

## THE IMPLEMENTATION OF SPECIAL ATTRIBUTES OF CEO COMPENSATION CONTRACTS AROUND M&A TRANSACTIONS

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*This study investigates how the implementation of special attributes of CEO compensation contracts is determined by both the acquisition and the acquirer features for a set of M&A deals undertaken by Canadian acquiring firms. Our findings reveal that when agency problems are higher, manifested by larger control premiums and poor firm performance, boards of directors tend to implement stronger mechanisms of incentive alignment around M&A transactions. Relying on multiple interdisciplinary logics that are activated to explain directors' ability to effectively perform their monitoring function, we show that boards are reactive rather than proactive in dealing with agency problems. Data are further interpreted in light of the unique aspects of the Canadian institutional context. Based on asymmetric risk properties of two different groups of executive compensation modes examined in this study, testing the substitution effects between alternative governance mechanisms is proposed as an interesting avenue for future research.* Copyright © 2009 John Wiley & Sons, Ltd.

### INTRODUCTION

Relying on different theoretical perspectives, corporate governance scholars have long attempted to understand the myriad of factors that underpin chief executive officer (CEO) compensation. The most popular stream of research based on agency theory (Fama and Jensen, 1983) suggests that the board of directors and performance-based incentives are among the critical governance mechanisms that allow reducing opportunistic behavior of executives and aligning their interests with those of shareholders (Gomez-Mejia and Wiseman,

1997; Tosi *et al.*, 2000). Advocates of political approach maintain that a board's apparent failure to fulfill its monitoring responsibilities can be explained by the CEO's entrenchment, where the CEO uses his *de facto* power associated with his job to influence compensation related decisions of the board (Finkelstein and Hambrick, 1989; Barkema and Pennings, 1998); while from a symbolic perspective, CEO compensation strategies are based on the management of impressions that aim to prevent executive pay from being questioned or criticized and guard against the social dysfunction that can result from unfair judgments (Zajac and Westphal, 1995; Westphal and Zajac, 1998).

The great majority of extant studies explore the determinants of the level of executive compensation components with little emphasis on factors explaining the structure and design of compensation contracts. Arguably, various special attributes of CEO compensation contracts, which possess

Keywords: acquiring firms; board of directors; CEO; compensation protection devices; LTIPs; M&A transactions

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asymmetric properties and motivate opposite executive behaviors, such as long-term incentive plans (LTIPs) and severance provisions, can also be viewed as more or less effective internal governance mechanisms for dealing with agency costs. Due to the rapid changes observed today in the magnitude, substance, and composition of CEO compensation packages (Combs and Skill, 2003), there is growing recognition that no theory alone is able to render a full account of all complexities of executive compensation landscape. Magnan *et al.* (1998) suggest that CEO pay brings three simultaneous implications for the boards of directors: economic, political, and symbolic. Since the particular situations in which the economic versus the political or symbolic logic of executive pay-setting process is activated have not received adequate attention in the literature, more research is needed that integrates these different theoretical perspectives to explain various facets of compensation contracts.

The increase in merger and acquisition (M&A) activity during the 1990s instigated a new wave of studies on the intersection between CEO compensation and M&A deals. Schmidt and Fowler (1990) and Kroll, Simmons, and Wright (1990) report a significantly positive relationship between corporate size and compensation, suggesting that executives might be involved in M&A transactions for the primary purpose of increasing their personal wealth, whereas Khorana and Zenner (1998) show that acquiring CEOs tend to act more in the interests of shareholders when they have large personal stockholding in the company. Alternatively, Grinstein and Hribar (2004) suggest that it is the managerial power over the board rather than value creation that drives the payment of bonuses for acquisitiveness to the CEOs. Despite the growing research in this governance area, the examination of the way selected acquisition features impact executive compensation design in acquiring firms remains limited.

We submit that the context of an active market for corporate control is particularly appropriate for the study of the implementation of different attributes of executive compensation contracts with asymmetric risk properties. On the one hand, since M&A deals increase the level of executive job uncertainty, CEOs will tend to seek protection through the negotiation of employment agreements, severance provisions, and golden parachute clauses that would guarantee their compensation

in unstable and unpredictable environments. Without these contractual arrangements, executives are unsure about their future with the company, particularly when they might lose their jobs due to adverse events. On the other hand, the uncertainty brought by M&A activities in terms of returns to shareholders implies that the proportion of variable pay in executive compensation contracts should increase significantly around the periods of acquisition completion (Shleifer and Vishny, 1988). LTIPs infuse higher risk levels into compensation contracts, motivating CEOs to avoid making non-value-maximizing decisions. Therefore, boards of directors' resolution to implement LTIPs and refuse to offer contractual protection to executives can constrain the self-serving behavior of CEOs and align their interests with those of stockholders.

Most of the existing studies on executive compensation around M&A transactions are based on the analysis of U.S. samples (Lambert and Larcker, 1987; Avery, Chevalier, and Schaefer, 1998; Grinstein and Hribar, 2004) and, more recently, U.K. samples (Girma, Thompson, and Wright, 2006; Coakley and Iliopoulou, 2006). Although there is much talk regarding the need to internationalize the strategic management literature, research with non-U.S. data rarely finds its way into the leading international business journals. Empirical evidence linking the CEO compensation structure to the market of corporate control in such national settings as Canada is modest. As suggested by Zhou (1999), despite extensive cultural and economic linkages between the two neighboring countries, a number of institutional and market differences exist that determine distinct norms surrounding the determination of executive compensation and limit the applicability of the U.S. model to the Canadian context.

First, the United States has established a solid tradition on executive compensation disclosure that dates back to 1934, while the equivalent regulation for all Canadian publicly held companies listed on the Toronto Stock Exchange only came into force in 1993. Second, executive compensation is more responsive to firm size and the pay-performance relationship is significantly weaker in Canadian firms (Magnan, St-Onge, and Thorne, 1995; Zhou, 2000). Third, Canadian CEOs earn less money than their U.S. counterparts and incentive pay (especially stock options) plays a notably larger role in U.S. companies (Zhou, 2000). Fourth, the average

size of firms is smaller and the market is more heavily regulated in Canada than in the United States. Fifth, the American corporate governance system depends upon high levels of ownership dispersion and liquid equity markets as means of disciplining management (Guillén, 2000), whereas in Canada firms are characterized by concentrated ownership structures. Sixth, boards of directors in the United States generally comprise executives and outside directors with no ownership stake in the company, while in Canada boards tend to have substantial shareholder representation (Daniels and Morck, 1995). Seventh, there is more unfavorable tax treatment of capital gains in Canada than in the United States, which affects the choice of the payment mode for an acquisition (Masse, Hanrahan, and Kushner, 1990).

This study seeks to address each of the issues in the corporate governance literature raised above. Focusing on the implementation of special attributes of executive compensation contracts in acquiring firms, we advance an interdisciplinary approach to governance issues through the integration of the agency, political, and symbolic perspectives into a single theoretical framework. We explore in some detail the relationships between both the acquisition features (payment mode and control premium) and the acquirer features (firm performance and corporate size) and the two groups of executive compensation modes such as LTIPs and compensation protection devices (employment agreement, severance provision, and golden parachute clause), which have asymmetric properties and trigger different types of executive behavior. Several peculiarities of the institutional context in Canada, as opposed to the U.S. system, induce us to use a Canadian sample of recent M&A deals and inquire how the Canadian findings complement the earlier evidence documented in the American market for corporate control.

Our findings show that boards of directors are able to exert a sizeable control over the executive compensation design, but they are willing to do so only when the need for such control arises. Boards are empowered, while executives are weakened, by high control premiums and poor firm performance to take actions that would improve the incentive alignment in the periods surrounding M&A activities. We conclude that corporate boards are reactive rather than proactive in dealing with agency problems. By examining simultaneously CEO compensation modes with asymmetric

risk properties and distinct implementation logics, we seek to contribute to theory by describing situations in which efficient combinations of incentives can be designed and included in compensation contracts in order to bring executives' risk-seeking to the levels desired by shareholders and respond to pressures of the external executive labor market. Observing that some of our results are not consistent with the U.S. evidence, we suggest that the efficacy of governance practices is influenced by the specificities of national and institutional settings in which corporate governance relationships are embedded. In light of opposite sets of findings we obtained for LTIPs and compensation protection devices, we propose to test the substitution effects between alternative governance mechanisms in a future study.

The current study is structured as follows. In the next section we describe the various components of executive compensation contracts and provide the theoretical background for our hypotheses. Subsequently, we explain our method specifying our data characteristics, the measurement of variables, and the econometric analysis used to test the hypotheses. The in-depth presentation of our research findings follows. In the final section we discuss the implications of our study, acknowledge its limitations, and suggest priorities for the next generation of research in the corporate governance area.

## THEORETICAL FRAMEWORK AND HYPOTHESES

### Description of special attributes of CEO compensation contracts

According to agency theory, a potential divergence of interests between shareholders and managers arises in situations when the managers, seen as utility maximizers, are more interested in their own welfare than that of the shareholders (Tosi and Gomez-Mejia, 1994). The arising conflicts of interest create the need for effective corporate governance practices that act to motivate good behavior among CEOs (Walsh and Seward, 1990). One of the most common governance mechanisms occurs when a board of directors actively seeks to protect shareholders' interests through monitoring top management activities and devising appropriate executive compensation contracts (Chatterjee, Harrison, and Bergh, 2003). A large number of

research studies show that the composition of executive compensation packages influences the business decisions of the CEOs, affecting the performance of their companies (Gaver and Gaver, 1995; Core, Holthausen, and Larcker, 1999). Based on this agency theory premise, we maintain that such special attributes of executive compensation contracts as employment agreements, severance provisions, golden parachute clauses, and LTIPs can be either implemented or avoided by corporate boards as they represent stronger or weaker tools of incentive alignment.

The employment agreement is a contractual agreement between the CEO and the firm, which determines the levels of compensation, work duration, and other terms of employment (Sirkin and Cagney, 1996). If there is no such agreement, the executive is unsure of his or her future with the company, and with little job security the CEO becomes very vulnerable. Knowing that their jobs could entail substantial risk, executives tend to seek maximum protection against adverse events. Some governance advocates suggest that CEOs should not have employment contracts, as they represent great protectors of executive rights and interests, but limit the employers' flexibility (Tauber and Levy, 2002; Navas, Chen, and Ma, 2007). This suggestion is not always followed, and companies that want to recruit top executives offer these agreements to CEOs who have come to expect them as a safety net should the employment relationship break down.

Most employment agreements provide severance when the executive either is terminated involuntarily without cause, or decides to terminate employment voluntarily for 'good reason' (Tauber and Levy, 2002). Severance provisions differ from employment agreements, as they do not cover duties and responsibilities, but are limited to specifying payments and benefits to be given to CEOs should termination of employment occur for reasons other than cause. According to Sirkin and Cagney (1996), the most common terms included in the definition of 'cause' for termination refer to the commission of a crime, abuse of alcohol or drugs, willful misconduct, negligence, violation of the firm's code of conduct, breach of confidentiality, or breach of fiduciary duty. The typical occurrences that entitle an executive to resign for good reasons are demotion in the position, failure to reelect the executive as a board member, late

payment of salary, relocation of CEO's workplace, and uncured breach by the employer.

The golden parachute clause, which applies to situations when the termination of executive services occurs due to the change in corporate control, is usually included in the severance provision of CEO pay, but if this is not the case, the executive can negotiate such protection in a separate agreement. Golden parachutes generally guarantee the contract holder a continuation of base pay and bonus for one to five years, the immediate vesting of any stock options, insurance coverage, availability of outplacement assistance, and acceleration of pension plan qualifications (Patterson, 2002). These clauses do not require shareholder approval to be adopted, but necessitate only an agreement between the manager and the board of directors (Subramaniam and Daley, 2000). Among the most cited reasons for the adoption of golden parachutes are: the attraction and retention of key executives, keeping the management team intact, and deterring a hostile takeover by making the transaction more expensive for bidders (Henderson, 1997). Introduced in the 1970s on the U.S. M&A scene, golden parachutes for CEOs became more prevalent in Canada in the late 1980s as the M&A activity intensified (St-Pierre, 1994). In 2001, 43 percent of Canadian firms had such clauses, representing a modest percentage when compared to 71 percent of American companies (Cooke and Duffy, 2002). Some extreme cases of golden parachutes have created a stir among the public and are often viewed as *insurance against incompetence* (Morrison, 1982) or *rewards for failure* (Navas *et al.*, 2007).

Many CEO compensation contracts comprise other components such as LTIPs, which currently account for 40 percent of total executive pay in Canadian companies (Milovich, Newman, and Cole, 2007). According to Tauber and Levy (2002), LTIPs tie executive pay to firm performance and are used by employers for two purposes: to provide 'handcuffs' to keep CEOs from leaving before the vesting of equity interests, and to offer executives an incentive for enhancing long-term performance of the firm by motivating them to act as shareholders and rewarding them for future appreciation in the stock price. LTIPs typically include one or more of the following vehicles: stock purchase plans, stock options, stock appreciation rights, phantom stock plans, restricted stock awards, and performance units (or shares).

Stock purchase plans give recipients the possibility to purchase, under advantageous conditions, a number of shares within a short-term period, conferring immediate ownership. Stock options offer the right to buy firm shares at a predetermined exercise price within a given long-term period. Stock appreciation rights are generally attached to option grants and permit CEOs to exchange options for a cash payment equal to the stock price less the exercise price. Phantom stock plans represent cash or stock awards driven by the increase in stock price at a fixed future date. Under restricted stock awards, grants of common stock are made at a reduced price with the condition it may not be sold before a specified date. Performance units confer the right to receive cash or stock to the extent that preestablished accounting-based performance goals are achieved over a long period, which in Canada is limited to three years due to income tax rules (Dessler, Lloyd-Walker, and Williams, 1999). The current study did not account for the adoption of stock options and stock appreciation rights for reasons provided in the methods section of this article.

The above description of special attributes of CEO compensation contracts suggests that they have asymmetric risk properties and different implementation logics and, as such, they should lead to different types of executive behavior. According to the economic efficiency pursued by agency theorists, a perfectly devised compensation contract should include such vehicles that reward CEOs for creating shareholder value. LTIPs are put in place to perform the function of better controlling the agency costs (Sanders, 2001). By linking CEO compensation to firm performance, the board of directors can more easily monitor the managerial actions, protect shareholders' interests, and discourage opportunistic behavior of executives. LTIPs also impose some risk on executives by increasing the levels of uncertainty in their compensation contracts. As articulated by Jensen and Meckling (1976), CEOs prefer to avoid performance-contingent pay unless it is foisted upon them by the board, and they are likely to respond to the introduction of LTIPs by reducing their risk-seeking activities, such as M&As. Given that those executives who are being compensated with LTIPs are less inclined to become involved in risky deals, it is expected that new LTIPs be adopted after the completion of M&A transactions.

On the contrary, the largely documented political reality in modern corporations suggests that entrenched CEOs weaken board effectiveness in designing compensation packages and influence the introduction of pay mechanisms that contribute to their personal wealth maximization (Westphal and Zajac, 1994). Proponents of a political perspective observe that the existence of power relationships and informal networks in organizations can favor the interests of executives (Lambert, Larcker, and Weigelt, 1993). Employment agreements, severance provisions, and golden parachute clauses are contractual attributes that diminish the uncertainty of CEO compensation by assuring executives that their pay is not at risk from a takeover or other situations that are out of their control (Agrawal and Knoeber, 1998). Since these attributes have similar effects of minimizing employment risks and maximizing managerial wealth, entrenched CEOs will tend to exert power over the boards by influencing their decisions to adopt such types of compensation devices. Given that the employment agreement, severance provision, and golden parachute clause have the common feature of protecting executives from unforeseeable events, these three contractual attributes can be included in the group of compensation protection devices. The implementation of these devices in the pre-acquisition period is likely to motivate substantial managerial risk-seeking behavior, as compensation protection will predispose executives to make firm-specific investments and initiate some hazardous deals, such as M&As.

The distinctive characteristics of LTIPs and compensation protection devices and the different ways executives respond to their adoption (see Table 1) can also be explained using the symbolic management perspective. Advocates of this perspective are interested in the analysis of how corporate boards communicate the rationales underlying executive compensation decisions in their firms (Elsbach and Sutton, 1992). To make sure their compensation decisions are not questioned by firm stakeholders, board members effectively manage their impressions by using explanations that can be easily justified in the eyes of these stakeholders. In their study of 570 American firms, Zajac and Westphal (1995) show that boards of directors use credible rationales for new LTIPs implementation in order to avoid public criticism and enhance their legitimacy. Their examination of verbal justifications published in proxy statements reveals two

Table 1. Distinctive characteristics of special attributes of CEO compensation contracts

Characteristics	LTIPs	Compensation protection devices
<i>Components:</i>	<ul style="list-style-type: none"> <li>• Stock purchase plans</li> <li>• Phantom stock plans</li> <li>• Restricted stock awards</li> <li>• Performance units (or shares)</li> </ul>	<ul style="list-style-type: none"> <li>• Employment agreement</li> <li>• Severance provision</li> <li>• Golden parachute clause</li> </ul>
<i>Uncertainty of CEO pay:</i>	Higher	Lower
<i>Protection of interests:</i>	Shareholders' interests	CEOs' interests
<i>CEO's risk-seeking behavior:</i>	Lower	Higher
<i>Probability of adoption:</i>	After M&As	Before M&As
<i>Implementation logic:</i>	Agency & strategic human resource	Strategic human resource
<i>Incentive alignment:</i>	Stronger	Weaker

adoption rationales for new LTIPs: agency logic, which focuses on the need to tie executive pay with firm performance; and strategic human resource logic, which emphasizes the need to attract and retain managerial talent by approving competitive compensation contracts.

When applying symbolic management insights to the analysis of proxy statements of our sample firms, we observe different implementation logics for various attributes of CEO compensation contracts. The agency dominant logic for new LTIPs adoption, which is reflected in the 'philosophy of aligning the interests of executives with those of the shareholders by tying executive compensation to share price performance,' is supplemented by the strategic human resource management rationale, where LTIPs 'are intended to assist in the retention of qualified and experienced executives' (citations extracted from Barrick Gold Co. proxy statement published in 2002 after it completed the merger with Pangea Goldfields Inc. in August 2000). In contrast, the existence of a 'retention bonus' and the determination of executive salary based on 'current market conditions for comparable positions' as board justifications for the implementation of CEO compensation protection devices evoke strategic human resource logic exclusively (citations extracted from 1999 proxy statement of Ultra Petroleum Co. released prior to the completion of its deal with Pendaries Petroleum Ltd. in January 2001). Since the LTIPs adoption is more oriented toward shareholders through the use of agency explanations, whereas the compensation protections devices are rather directed toward executives emphasizing strategic human resource justifications, we conclude that the former group of contractual attributes represents a stronger mechanism of incentive alignment than

the latter. Taking into consideration the distinctions between the two groups of CEO compensation modes highlighted in Table 1, different sets of hypotheses are developed for these groups.

### Acquisition features and post-acquisition implementation of CEO compensation attributes

We posit in this study that two acquisition features, namely payment mode and control premium, influence the post-acquisition implementation of special attributes of executive compensation contracts. According to Gaughan (2007), the payment mode refers to the decision of the acquiring firm concerning the cash, stock, or the mix of both that will be used to purchase the target, whereas the control premium is 'a value in excess of the market value of a company that is paid for the right to control and proportionately enjoy the profits of the business' (Gaughan, 2007: 132). Since the payment mode and the control premium are one-year constant variables that are decided during the year of the M&A deal and do not change over time, we maintain that they are likely to influence the compensation-related decisions of the boards in the post-acquisition period exclusively. In line with our proposed logic, corporate finance suggests that the choice of both the payment mode and the magnitude of control premium made by the acquirer to compensate target shareholders can have important post-M&A effects on acquiring shareholders.

### Payment mode and post-deal implementation of CEO compensation attributes

Over the five-year period following acquisitions, Loughran and Vijh (1997) find positive abnormal

returns of 61.7 percent for cash transactions, but negative excess returns of -25 percent for stock deals. Ghosh's (2001) research also goes in this direction, suggesting that acquiring firms' performance, measured by total asset turnover, improves for cash deals, whereas different performance measures such as cash flows decline in the case of stock acquisitions. Hence, empirical evidence seems to imply that, contrary to cash-financed transactions, stock deals tend to destroy value for acquiring shareholders. Several alternative explanations have been put forward to clarify this statement. First, according to the information asymmetry hypothesis launched by Myers and Majluf (1984), management is in a better position than shareholders to evaluate the stock market's attempt to value the company's future profit and return opportunities. When executives find market assessment overoptimistic, they are more inclined to issue what they consider to be overvalued shares in order to pay for their acquisitions, than to use other alternative modes of financing. Since the securities market takes it as a negative signal of perceived overpricing when management announces a stock-based transaction, the stock price of the bidder is expected to decline after the financing choice is announced.

Second, tax laws generally award tax-deferred status to a purely stock-financed transaction, while requiring capital gains taxes to be paid immediately in an all-cash purchase. Since these gains are fully taxable to target shareholders when the cash transaction is completed, they will prefer a stock-financed deal where they are able to postpone being taxed until the new shares in the acquirer are sold. Therefore, to make the transaction friendlier and easily acceptable by target stockholders, the acquiring firm will tend to either finance its deal through stock-for-stock exchanges, or offer a higher control premium to compensate for taxes paid immediately by targets in cash acquisitions (Weston, Chung, and Siu, 1998). Finally, the time interval between deal announcement and completion can also influence the returns to shareholders of acquiring firms. Stock-based acquisitions take much longer than cash deals, since they involve regulatory approvals and registration requirements, necessitating more documentation to be completed successfully (Wansley, Lane, and Yang, 1983). Weston *et al.* (1998) observe that a lengthy deal gives more time to the target to prepare antitakeover defenses and allows rival bidders

to enter the competition, leading to higher transaction price and lower returns for the acquiring firm.

Based on these findings in the finance research literature, we suggest that the choice of the payment mode in a given transaction can predict the post-acquisition adoption of different attributes of CEO compensation contracts. According to the agency theory premises, boards of directors' main function in corporations is seen in monitoring management activities and decisions to protect the owners of the company (Hillman and Dalziel, 2003). Since acquisitions through share exchanges have negative wealth effects for acquiring shareholders, there is an urgent need for board members to put in place such mechanisms of incentive alignment that would stimulate executives to behave in the best interests of owners. Given that LTIPs make CEO compensation contingent on firm performance, an effective board would impose such plans on executives in the post-deal period. In other words, when agency problems are greater, as manifested by stock-financed acquisitions, the most effective mechanisms of incentive alignment, such as LTIPs, are more likely to be activated.

From a political viewpoint, the balance of power turns unfavorable to executives and their bargaining strength decreases as the corporate performance declines in stock-based deals (Finkelstein, 1992). This situation reduces the ability of CEOs to successfully negotiate the implementation of compensation protection devices that contribute to their own wealth maximization, while at the same time empowering boards to exert real control on executive compensation decisions. The existing political relationships within organizations may also favor the creation of 'give and take' arrangements between executives and directors. Thus, boards may be willing to give up on one aspect of corporate governance while enforcing the other, in order to maintain an adequate balance of power between management and board members. Having conceded to executives the possibility to acquire the targets through share exchanges, corporate directors may push more decisively for the implementation of LTIPs. Moreover, executives themselves are likely to be more hesitant to insist on compensation protection devices and more open to LTIPs. Conversely, in situations when executives are unable to win a stock-financed deal (but a cash-financed acquisition instead), they may feel more powerful both in resisting any attempt to

adopt LTIPs and in negotiating those compensation devices that reduce uncertainty in their jobs and better satisfy their needs.

Relying on a symbolic management view (Wade, Porac, and Pollock, 1997), the negative returns to shareholders in stock transactions threaten the legitimacy of the board, undermining its effectiveness in monitoring executive actions. In order to justify their existence, directors will try to manage shareholders' impressions successfully through the introduction of those compensation arrangements that are more easily justified and accepted in the eyes of corporate stockholders. In this context, boards will limit the adoption of CEO compensation protection devices and increase the implementation of LTIPs to shift public attention away from the negative effects of the stock-financed acquisition and to communicate symbolically management's commitment to shareholders' interests. This discussion suggests the following hypotheses:

*Hypothesis 1: Payment mode through share exchanges will be positively associated with LTIPs' implementation in the post-acquisition period.*

*Hypothesis 2: Payment mode through share exchanges will be negatively associated with compensation protection devices' implementation in the post-acquisition period.*

#### *Control premium and post-deal implementation of CEO compensation attributes*

With regard to the magnitude of control premium, corporate finance research shows that the key mechanism through which the acquirers' performance impairment occurs is the payment of large control premiums to target shareholders. Earlier research studies show that situations when acquiring firms pay too much for their targets occur often, suggesting that overpayment may be the reason for the disappointing post-acquisition returns to shareholders (Lubatkin, 1983; Varaiya and Ferris, 1987). According to Haunschild (1994), sometimes firms pay so much that they cause their own bankruptcy. This is the case of Campeau, which declared bankruptcy one year after it paid a 124 percent premium to acquire Federated Department Stores, because of its inability to meet debt payments on the acquisition (Kaplan, 1989). Hayward and Hambrick's (1997) findings also provide support

for the significantly negative association between premium size and subsequent returns, maintaining that executive hubris, characterized by exaggerated self-confidence, is often the primary driver of high control premiums. These results are confirmed in the study on a recent merger wave, where Moeller, Schlingemann, and Stulz (2005) show that during the period 1998–2001, acquiring shareholders lost a total of US\$240 billion, generating massive wealth destruction in acquiring companies.

Similarly to our previous discussion related to the payment mode used to finance the deal, we posit hereinafter that the choice of the magnitude of control premium can influence the implementation of some attributes of executive compensation contracts after the acquisition completion. Using agency theory belief that boards typically exert necessary control over management actions (Fama, 1980), directors' impetus for exerting their fiduciary responsibility properly is stronger when the agency costs, and, thus, the control premiums, are higher. Knowing that larger control premiums paid for an M&A deal worsen the subsequent performance of the acquiring company, boards of directors should adopt those mechanisms of incentive alignment that would stimulate executives to make value-enhancing decisions. The board resolution to introduce higher levels of risk in executive compensation packages through the adoption of new LTIPs in the post-acquisition period could be seen as an effective governance vehicle that forces corporate CEOs to actively look for solutions to improve the negative financial condition of their company. Alternatively, since LTIPs favor shareholders' interests, their implementation is more likely to be triggered when agency problems, created by higher levels of control premiums, are greater.

The existence of political processes in today's organizations suggests that the effectiveness of boards' decisions can be undermined by managerial power (Pfeffer and Salancik, 1978). Grinstein and Hribar (2004) show that empowered executives get significantly higher rewards for acquisitiveness in the form of cash bonuses. Based on political assumptions, we submit that large control premiums weaken CEOs' credibility and their real power to influence board decisions with regard to the structure of executive compensation packages. Although they prefer to be protected from adverse events by compensation protection devices, weaker CEOs will lack power and be unable to assure

the implementation of these devices by the board. A high control premium empowers the board of directors to exert control over management by shaping CEO compensation contracts in a way that favors shareholders and disregards the compensation preferences of executives. As argued in previous hypotheses, the 'give and take' arrangements between managers and the board suggest that executives may be more open to give in to a less attractive compensation device (such as LTIPs) when they have won the battle to acquire the target company at a higher control premium. Conversely, in situations when the board succeeded in imposing a lower control premium acquisition, it may be more willing to satisfy executives' claims by implementing compensation protection devices.

Moreover, from a symbolic management point of view (Brown, 1994) it can be assumed that large control premiums used in acquisitions threaten the legitimacy of firm leadership (including both executives and directors) in the eyes of corporate stockholders. In this context, boards will tend to constrain executive compensation protection devices and increase incentive alignment by adopting new LTIPs in the post-transaction period in order to symbolically affirm organizational leaders' commitment to shareholders' interests. This board decision will also be used purposefully to neutralize public criticism of large-premium deals, reducing community concerns about agency costs. Based on this developed logic, we hypothesize:

*Hypothesis 3: Control premium will be positively associated with LTIPs' implementation in the post-acquisition period.*

*Hypothesis 4: Control premium will be negatively associated with compensation protection devices' implementation in the post-acquisition period.*

### **Acquirer features and implementation of CEO compensation attributes around M&A transactions**

We suggest that two acquirer features, namely firm performance and corporate size, can significantly influence the implementation of special attributes of executive compensation contracts. Relying on the vast body of literature that indicates that firm performance typically decreases after the acquisition (Tuch and O'Sullivan, 2007; King *et al.*,

2004), and knowing that the obvious outcome of an M&A transaction is the increase in corporate size of the acquiring firm, we posit that the hypothesized effects of acquirer features on the adoption of CEO compensation modes will be stronger in the period following an acquisition completion.

### *Firm performance and implementation of CEO compensation attributes*

From an agency theory viewpoint, firm performance is thought to be an important determinant of executive compensation (Tosi and Gomez-Mejia, 1989). Few scholars have examined the link between firm performance and the probability of new LTIPs implementation without explicitly grounding their study within the M&A context (Westphal and Zajac, 1994), whereas research remains nonexistent regarding the way performance impacts the adoption of compensation protection devices in acquiring companies. In an analysis of the design of compensation packages of American CEOs, Westphal and Zajac (1994) show that prior organizational performance (measured as both market returns and accounting return on assets) is negatively and significantly related to firms' propensity to adopt a new LTIP.

Applying the agency theory framework (Fama and Jensen, 1983), we suggest that in situations of lower firm performance corporate boards tend to strengthen their monitoring of executive actions and reduce agency costs by implementing better vehicles of incentive alignment (such as LTIPs) and avoiding the compensation protection devices that satisfy the security needs of managers. Making CEO compensation conditional on firm performance through the introduction of LTIPs could be an effective way to achieve better levels of corporate governance, since it obliges executives to behave as owners of the company and it also corresponds to shareholders' expectations. Similarly, boards of directors can penalize executives for poor performance by refusing to adopt compensation protection devices, which are the most attractive components of executive compensation packages.

From a political point of view (Barkema and Pennings, 1998), low firm performance essentially weakens the power of CEOs in imposing their compensation preferences on corporate boards. At the same time, directors are enabled to exert more pressure on executives and adopt compensation

policies that demonstrate their control over managerial decision-making processes. Acknowledging the lack of convergence between stockholders' and CEOs' interests, boards are empowered to rectify this problem by adopting new LTIPs. Conversely, higher levels of firm performance are likely to be used by powerful CEOs as a negotiation tool to extract additional rewards for superior executive action in the form of compensation protection devices, while at the same time predisposing boards of directors to treat favorably the compensation demands of executives.

Using the symbolic management insights, we maintain that negative corporate returns surrounding M&A deals weaken the strategic human resource logic for high levels of executive pay and low incentive alignment, which is witnessed by the adoption of compensation protection devices. If firm performance is poor, it is more difficult to assert that CEOs are scarce human resources that need to be retained, while the agency rationale for better incentive alignment is bolstered, leading toward the implementation of LTIPs. Alternatively, under the conditions of relatively high corporate performance, boards can use human resource logic to symbolically justify their decision to introduce the compensation protection devices that are aimed at retaining scarce corporate leadership.

Based on these multi-theoretical arguments, we expect a negative relationship between firm performance and the implementation of LTIPs, and a positive relationship between firm performance and the adoption of compensation protection devices around M&A deals. Using the empirical evidence, which documents declining performance levels following M&A activities, we posit that the significance of these relationships is likely to be strengthened in the post-acquisition period. There is a large body of research in finance on returns that a given transaction brings to acquiring shareholders. While research studies on American deals arrive at somewhat contradictory conclusions (Rau and Vermaelen, 1998; Heron and Lie, 2002), those performed on Canadian samples are consistent in showing that M&As do not produce the expected financial benefits for acquirers. Ikenberry, Lakonishok, and Vermaelen (2000) examine a sample of 27 acquisitions from 1989 to 1995 involving Canadian companies and find negative abnormal returns for the three years following the transaction completion. André, Kooli, and L'Her's (2004) findings go in the same direction, showing that in the case of 267

Canadian M&As between 1980 and 2000, acquirers significantly underperform over the three-year post-event period, the negative performance levels ranging from -35.13 percent to -30.86 percent.

Given that returns to acquiring shareholders are generally negative, boards of directors feel a stronger pressure to reaffirm their control over management in the post-acquisition period. Using the agency theory postulates we expect the corporate boards, as guardians of shareholders' interests, to take more decisive actions that would force executives to improve the worsened financial performance of their firm as a result of an acquisition and thus reduce the existing agency costs. The political arrangements in organizations also imply that when managers fail to bring the post-acquisition performance to the optimal levels deceiving the acquiring shareholders' expectations of better M&A outcomes, directors become more empowered than they were before the acquisition in designing the composition of executive compensation packages. At the same time, CEOs lose their power in negotiating the compensation protection devices, thus being constrained to acquiesce to those compensation modes (LTIPs) that are preferred by shareholders and imposed by the board.

From a symbolic management perspective, poor post-acquisition performance of acquiring firms, which is usually highly publicized in the media, destroys the credibility of the boards in executing their monitoring function delegated to them by corporate stockholders. In order to enhance their legitimacy, directors' propensity to modify the structure of CEO compensation contracts and communicate this strategic change, using plausible symbolic explanations that would give the impression to external constituents of the board's efficiency (Zajac and Westphal, 1995), will become stronger in the period following the transaction completion. The above discussion suggests the following four related hypotheses:

*Hypothesis 5a: Firm performance will be negatively associated with LTIPs' implementation around M&A transactions.*

*Hypothesis 5b: The strength of the relationship between firm performance and LTIPs' implementation will increase in the post-acquisition period.*

*Hypothesis 6a: Firm performance will be positively associated with compensation protection devices' implementation around M&A transactions.*

*Hypothesis 6b: The strength of the relationship between firm performance and compensation protection devices' implementation will increase in the post-acquisition period.*

#### *Corporate size and implementation of CEO compensation attributes*

Corporate size has long been recognized as the most significant factor explaining executive compensation. For instance, in a meta-analytic review of empirical studies on CEO pay, Tosi *et al.* (2000) observe that the corporate size alone determines more than 40 percent of variance in total executive pay. The main reasons for this association cited in the research literature are grounded in greater firm ability to pay, larger number of hierarchical levels in organizations, and higher expertise demands put on CEOs (Baker, Jensen, and Murphy, 1988). Since the size of the company reflects the complexity of its structure and operations, the strategic human resource logic is more likely to be activated, calling for highly skilled leadership that is able to deal with such organizational complexity.

We posit in this study that similar arguments can be used to predict the impact of corporate size on the implementation of executive compensation attributes in acquiring firms. Previous research studies in this area are limited and find inconsistent results. Westphal and Zajac (1994) show that corporate size, measured as a logarithm of total sales, is positively but insignificantly associated with LTIPs' implementation in U.S. firms over the 1972–1990 period. Further, using a sample of 450 large American firms, Agrawal and Knoeber (1998) examine the impact of the threat of takeover on the adoption likelihood of explicit employment contracts and golden parachute clauses for target CEOs. Their findings suggest that larger corporate size significantly decreases the likelihood of golden parachute implementation, but exerts a positive although insignificant effect on the adoption of executive employment contracts.

In line with existing empirical studies, we predict that corporate size will be positively tied to the adoption of LTIPs and negatively related to

the compensation protection devices' implementation in acquiring firms. Based on the agency theory assumptions, we maintain that the board of directors' need to tighten its control over the managerial decision-making process amplifies with corporate size. In larger organizations with increased layers of hierarchy and more complex and sophisticated business procedures than in smaller firms, the transparency of executive actions is diluted, making it more difficult for the boards to directly observe the managerial activities. In this context, boards of directors will be more inclined to adopt LTIPs, which have the primary role of assuring the value-enhancing behavior of executives and satisfying shareholders' interests. From the political viewpoint, larger corporate size is likely to bring a greater number and a greater diversity of directors on corporate boards, reducing executives' power and ability to influence all board members to agree and make decisions that support the CEO's compensation preferences. Moreover, the increased corporate size is perceived by acquiring executives as security against a potential takeover, reducing the likelihood of managers' losing their jobs, and diminishing the value of holding compensation protection devices.

The symbolic management prescriptions conceive corporate leaders as being fairly strategic in taking actions that bolster both their legitimacy and that of their firms. Larger corporate size typically implies greater visibility and openness to public criticism of corporate governance practices in these organizations. Therefore, the implementation of special attributes of executive compensation contracts is seen as a means of managing symbolically the impressions of the outside community regarding the effectiveness of the board of directors' actions. Since LTIPs signify commitment to stockholders' interests (Zajac and Westphal, 1995), while compensation protection devices are unfavorably perceived by the public as *pay for failure* (Navas *et al.*, 2007), the adoption by the board of former compensation modes is more likely, and that of latter modes is less likely, in situations when the company increases its size.

Given that M&A activities significantly enlarge the size of acquiring companies, we suggest that the impact of this explanatory variable on the implementation of executive compensation attributes is likely to be more important in the period immediately following the completion of an

M&A transaction. Using the agency theory framework, since larger corporate size tends to dilute the traceability of and the accountability for individual executive actions increasing agency costs, directors' impetus to control these costs through formal mechanisms of incentive alignment (LTIPs) is likely to be stronger in the post-acquisition period than prior to it. From a political perspective, having succeeded to increase the company size via an acquisition (which usually results in higher monetary magnitude of CEO compensation), executives may be more willing to offer in exchange a silent compliance with board choices of compensation modes than they would have been willing to offer before the completion of the deal. Finally, based on the premises of the symbolic approach, an acquisition tends to attract a great deal of attention from external constituents since the larger size acquiring company becomes a more important industry player, whose individual actions could affect a greater number of organizational stakeholders. In this context, the board's decisions and actions are also likely to receive higher public scrutiny, resulting in a stronger propensity of directors to use the adoption of LTIPs and the avoidance of compensation protection provisions as symbolic proofs of their efficacy in the post-acquisition period. This developed logic leads to the following hypotheses:

*Hypothesis 7a: Corporate size will be positively associated with LTIPs' implementation around M&A transactions.*

*Hypothesis 7b: The strength of the relationship between corporate size and LTIPs' implementation will increase in the post-acquisition period.*

*Hypothesis 8a: Corporate size will be negatively associated with compensation protection*

*devices' implementation around M&A transactions.*

*Hypothesis 8b: The strength of the relationship between corporate size and compensation protection devices' implementation will increase in the post-acquisition period.*

Figure 1 illustrates schematically the eight hypothesized relationships described above. In the next section we explain the methodological steps that allowed us to empirically investigate these relationships.

## METHODS

### Data

In order to create our sample of Canadian acquiring companies, we used SDC online Mergers and Corporate Transactions database. Although the data availability was an important factor in our sample selection process, the two most significant filters that we applied to our data were related to the M&A transactions' period and value. To explore the distinctive features of recent Canadian deals, we focused on those transactions that took place after the second half of the 1990s. To account for major M&As that have the potential to affect firm contingencies, we retained only those M&A deals, whose value exceeded C\$10 million. Inclusion also required the availability of data on special attributes of CEO compensation contracts and acquisition and acquirer features for at least three years preceding and four years following the transaction completion.

This selection procedure resulted in a total of 80 acquirers that completed their M&A operations

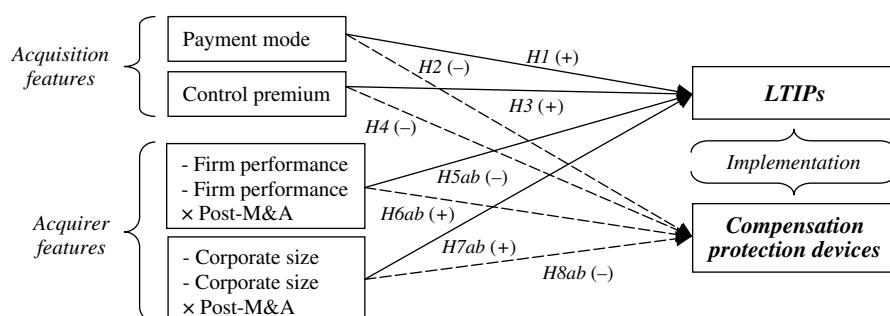


Figure 1. Hypothesized relationships between variables

over the investigation period (three in 1995, 10 in 1996, 11 in 1997, 13 in 1998, 19 in 1999, 21 in 2000, and three in 2001). This distribution of the sample over the period between 1995 and 2001 shows the high frequency of included deals during the M&A boom of the year 2000. Only four transactions were mergers, with all other deals representing the acquisition of majority interests. More than 50 percent of acquiring firms operated in three dominant industries—oil and gas (21 acquirers), telecommunications (12 acquirers), and mining (10 acquirers)—while the remaining companies operated in other industries such as health services, banking, insurance, machinery, retail stores, prepackaged software, agriculture, water distribution, paper and allied products, and others. The inclusion of a wide variety of industries in our sample enables us to achieve high external validity of findings.

Canadian companies quoted on the Toronto Stock Exchange have relatively recently begun to disclose pertinent information on executive compensation following the amendment of Regulation 638 in 1993. Data on the implementation of special attributes of CEO compensation contracts and the corporate governance data were extracted from acquirers' proxy statements, which were either published on the Sedar Web site or available for consultation at the Canadian Financial Market Authority. The information regarding the acquisition features, such as payment mode and control premium, was obtained from SDC M&As database of Thompson Financial Securities Data. The acquirer features of our sample firms were gathered from financial statements available on the Sedar Web site, whereas the missing data were collected from Stock Guide and Cancorp databases.

## Variables

### *Dependent variables*

There are two groups of dependent variables, namely the implementation of new LTIPs and the adoption of compensation protection devices. As highlighted in Table 1, LTIPs include such incentive vehicles as stock purchase plans, phantom stock plans, restricted stock awards, and performance units/shares, but exclude stock option plans and related stock appreciation rights. The group of compensation protection devices refers to such attributes as the employment agreement

(EMPLOYAGRE), severance provision (SEVER-PROV), and golden parachute clause (GOLDPARACH).

All dependent variables are binary, meaning whether or not an acquirer announced in its proxy statements the adoption of a new attribute of executive compensation contracts over the seven-year window under investigation. It is worth mentioning that our coding procedure accounts only for the new implementation of special attributes and not for those that merely existed in a given year. We followed prior research (Westphal and Zajac, 1994) in treating the implementation as a unique event, analyzing acquirers' proxy statements before and after the adoption date to confirm the newness of coded implementations. Thus, a given dependent variable was attributed the value one only in the year when it was implemented for the first time, and took the value zero in the following year if it still existed or ceased to exist. Situations such as when a company abandoned one of the existing attributes but later decided to implement it again during the study period, or, in the specific case of LTIPs, when the firm decided to enlarge the existing plan implementing additional incentive mechanisms, were also considered new adoptions.

In our study we excluded stock option plans and stock appreciation rights (which are usually attached to option grants) from our group of LTIPs for the two following reasons. First, when analyzing our sample of acquiring companies, we observed that they had already put in place a stock option plan sometime prior to the three years preceding the M&A deal and maintained the plan over the four years after the transaction completion. Therefore, the stock option plan could not qualify for consideration as a new addition of LTIPs as our coding procedure requires. Second, our decision is motivated by the ongoing controversy surrounding the stock options whose legitimacy as an effective alignment mechanism has dropped in recent years. Some scholars complain that options do not pay for executive performance, where the payouts extracted from exercised options are likely to be attributable to general market increases rather than to any specific action by the executive (Milkovich *et al.*, 2007). Others view options as having limited downside risk and high upside potential, so that they encourage excessive risk-seeking behavior in the strategic decision making of executives (Sanders, 2001).

### Independent variables

The acquisition features and the acquirer features are the two groups of main effect variables used in this study. The former group is composed of the payment mode and control premium, while the latter one refers to firm performance and corporate size. To measure the payment mode (PAYMODE) a dummy variable was developed taking the value one, in the case of stock-based acquisitions or when the payment of the transaction price was made through a combination of stock and cash, and zero otherwise (Comment and Schwert, 1995). The control premium (CONTPREM) paid by the acquiring firm represents the percentage difference between the purchase price paid per target share and the target stock price 10 days prior to the day when the target received its first official bid (Haunschild, 1994).

In line with previous research (Certo *et al.*, 2008; Sanders, 2001), we included both market-based and accounting-based measures of firm performance, as both of them may influence the adoption of specific attributes of executive compensation contracts in the context of M&A activities. Similar to Westphal and Zajac (1994), stock market returns (RET) were calculated as annual per share increase or decrease in the price of the stock plus dividends accumulated during the current year, divided by the stock price of the acquiring firm at the end of the previous year. The accounting return on assets (ROA) was measured by dividing the annual net earnings per total assets in the current year (Certo *et al.*, 2008). The natural logarithm of total sales was retained as a measure of corporate size (TOTSALES), given that the logarithmic transformation enhances the statistical fit of the regression model (Avery *et al.*, 1998).

### Control variables

Two corporate governance variables, such as ownership concentration and board size, and previous levels of incentive alignment were used as controls in our regression analyses. In this study a 20 percent ownership cutoff was applied given that, according to the generally accepted accounting principles in Canada, only shareholders with more than 20 percent ownership are considered as having significant influence over a company's policies (Craighead, Magnan, and Thorne, 2004). The ownership concentration (OWNCONCEN) is a dummy

variable, which is equal to one when the acquirer is closely held and one party exerts control over more than 20 percent of any class of voting securities, and zero otherwise. Board size (BOARDSIZE) represents the number of directors sitting on the board during a given year. The previous levels of incentive alignment (ALIGN  $\times$  Pre-M&A) refer to the pre-acquisition implementation of LTIPs (LTIP  $\times$  Pre-M&A) and compensation protection devices (EMPLOYAGRE  $\times$  Pre-M&A; SEVERPROV  $\times$  Pre-M&A; and GOLDPARACH  $\times$  Pre-M&A), which are thought to influence the implementation of these compensation attributes in the post-acquisition period. This variable (ALIGN  $\times$  Pre-M&A) was used for each of the four dependent variables separately and included in the regression analyses testing the relationships posited in Hypotheses 1–4.

### Analysis

Taking into consideration that dependent variables are binary, we tested our hypotheses using the logistic regression analysis (Agresti, 2002). The seven-year window surrounding M&A activities in our study was broken down into two parts: the post-M&A period, which accounts for the four years following the transaction completion, including the base year of acquisition completion; and the pre-M&A period, which includes three years that preceded the completion of the deal. These two M&A-related periods were used to compare the pre- versus post-acquisition implementation of special attributes of CEO compensation contracts highlighted in Table 3.

To test the impact of acquisition features on the post-acquisition implementation of special attributes of CEO compensation contracts, we used the payment mode and the control premium as two main effect variables and controlled for corporate size. Moreover, since we essentially assume in our hypotheses that boards of directors have sufficient power to exert control over executive compensation following large acquisitions, and given that extant research suggests that directors' power depends on board structure and composition (Westphal, 1998; Dalton *et al.*, 1999), we added two corporate governance variables to our model. Similar to Certo *et al.* (2008), and in order to be able to account for the specificities of our Canadian sample with its smaller board size and higher percentages of closely held companies (than in the

United States), we used board size and ownership concentration as proxies for board power over management.

To make sure that our regression equation did not suffer from omitted variable problems, two solutions were adopted (Wooldridge, 2003). The first was to control for the value of a dependent variable from an earlier time period, which offers a simple means to account for historical factors that cause existing differences in the dependent variable that are difficult to account for in other ways. Indeed, previous levels of incentive alignment ( $ALIGN \times Pre-M\&A$ ), that is, the implementation of LTIPs and compensation protection devices in the pre-acquisition period, may influence the adoption of these compensation modes in the period following M&A transactions. The second solution documented in the econometric literature (Wooldridge, 2003) is to assume that the omitted variable does not change over time and to use fixed effects, which represent all factors affecting the implementation of special attributes of CEO compensation contracts that do not change over time. In our study we used firm-specific and year-specific fixed effects. The final model testing Hypotheses 1–4 is illustrated in Table 4.

To test the effect of acquirer features on the new adoption of LTIPs and compensation protection devices around M&A deals, we used the corporate size and both market and accounting measures of firm performance (RET and ROA) as independent variables and controlled for board size and ownership concentration. The equation

verifying the relationships formulated in Hypotheses 5a–8a is represented in Model 1 of Table 5. Finally, to test how the strength of the relationship between the acquirer features and the adoption of special attributes of executive compensation contracts evolves over time and differs between the two M&A-related periods, we added some interaction terms for firm performance ( $RET \times Post-M\&A$  and  $ROA \times Post-M\&A$ ) and corporate size ( $TOTSALES \times Post-M\&A$ ) to Model 1. These interaction factors allow us to evaluate how the regression slope changes between the pre- and post-acquisition periods, either strengthening or weakening the association between the dependent and explanatory variables. This regression equation, which tests the relationships posited in Hypotheses 5b–8b, is shown in Model 2 of Table 5. Fixed-effects method was also used in these models to account for omitted variables.

## RESULTS

The descriptive statistics and correlations associated with our research variables for all seven years of data are reported in Table 2. Although not reproduced herein due to space limitations, correlations were also computed between dependent variables measured in the pre- and post-acquisition periods and other variables used in the study. The results produced acceptable correlation coefficients (lower than 0.65), concerning potential multicollinearity problems. The significantly positive ( $p < 0.01$ ) correlations between the employment agreement,

Table 2. Descriptive statistics and correlations matrix for all variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Mean	0.03	0.11	0.09	0.10	0.77	36.41	20.33	3.05	4.95	0.41	10.28
Standard deviation	0.17	0.32	0.30	0.31	0.42	41.28	3.08	52.16	25.95	0.49	4.26
1. LTIP	<b>1.00</b>										
2. EMPLOYAGRE	-0.06	<b>1.00</b>									
3. SEVERPROV	-0.06	0.63‡	<b>1.00</b>								
4. GOLDPARACH	0.01	0.54‡	0.55‡	<b>1.00</b>							
5. PAYMODE	0.01	0.06	0.02	0.03	<b>1.00</b>						
6. CONTPREM	0.09*	0.01	-0.01	-0.01	-0.02	<b>1.00</b>					
7. TOTSALES <sup>a</sup>	0.19‡	-0.13‡	-0.11†	-0.05	-0.06	0.00	<b>1.00</b>				
8. RET	-0.01	0.16‡	0.08*	0.05	0.02	-0.03	-0.02	<b>1.00</b>			
9. ROA	0.03	-0.01	-0.01	-0.03	-0.12‡	-0.05	0.12‡	0.29‡	<b>1.00</b>		
10. OWNCONCEN	-0.03	-0.03	-0.01	-0.11†	-0.16‡	-0.11†	-0.16‡	-0.02	0.04	<b>1.00</b>	
11. BOARDSIZE	0.11†	-0.05	-0.06	-0.02	-0.16‡	-0.08*	0.48‡	-0.02	0.10†	0.08*	<b>1.00</b>

\*  $p < 0.10$ ; †  $p < 0.05$ ; ‡  $p < 0.01$  (two-tailed tests)

<sup>a</sup> Natural logarithm

severance provision, and golden parachute clause (0.63; 0.54; and 0.55) constitute a preliminary indication of the fact that these three compensation protection devices are likely to have similar effects on executive behavior.

Prior to our hypotheses testing, we ran additional tests to confirm or reject our supposition highlighted in Table 1, suggesting that LTIPs are more likely to be implemented after the acquisition completion, while the compensation protection devices are more likely to be implemented before M&As. Table 3 reports the significance of the difference in means between the pre- and post-acquisition implementation of special attributes of executive compensation contracts. The t-test coefficient is significantly negative (-1.67;  $p < 0.10$ ) for the LTIPs, but significantly positive, at least at the  $p < 0.10$  level, for all three compensation

protection devices. These findings illustrated in Table 3 support our assumption that the level of new LTIPs adoptions is significantly higher in the period following M&A deals, while in the case of compensation protection devices the implementation occurs mainly in the period preceding the acquisitions.

The empirical findings testing Hypotheses 1–4 are shown in Table 4. For all four dependent variables, *Hosmer-Lemeshow chi-square* is not statistically significant, while *Omnibus chi-square* is significant, meaning better fit between the regression model and data. Hypothesis 1 predicted that equity-based acquisitions increase the odds of LTIPs adoption, while Hypothesis 2 suggested a negative relationship between the payment mode and the compensation protection devices implementation following an acquisition. Since

Table 3. Pre-M&A versus post-M&A implementation of special attributes of CEO compensation contracts

Groups	M&A periods	Mean	Diff.	S.d.	t-test	Adoption
<i>LTIPs</i>	LTIP × Pre-M&A	0.007	-0.018	0.17	-1.67*	After M&A
	LTIP × Post-M&A	0.025				
<i>Compensation protection devices</i>	EMPLOYAGRE × Pre-M&A	0.091	0.072	0.32	5.11‡	Before M&A
	EMPLOYAGRE × Post-M&A	0.019				
	SEVERPROV × Pre-M&A	0.058	0.027	0.30	2.20†	
	SEVERPROV × Post-M&A	0.031				After M&A
	GOLDPARACH × Pre-M&A	0.061	0.025	0.31	1.82*	
	GOLDPARACH × Post-M&A	0.036				

\*  $p < 0.10$ ; †  $p < 0.05$ ; ‡  $p < 0.01$  (two-tailed tests)

Table 4. Relationship between acquisition features and executive compensation modes in the post-M&A period

Variables	H1 and H3:				H2 and H4:			
	LTIP × Post-M&A	EMPLOYAGRE × Post-M&A	SEVERPROV × Post-M&A	GOLDPARACH × Post-M&A				
PAYMODE	0.38 (0.22)	0.19 (0.12)	-0.40 (0.06)	-0.36 (0.85)				
CONTPREM	1.22 (1.37)	-0.37 (0.27)	-7.63† (4.37)	-4.50‡ (6.73)				
TOTSALES	2.40‡ (6.37)	0.12 (0.16)	-1.36† (3.88)	-0.29† (4.15)				
OWNCONCEN	3.15* (2.62)	-1.53 (1.75)	-1.17 (0.71)	-0.78 (1.65)				
BOARDSIZE	-0.50† (3.85)	0.02 (0.01)	0.10 (0.14)	0.04 (0.23)				
ALIGN × Pre-M&A	-0.20 (0.00)	0.06 (0.00)	1.33 (0.00)	0.30 (0.00)				
<i>Hosmer-Lemeshow chi-square (a)</i>	0.35 $p = 1.00$	4.48 $p = 0.81$	2.41 $p = 0.97$	1.01 $p = 0.99$				
<i>Omnibus chi-square (b)</i>	27.13‡	14.68†	17.40‡	31.34‡				
<i>Log-likelihood</i>	-18.94	-37.79	-20.10	-61.50				

Wald statistic coefficients are reported in parentheses

Firm-specific and year-specific fixed effects are not reported due to space limitations

(a) Test of goodness-of-fit (nonsignificance means better fit); the more the  $p$ -value exceeds 0.05, the better the model fits the data

(b) Test of model coefficients (significance means better fit)

\*  $p < 0.10$ ; †  $p < 0.05$ ; ‡  $p < 0.01$

the payment mode coefficients are not significant, although they are in the predicted direction, Hypotheses 1 and 2 are not confirmed. Hypothesis 3 is also rejected due to the insignificant, albeit positive (1.22), control premium coefficient for the LTIPs implementation. However, Hypothesis 4 is corroborated for the severance provision ( $-7.63$ ;  $p < 0.05$ ) and golden parachute clause ( $-4.50$ ;  $p < 0.01$ ). This result means that higher levels of control premium reduce the implementation likelihood of two compensation protection devices (severance provision and golden parachute clause) in the post-acquisition period.

The results in Table 4 also indicate that the patterns of signs of explanatory variables generally go in the opposite direction for the two groups of executive compensation modes, suggesting that LTIPs and compensation protection devices are explained by distinct determinants. The effect of the corporate size is significantly positive (2.40;  $p < 0.01$ ) for the LTIPs adoption, while it is significantly negative at the  $p < 0.05$  level for the severance provision ( $-1.36$ ) and golden parachute clause ( $-0.29$ ). Moreover, it is worth mentioning that the two corporate governance controls are significantly associated with the likelihood of new LTIPs adoption following M&A transactions. The ownership concentration coefficient is positive (3.15;  $p < 0.10$ ), while the board size coefficient is negative ( $-0.50$ ;  $p < 0.05$ ), implying that the post-acquisition implementation of the new LTIPs is more likely when the acquirer is closely held and the size of the board of directors is smaller.

Table 5 displays the regression results testing Hypotheses 5ab–8ab. Model 1 depicts the relationship between the acquirer features and the special attributes of CEO compensation contracts around M&A deals (all ‘a’ hypotheses), whereas Model 2 indicates how this relationship changes in the post-acquisition period (all ‘b’ hypotheses). Findings do not provide support for Hypothesis 5a, since both RET and ROA coefficients are positive. However, this positive association between firm performance measured by ROA and implementation of LTIPs is decreasing significantly ( $-0.43$ ;  $p < 0.05$ ) in the post-acquisition period, corroborating the Hypothesis 5b. This result means that firm performance is more likely to affect negatively the adoption of new LTIPs following the completion of M&A activities rather than preceding them. Empirical tests further suggest that both Hypotheses 6a and 6b are strongly supported for

the employment agreement and golden parachute clause. Firm performance measured by RET is significantly and positively related to firms’ propensity to adopt these two compensation protection devices (0.01; at  $p < 0.05$  and  $p < 0.10$ , respectively) around acquisition transactions, a relationship that is strengthened significantly at the  $p < 0.05$  level in the post-acquisition period, as evidenced by positive ROA  $\times$  Post-M&A coefficients (0.05 for both devices).

Hypotheses 7a and 7b predicted positive association between corporate size and probability of new LTIPs adoption around M&A deals, and an increase in this association following the transaction completion. The significantly positive coefficients for TOTSALES (1.16;  $p < 0.01$ ) and TOTSALES  $\times$  Post-M&A (0.25;  $p < 0.10$ ) strongly confirm both hypotheses. The patterns of signs and significance levels also indicate that the relationships hypothesized in Hypotheses 8a and 8b behave as predicted for all three compensation protection devices. Corporate size decreases the odds of the employment agreement ( $-0.27$ ;  $p < 0.10$ ), severance provision ( $-0.49$ ;  $p < 0.05$ ), and golden parachute clause ( $-0.32$ ;  $p < 0.05$ ) implementation surrounding M&A transactions, a relationship that is strengthened significantly in the post-acquisition period ( $-0.08$ ;  $p < 0.01$ ;  $-0.06$ ;  $p < 0.05$ ; and  $-0.04$ ;  $p < 0.10$ , respectively). Finally, the evidence depicted in Table 5 suggests that the governance-related control variables exert opposite effects on the two groups of compensation modes. If the implementation of LTIPs is more likely when the company is strongly held (2.32;  $p < 0.10$ ) and the board size is smaller ( $-0.40$ ;  $p < 0.05$ ), the adoption of golden parachute clause is more likely when the ownership is dispersed ( $-1.22$ ;  $p < 0.05$ ), and the number of directors sitting on the board is larger (0.12;  $p < 0.10$ ).

## DISCUSSION

The purpose of this study was twofold: first, to examine whether the implementation of special attributes of executive compensation contracts was linked to the acquisition activity; and second, to evaluate whether LTIPs and compensation protection devices had congruent effects in aligning manager-shareholder interests, or whether the asymmetric properties possessed by these two groups of incentives led to different governance

Table 5. Relationship between acquirer features and executive compensation modes around M&amp;A transactions

Variables	H5ab and H7ab:		H6ab and H8ab:		SEVERPROV		GOLDPARACH	
	LTIP		EMPLOYAGRE		Model 1		Model 2	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
TOTSALES	1.16‡ (6.97)	1.76‡ (7.19)	-0.27* (3.38)	-0.09 (0.29)	-0.49† (5.56)	-0.29 (1.72)	-0.32‡ (4.06)	-0.20 (1.31)
RET	0.01 (0.21)	0.01 (0.37)	0.01† (4.66)	0.02‡ (6.40)	0.00 (0.32)	0.01 (1.14)	0.01* (2.45)	0.02† (4.27)
ROA	0.05† (5.34)	0.47‡ (5.97)	0.00 (0.03)	-0.04† (4.44)	-0.02 (1.01)	-0.02 (0.72)	0.00 (0.03)	-0.05† (4.74)
OWNCONCEN	1.13 (0.86)	2.32* (2.77)	-0.36 (0.72)	-0.51 (1.23)	-0.69 (1.55)	-0.42 (0.53)	-1.07† (4.66)	-1.22† (5.43)
BOARDSIZE	-0.21* (2.83)	-0.40† (4.80)	0.06 (0.56)	0.01 (0.01)	0.03 (0.09)	-0.01 (0.01)	0.14* (3.57)	0.12* (2.31)
TOTSALES × Post-M&A	0.25* (2.95)		-0.08‡ (10.04)		-0.06‡ (4.68)		-0.04* (2.82)	
RET × Post-M&A		-0.03 (1.47)		-0.01 (1.78)		-0.01 (1.35)		-0.01 (1.56)
ROA × Post-M&A		-0.43‡ (5.02)		0.05† (5.33)		0.01 (0.04)		0.05† (5.49)
Hosmer-Lemeshow chi-square (a)	6.00	p = 0.65	0.82 p = 0.99	3.39 p = 0.91	7.94 p = 0.44	9.20 p = 0.33	6.30 p = 0.62	5.48 p = 0.71
Omnibus chi-square (b)	16.88‡	29.52‡	11.46†	30.42‡	11.74†	18.77†	11.48†	20.44‡
Log-likelihood	-31.26	-24.94	-81.95	-72.47	-70.96	-67.44	-71.96	-67.48

Wald statistic coefficients are reported in parentheses

Firm-specific and year-specific fixed effects are not reported due to space limitations

(a) Test of goodness-of-fit (nonsignificance means better fit); the more the *p*-value exceeds 0.05, the better the model fits the data

(b) Test of model coefficients (significance means better fit)

\* *p* < 0.10; † *p* < 0.05; ‡ *p* < 0.01

decisions taken by corporate boards. The results of our study extend those of previous research in various aspects; most importantly of which is our simultaneous examination of the acquisition and the acquirer-related determinants of four components of CEO compensation packages: LTIPs, employment agreement, severance provision, and golden parachute clause. Two plausible theoretical interpretations, which are consistent with our data, are adopted hereinafter. Initially, we take the dominant logic of symbolic management (Westphal and Zajac, 1994) and combine it with insights from the political perspective to interpret our findings. Then, we discuss our research outcomes in terms of the agency theory and varying properties of different internal governance mechanisms.

### **Interpretation of findings in light of the symbolic, political, and agency theories**

In the context of our study, boards of directors seem to be able to exert a sizeable control over executive compensation, avoiding the compensation protection devices and pushing for LTIPs after the transaction completion in situations when the magnitude of control premium is high. From a political theory standpoint, if boards are powerful enough to increase executive incentive alignment in the post-acquisition period, they should have rejected in the first place those acquisition features which lead to negative returns to acquiring shareholders, such as large control premiums and stock financing. Boards of directors are responsible for overseeing strategic decisions taken by management, and M&A transactions constitute one of these decisions. Since the conduct and the features of acquisition activities typically require the approval of the board, why then were the board members not able to exert their monitoring power in ratifying only the value-enhancing M&A decisions related to low control premiums and cash financing? The two following proposed explanations can shed more light on this puzzling issue.

The first explanation is linked to the symbolic management perspective, which suggests that directors can exert significant control over managerial behavior but are willing to do so only when the need becomes apparent, and M&A deals give rise to such a need. Since in the pre-acquisition period agency costs tend to be lower, boards passively ratify those acquisition features that are proposed

by executives. Managers are thus given the opportunity to show that their choice of control premium and payment mode is the optimal one. When the selection of acquisition features proves to be ineffective in the post-acquisition period, resulting in decreased firm performance, the board is urged to intervene and push for stronger mechanisms of incentive alignment (LTIPs). In some extreme situations, directors could choose to terminate the contract of the CEO and appoint a new one. However, prior to using this solution of last resort, the board is likely to opt for other types of controls over executives, refusing to adopt those incentives that are preferred by executives (compensation protection devices) and implementing new LTIPs. In the period following the transaction completion, the CEOs are weakened and their legitimacy in executive positions threatened, while boards of directors are empowered in exercising their monitoring function properly by high control premiums and poor financial performance. Based on this symbolic management logic, our findings suggest that boards of directors are reactive rather than proactive in dealing with agency problems.

The second explanation relates to behaviors and intrinsic motivations of directors in supervising executive actions. Corporate boards may not be interested in tightening their control over managerial decision making regarding acquisition activities, since directors themselves may extract personal benefits from the conduct of such activities. M&A context is especially well suited for examining directors' effectiveness given that there is generally no empirical evidence of financial benefits for acquiring shareholders (King *et al.*, 2004). Although prior research studies have shown that CEO compensation increases in the post-acquisition period (Wright, Kroll, and Elenkov, 2002), data are still scarce on how directors' compensation is related to M&A transactions. Finding a significantly positive relationship between acquisition activity and subsequent outside directors' compensation, Certo *et al.* (2008) conclude that outside directors do have an impetus to behave unethically and benefit from decisions that may potentially harm other firm stakeholders. This argument can also explain why only the control premium, and not also the payment mode, is a significant determinant of executive incentives' implementation following M&A deals. Since the impact of the former variable on the post-acquisition performance is more obvious than that

of the latter, boards may exert higher pressure on executives to negotiate lower magnitude of control premium (and not also cash financing) to symbolically communicate commitment to shareholders' interests. However, additional research is needed to confirm the self-interested behavior of directors surrounding M&A deals.

Our research outcomes can also be linked to those of Sanders (2001), who inquires how the executive stock ownership and stock option pay affect firm involvement in acquisition (and divestiture) activities. Unlike Sanders (2001), we explore the reverse phenomenon of how the acquisition and the acquirer features determine the adoption of two different groups of executive incentives. Similar to Sanders (2001), who hypothesized asymmetric risk properties between stock ownership and stock options, we posited that LTIPs led to higher levels of CEO risk aversion, while on the contrary, the compensation protection devices increased the risk-seeking behavior of managers. Our empirical findings suggest the existence of congruent characteristics among employment agreements, severance provisions, and golden parachute clauses, but asymmetric characteristics between LTIPs and compensation protection devices. Since executives are likely to react differently to the adoption of the two different groups of rewards, boards of directors have the choice of implementing the most effective mode of executive compensation that yields stronger alignment with shareholders' interests. In the current study, the adoption of LTIPs was more likely, and that of compensation protection devices was less likely, when the agency problems were higher, as evidenced by higher control premiums and poor firm performance.

Yet, we should not conclude that compensation protection devices are never appropriate internal governance mechanisms. Although they can increase agency costs, these devices are of the greatest importance when the external managerial labor market is deficient and executives are scarce human resources that cannot be easily attracted and hired. In this situation, people who are currently holding a managerial position within organizations have less to fear from a possible displacement. The lack of managerial skills readily available in the labor market would bolster the strategic human resource logic that executives should be retained via attractive compensation packages that include employment agreements, severance provisions, and golden parachute

clauses. Moreover, given their lower risk aversion properties, the implementation of compensation protection devices can also be seen by corporate boards as an effective governance instrument to motivate executives to undertake riskier endeavors (such as M&As) than they would otherwise be willing to undertake. These incentive mechanisms can thus be introduced to bring executives' risk-taking behavior to the levels desired by shareholders. Conversely, the LTIPs may be adopted to reduce the managerial risk-seeking to acceptable levels by the board and shareholders.

### **Interpretation of findings in light of the peculiarities of the Canadian context**

Our point of studying the Canadian acquiring firms is also of value given the preponderance of evidence on U.S. M&A deals. We further discuss our results as they pertain to the unique aspects of the Canadian institutional context. The two statistical governance controls—ownership concentration and board size—are significantly related to the adoption of special attributes of CEO compensation contracts. The impact of the ownership concentration is positive on LTIPs and negative on golden parachute adoption, while that of the board size is negative on LTIPs and positive on golden parachute implementation. An important trait of economic entities in Canada is that they are closely held, being controlled either by single shareholders or families with an ownership stake sometimes exceeding 86 percent (St-Pierre, 1994; Gedajlovic and Shapiro, 1998). Therefore, ownership concentration is used as an explanatory variable in the majority of studies on executive compensation in Canadian firms (Magnan *et al.*, 1995; Tannous and Cheng, 2007). Hypothesizing that the inducement of any individual shareholder to control executive actions is lower in a diffuse ownership structure, Magnan *et al.* (1995) find that the level of CEO compensation is higher in widely held companies than in closely held ones. Consistent with prior research on Canadian samples, we show that higher levels of ownership concentration denote better monitoring by majority shareholders as witnessed by higher propensity to adopt performance-contingent compensation and avoid compensation protection devices.

According to Masse *et al.* (1990), the ratio of bidder size to target size in Canada is much smaller than in the United States, resulting in a smaller size

of Canadian acquiring companies and a reduced number of directors sitting on the board (Zhou, 1999). In a study of 79 U.S. firms that experienced a threat of takeover, Singh and Harianto (1989) observe a negative but insignificant relationship between the board size and the probability of golden parachute implementation, contrary to a significantly positive link found in our research. Further, the meta-analysis of American studies made by Dalton *et al.* (1999) suggests a strong positive relationship between the board size and firm performance, implying that larger boards are more effective in performing their monitoring function. Our study contradicts the U.S. evidence, as we find that smaller boards have greater ability to push for stronger mechanisms of incentive alignment (LTIPs), whereas the decision-making process in larger boards is more easily controlled and influenced by executives who prefer to push for the adoption of compensation protection devices. This difference may be due to the smaller size of Canadian businesses in general, or to the clear description of roles of inside and outside directors in Canada, in opposition with U.S. boardrooms where these roles are not clearly defined (Maniam, Subramaniam, and Johnson, 2006).

Overall, the statistical significance of ownership concentration and board size variables demonstrates the importance that boards of directors play in corporate governance and their aptitude to mitigate the agency problem between managers and shareholders. It is also likely that board effectiveness following M&A deals may be enhanced due to the disciplinary forces of the external market for corporate control. Taking into consideration the unique features of the Canadian takeover market, such as less restrictive antitakeover regulations than those of the U.S. market, Tannous and Cheng (2007) show that change in control transactions in Canada operate as a control mechanism, increasing the turnover rate of underperforming managers and reducing agency costs. This finding is consistent with our view that internal governance mechanisms (board monitoring) may need pressure from external forces (market for corporate control) in order to exert effective control over executive behavior.

The Magnan *et al.* (1995) finding, which shows that CEO pay is more responsive to corporate size in Canadian companies than in American ones, is also corroborated in our study. For instance, the

implementation of LTIPs is positively and significantly determined by total sales, whereas this association is not significant in Westphal and Zajac's (1994) study on U.S. companies. Further, although the impact of firm performance on LTIPs' adoption is surprising, going in the counter-predicted direction, this result can also be explained in light of our Canadian sample. Contrary to Westphal and Zajac (1994), which uses U.S. data and reports a significantly negative association between the adoption of LTIPs and firm performance, we obtain a significantly positive relationship between these variables. According to Zhou (1999), two main reasons can explain why the compensation of Canadian executives is less closely tied to firm performance than that of their American counterparts. First, the more intense regulation of the Canadian economy as compared to that of the United States reduces the competitiveness of the Canadian economic entities, which are thus induced to also pursue some nonprofit oriented objectives. Second, higher levels of income taxation in Canada make the Canadian labor market less attractive for talented CEOs than that of the neighboring country, resulting in less skilled and less competitive management, which, in order to be retained, needs to be compensated based on the general trends in the labor market rather than on its contribution to firm performance (Maniam *et al.*, 2006). Since in our study we maintain that the implementation of LTIPs is influenced by two acquisition features via the effect these features exert on firm performance, the same reasons suggested by Zhou (1999) can be mobilized to understand why LTIPs are not determined by the payment mode and control premium.

### Study limitations

Our research has a number of limitations, which should be acknowledged and may be addressed in future studies on acquiring executive compensation. We did not use a matched-pair sample of non-acquiring firms to control for the pure effect of M&A transactions on the CEO incentives' implementation. Although the matched-pair design is relatively powerful (O'Connor *et al.*, 2006), we were unable to find a sufficient number of Canadian companies of similar size operating in the same industry as our sample firms that were not involved in any change in control activities during the period under investigation. We could not

capture in our models the influence of symbolic management controls. Similarly to what Zajac and Westphal (1995) did in their study, it would have been compelling to account for verbal explanations that boards of directors used in proxy statements to justify the adoption of executive LTIPs and compensation protection devices.

The dependent variable in our study accounted only for the implementation of new attributes of executive compensation contracts, but did not consider whether these attributes were actually used in acquiring firms. In reality, boards of directors may decide to implement LTIPs to symbolically convey commitment to shareholder interests, without making any share (or unit) grants during the year of adoption or the year thereafter. Observing that a substantial number of firms tend to adopt but not also use LTIPs, Westphal and Zajac (1994; 2001) report that a decoupling between substance (practice) and symbolism (policy) exists in CEO compensation contracts, especially in firms with poor prior performance and powerful CEOs.

Another limitation of the current study refers to the measurement of our dependent variable, particularly LTIPs. As indicated in Table 1, we estimated the adoption of one (or more) of the four types of LTIPs (stock purchase plans, phantom stock plans, restricted stock awards, and performance units), disregarding whether the payments under these plans were made based on stock market or accounting measures of firm performance. According to Rajagopalan (1996), 'the specific types of managerial actions motivated by long-term plans will depend upon the performance criteria and the form in which the incentive is offered' (Rajagopalan, 1996: 769). Since accounting criteria are more amenable to manipulation by managers than stock market ones, these two types of performance criteria may lead to different kinds of executive behavior and various levels of risk-seeking. A future investigation can explore this assumption in further detail, discriminating between LTIPs based on stock market (i.e., stock purchase plans, phantom stock plans, and restricted stock awards) and those based on accounting (i.e., performance units) measures of firm performance.

Further, the poor impact of the payment mode on the implementation of special attributes of CEO compensation contracts in our study may be due to a measurement problem. As previously explained, we combined the purely equity-based

deals with those where a combination of cash and stock was used, a fact that probably contaminated our measure of the payment mode. To better control the influence of this independent variable, it may be more appropriate to collect larger sets of data and distinguish between only purely cash-financed and purely stock-financed acquisitions.

Potential endogeneity problems might exist because a board of directors' decision to implement a special attribute of CEO compensation contracts is not random, but rather based on the expectation of how it will affect future executive behavior and firm performance. If this self-selection of a particular board decision is not taken into account, the statistical model can suffer from biased coefficient estimates resulting from omitted variables. Although in our study we accounted for omitted variables through the use of the fixed-effects method, Hamilton and Nickerson (2003) suggest that one difficulty of this method is the assumption that firm-specific or year-specific effects are uncorrelated with the observed covariates.

Another way of dealing with endogeneity issues is through the use of the instrumental variable technique. However, Kennedy (2003) notes that it is often difficult to find a suitable instrument for an independent variable as it must have two simultaneous characteristics: it must be uncorrelated with the error and highly correlated with the independent variable for which it serves as an instrument. In our study, the potential instruments for the acquisition features' variables may be the unmeasured determinants of the payment mode and control premium that might be considered in a future investigation. For instance, previous research suggests that the level of acquirer's managerial stock ownership exerts a sizeable effect on the payment mode (Travlos and Waegelein, 1992), whereas target management's stock ownership (Song and Walkling, 1993) and the value of the golden parachute (Machlin, Choe, and Miles, 1993) are significant predictors of the magnitude of control premium.

Finally, we used only two governance controls, namely board size and ownership concentration, as proxies for board power over management. Other governance variables, such as CEO/chairperson duality, ratio of outsiders sitting on the board, and value of the company stock owned by outsiders, can also influence the implementation of

special attributes of CEO compensation contracts. Hence, multiple governance mechanisms could have been included together as explanatory variables in the same regression model. However, while this procedure can mitigate the omitted variable problem, it also raises important concerns about the presence of multicollinearity in the data. One possible solution for dealing with this multicollinearity problem would be to create a composite index of multiple governance mechanisms. Westphal (1998) has already built such a composite measure of structural board independence, representing a group of four variables: ratio of outside to inside directors, CEO-board chairman split, CEO-board friendship ties, and demographic distance.

### Avenues for future research

Based on our findings and previous research in the corporate governance field, an interesting avenue for future research would be to examine the substitution effects between alternative governance mechanisms. To minimize the agency costs, economists have identified a number of internal and external governance mechanisms, such as executive compensation contracts, equity ownership by institutional investors and other blockholders, outsiders on the board, the market for corporate control, and the managerial labor market. Several authors have advocated interdependence between these alternative control vehicles exploring their substitution (Rediker and Seth, 1995) or joint effects (Agrawal and Knoeber, 1996) in mitigating the agency conflicts of interests. Rediker and Seth's (1995) results provide significant support for substitution hypothesis between monitoring by outside directors versus monitoring by large shareholders, incentive effects of managerial share ownership, and mutual monitoring by inside directors; whereas those of Agrawal and Knoeber (1996) are consistent with the optimal use of each governance mechanism. We suggest the two following tests of substitution effects: first, between the two groups of executive compensation modes examined in the current study in satisfying shareholder needs and expectations; and, second, between other internal governance mechanisms (such as shareholder representation and structural board characteristics) in enhancing or curbing the rate of implementation of different modes of CEO compensation.

Firstly, the contrasting sets of results we obtained for the adoption of LTIPs and compensation protection devices can serve as an early indication of substitution between these groups of executive compensation modes. As the use of LTIPs may depend upon the use of compensation protection devices, efficient combinations of governance mechanisms can be designed to achieve alignment of manager-shareholder interests. In light of our data, it seems that the effectiveness of different incentive modes may vary between the two M&A-related periods. In the pre-acquisition period, shareholders may want to recruit skilled leaders who are able to initiate and complete a risky M&A deal. Thus, the adoption of compensation protection devices before an acquisition may reduce the need for LTIPs in monitoring executive actions. These devices may be used primarily to increase the risk-seeking behavior of executives and to retain scarce leadership, satisfying shareholders' expectations prior to an acquisition.

This interpretation is in line with Sundaramurthy, Mahoney, and Mahoney (1997), who concentrate their analysis on antitakeover provisions that represent critical governance mechanisms, particularly in the context of the market for corporate control. Since managers who are not protected by antitakeover provisions bear higher employment risks, they tend to become overtly risk averse and focus on short-term strategies that are suboptimal for shareholder wealth. According to these authors, although the antitakeover protections (similar to compensation protection devices in our study) are typically viewed as managerial entrenchment tools that are against stockholder interests, they may also be a counterbalancing vehicle to motivate executives to increase their time horizons over longer periods and engage in riskier long-term projects.

Conversely, since in the post-acquisition period the priority of corporate owners may be the improvement of firm performance and not the retention of managers, LTIPs may obviate the need for compensation protection devices. Under the conditions of a favorable external labor market where performing executives are plentiful, LTIPs may serve the primary goal of reducing the level of executive risk-taking actions and incentivizing the CEOs to enhance the performance of their company. The design and efficiency of governance mechanisms may also vary by industry type and corporate size (Fama and Jensen, 1983). For

instance, Sundaramurthy *et al.* (1997) find that larger companies experience a more negative stock market response upon adoption of antitakeover provisions, as the agency problems in these companies are considered greater than in smaller ones. Since the visibility of a larger acquiring firm amplifies following an acquisition, LTIPs' efficiency as governance vehicles may increase and that of compensation protection devices decrease, as the former convey commitment to shareholders' interests and are usually better perceived by the external investment community than the latter.

Secondly, the differential impact of the two governance controls used in the current study (board size and ownership concentration) on the implementation of the two groups of CEO compensation modes may be suggestive of the need to examine the substitution effects between these (and other) governance mechanisms in mitigating agency problems generated by various executive compensation modes. A similar suggestion was already advanced and tested in the context of takeover market protections. Sundaramurthy (1996) explores the substitution between shareholder control, managerial ownership, and board characteristics in monitoring the adoption rate of antitakeover provisions, depending on whether the shareholder approval is required (supermajority requirements, eliminating cumulative voting rights, fair-price provisions, classified board provisions, and unequal voting rights) or not (poison pills). She shows that when shareholder approval is not required, managerial ownership is more effective than shareholder control in reducing the rate of adoption of antitakeover provisions. Conversely, in circumstances when the adoption of these provisions necessitates shareholder approval, monitoring through shareholder voting eliminates the need for managerial ownership as an alternative governance mechanism. These results confirm the existence of substitution effects between direct shareholder control and managerial stock ownership in controlling agency costs inflicted by antitakeover amendments.

The explanatory logic developed by Sundaramurthy (1996) can also be extended to the issues examined in the current study. Similar to antitakeover amendments that do not require stockholder approval, compensation protection devices are potentially more entrenching than LTIPs, since they tend to protect executives' interests. The different significance levels reported for the board

size and ownership concentration may imply that these two governance controls can act as substitutes in overseeing the implementation of various executive compensation modes. More specifically, since our findings show that the ownership concentration variable is more significant in predicting the adoption of compensation protection devices, we can infer that the existence of a concentrated ownership is sufficient in curbing the adoption of those compensation modes that contribute to CEO entrenchment. Alternatively, as the board size is shown to be more significant in explaining the implementation of LTIPs, it can be assumed that a smaller board will succeed in implementing less entrenching executive compensation modes, thus eliminating the need for a concentrated ownership. A future investigation can test this substitution suggestion further by introducing additional governance controls, such as CEO/chairperson duality, proportion of outsiders on the board of directors (Sundaramurthy *et al.*, 1997), managerial stock ownership, institutional ownership, and the level of loyalty of outside board members (Sundaramurthy, 1996).

It is worth noting that out of the three compensation protection devices we examined, only the employment agreement is not significantly explained by the control premium. Given that the golden parachute clause and severance provision are more tightly linked to uncertainties brought by the market for corporate control than the employment agreement, it is likely that the adoption of the latter device may not be determined by M&A deals. Indeed, in the context of changes in corporate control, the existence of the golden parachute clause and severance provision may be more important for protecting CEOs' interests than the employment agreement, whose prescriptions of automatic renewal of the contract at the end of an initial period of employment may be of lesser value in the eyes of executives. We leave the verification of this assumption to future research.

The results of this study have important implications for the next generation of research in the area of corporate governance, including the integration of the agency, and political and symbolic perspectives in the context of M&As. Further work is needed to examine other governance-related issues surrounding acquisition activities. It is appropriate to inquire whether directors' individual interests are really aligned with those of shareholders, as it

may be the case that both executives and directors are similarly rewarded for their acquisitiveness.

Deeper analysis of these issues with more diversified data gathered from different national settings may allow researchers to draw important conclusions for practice, and examine the need for future governance reforms. For instance, our findings suggest that governance reforms are needed to encourage corporate boards in Canada to act proactively in tightening the alignment of ownership and control. Moreover, higher turnover levels among CEOs in recent years translate into reduced job life expectancy, inducing more and more executives to seek contractual protection against uncertainties of managerial positions (Navas *et al.*, 2007). In turn, boards of directors may feel stronger pressure to implement those CEO incentives that strictly intend to alleviate the agency conflicts of interest. Therefore, research on the design and composition of executive compensation contracts should increase in importance.

## ACKNOWLEDGEMENTS

We are deeply grateful to two anonymous *SMJ* reviewers and Associate Editor Joseph T. Mahoney, for their insightful comments and suggestions, which significantly improved this manuscript.

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