate boards where outside directors are subject to a significant moral hazard problem are more likely to rely on equity based pay to enhance the alignment of directors' interests with those of the shareholders.

Second, results are among the first, if not the first, that document the association between institutional pressures and board compensation practices. Prior research documents the presence of an association between institutional pressures and the adoption and usage of executive compensation practices (Zajac and Westphal, 2004). The findings expand this stream of literature by documenting the presence of a positive association between institutional pressures and equity based pay for corporate directors as well.

Third, results show that shareholders sometimes benefit from corporate governance initiatives that provide outside directors with the incentives to monitor top management. Hence, it is likely that investors consider the board of directors as a principal governance

mechanism that plays a major role in controlling managerial opportunism and protecting shareholders' wealth (Fich and Shivdasani, 2004). Thus, investors seem to reward firms that seek to enhance the alignment of directors' interests with those of the shareholders.

Finally, results raise concerns about directors setting their own compensation and the implications from such a practice. First, as shown in this thesis, board members have certain latitude in designing their compensation packages. As a result, it is not always clear whether board members craft compensation practices that maximize shareholders value. Second, compensation practices that increase equity holdings by directors may increase the potential for self dealing, loss of objectivity, and insider trading.

8.3 LIMITATIONS

The thesis has four limitations. First, the percentage ownership by block holders is subject to a measurement error since the percentage share ownership by principal shareholder(s) is disclosed only when the percentage ownership exceeds 10 percent of the shares outstanding. Second, the tax incentive for directors is not readily available. As mentioned in the introduction, directors might have a tax incentive from deferring their cash compensation into later periods. The omission of this variable is expected to reduce the explanatory power of the model. Third, the time around which the information in the proxy circular became available to the public is not clear (Kumar and Sopariwala, 1992). Although prior research considers the proxy statement date as the date at which information becomes publicly available, it is possible that some of the information becomes available to market participants before that date. Fourth, although I control for corporate disclosure and events that may influence the stock market reaction on and

around the proxy circular date, it is not possible to control for all the events that may have occurred around that time and that may have influenced the stock market reaction.

8.4 FUTURE RESEARCH AVENUES

The thesis contributes to academics and practice by opening new research avenues. First, future research may examine the factors that influence the adoption of stricter versus more lenient deferred share unit plans. For instance, one could examine whether the ownership structure of the firm is associated with the characteristics of the deferred share unit plan. Second, it is possible to examine the factors that determine the usage of deferred share unit plans. Prior research suggest that firms sometimes adopt compensation plans for impression management purposes: they adopt a plan but never use it. It could be interesting to examine whether the utilization of the plan depends on the governance structure of sample firms. A third research avenue may examine the characteristics of firms that discontinue their deferred share unit plans. Prior research mostly focuses on the adoption of compensation plans, while little research examines the factors that are associated with the termination of firms' compensation practices.

Future research may also examine the implications from adopting deferred compensation plans for outside directors in Canada. The prior literature suggests that corporate directors are entrusted with important tasks such as setting executive compensation and firing executives following poor organizational performance. In addition, outside directors, through their knowledge, experience, and networks provide significant resources that may influence firm performance. Assuming that deferred share units align directors' interests with those of the shareholders, one can predict that executive compensation

should become more sensitive to firm performance following the adoption of a deferred share unit plan. In addition, the likelihood of executive turnover should increase following poor organizational performance. Furthermore, firm performance may be enhanced following the adoption of a deferred share unit plan at the board level. This research question may also be extended by examining the association between the stock market reaction around the adoption date and firm performance.

8.5 CONCLUSION

Corporate governance will, no doubt, remain in the spotlights for the coming years. First, and foremost, various stakeholders increasingly question whether regulatory agencies are imposing costly and inefficient governance rules and guidelines. Second, corporate governance is continuously evolving where new regulations and listing requirements would possibly strengthen the already heated debate on corporate governance.

In the meantime, the road to reforming the governance structures in corporations remains elusive. Would the regulatory changes prevent future scandals and irregularities in the corporate world? Would equity based pay in corporate boardrooms align directors interests with those of the shareholders, and prevent the misappropriation of shareholders' assets? Is the new slate of directors more vigilant in monitoring top management? Future research is deemed to provide the answers for these questions and the insights needed to reform the governance structures in corporate enterprises.

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Figure 1

Theoretical framework

Deferred share unit plan for outside directors in Canada: Antecedents and Consequences

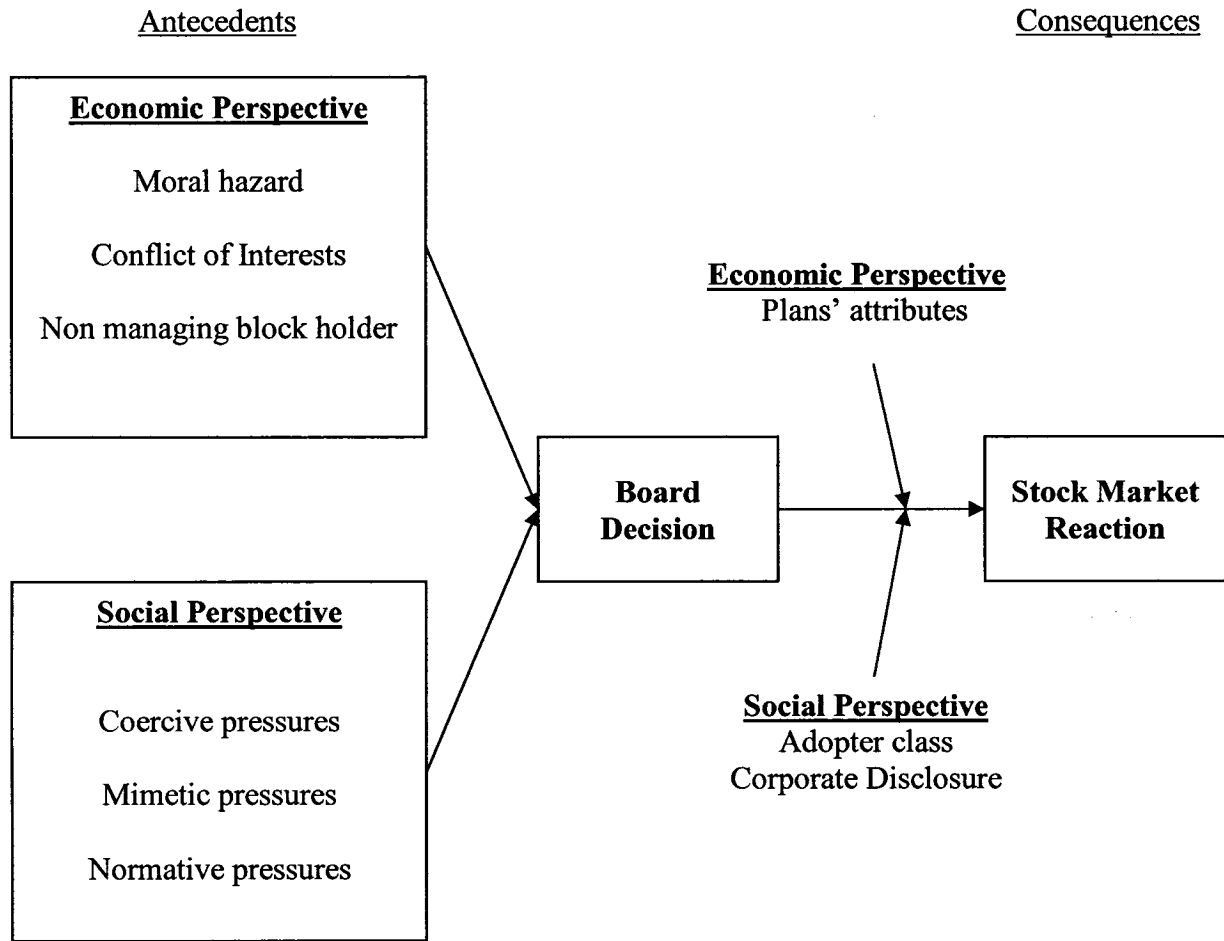


Table 1

Agency characteristics- Preliminary sample

Agency characteristics for a preliminary sample of 11 firms operating in the banking, steel manufacturing, and retail grocery industry

	MBEQUITY	INSURANCE	SHARE OWN	MULTIPLE	NOMINATING	DUALITY	INSTITUTION	OTHER BLOCK	MANAGE BLOCK
Panel A: Banking									
Bank of Montreal	1.49	1	0.02%	0	1	1	0	0	0
Bank of Nova Scotia	1.70	0	0.01%	0	1	1	0	0	0
Canadian Imperial Bank	1.80	1	0.01%	0	1	1	0	0	0
National Bank of Canada	1.18	1	0.15%	0	1	1	0	0	0
Royal Bank of Canada	2.79	1	0.19%	0	1	1	0	0	0
Toronto-Dominion Bank	2.36	0	0.15%	0	1	1	0	0	0
Panel B: Steel manufacturing									
Dofasco Inc.	1.13	1	0.03%	0	1	0	1	0	0
Gerdau Ameristeel Corp.	0.78	1	0.15%	0	1	0	1	0	0
IPSCO Inc	1.05	1	0.12%	0	1	0	0	0	0
Panel C: Retail grocery									
Sobeys Inc.	1.36	1	0.50%	0	1	0	0	0	1
Loblaws Companies Ltd.	3.96	0	0.02%	0	1	0	0	0	1

MBEQUITY: Year end price per share times the number of shares outstanding divided by the book value of equity; INSURANCE: Dummy equals 1 in the presence of directors' insurance, 0 otherwise; SHARROW: Outside directors' share ownership as a percentage of the outstanding shares; MULTIPLE: Dummy equals 1 in the presence of multiple voting shares, 0 otherwise; NOMINATING: Dummy equals 1 in the presence of a nominating committee, 0 otherwise; DUALITY: Dummy equals 1 in case a single person acts a CEO and COB, 0 otherwise; INSTITUTION: Dummy equals 1 in the presence of institutional investor(s) with more than 10 percent ownership, 0 otherwise; OTHERBLOCK: Dummy equals 1 in the presence of non-managing block holder(s) - block holder that has more than 10 percent ownership and that does not occupy a top management position- other than institutional investors, 0 otherwise; MANAGEBLOCK: Dummy equals 1 in the presence of a managing block holder - block holder that has more than 10 percent ownership and that occupies a top management position- 0 otherwise.

Unless otherwise stated, all variables are measured in the year preceding the year of adoption. Financial data is obtained from Compustat while governance related data is collected from proxy circulars.

Table 2
 Stock market reaction- Preliminary sample
 Daily and cumulative abnormal returns for a preliminary sample of 11 firms operating in the banking,
 steel manufacturing, and retail grocery industry over various days and time windows
 centered on the proxy statement date (Day 0)

	Day											Window		
	-5	-4	-3	-2	-1	0	1	2	3	4	5	(t-1, t+1)	(t-3, t+3)	(t-5, t+5)
Panel A: Banking														
Bank of Montreal	0.003 (0.131)	0.001 (0.064)	-0.011 (-0.518)	-0.027 (-1.259)	-0.030 (-1.402)	0.002 (0.126)	0.004 (0.254)	0.018 (1.136) ^c	-0.008 (-0.533)	0.008 (0.481)	-0.027 (-1.704)	-0.024 (-1.023)	-0.052 (-2.196)	-0.067 (-3.485)
Bank of Nova Scotia	-0.023 (-0.866)	-0.002 (-0.072)	0.012 (0.434)	-0.023 (-0.860)	-0.003 (-0.102)	-0.010 (-0.490)	-0.006 (-0.287)	-0.024 (-1.212)	0.001 (0.034)	-0.003 (-0.155)	0.018 (0.927)	-0.019 (-0.879)	-0.053 (-2.483)	-0.063 (-2.649)
Canadian Imperial Bank	0.014 (0.469)	0.015 (0.489)	0.010 (0.337)	0.035 (1.148)	0.078 (2.526) ^a	0.082 (3.615) ^a	-0.033 (-1.406)	-0.006 (-0.275)	-0.001 (-0.041)	-0.045 (-1.994)	0.003 (0.119)	0.128 (4.735) ^a	0.166 (5.905) ^a	0.153 (4.988) ^a
National Bank of Canada	0.003 (0.108)	-0.031 (-1.315)	0.009 (0.387)	0.009 (0.370)	0.015 (0.627)	-0.021 (-1.242)	0.008 (0.433)	0.009 (0.524)	-0.005 (-0.010)	0.013 (0.781)	0.025 (1.451) ^c	0.002 (0.182)	0.024 (1.089)	0.034 (2.114) ^b
Royal Bank of Canada	0.004 (0.219)	-0.010 (-0.485)	0.012 (0.570)	-0.019 (-0.024)	-0.025 (-1.221)	-0.024 (-1.601)	0.021 (1.405) ^c	0.001 (0.024)	0.016 (1.048)	-0.011 (-0.740)	-0.007 (-0.473)	-0.028 (-1.024)	-0.018 (-2.642)	-0.042 (-1.162)
Toronto-Dominion Bank	0.039 (1.097)	0.056 (1.571) ^c	-0.019 (-0.540)	0.001 (0.021)	0.012 (0.344)	0.007 (0.276)	0.027 (1.011)	-0.022 (-0.832)	-0.046 (-1.724)	-0.057 (-2.150)	-0.050 (-1.900)	0.046 (1.631) ^c	-0.040 (-1.443)	-0.052 (-2.824)
Panel B: Steel manufacturing														
Dofasco Inc.	-0.008 (-0.268)	-0.026 (-0.832)	0.012 (0.380)	-0.017 (-0.535)	-0.031 (-1.016)	0.031 (1.418) ^c	-0.015 (-0.647)	-0.018 (-0.803)	-0.003 (-0.128)	-0.016 (-0.704)	-0.002 (-0.080)	-0.014 (-1.787)	-0.040 (-0.701)	-0.092 (-1.183)
Gerdau Ameristeel Corp.	0.012 (0.216)	0.015 (0.261)	-0.006 (-0.104)	0.016 (0.281)	0.015 (0.261)	0.043 (1.006)	0.050 (1.177)	-0.170 (-4.005)	-0.012 (-0.287)	-0.062 (-1.445)	0.045 (1.045)	0.108 (2.444) ^a	-0.064 (-1.672)	-0.054 (-1.595)

	Day											Window		
	-5	-4	-3	-2	-1	0	1	2	3	4	5	(t-1, t+1)	(t-3, t+3)	(t-5, t+5)
IPSCO Inc.	0.021 (0.694)	0.009 (0.296)	-0.014 (-0.545)	-0.002 (-0.072)	-0.023 (-0.782)	0.023 (1.074)	-0.026 (-1.181)	0.007 (0.324)	-0.008 (-0.382)	-0.018 (-0.844)	-0.009 (-0.437)	-0.026 (-1.472)	-0.043 (-0.797)	-0.040 (-0.507)
Panel C: Retail grocery														
Sobeys Inc.	-0.052 (-0.491)	0.051 (0.581)	-0.013 (-0.044)	0.032 (0.041)	-0.015 (-0.712)	-0.022 (-0.285)	0.030 (1.682) ^b	-0.037 (-0.563)	0.027 (0.132)	0.017 (0.357)	0.013 (0.776)	-0.005 (-0.685)	0.004 (0.170)	0.033 (0.500)
Loblaw Companies Ltd.	-0.016 (-2.417)	0.019 (2.361) ^a	0.001 (0.589)	0.009 (1.497) ^c	-0.023 (-0.701)	0.007 (1.346) ^c	-0.040 (-2.024)	0.013 (2.325) ^b	-0.003 (-1.663)	0.008 (1.088)	-0.018 (-0.843)	-0.056 (-0.023)	-0.036 (-0.223)	-0.043 (-6.932)

Daily abnormal returns (t-statistic) for 11 days centred on the proxy statement date (t=0).

Cumulative abnormal return (t-statistic) for three time windows centred on the proxy statement date (t=0).

Daily stock returns are obtained from the TSE database. Daily abnormal returns are calculated using a standard event study methodology. The parameters for the market model are estimated over a period between day - 170 to day - 1 relative to the proxy statement date (event date) using the TSE value weighted market index as a measure of market return. Cumulative abnormal returns are cumulated over the three time windows centered on the proxy statement date. The t-statistic is calculated as per Ruback (1992), and t critical is calculated as t(α, 149).

^{a, b, c} p < 0.01, < 0.05, < 0.10, one tailed test.

Table 3

Deferred share unit plans' attributes- Preliminary sample
 Deferred share unit plan characteristics for a preliminary sample of 11 firms operating
 in the banking, steel manufacturing, and retail grocery industry

	MANDATORY	DEFERRAL	OWNGUIDELINES	LEVEL	ANNUAL RETAINER (AR)
Panel A: Banking					
Bank of Montreal	1	50%*AR	0	na	21,000
Bank of Nova Scotia	0	na	0	na	25,000
Canadian Imperial Bank	0	na	1	8*AR	22,000
National Bank of Canada	0	na	1	2,000	15,500
Royal Bank of Canada	0	na	1	8*AR	30,000
Toronto-Dominion Bank	0	na	1	6*AR	23,000
Panel B: Steel manufacturing					
Dofasco Inc.	1	25%*AR	0	na	20,000
Gerdau Ameristeel Corp.	0	na	0	na	12,000
IPSCO Inc	1	50%*AR	1	5,000	28,000
Panel C: Retail grocery					
Sobeys Inc.	0	na	0	na	18,000
Loblaw Companies Ltd.	0	na	0	na	25,000

MANDATORY: Dummy equals 1 in case the deferred share unit plan is mandatory, 0 otherwise; DEFERRAL: Minimum percentage of directors' compensation to be deferred into share units; OWNGUIDELINES: Dummy equals 1 in case the adoption of the deferred share unit plan is coupled with share ownership guidelines, 0 otherwise; LEVEL: Level of ownership required as a multiple of annual retainer (AR) or in thousands of shares/share units; ANNUAL RETAINER (AR): Annual retainer (\$) paid for outside directors.

All variables are collected from proxy circulars in the year of adoption.

Table 4
 Institutional characteristics- Preliminary sample
 Institutional characteristics for a preliminary sample of 11 firms operating in the banking,
 steel manufacturing, and retail grocery industry

	EFFECTIVE DATE	CONSULTANTS	INTERLOCK	EARLY	DISCLOSURE
Panel A: Banking					
Bank of Montreal	1997	1	0	1	1
Bank of Nova Scotia	2002	1	1	0	1
Canadian Imperial Bank	1998	1	1	1	1
National Bank of Canada	2000	1	1	0	0
Royal Bank of Canada	1998	1	1	1	1
Toronto-Dominion Bank	1998	1	1	1	1
Panel B: Steel manufacturing					
Dofasco Inc.	1998	1	0	1	0
Gerdau Ameristeel Corp.	2000	1	1	0	0
IPSCO Inc	2000	1	0	0	0
Panel C: Retail grocery					
Sobeys Inc.	2001	1	1	0	0
Loblaw Companies Ltd.	2000	1	1	0	1

EFFECTIVE DATE: Year at which the deferred share unit plan became effective; CONSULTANTS: Dummy equals 1 in case a firm relied on the services of a compensation consultant during or one year prior to the adoption decision, 0 otherwise; INTERLOCK: Dummy equals 1 in the presence of board interlock with a company that had or concurrently adopted a deferred share unit plan, 0 otherwise; EARLY: dummy equals 1 in case the adopting firm is an early adopter (firm is among the first 20 percent of the firms that adopted a deferred share unit plan), 0 otherwise; DISCLOSURE: Dummy equals 1 in case a firm disclosed the adoption decision using an agency based perspective, 0 otherwise.

All variables are collected from proxy circulars.

Table 5
Deferred share unit plans by year and industry- Overall sample
Sample (123) and control (123) firms listed on the Globe and Mail survey for the
largest 1,000 publicly traded Canadian firms over the period 1997-2003.

Panel A: Sample and Control firms by year of adoption

	Sample firms Number (% of Total)	Control firms Number (% of Total)
1997	07 (05.70 %)	07 (05.70 %)
1998	22 (17.89 %)	22 (17.89 %)
1999	20 (16.26 %)	20 (16.26 %)
2000	23 (18.70 %)	23 (18.70 %)
2001	16 (13.01 %)	16 (13.01 %)
2002	14 (11.38 %)	14 (11.38 %)
2003	21 (17.07 %)	21 (17.07 %)
Total	123 (100.00 %)	123 (100.00 %)

Panel B: Sample and Control firms by industry

	Sample firms Number (% of total)	Control firms Number (% of total)
Mining	7 (05.69 %)	05 (04.07 %)
Manufacturing	56 (45.53 %)	56 (45.53 %)
Transportation and Public utilities	17 (13.82 %)	18 (14.63 %)
Wholesale Trade	12 (09.76 %)	12 (09.76 %)
Finance, Insurance, and Real Estate	19 (15.45 %)	19 (15.45 %)
Services	12 (09.76 %)	13 (10.57 %)
Total	123 (100.00 %)	123 (100.00 %)

Sample and control firms are listed on the Globe and Mail survey for the largest 1,000 publicly traded Canadian firms over the period 1997-2003. Sample firms include firms that have adopted a deferred share unit plan at the board level over the period 1997-2003. Control firms include firms that did not have a deferred share unit plan over the same time period. To the extent possible, control firms are matched based on industry and size to control for the influence of firm industry and firm size on the adoption decision. Matching by size is given priority over matching by industry given the fact that sample firms are basically among the largest publicly traded Canadian firms.

Table 6
Descriptive statistics- Overall sample
Sample (123) and control (123) firms listed on the Globe and Mail survey of the largest 1,000 publicly traded
Canadian firms over the period 1997 - 2003

	All Firms				Control Firms		Sample Firms		t (p-value)	Kolmogorov-S. Z (p-value)
	Mean	Median	Minimum	Maximum	Mean	Mean	Mean			
Panel A										
BRETAINER	14160.42	13250.00	0.00	50000.00	9384.35	18936.50	18936.50	9.39 (0.00) ^a	4.02 (0.00) ^a	
CCHRETAINER	2291.26	2000.00	0.00	33300.00	1148.78	3433.74	3433.74	5.08 (0.00) ^a	3.06 (0.00) ^a	
CRETAINER	850.81	0.00	0.00	9100.00	278.46	1423.17	1423.17	6.12 (0.00) ^a	2.87 (0.00) ^a	
COBRETAINER	30630.08	0.00	0.00	312500.00	16882.11	44378.05	44378.05	3.79 (0.00) ^a	1.72 (0.01) ^a	
BMEETING	968.11	1000.00	0.00	3000.00	773.21	1163.01	1163.01	6.48 (0.00) ^a	2.74 (0.00) ^a	
CMEETING	884.17	1000.00	0.00	2500.00	743.13	1025.20	1025.20	4.93 (0.00) ^a	2.55 (0.00) ^a	
MBEQUNITY	1.63	1.40	0.07	6.01	1.38	1.87	1.87	3.72 (0.00) ^a	2.10 (0.00) ^a	
MBASSETS	1.40	1.18	0.08	6.02	1.25	1.55	1.55	2.37 (0.02) ^b	0.89 (0.40)	
VARRET	0.00	0.00	0.00	0.02	0.00	0.00	0.00	3.14 (0.00) ^a	1.85 (0.00) ^a	
DOIMVE	0.06	0.01	0.00	0.67	0.07	0.05	0.05	-1.48 (0.14)	-0.89 (0.40)	
SHAREOWN	0.01	0.00	0.00	0.09	0.01	0.01	0.01	1.96 (0.05) ^b	2.49 (0.00) ^a	
INSTOWN	6.04	0.00	0.00	55.00	6.34	5.74	5.74	-0.41 (0.68)	-0.38 (0.99)	
ONMGBOWN	2.96	0.00	0.00	69.90	2.14	3.78	3.78	1.27 (0.21)	0.57 (0.90)	
MGBOWN	22.08	0.00	0.00	87.00	21.82	22.35	22.35	0.15 (0.88)	0.77 (0.60)	
SALES	2667.89	717.88	0.32	33191.00	927.97	4407.82	4407.82	5.82 (0.00) ^a	3.25 (0.00) ^a	
FCFMVE	0.007	0.010	-2.246	1.598	0.053	-0.039	-0.039	-1.96 (0.05) ^b	-1.40 (0.04) ^b	
LOSCFMVE	0.107	0.000	0.000	1.760	0.113	0.101	0.101	-0.30 (0.77)	-1.15 (0.14)	
LEVERAGE	0.415	0.400	0.010	1.144	0.427	0.403	0.403	-0.76 (0.45)	-1.28 (0.08) ^c	
OUTSIDERS	0.699	0.714	0.200	0.944	0.671	0.726	0.726	2.54 (0.01) ^b	1.47 (0.03) ^b	
STRE	5.472	4.840	-85.788	98.064	0.431	10.512	10.512	2.14 (0.03) ^b	1.40 (0.04) ^b	
ROA	0.446	2.620	-78.458	38.472	0.215	0.676	0.676	0.28 (0.78)	0.83 (0.50)	
ROET	4.150	8.730	-163.359	44.214	2.501	5.799	5.799	0.99 (0.32)	1.08 (0.19)	

	All Firms	Control Firms	Sample Firms	Kolmogorov-S. Z (p-value)
Panel B				
OPBEFDSU	102	56	41	0.96 (0.32)
MANDATORY	33	na	33	na
OWNGUIDELINES	36	na	36	na
MANDATORYOWN	13	na	13	na
INSURANCE	183	83	100	1.08 (0.19)
MULTIPLE	36	17	19	0.13 (0.99)
NOMINATING	166	61	105	2.81 (0.00) ^a
DUAL	79	49	30	1.21 (0.11)
INSTITUTION	68	35	33	0.13 (0.99)
OTHERBLOCK	26	9	17	0.51 (0.96)
MANAGEBLOCK	118	64	54	0.64 (0.81)
MULTIPLE*INSTITUTION	10	4	6	0.13 (0.99)
CONSULTANTS	104	14	90	4.85 (0.00) ^a
INTERLOCK	105	29	76	3.00 (0.00) ^a
EARLY	26	na	26	na
DISCLOSURE	55	na	55	na

BRETAINER: Board member retainer in (\$); CCHRETAINER: Committee chair retainer in (\$); CRETAINER: Committee member retainer in (\$); COBRETAINER: Chairman of the board retainer in (\$); BMEETING: Board meeting fee in (\$); CMEETING: Committee meeting fee in (\$); MBEQUITY: Year end price per share times the number of shares outstanding divided by the book value of equity; MBASSETS: Year end price per share times the number of shares outstanding plus book value of debt divided by the book value of total assets; VARRET: Variance in daily stock return for the year preceding the adoption decision; DOIMVE: Director and Officer Insurance in (\$) scaled by the market value of equity; SHAREOWN: Outside directors' share ownership as a percentage of the outstanding shares; INSTOWN: Percentage ownership by Institutional investor(s); ONMGROWN: Percentage ownership by other non-managing block holder(s) - block holder that do not occupy a top management position - other than Institutional investors; MGBOWN: Percentage ownership by managing block holder(s); block holder that occupy a top management position; SALES: Sales in million (\$); FCFMVE: Free cash flows scaled by the market value of equity; LOSCFMVE: Loss carry forward scaled by the market value of equity; LEVERAGE: Total liability over total assets; OUTSIDERS: Percentage of outside directors on board; STRET: One year total stock returns in the year preceding the adoption decision; ROA: Return on assets in the year preceding the adoption decision; ROE: Return on equity in the year preceding the adoption decision.

MANDATORY: Number of firms adopting a mandatory deferred share unit plan; OWNGUIDELINES: Number of firms adopting a stock ownership guidelines concurrently with the adoption of a deferred share unit plan; MANDATORYOWN: Number of firms adopting a mandatory plan that is coupled with share ownership guideline; OPBEFDSU: Number of firms having a stock option plan for outside directors one year prior to the adoption decision; INSURANCE: Number of firms having directors' insurance; MULTIPLE: Number of firms having multiple voting shares; NOMINATING: Number of firms having a nominating committee; DUALITY: Number of firms where a single person acts a CEO and COB; INSTITUTION: Number of firms having institutional investor(s) with more than 10 percent ownership; OTHERBLOCK: Number of firms having non-managing block holder(s) other than institutional investors with more than 10 percent ownership; MANAGEBLOCK: Number of firms having managing block holder with more than 10 percent ownership; MULTIPLE*INSTITUTION: Number of firms having multiple voting shares and an institutional block holder; CONSULTANTS: Number of firms having a compensation consultant at or one year prior to the adoption decision; INTERLOCK: Number of firms having board interlock(s) with a company that had or concurrently adopted a deferred share unit plan; EARLY: Number of sample firms that are among the first 20 percent of the firms that adopted a deferred share unit plan; DISCLOSURE: Number of firms that used an agency based perspective to disclose the adoption decision.

Unless otherwise stated, all variables are measured in the year prior to the adoption decision. Financial data is obtained from Compustat while governance related data is collected from proxy circulars.

^{a,b,c} p < 0.01, < 0.05, < 0.10 respectively, two tailed test.

Table 7
Correlation Matrix
Sample (123) and control (123) firms listed on the Globe and Mail survey for the largest 1,000 Canadian publicly traded firms over the period 1997-2003

Panel A	ADOPT	MBEQ UTY	INSUR ANCE	SHAR EOWN	MULT IPLE	NOMIN ATING	DUAL ITY	INSTITU TION	OTHER BLOCK	MNG BLOCK	CONS ULT	INTER LOCK	SALES	FCF MVE	LOSCF MVE	LEVER AGE	OUTSI DERS	STRET
MBEQUITY	.233**																	
INSURANCE	.158*	-0.023																
SHAREOWN	.304**	-0.013	-0.026															
MULTIPLE	0.023	-0.116	0.006	0.033														
NOMINATING	.382**	.126*	.129*	0.071	-0.130*													
DUALITY	-.165**	0.011	0.005	-0.086	0.035	-.136*												
INSTITUTION	-0.018	-0.086	0.092	0.082	0.001	0.002	-0.055											
OTHERBLOCK	0.106	0.010	-0.041	-0.010	-0.068	.126*	-0.067	-0.035										
MNGBLOCK	-0.081	-0.120	-0.052	0.113	.316**	-.132*	0.019	-.139*	-.251**									
CONSULT	.386**	0.014	.130*	.241**	-0.102	.336**	-0.101	0.018	0.051	-.171**								
INTERLOCK	.625**	.183**	-0.045	.162*	0.065	.225**	-0.113	-0.032	0.107	-0.064	.326**							
SALES	.456**	.180**	0.053	0.039	0.091	.230**	0.025	-0.063	-0.028	-0.040	.433**	.489**						
FCFMVE	-.164**	-.174**	-.151*	0.007	.146*	-.226**	0.019	0.009	-0.005	0.085	-.140*	-0.042	0.036					
LOSCFMVE	0.107	-0.030	0.096	0.070	-0.081	.172**	-0.004	-0.032	.127*	-0.081	-0.010	-0.011	-0.081	0.038				
LEVERAGE	-0.051	-.223**	0.076	.206**	.153*	0.005	0.091	0.026	-.146*	.144*	.208**	0.016	.370**	0.061	-0.009			
OUTSIDERS	.161*	0.012	.147*	0.082	-.257**	.226**	-0.122	0.086	0.013	-.443**	.277**	.185**	.154*	-0.071	0.073	0.028		
STRET	.133*	0.008	0.005	0.000	0.055	.161*	-0.051	0.019	0.020	0.021	0.121	.129*	.155*	0.069	-0.078	0.067	-0.014	
OPBEFDSU	-0.125	0.017	-0.022	-0.019	-0.075	-0.026	0.086	0.078	0.047	-.142*	-.158*	-.202**	-.323**	-.142*	0.103	-.266**	-0.005	-0.067

Spearman bi-variate correlation coefficients

ADOPT: Dummy equals 1 in case a firm adopted a deferred share unit plan, 0 otherwise; MBEQUITY: Year end price per share times the number of shares outstanding divided by the book value of equity; INSURANCE: Dummy equals 1 in the presence of directors' insurance, 0 otherwise; SHAREOWN: Outside directors' share ownership as a percentage of the outstanding shares; MULTIPLE: Dummy equals 1 in the presence of multiple voting shares, 0 otherwise; NOMINATING: Dummy equals 1 in the presence of a nominating committee, 0 otherwise; DUALITY: Dummy equals 1 in case a single person acts a CEO and COB, 0 otherwise; INSTITUTION: Dummy equals 1 in the presence of institutional investor(s) with more than 10 percent ownership, 0 otherwise; OTHERBLOCK: Dummy equals 1 in the presence of non-managing block holder(s) - block holder that does not occupy a top management position- other than institutional investors, 0 otherwise; MNGBLOCK: Dummy equals 1 in the presence of a managing block holder - block holder that occupy a top management position- other than institutional investors, 0 otherwise; CONSULT: Dummy equals 1 in case a firm relied on the services of a compensation consultant at or one year prior to the adoption decision, 0 otherwise; INTERLOCK: Dummy equals 1 in the presence of board interlock with a company that had or concurrently adopted a share unit plan, 0 otherwise; SALES: Sales in million (\$); FCFMVE: Free cash flows over the market value of equity; LOSCFMVE: Loss carry forward over the market value of equity; LEVERAGE: Total liability over total assets; OUTSIDERS: Percentage of outside directors on board; STRET: One year total stock returns in the year preceding the adoption decision; OPBEFDSU: Dummy equals 1 in case a firm had a stock option plan for its directors prior to the adoption decision, 0 otherwise. Unless otherwise stated, all variables are measured in the year preceding the adoption decision. Financial data is obtained from Compustat while governance related data is collected from proxy circulars.

*, ** Correlation is significant at the 0.05, 0.01 level respectively, two tailed test.

Panel B

	UCAR01	UCAR11	MANDATORY	OWN GUIDELINES	EARLY	DISCLOSURE	PERCENT OUTSIDERS	ADOPT COMPLAN	MODIFY COMPLAN	CHANGE SALBONUS
UCAR11	0.786**									
MANDATORY	0.294**	0.187*								
OWNGUIDELINES	0.182*	0.203*	0.127							
EARLY	0.049	-0.020	0.091	-0.070						
DISCLOSURE	0.020	0.005	0.046	0.212*	-0.105					
PERCENTOUTSIDERS	0.025	0.108	0.051	-0.025	-0.106	0.044				
ADOPTCOMPLAN	0.326**	0.318**	0.096	0.190*	0.041	0.001	-0.057			
MODIFYCOMPLAN	0.030	0.055	-0.056	0.219*	-0.056	0.068	-0.038	0.028		
CHANGESALBONUS	-0.109	-0.092	-0.037	0.071	-0.163	-0.001	-0.011	-0.220*	0.141	
ADOPTPILL	-0.082	-0.029	0.064	0.193*	0.025	0.161	-0.164	-0.069	0.070	-0.081

Spearman bi-variate correlation coefficients

UCAR11: Un-standardized cumulative abnormal return over the window (t-1, t+1) where t is the proxy statement date; UCAR01: Un-standardized cumulative abnormal return over the window (t0, t+1) where t is the proxy statement date; MANDATORY: Dummy equals 1 in case the deferred share unit plan is mandatory, 0 otherwise; OWNGUIDELINES: Dummy equals 1 in case the adopting firm is coupled with share ownership guidelines, 0 otherwise; EARLY: Dummy equals 1 in case the adopting firm is an early adopter, 0 otherwise; DISCLOSURE: Dummy equals 1 in case the adopting firms disclosed the adoption decision using an agency based perspective, 0 otherwise; PERCENTOUTSIDERS: Change in the percentage of outside directors on board in the year of adoption relative to the prior year; ADOPTCOMPLAN: Dummy equals 1 in case a firm adopted a new compensation plan for top management in the year of adoption, 0 otherwise; MODIFYCOMPLAN: Dummy equals 1 in case a firm modified the existing compensation plans in the year of adoption, 0 otherwise; CHANGESALBONUS: Percentage change in salary plus bonus for the executive officer in the year of adoption relative to the prior year; ADOPTPILL: Dummy equals 1 in case a firm adopted a poison pill in the year of adoption, 0 otherwise.

Unless otherwise stated, all variables are measured in the year preceding the adoption decision. Financial data is obtained from Compustat while governance related data is collected from proxy circulars.

*, ** Correlation is significant at the 0.05, 0.01 level respectively, two tailed test.

Table 8

Deferred share unit plans- Antecedents- Matched sample
Logistic regression analysis of the antecedents of adopting a deferred share unit plan
to compensate outside directors in Canada (N =226)

Parameter	Predicted Sign	Coef. (p-value)	Coef. (p-value)	Coef. (p-value)
INTERCEPT		-11.47 (0.00) ^a	-11.36 (0.00) ^a	-11.26 (0.00) ^a
MBEQUITY	+	0.31 (0.07) ^c	0.30 (0.08) ^c	0.29 (0.09) ^c
INSURANCE	+	1.46 (0.01) ^b	1.49 (0.01) ^b	1.60 (0.00) ^a
LNSHAREOWN	-	0.51 (0.00) ^a	0.51 (0.00) ^a	0.51 (0.00) ^a
MULTIPLE	+	0.36 (0.33)	0.31 (0.35)	0.25 (0.38)
NOMINATING	-	1.29 (0.01) ^b	1.28 (0.01) ^b	1.28 (0.01) ^b
DUALITY	+	-0.45 (0.17)	-0.46 (0.17)	-0.48 (0.16)
INSTITUTION	+	0.12 (0.42)	0.08 (0.45)	0.08 (0.45)
OTHERBLOCK	+	0.77 (0.17)	0.79 (0.17)	0.74 (0.18)
MANAGEBLOCK	-	0.98 (0.04) ^b	0.96 (0.05) ^b	0.97 (0.04) ^b
MULTIPLE*INSTITUTION	+	1.06 (0.22)	1.18 (0.19)	1.22 (0.18)
CONSULTANTS	+	1.43 (0.00) ^a	1.47 (0.00) ^a	1.50 (0.00) ^a
INTERLOCK	+	3.07 (0.00) ^a	3.11 (0.00) ^a	3.27 (0.00) ^a
LNSALES	+	0.29 (0.03) ^b	0.28 (0.03) ^b	0.26 (0.04) ^b
FCFME	-	-1.18 (0.03) ^b	-1.15 (0.03) ^b	-1.14 (0.03) ^b
LOSCFME	+	1.51 (0.00) ^a	1.46 (0.01) ^b	1.47 (0.01) ^b
LEVERAGE	-	-1.30 (0.12)	-1.17 (0.14)	-1.20 (0.14)
OUTSIDERS	+	0.41 (0.39)	0.21 (0.45)	0.02 (0.45)
OPBEFDSU	+	0.42 (0.19)	0.47 (0.18)	0.53 (0.15)
STRET	+	0.00 (0.26)		
ROA	+		0.01 (0.37)	0.01 (0.11)
ROE	+			
CHI-SQUARE (P-VALUE)		203.13 (<0.00)	202.85 (<0.00)	204.27 (<0.00)
COX & SNELL R SQUARE		0.56	.56	0.56
HOSMER & LEMESHOW		7.47 (> 0.10)	4.79 (>0.10)	5.00 (>0.10)
PERCENTCLASSIFIED		87.4	87.4	87.4

MBEQUITY: Year end price per share times the number of shares outstanding divided by the book value of equity; INSURANCE: Dummy equals 1 in the presence of directors' insurance, 0 otherwise; LNSHAREOWN: Natural log of outside directors' share ownership as a percentage of the outstanding shares; MULTIPLE: Dummy equals 1 in the presence of multiple voting shares, 0 otherwise; NOMINATING: Dummy equals 1 in the presence of a nominating committee, 0 otherwise; DUALITY: Dummy equals 1 in case a single person acts a CEO and COB, 0 otherwise; INSTITUTION: Dummy equals 1 in the presence of institutional investor(s) with more than 10 percent ownership, 0 otherwise; OTHERBLOCK: Dummy equals 1 in the presence of non-managing block holder(s) - block holder that does not occupy a top management position- other than institutional investors, 0 otherwise; MANAGEBLOCK: Dummy equals 1 in the presence of a managing block holder - block holder that occupy a top management position-, 0 otherwise; MULTIPLE*INSTITUTION: Dummy equals 1 in case a firm had multiple voting shares and institutional block holder(s), 0 otherwise; CONSULTANTS: Dummy equals 1 in case a firm relied on the services of a compensation consultant at or one year prior to the adoption decision, 0 otherwise; INTERLOCK: Dummy equals 1 in the presence of board interlock with a company that had or concurrently adopted a share unit plan, 0 otherwise; LNSALES: Natural log of Sales in million (\$); FCFMVE: Free cash flows over the market value of equity; LOSCFMVE: Loss carry forward over the market value of equity; LEVERAGE: Total liability over total assets; OUTSIDERS: Percentage of outside directors on board; OPBEFDSU: Dummy equals 1 in case a firm had a stock option plan for its directors prior to the adoption decision, 0 otherwise; STRET: One year total stock returns; ROA: Return on assets; ROE: Return on equity.

Unless otherwise stated, all variables are measured in the year preceding the adoption decision. Financial data is obtained from Compustat while governance related data is collected from proxy circulars.
a,b,c: p < 0.01, < 0.05, < 0.10 respectively, one tailed test.

Table 9
Sensitivity analysis: Deferred share unit plan- Antecedents
Logistic regression analysis of the antecedents of adopting a deferred share unit plan
to compensate outside directors in Canada (N =226)

Parameter	Predicted Sign	Coef. (p-value)	Coef. (p-value)	Coef. (p-value)
Intercept		-12.78 (0.00) ^a	-12.44 (0.00) ^a	-12.44 (0.00) ^a
MBASSETS	+	0.53 (0.01) ^b	0.51 (0.01) ^b	0.51 (0.01) ^b
INSURANCE	+	1.35 (0.02) ^b	1.42 (0.02) ^b	1.51 (0.01) ^b
LNSHAREOWN	-	0.56 (0.00) ^a	0.56 (0.00) ^a	0.56 (0.00) ^a
MULTIPLE	+	0.31 (0.35)	0.23 (0.39)	0.18 (0.42)
NOMINATING	-	1.28 (0.01) ^b	1.26 (0.02) ^b	1.29 (0.01) ^b
DUALITY	+	-0.30 (0.27)	-0.32 (0.26)	-0.33 (0.25)
INSTITUTION	+	0.11 (0.43)	0.05 (0.47)	0.08 (0.45)
OTHERBLOCK	+	0.85 (0.15)	0.86 (0.16)	0.83 (0.16)
MANAGEBLOCK	-	1.14 (0.03) ^b	1.10 (0.04) ^b	1.13 (0.03) ^b
MULTIPLE*INSTITUTION	+	1.34 (0.17)	1.48 (0.15)	1.51 (0.14)
CONSULTANTS	+	1.35 (0.00) ^a	1.41 (0.00) ^a	1.42 (0.00) ^a
INTERLOCK	+	3.15 (0.00) ^a	3.23 (0.00) ^a	3.36 (0.00) ^a
LNSALES	+	0.33 (0.01) ^b	0.30 (0.03) ^b	0.29 (0.03) ^b
FCFMVE	-	-1.25 (0.02) ^b	-1.20 (0.03) ^b	-1.18 (0.03) ^b
LOSCFMVE	+	1.74 (0.00) ^a	1.66 (0.00) ^a	1.66 (0.00) ^a
LEVERAGE	-	-0.78 (0.24)	-0.61 (0.29)	-0.65 (0.28)
OUTSIDERS	+	0.43 (0.39)	0.05 (0.44)	-0.08 (0.48)
OPBEFDSU	+	0.39 (0.22)	0.47 (0.18)	0.53 (0.15)
STRET	+	0.01 (0.17)		
ROA	+		0.01 (0.26)	
ROE	+			0.01 (0.07) ^c
CHI-SQUARE (P-VALUE)		206.44 (<0.00)	205.96 (<0.00)	211.32 (<0.00)
COX & SNELL R SQUARE		0.57	.57	0.57
HOSMER & LEMESHOW		3.67 (>0.10)	3.58 (> 0.10)	4.61 (> 0.10)
PERCENTCLASSIFIED		88.2	88.2	87.8

MBASSETS: Year end price per share times the number of shares outstanding plus book value of debt divided by the book value of total assets; INSURANCE: Dummy equals 1 in the presence of directors' insurance, 0 otherwise; LNSHAREOWN: Natural log of outside directors' share ownership as a percentage of the outstanding shares; MULTIPLE: Dummy equals 1 in the presence of multiple voting shares, 0 otherwise; NOMINATING: Dummy equals 1 in the presence of a nominating committee, 0 otherwise; DUALITY: Dummy equals 1 in case a single person acts a CEO and COB, 0 otherwise; INSTITUTION: Dummy equals 1 in the presence of institutional investor(s) with more than 10 percent ownership, 0 otherwise; OTHERBLOCK: Dummy equals 1 in the presence of non-managing block holder(s) – block holder that does not occupy a top management position- other than institutional investors, 0 otherwise; MANAGEBLOCK: Dummy equals 1 in the presence of a managing block holder – block holder that occupy a top management position- 0 otherwise; MULTIPLE*INSTITUTION: Dummy equals 1 in case a firm had multiple voting shares and institutional block holder(s), 0 otherwise; CONSULTANTS: Dummy equals 1 in case a firm relied on the services of a compensation consultant at or one year prior to the adoption decision, 0 otherwise; INTERLOCK: Dummy equals 1 in the presence of board interlock with a company that had or concurrently adopted a share unit plan, 0 otherwise; LNSALES: Natural log of Sales in million (\$); FCFMVE: Free cash flows over the market value of equity; LOSCFMVE: Loss carry forward over the market value of equity; LEVERAGE: Total liability over total assets; OUTSIDERS: Percentage of outside directors on board; OPBEFDSU: Dummy equals 1 in case a firm had a stock option plan for its directors prior to the adoption decision, 0 otherwise; STRET: One year total stock returns; ROA: Return on assets; ROE: Return on equity.

Unless otherwise stated, all variables are measured in the year preceding the adoption decision. Financial data is obtained from Compustat while governance related data is collected from proxy circulars.
a, b, c, p < 0.01, < 0.05, < 0.10 respectively, one tailed test.

Table 10
Deferred share unit plan- Random sample
Logistic regression analysis of the antecedents of adopting a deferred share unit plan
to compensate outside directors in Canada (N =226)

Parameter	Predicted Sign	Coef. (p-value) ^a	Coef. (p-value)	Coef. (p-value) ^a
Intercept		-17.92 (0.00) ^a	-20.81 (0.00) ^a	-19.38 (0.00) ^a
MBEQUITY	+	-0.25 (0.17)	0.49 (0.13)	
MBASSETS	+			
LNVARRET	+			
INSURANCE	+	4.11 (0.00) ^a	4.36 (0.00) ^a	-0.09 (0.40)
LNSHAREOWN	-	-0.08 (0.34)	-0.13 (0.26)	4.32 (0.00) ^a
MULTIPLE	+	2.91 (0.05) ^b	3.32 (0.03) ^b	-0.11 (0.29)
NOMINATING	-	2.13 (0.02) ^b	1.99 (0.03) ^b	3.19 (0.03) ^b
DUALITY	+	-1.70 (0.05) ^b	-1.72 (0.05) ^b	2.01 (0.02) ^b
INSTITUTION	+	0.55 (0.30)	0.91 (0.19)	-1.76 (0.04) ^b
OTHERBLOCK	+	3.44 (0.00) ^a	3.11 (0.00) ^a	0.60 (0.27)
MANAGEBLOCK	-	0.89 (0.20)	1.04 (0.16)	3.34 (0.00) ^a
MULTIPLE*INSTITUTION	+	-2.34 (0.18)	-2.48 (0.17)	0.90 (0.19)
CONSULTANTS	+	4.74 (0.00) ^a	4.35 (0.00) ^a	-2.36 (0.18)
INTERLOCK	+	4.95 (0.00) ^a	5.02 (0.00) ^a	4.70 (0.00) ^a
LNSALES	+	1.43 (0.00) ^a	1.40 (0.00) ^a	4.85 (0.00) ^a
FCFMVE	-	-3.75 (0.00) ^a	-3.12 (0.03) ^b	1.39 (0.00) ^a
LOSCFMVE	+	0.99 (0.20)	1.09 (0.17)	-3.46 (0.02) ^b
LEVERAGE	-	-0.11 (0.46)	2.87 (0.16)	0.99 (0.20)
UNRELATED	+	1.24 (0.36)	2.20 (0.37)	0.42 (0.42)
OPBEFDSU	+	1.98 (0.03) ^b	2.32 (0.02) ^b	1.23 (0.36)
STRET	+	0.00 (0.40)	0.00 (0.47)	2.16 (0.02) ^b
CHI-SQUARE (P-VALUE)		288.44 (<0.00)	288.83 (<0.00)	287.46 (<0.00)
COX & SNELL R SQUARE		0.69	.69	.68
HOSMER & LEMESHOW		1.50 (>0.10)	1.47 (>0.10)	1.52 (>0.10)
PERCENTCLASSIFIED		95.5	94.7	94.7

LNVARRET: Natural log of variance in daily stock return for the year preceding the adoption decision;; INSURANCE: Dummy equals 1 in the presence of directors' insurance, 0 otherwise; LNSHAREOWN: Natural log of outside directors' share ownership as a percentage of the outstanding shares; MULTIPLE: Dummy equals 1 in the presence of multiple voting shares, 0 otherwise; NOMINATING: Dummy equals 1 in the presence of a nominating committee, 0 otherwise; DUALITY: Dummy equals 1 in case a single person acts a CEO and COB, 0 otherwise; INSTITUTION: Dummy equals 1 in the presence of institutional investor(s) with more than 10 percent ownership, 0 otherwise; OTHERBLOCK: Dummy equals 1 in the presence of non-managing block holder(s) – block holder that does not occupy a top management position- other than institutional investors, 0 otherwise; MANAGEBLOCK: Dummy equals 1 in the presence of a managing block holder – block holder that occupy a top management position- 0 otherwise; MULTIPLE*INSTITUTION: Dummy equals 1 in case a firm had multiple voting shares and institutional block holder(s), 0 otherwise; CONSULTANTS: Dummy equals 1 in case a firm relied on the services of a compensation consultant at or one year prior to the adoption decision, 0 otherwise; INTERLOCK: Dummy equals 1 in the presence of board interlock with a company that had or concurrently adopted a share unit plan, 0 otherwise; LNSALES: Natural log of Sales in million (\$); FCFMVE: Free cash flows over the market value of equity; LOSCFMVE: Loss carry forward over the market value of equity; LEVERAGE: Total liability over total assets; OUTSIDERS: Percentage of outside directors on board; OPBEFDSU: Dummy equals 1 in case a firm had a stock option plan for its directors prior to the adoption decision, 0 otherwise; STRET: One year total stock returns; ROA: Return on assets; ROE: Return on equity.

Unless otherwise stated, all variables are measured in the year preceding the adoption decision. Financial data is obtained from Compustat while governance related data is collected from proxy circulars.
a, b, c, p < 0.01, < 0.05, < 0.10 respectively, one tailed test.

Table 11
Descriptive statistics: Stock market reaction- Overall Sample
Un-standardized / Standardized Daily Abnormal Returns (UDAR / SDAR) and Cumulative Abnormal Returns (UCAR/SCAR) at and around the proxy statement (t=0) for a sample of 123 firms that adopted a deferred share unit plan over the period 1997-2003

t	Mean		Median		Std. Deviation		Minimum		Maximum	
	UDAR (t-statistic)	SDAR (z-value)	UDAR	SDAR	UDAR	SDAR	UDAR	SDAR	UDAR	SDAR
-5	-0.038 (-0.139)	-0.008 (-0.087)	0.045	-0.084	3.067	0.774	-10.286	-1.636	12.436	2.935
-4	0.169 (0.545)	0.037 (0.416)	-0.075	-0.032	3.446	0.757	-12.350	-1.568	18.360	2.581
-3	-0.285 (-0.988)	-0.054 (-0.603)	-0.295	-0.076	3.198	0.631	-17.987	-1.956	10.850	1.667
-2	-0.159 (-0.507)	-0.033 (-0.369)	0.177	0.038	3.489	0.796	-17.469	-4.126	10.539	1.648
-1	-0.239 (-0.829)	-0.002 (1.170)	-0.152	-0.011	3.196	0.716	-12.063	-2.484	14.693	2.104
0	0.467 (1.376) ^c	0.110 (1.223)	0.362	0.116	3.760	1.175	-14.066	-3.141	14.686	3.615
1	0.784 (2.513) ^a	0.153 (1.695) ^b	0.337	0.146	3.458	1.121	-5.121	-4.076	21.004	4.148
2	-0.030 (-0.073)	-0.039 (-0.431)	-0.027	-0.014	4.582	1.290	-17.049	-4.005	32.482	6.671
3	0.018 (0.059)	0.019 (0.215)	-0.018	-0.047	3.486	1.102	-15.786	-2.481	20.862	7.198
4	-0.457 (-1.685)	-0.128 (-1.42)	-0.338	-0.137	3.011	0.988	-10.084	-2.916	11.168	3.298
5	0.072 (0.176)	0.065 (0.718)	-0.161	-0.066	4.547	1.106	-16.967	-2.450	34.450	5.507

Window	UDAR (t-statistic)		SDAR (z-value)		UCAR		SCAR	
	UDAR	SDAR	UCAR	SDAR	UCAR	SCAR	UCAR	SCAR
(t0, t+1)	1.249 (2.548) ^a	0.263 (2.918) ^a	0.698	0.208	5.442	1.550	-11.061	-4.653
(t-1, t+1)	1.011 (1.952) ^b	0.261 (2.898) ^a	0.258	0.114	5.744	1.684	-13.137	-6.070
(t-3, t+3)	0.555 (0.733)	0.154 (1.709) ^b	-0.065	-0.048	8.401	2.709	-47.158	-10.217
(t-5, t+5)	0.399 (0.434)	0.121 (1.337) ^c	0.409	0.046	10.195	2.984	-45.011	-11.727

Daily stock returns are obtained from the TSE database. Un-standardized daily abnormal returns (UDAR) are calculated using a standard event study methodology. The parameters for the market model are estimated over a period between day - 170 to day - 21 relative to the proxy statement date (event date) using the TSE value weighted market index as a measure of market return. Un-standardized cumulative abnormal (UCAR) returns are cumulated over the four time windows centred on the proxy statement date (t=0).

Standardized daily abnormal returns (SDAR) and Z values are calculated by standardizing un-standardized daily abnormal returns as per Warner et al. (1988). Standardized cumulative abnormal returns (SCAR) are cumulated over the four time windows centred on the proxy statement date (t=0).

^{a, b, c} p < 0.01, < 0.05, < 0.10 respectively, one tailed test.

Table 12

Stock market reaction: Determinants- Overall sample
 OLS regression of the determinants of Un-standardized Cumulative Abnormal Returns (UCAR) for adopting firms over
 (t0, t+1) and (t-1, t+1) windows centered on the proxy statement date (t=0)

Explanatory variables	Standardized Coefficients		Expected Sign	Dependent variable UCAR (t0, t+1)		Dependent variable UCAR (t-1, t+1)	
	α	Coefficient (t-statistic)**		Coefficient (t-statistic)**	Coefficient (t-statistic)**		
INTERCEPT		na			na		
MANDATORY	β_1	0.28 (3.02) ^a	+	0.18 (1.92) ^b			
OWNGUIDELINES	β_2	0.06 (0.57)	+	0.16 (1.64) ^b			
EARLY	β_3	-0.00 (-0.00)	-	-0.03 (-0.36)			
DISCLOSURE	β_4	0.01 (0.10)	+	-0.05 (-0.52)			
PERCENTOUTSIDERS	β_5	-0.01 (-0.12)	+/-	0.09 (0.98)			
ADOPTCOMPPLAN	β_6	0.15 (1.62)	+/-	0.17 (1.79) ^c			
MODIFYCOMPPLAN	β_7	-0.01 (-0.04)	+/-	-0.05 (-0.49)			
CHANGESALBONUS	β_8	-0.11 (-1.19)	+/-	-0.05 (-0.49)			
ADOPTPILL	β_9	-0.07 (-0.73)	+/-	-0.03 (-0.33)			
Adjusted R ²		6.10%		4.10%			
F Statistic (p-value)		1.87 (< 0.10)		1.57 (> 0.10)			
Number of observations*		121		122			

* Number of observations after excluding influential outliers having sdffits greater than 1.

** Standardized regression coefficients

MANDATORY: Dummy equals 1 in case the deferred share unit plan is mandatory, 0 otherwise; OWNGUIDELINES: Dummy equals 1 in case the deferred share unit plan is coupled with share ownership guidelines, 0 otherwise; EARLY: Dummy equals 1 in case the adopting firm is an early adopter, 0 otherwise; DISCLOSURE: Dummy equals 1 in case the adopting firms disclosed the adoption decision using an agency based perspective, 0 otherwise; PERCENTOUTSIDERS: Change in the percentage of outside directors on board in the year of adoption relative to the prior year; ADOPTCOMPPLAN: Dummy equals 1 in case a firm adopted a new compensation plan for top management in the year of adoption, 0 otherwise; MODIFYCOMPPLAN: Dummy equals 1 in case a firm modified the existing compensation plans in the year of adoption, 0 otherwise; CHANGESALBONUS: Percentage change in salary plus bonus for the executive officer in the year of adoption relative to the prior year; ADOPTPILL: Dummy equals 1 in case a firm adopted a poison pill in the year of adoption, 0 otherwise.

Unless otherwise stated, all Independent variables are measured in the year prior to the adoption decision. Financial data is obtained from Compustat while governance related data is collected from proxy circulars.

^{a, b, c} p < 0.01, < 0.05, < 0.10 respectively, one tailed test (Except for non directional predictions, two tailed).

Table 13

Stock market reaction- Mean difference in daily abnormal returns by plan' attribute and firm category
 T tests for the difference in Un-standardized Mean Daily Abnormal Returns (UMDAR) for adopting firms over 11 days
 centered on the proxy statement date (t=0) by deferred share unit plan attribute and firm category

t	Mandatory / Non Mandatory Plans	Own Guidelines / No Own Guidelines Plans	Early / Late Adopters	Pace Setters / Non Pace Setters
-5	0.716 (1.150)	-0.336 (-0.552)	1.494 (2.241) ^b	0.589 (1.055)
-4	-0.067 (-0.096)	-1.404 (-2.085) ^b	-0.135 (-0.018)	1.075 (1.727) ^b
-3	0.135 (0.207)	-2.391 (-0.377)	0.164 (0.231)	-0.459 (-0.788)
-2	-1.044 (-1.478) ^c	1.078 (1.568) ^c	-0.715 (-0.928)	-1.079 (-1.712) ^b
-1	-0.280 (-0.429)	0.492 (0.775)	-0.299 (-0.424)	1.153 (2.005) ^b
0	2.190 (2.950) ^b	1.854 (2.543) ^a	-0.074 (-0.089)	-1.191 (-1.754) ^b
1	1.195 (1.712) ^b	0.252 (0.367)	-0.011 (-0.014)	-0.015 (-0.240)
2	0.112 (0.119)	0.210 (0.231)	1.346 (1.334) ^c	0.989 (1.189)
3	0.078 (0.110)	-0.259 (-0.374)	-0.408 (-0.529)	-0.296 (-0.466)
4	-0.366 (-0.596)	-1.282 (-2.182) ^b	0.821 (1.237)	0.067 (0.123)
5	1.901 (1.444) ^c	-0.988 (-1.097)	0.553 (0.549)	1.102 (1.231)
N*	33 / 90	36 / 87	26 / 97	70 / 53

Mean difference in daily abnormal returns (t-statistic).

* Number of observations per plan attribute or firm category

Mandatory plans are deferred share unit plans that require the deferral of a minimum percentage of directors' compensation into deferred share units; Plans that are coupled with stock ownership guidelines include deferred share unit plans whose adoption disclosure was coupled with minimum ownership guidelines for outside directors; Early adopters include adopting firms that are among the first 20 percent of sample firms (26 firms) to adopt deferred share unit plan; Pace setting firms include firms that were first to adopt in their 3 digit SIC code industry.

^{a, b, c} p < 0.01, < 0.05, < 0.10 respectively, one tailed test.

Table 14

Stock market reaction - Mean difference in cumulative abnormal returns by plans' attributes and firm category
 T tests for the difference in Un-standardized Mean Cumulative Abnormal Returns (UMCAR) for adopting firms over various time windows centered on the proxy statement date (t=0) by deferred share unit plan attribute and firm category

Window	Mandatory / Non Mandatory Plans		Own Guidelines / No Own Guidelines Plans		Early / Late Adopters		Pace Setters / Non Pace Setters	
	(t0, t+1)	3.168 (3.385) ^a	2.106 (1.976) ^b	-0.085 (-0.070)	-1.343 (-1.360) ^c			
(t-1, t+1)	3.105 (2.725) ^a	2.598 (2.323) ^a	-0.385 (-0.302)	-0.190 (-0.181)				
(t-3, t+3)	2.386 (1.401) ^c	3.387 (2.061) ^b	0.002 (0.001)	-1.035 (-0.675)				
(t-5, t+5)	4.439 (2.172) ^b	-0.273 (-0.135)	2.730 (1.215)	1.884 (1.015)				
N*	33 / 90	36 / 87	26 / 97	70 / 53				

Mean difference in cumulative abnormal returns (t-statistic).

* Number of observations per plan attribute or firm category

Mandatory plans are deferred share unit plans that require the deferral of a minimum percentage of directors' compensation into deferred share units; Plans that are coupled with stock ownership guidelines include deferred share unit plans whose adoption disclosure was coupled with minimum ownership guidelines for outside directors; Early adopters include adopting firms that are among the first 20 percent of sample firms (26 firms) to adopt deferred share unit plan; Pace setting firms include firms that were first to adopt in their 3 digit SIC code industry.

^{a, b, c} p < 0.01, < 0.05, < 0.10 respectively, one tailed test.

Table 15

Sensitivity analysis: Stock market reaction- Overall sample
 OLS regression for Un-standardized Cumulative Abnormal Returns (UCAR), cumulative stock return (CSR),
 and Cumulative Market Adjusted Stock Return (CMASR) for adopting firms over (t0, t+1) window

Explanatory variables	Standardized Coefficients	Expected Sign	Dependent variable		Dependent variable	
			UCAR (t0, t+1) Coefficient (t-statistic)**	na	CSR (t0, t+1) Coefficient (t-statistic)**	CMASR (t0, t+1) Coefficient (t-statistic)**
INTERCEPT	α		na	na	na	na
MANDATORY	β_1	+	0.28 (3.02) ^a	0.30 (3.45) ^a	0.28 (3.08) ^a	
OWNGUIDELINES	β_2	+	0.06 (0.57)	0.08 (0.83)	0.16 (1.64) ^c	
EARLY	β_3	-	-0.00 (-0.00)	-0.09 (-1.00)	0.00 (0.01)	
DISCLOSURE	β_4	+	0.01 (0.10)	-0.05 (-0.53)	0.03 (0.31)	
PERCENTOUTSIDERS	β_5	+/-	-0.01 (-0.12)	-0.07 (-0.81)	-0.04 (-0.45)	
ADOPTCOMPPLAN	β_6	+/-	0.15 (1.62)	0.24 (2.60) ^b	0.18 (1.92) ^c	
MODIFYCOMPPLAN	β_7	+/-	-0.01 (-0.04)	0.05 (0.57)	-0.01 (-0.08)	
CHANGESALBONUS	β_8	+/-	-0.11 (-1.19)	-0.07 (-0.73)	-0.00 (0.02)	
ADOPTPILL	β_9	+/-	-0.07 (-0.73)	-0.06 (-0.66)	-0.04 (-0.47)	
Adjusted R ²			6.10%	12.20%	8.60%	
F Statistic (p-value)			1.87 (< 0.10)	2.84 (< 0.00)	2.25 (< 0.05)	
Number of observations*			121	120	121	

* Number of observations after excluding influential outliers having sdfs greater than 1.

** Standardized regression coefficients

MANDATORY: Dummy equals 1 in case the deferred share unit plan is mandatory, 0 otherwise; OWNGUIDELINES: Dummy equals 1 in case the deferred share unit plan is coupled with share ownership guidelines, 0 otherwise; EARLY: Dummy equals 1 in case the adopting firm is an early adopter, 0 otherwise; DISCLOSURE: Dummy equals 1 in case the adopting firms disclosed the adoption decision using an agency based perspective, 0 otherwise; PERCENTOUTSIDERS: Change in the percentage of outside directors on board in the year of adoption relative to the prior year; ADOPTCOMPPLAN: Dummy equals 1 in case a firm adopted a new compensation plan for top management in the year of adoption, 0 otherwise; MODIFYCOMPPLAN: Dummy equals 1 in case a firm modified the existing compensation plans in the year of adoption, 0 otherwise; CHANGESALBONUS: Percentage change in salary plus bonus for the executive officer in the year of adoption relative to the prior year; ADOPTPILL: Dummy equals 1 in case a firm adopted a poison pill in the year of adoption, 0 otherwise.

Unless otherwise stated, all Independent variables are measured in the year prior to the adoption decision.

^{a, b, c} p < 0.01, < 0.05, < 0.10 one tailed test (Except for non directional predictions, two tailed).

Table 16

Sensitivity analysis: Stock market reaction- Overall sample

OLS regression for Un-standardized Cumulative Abnormal Returns (UCAR), cumulative stock return (CSR), and Cumulative Market Adjusted Stock Return (CMASR) for adopting firms over (t-1, t+1) window centered on the proxy statement date (t=0)

Explanatory variables	Standardized Coefficients	Expected Sign	Dependent variable		Dependent variable	
			UCAR (t-1, t+1) Coefficient (t-statistic)**	CSR (t-1, t+1) Coefficient (t-statistic)**	CMASR (t-1, t+1) Coefficient (t-statistic)**	
INTERCEPT	α		na	na	na	
MANDATORY	β_1	+	0.18 (1.92) ^b	0.21 (2.33) ^b	0.26 (3.06) ^a	
OWNGUIDELINES	β_2	+	0.16 (1.64) ^b	0.16 (1.66) ^b	0.24 (2.56) ^a	
EARLY	β_3	-	-0.03 (-0.36)	-0.03 (-0.33)	-0.02 (-0.26)	
DISCLOSURE	β_4	+	-0.05 (-0.52)	-0.09 (-1.02)	-0.09 (-1.12)	
PERCENTOUTSIDERS	β_5	+/-	0.09 (0.98)	0.02 (0.22)	-0.02 (-0.28)	
ADOPTCOMPPLAN	β_6	+/-	0.17 (1.79) ^c	0.27 (2.91) ^a	0.26 (3.00) ^a	
MODIFYCOMPPLAN	β_7	+/-	-0.05 (-0.49)	-0.03 (-0.28)	-0.16 (-1.88) ^c	
CHANGESALBONUS	β_8	+/-	-0.05 (-0.49)	-0.06 (-0.66)	-0.02 (-0.25)	
ADOPTPILL	β_9	+/-	-0.03 (-0.33)	-0.03 (-0.29)	-0.04 (-0.43)	
Adjusted R ²			4.10%	10.70%	18%	
F Statistic (p-value)			1.57 (> 0.10)	2.58 (< 0.05)	3.91 (< 0.00)	
Number of observations*			122	120	120	

* Number of observations after excluding influential outliers having sdffits greater than 1.

** All coefficients are standardized regression coefficients

MANDATORY: Dummy equals 1 in case the deferred share unit plan is mandatory, 0 otherwise; OWNGUIDELINES: Dummy equals 1 in case the deferred share unit plan is coupled with share ownership guidelines, 0 otherwise; EARLY: Dummy equals 1 in case the adopting firm is an early adopter, 0 otherwise; DISCLOSURE: Dummy equals 1 in case the adopting firms disclosed the adoption decision using an agency based perspective, 0 otherwise; PERCENTOUTSIDERS: Change in the percentage of outside directors on board in the year of adoption relative to the prior year; ADOPTCOMPPLAN: Dummy equals 1 in case a firm adopted a new compensation plan for top management in the year of adoption, 0 otherwise; MODIFYCOMPPLAN: Dummy equals 1 in case a firm modified the existing compensation plans in the year of adoption, 0 otherwise; CHANGESALBONUS: Percentage change in salary plus bonus for the executive officer in the year of adoption relative to the prior year; ADOPTPILL: Dummy equals 1 in case a firm adopted a poison pill in the year of adoption, 0 otherwise.

Unless otherwise stated, all independent variables are measured in the year prior to the adoption decision.

^{a,b,c} p < 0.01, < 0.05, < 0.10 one tailed test (Except for non directional predictions, two tailed).