OWNERSHIP STRUCTURE, LARGE INSIDE/OUTSIDE SHAREHOL-DERS, AND FIRM PERFORMANCE: EVIDENCE FROM CANADA

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Abstract

This study gathers additional evidence on the association between ownership concentration and firm performance, as measured by the firm's Q ratio. Using panel data from a sample of 159 Canadian public firms over a three-year period, I focus on the distinction between large inside shareholders, who directly participate in the management of the firm, and large outside shareholders, who do not. I examine whether direct and indirect monitoring on the part of large shareholders has an impact on the association between ownership concentration and firm performance. Along with the distinction between large inside and outside shareholders, this study also investigates whether concentration of voting rights is associated to firm performance, and whether the identity of the owner affects this association. The findings suggest that large inside shareholdings tend to be negatively associated to firm performance, while no association is found in firms with a majority of large outside shareholdings or firms combining large inside and outside shareholdings in its ownership structure. Concentration of voting rights is negatively associated to firm performance only in firms with a majority of large outside shareholders, suggesting that the market may not discriminate between voting rights and ownership concentration in owner-managed firms. Although the results for the identity of large shareholders are not conclusive, there is evidence that family and institutional large shareholders wield different performance impacts.

Keywords: firm performance, ownership concentration, large shareholders, Canada

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1. Introduction

Considerable attention has been devoted in both the academic literature and the business press to the impact of governance structure on firm performance, with a particular focus on ownership concentration. Theoretically, the presence of large shareholders should reduce agency costs and enhance firm performance (Berle and Means, 1932; Jensen and Meckling, 1976), since large shareholders have the incentive as well as the resources to monitor the firm's performance. The premise is that large shareholders tend to engage in closer monitoring activities, which reduce informational asymmetries between owners and managers as well as between the firm and external investors. The result is an enhanced monitoring structure and increased firm value, to the benefit of all shareholders.

The empirical evidence on the performance impact of large shareholders is, however, inconclusive. Shleifer and Vishny (1986), for example, show that concentrated shareholdings raise firm value. Pagano and Röel (1998) document the existence of a trade-off between ownership concentration and liquidity. Lehmann and Weigand (2000) suggest that, unless these large shareholders are financial institutions, their presence does not necessarily enhance firm performance. Consistent with the entrenchment perspective, the study by Claessens et al. (2002) finds that firm performance falls when the control rights of the largest shareholder exceed the cash-flow ownership of the shareholder. Overall, these studies suggest that large shareholders can impose costs on firms if they use them to extract private benefits via tunneling[1] or less than optimal investment decisions.

In addition, most studies examining ownership structure and firm performance have been conducted in the US and the UK, which are characterized by ownership dispersion and where most firms follow

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[1] Johnson et al. (2000) note that large shareholders create group structures such as pyramids that enable them to transfer assets or profits to other dominated entities. These are called "tunneling" practices. Tunneling can be achieved in various ways, such as excessive compensation for positions held in the firm, advantageous transfer prices, loans at non-market rates, guarantees of other borrowing entities, or merger transactions that enhance the value of other firms in the group.

the one-share, one-vote rule. Recent studies by La Porta et al. (1999), Claessens et al. (2002), Faccio and Lang (2002), and Dyck and Zingales (2004) suggest that these types of ownership structures are not generally the norm in non Anglo-Saxon countries. Most of continental Europe and Asia is characterized by greater ownership concentration in the hands of individuals, families, governments, or industrial groups. Surprisingly, ownership structures in Canada differ from their Anglo-Saxon counterparts by exhibiting high levels of concentration.[2]

The purpose of this study is to examine the relationship between ownership structure, large shareholdings, and firm performance. Canada offers an interesting setting to examine these issues. On the one hand, the Canadian capital market is characterized by concentrated ownership through mechanisms such as dual-class shares and pyramidal structures (Amoako-Adu and Smith, 2001; Morck et al., 2000). The vast majority of these companies are family controlled. Many large Canadian companies (e.g., Power Corp., Magna Corp., Bombardier Inc., Quebecor Inc.) are still controlled by the founders or their families. On the other hand, Canada retains the corporate governance mechanisms and minority shareholder protections typically found in most Anglo-Saxon countries (La Porta et al., 1998; 1999). Furthermore, there is evidence to suggest that while Canada is believed to offer good protection to minority shareholders, large shareholders are nevertheless able to reap private benefits.[3] This study therefore adds to the literature on firm performance and specific ownership structures (La Porta et al., 2002; Claessens et al., 2002; Cronqvist and Nilsson, 2003) and the growing literature on the costs and benefits of concentrated ownership. This investigation focuses on the distinction between the presence of large inside and outside shareholders in the firm's ownership structure. We define a large inside shareholder as an individual shareholder who holds significant[4] direct or indirect ownership interest—through another company and/or family links—and who is at the same time a member of the firm's management. A large outside shareholder is defined as a person or company that holds significant direct or indirect ownership but does not directly participate in the management of the firm. Similar to the studies by Shleifer and Vishny (1997) and Claessens et al. (2002), I argue that the monitoring role and performance impact of large shareholders depend on the closeness of their association to the firm's management. The ability of large shareholders to pursue private goals unrelated to profit maximization inc-

reases with their participation in firm management. Although equity ownership may exert an important incentive to closely monitor management decisions, owner commitment and willingness to intervene may crucially depend on who they are (Lehmann and Weigand, 2000). As such, along with the distinction between large inside and outside shareholders, I differentiate between firms having a single shareholder with voting control and firms having a non-controlling shareholder, in order to examine whether the performance impact is exacerbated in the presence of a controlling shareholder in the ownership structure. I also contrast different types of large shareholders (family, industrial, and financial institution), since they may have different objectives leading to different costs and benefits. As a means to investigate these issues, I used a panel data set of 159 Canadian non-financial public firms with large shareholders listed in the *Financial Post Survey of Industrials* from 1997 to 1999. In line with the literature on corporate governance, I used the Q ratio to measure performance (McConnell and Servaes, 1990; Villalonga, 2004), while controlling for other well-documented inside governance mechanisms such as board composition and incentive structure. The findings suggest that large inside shareholdings tend to be negatively associated to firm performance, while no association is found in firms with a majority of large outside shareholdings or firms combining large inside and outside shareholdings in the ownership structure. As far as large outside shareholding is concerned, ownership concentration in the hands of large inside shareholders is apparently perceived as shareholder entrenchment, which is better able to extract value from firm performance to the detriment of minority shareholders. The negative performance effect of large inside shareholders is mitigated, however, when monitored by large outside shareholders. Concentration of voting rights is negatively associated to firm performance only in firms with a majority of large outside shareholders, suggesting that the market may not discriminate between voting rights and ownership concentration in owner-managed firms. Although the results for the identity of large shareholders are not conclusive, there is evidence that family and institutional large shareholders wield difference performance impacts. This document is structured as follows. Section two presents the literature review. Section three describes the sample and variables used in the investigation. Section four presents and analyzes the empirical findings. Finally, the document ends with conclusions and suggested avenues for further research.

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[2] See for example Daniels and Halpern (1996) and Craighead et al. (2004) on concentration of ownership in Canada.

[3] Despite the legal protections offered by Canadian business law, Ben-Amar (2005) found certain forms of expropriation in Canada.

[4] Canadian securities regulations require disclosure of individual shareholdings greater than 10 percent. Firms with no individual shareholdings greater than 10 percent are considered to have diffuse ownership structure.

2. Background and hypotheses[5]

The general view is that the presence of a large shareholder in a widely held firm should have a positive effect on firm performance. Large shareholders, as opposed to small shareholders, have greater resources and incentives to acquire information and monitor managers, thus reducing some agency costs (Shleifer and Vishny, 1997). The studies by Demsetz (1983), Pound (1995) and Lehmann and Weigand (2000) have challenged this premise, however, arguing that ownership concentration does not necessarily result in protection against management entrenchment and profit dispersion. They advocate that in some circumstances, large shareholdings can actually be harmful to firm value. Aside from these conflicting perspectives, the empirical evidence on the associations between ownership concentration and firm performance is mixed and almost exclusively based on US and UK evidence.

As LaPorta et al. (1998: 1114) point out: "Law and the quality of its enforcement are potentially important determinants of what rights security holders have and how well these rights are protected." These authors show that common-law countries such as Canada generally have the strongest legal protections for investors. They further show that concentration of share ownership in the largest public companies is negatively related to investor protection, which places Canada in a unique position compared to some of its common-law counterparts.[6] La Porta et al. (1997, 1998) further developed an "antidirector rights index"[7] to capture the legal environment. Canada gets the highest score at 5 out of 6, similar to the UK and the US. La Porta et al. (1998) and Dyck and Zingales (2004) also consider the quality of disclosure standards, as measured by the quality of accounting standards and their rule-of-law enforcement, the efficiency of the judicial system, corruption, and the risks of expropriation and contract repudiation. Canada again rates above average, even for the Anglo-Saxon countries. Dyck and Zingales (2004) suggest that extra-legal institutions play an important role in constraining private benefits. They propose measures to capture levels of product market competition, public opinion pressure, internal poli-

cing through moral norms, labor as a monitor, and government as a monitor. Once again, Canadian scores are similar to those of the UK and the US.

Nonetheless, widely held firms, although the norm in the US and the U.K, are not prevalent in most other countries. In Canada, closely held firms (usually family controlled but also state controlled or owned by widely held corporations or financial institutions) dominate the economic landscape. La Porta et al. (1999), Claessens et al. (2002), Barca and Becht (2001), Faccio and Lang (2002), and Dyck and Zingales (2004) suggest that the main agency problem outside the US and the UK is not the manager/shareholder conflict but rather the risk of expropriation by the dominant or controlling shareholder at the expense of minority shareholders. Others argue that large shareholder controlled firms make less than optimal investment decisions due to a lack of diversification (they hold a great portion of their wealth in a single company[8]) (Zhang, 1998), the awarding of firm positions to associated members, and the reluctance to undertake the creative destruction of controlled but outdated technologies to make way for innovation (Morck and Yeung, 2003).

Along this line, the studies by Demsetz and Lehn (1985), Shleifer and Vishny (1997), and Schulze et al. (2001), for example, claim that large shareholders can be harmful to minority shareholders if they have the opportunity to pursue private goals unrelated to profit maximization. Further, large shareholders closely associated with management may collude to expropriate minority shareholders. Schulze et al. (2001) suggest that agency problems associated with private ownership and owner management are more difficult to resolve, due to self-regulation and problems engendered by altruism. Hellwig (2000) proposes that large shareholders combined with owner management may collude to keep minority shareholders at bay. Lehmann and Weigand (2000) find that the negative impact of ownership concentration on the firm's profitability intrinsically depends on stock market exposure and the type of control rights. Maury and Pajuste (2004) suggest that a large outside shareholder has the power and incentive to monitor management so as to reduce profit diversion to the benefit of all shareholders, while large inside shareholders may represent a controlling coalition with management or other shareholders to share diverted profits. The evidence supports the argument that potential large shareholder entrenchment and the consequent impact on firm performance may be greater and/or different in firms with predominantly large inside ownership (or owner-managed firms) than in firms with large outside shareholders.

The potential for negative impact on firm performance is even greater when large shareholders

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[5] A substantial body of articles on the issue of governance in accounting and finance has been published to date. Our review rather focuses on large shareholders. See Shleifer and Vishny (1997) for a broader literature review.

[6] LaPorta et al. (1998) show that average ownership of the three largest shareholders in the 10 largest Canadian non-financial firms is 40% compared to 28%, 19%, and 20% in Australia, the UK, and the US, respectively. It should be noted that the average for English-origin countries is 43%, making the Canadian level of concentration comparable to that of Ireland, South Africa, New Zealand, and most English-origin Asian countries.

[7] The index is formed by adding 1 when (i) one share = one vote; (ii) shareholders can mail in a proxy vote; (iii) shares are not blocked before the Annual General Meeting; a cumulative vote is allowed; (iv) an oppressed minority mechanism is in place; (v) a pre-emptive right to new issues exists; and (vi) minimum shareholding to force an extraordinary meeting is less than 10%.

[8] Fama and Jensen (1985) show that undiversified large shareholders use different capital budgeting decision rules than do well-diversified shareholders.

occupy executive positions in the firm. The appointment of a significant shareholder or shareholder heir as an officer, for example, can wield a significantly negative impact if the individual does not have the talent, expertise, or competency to run the business. These individuals may lack the incentives that professional managers have to ensure their reputation in the executive labor market. The opportunity costs created by a less than optimal appointment are ultimately borne by all shareholders, thereby turning over some private benefits to the large shareholder. Furthermore, effective control of large shareholders means fewer opportunities for corporate buyouts of inefficiently managed firms. For instance, family and owner-managed firms, defined as firms having pools of individuals or families as large shareholders, are widely prevalent in Canada. These individuals and families are often company founders or their heirs who tend to directly participate in firm management. As such, individual and family shareholders are normally considered large inside shareholders, in contrast with institutional/corporate large shareholders, who are considered large outside shareholders[9] (Lehmann and Weigand, 2000; Klein et al., 2004).

Recent empirical studies have attempted to measure the potential transfer of wealth from minority shareholders and less than optimal investment decisions on the part of firms with concentrated ownership. The results contrast with evidence in the US (Agrawal and Mandelker, 1990) and the UK (Sudarsanam, 1996) showing the benefits of large shareholder monitoring. Dyck and Zingales (2004), for example, find higher benefits of control associated with less developed capital markets and more concentrated ownership in Asia, albeit these benefits are curbed by legal and extra-legal mechanisms, particularly media pressure and tax enforcement. Other studies (Zingales, 1995 and 1995(a); Nenova, 2003) show that legal environment, law enforcement, takeover regulations, and corporate charter provisions can explain cross-country variations in the measure of private benefits. Doidge (2004) further finds that US cross-listing improves the protection afforded to minority shareholders and decreases private benefits. Bertrand et al. (2002) find evidence consistent with significant tunneling in Indian firms via non-operating transactions. Ben-Amar and André (2005) and Bigelli and Mengoli (2004) find a non-monotonic relationship between the participation of large shareholders and abnormal returns for bidder shareholders in Canada and Italy, respectively.

Drawing on the literature, this study proposes to re-examine the relationship between ownership structure and firm performance in Canadian firms with large shareholders in the ownership structure. As noted above, the Canadian market offers a particularly apt setting, since it features both high levels of ownership concentration and strong legal protections for investors. More specifically, this study aims to add to the literature by investigating whether the impact of large shareholders on firm performance depends on their identity and closeness to firm management. A key contribution of this study is the attempt to differentiate the monitoring role of large inside and outside shareholders. The rationale is that direct participation in the firm's management by shareholders may represent a higher degree of control at any given level of shareholdings than the control provided by outsiders (Cubbin and Leech, 1983). In line with the previous literature, large inside shareholder is defined as either an individual or family shareholder with significant ownership interest who is also an executive of the firm, or else another company whose owner or a member of the owner's family is also a firm executive. A large outside shareholder is defined as a person or company that does not participate in the management of the firm. This classification aims to distinguish between the indirect external monitoring of large outside shareholders and the direct monitoring, or decision-making, of large inside shareholders. Similar to the study by Maury and Pajuste (2004), I take the perspective that large inside shareholders may represent a controlling coalition with management. This reasoning leads to the following hypothesis:

Hypothesis 1: The association between large shareholdings and firm performance is negative in firms with a majority of large inside shareholders in its ownership structure.

In addition, empirical studies such as La Porta et al. (2002), Claessens et al. (2002), and Cronqvist and Nilsson (2003) provide evidence that the negative effect of large shareholders is magnified when there is a substantial departure from the one-share, one-vote rule. Maury and Pajuste (2004) suggest that concentrated voting power may allow for more centralized decision-making and better concealment of profit diversion. Following this reasoning, I propose the following hypothesis:

Hypothesis 2: The negative association between the presence of a large controlling shareholder and firm performance is significantly greater in firms with a majority of large inside shareholders.

Finally, I investigate whether the identity of the owner affects the association between large shareholders and firm performance. Consistent with Claessens et al. (2002), the regulatory environment and fiduciary responsibilities of institutional/corporate shareholders render them closer monitors of management decision-making. It is equally possible that the marginal cost of private benefit extraction is higher for companies with a financial institution as a large shareholder. This argument leads to the following hypothesis:

Hypothesis 3: *The association between large shareholdings and firm performance is affected by the identity of*

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[9] The literature also identifies owner-managed and non-owner-managed firms to differentiate between situations where large shareholders participate in management and where they do not.

the largest shareholder – individual or family, financial institution or industrial.

3. Methodology
Sample and data collection

The empirical testing is based on a panel set of 159 Canadian non-financial public companies with large shareholders included in the Financial Post's *Survey of Industrials* listed on the Toronto Stock Exchange (TSE) over a three-year period (1997-1999) in the following economic sectors: primary, manufacturing (non-durables), manufacturing (durables), transportation and utilities, wholesalers and retailers, and consumer services. I collected data from two separate sources.

First, information on firm governance was taken from the SEDAR[10] database, as disclosed in the firms' Management Proxy Circulars. Using corporate governance information for a given fiscal year, this database was designed to represent the corporate governance mechanisms present at the beginning and for the duration of that year. Second, to measure firm performance and control variables, financial information was obtained from the Compustat database. Nineteen companies were dropped from the target sample, either because the financial data in the Compustat database for the period under analysis was incomplete or else they were deemed outliers. After eliminating observations where no large shareholdings or governance data were involved, I retained 402 usable firm-year observations.

Firm performance

The dependent variable I examine is firm future performance, as measured by the firm's Q ratio. Firm's future performance (Q_{t+1}), is measured at the end of the subsequent fiscal year for which the firm's governance information was obtained. The Q ratio measures firm performance in terms of company valuation, and is assumed to capture firm performance as a result of managerial decisions and governance structure quality, which tend to be reflected in market price and not in traditional accounting numbers.

The governance literature also maintains that the firm's Q ratio measures the intensity of the alignment between shareholder and manager interests. Similar to the studies by Agrawal and Knoeber (1996), Yermack (1996), and Barnhart and Rosenstein (1998), I calculated the firm's Q ratio as follows:[11]

$$Q = (EQUITY + LTD + STD + PFD + CV) / ASSETS$$

Where;

EQUITY =		Market value of equity[12]
LTD	=	Book value of long-term debt
STD	=	Book value of short-term debt
PFD	=	Preferred stock at liquidating value
CV	=	Book value of convertible debt and convertible preferred stock
ASSETS =		Book value of total assets

Ownership structure

Ownership information and other corporate governance data for all the firms in the sample were collected directly from the firms' Management Proxy Circulars, as contained in the SEDAR database for each fiscal year included in this investigation. This database was designed so that the corporate governance information for a given fiscal year would represent the corporate governance mechanisms present at the beginning and for the duration of that year.

Large shareholdings (LSHt) is measured as the proportion of outstanding shares directly or indirectly controlled by a group of large shareholders in the firm's ownership structure. Canadian securities regulations require disclosure of significant shareholders, both individual and institutional, which beneficially own or exercise control at least a 10 percent of the firm's outstanding shares. Therefore, only the identities of large shareholders are disclosed in the firms' Management Proxy Circulars. Two further variables were created to distinguish whether the firm's ownership structure is dominated by large inside or outside shareholders.

As defined earlier, a large inside shareholder is an individual who is also an executive of the firm, or else a company whose owner or member of the owner's family is an executive of the firm. On the other hand, a large outside shareholder is defined as a person or company that does not participate in the management of the firm. For the group of firms, the variable LSH_inst captures the overall percentage of outstanding shares held by large inside shareholders, while the variable LSH_outt captures the overall percentage of outstanding shares held by large outside shareholders. These measures are consistent with much of the prior governance empirical research, such as Coles et al. (2001), Randøy and Goel (2003) and Maury and Pajuste (2004).

It is worth noting that many firms in this sample have multiple large shareholders. For instance, the maximum number of individual large shareholders disclosed by a single firm is four. However, I identified many instances where these multiple large shareholders had family and/or fiduciary links, and were therefore classified as a group of either large inside

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[10] The System for Electronic Document Analysis and Retrieval (SEDAR) is a Website that has been operated by The Canadian Securities Administration since 1997. It provides filings of publicly available documents for all Canadian public companies, in order to facilitate the electronic filing of securities information as required by the securities regulatory agencies in Canada.

[11] The Q ratio is the market value of the firm's assets divided by the replacement value of the firm's assets, and represents the firm's anticipated future earnings. Chung and Pruitt (1994) show that this simplified measure is strongly correlated with the more sophisticated measure of Tobin's Q, and has the added advantages of using information that is more readily available and preventing

unduly restricted sample sizes. However, this measure is also known to produce downward-biased measures, and is prone to rank incorrectly.

[12] If a firm has more than one share class listed, I summed the market values of the different share classes.

or outside shareholders. Along with inside/outside classification, I also identified in the sample firms with concentrated voting power in the hands of a single large shareholder.

The indicator variable CONTRt captures firms having a single shareholder with direct or indirect control of over fifty-one percent of the voting capital. The study by Klein et al. (2004) uses a similar cutoff to classify a single controlling shareholder in the ownership structure.

Other control variables

Similar to many governance studies (e.g., Coles et al., 2001; Cotter and Sylvester 2003), I controlled for other governance attributes. The proportion of outside, unrelated directors on the board (OUTt) generally measures the independence of the board and its efforts to monitor top management, particularly the Chief Executive Officer (CEO). In a concentrated ownership context such as Canada, boards also monitor large inside shareholders. It follows that an outside director is independent of and unrelated to management[13] and is free of any interest and any other business or relationship which could, or could reasonably be perceived to, materially interfere with the director's ability to act with a view to the best interests of the company, other than interests and relationships arising from shareholding.[14] The studies by Core et al. (1999), Coles et al, (2001), and Klein et al. (2004) adopt a similar proxy. DUALITY is an indicator variable that captures whether the CEO simultaneously occupies the position of Chairman of the Board. CEO ownership (CEOSHt) is measured by the ratio of the number of shares directly or indirectly controlled by the firm's CEO to the firm's total amount of outstanding shares in the same period. This variable is intended to measure the ownership of professional CEOs, and therefore excludes CEOs who are at the same time large inside shareholders. As such, CEO shareholdings greater than (or close to) 10 percent and CEOs with family links to a large shareholder are considered large inside shareholders (LSH_inst). Consistent with the study by Bushman et al. (1996), the relative importance of CEO performance-contingent compensation (CCOMPt) is measured by the ratio of cash bonus plus stock options granted to the total compensation earned by the CEO in the same period. The CEO's total compensation includes salary, cash bonuses, other compensations, and stock options. Stock options are valued at 25% of their exercise price at the time of the grant.[15]

I measured additional variables to control for other factors that have been shown to impact on firm performance. Firm SIZEt is measured by the logarithm of the firm's total assets for each year, and is included in the analysis to account for potential economies of scale and the monitoring complexity that larger firms require.[16] In addition, larger firms have lower growth opportunities, implying a negative correlation between firm size and the measure of firm future performance. Similar to the studies by Agrawal and Knoeber (1996), and Randøy and Goel (2003), I control for firm use of debt financing. Debt financing (DEBTt) is measured by the ratio of the firm's book value of short- and long-term debt to total assets. The use of debt financing is in fact a governance mechanism,[17] and a high level of debt financing is assumed to negatively affect the firm's growth and profitability. A dummy variable (CROSSt) was created to capture Canadian public firms with stock traded on the NYSE, AMEX, and/or NASDAQ. Recent studies, including Doidge (2004), suggest that firms that cross-list in the US also signal their quality and willingness to comply with a stricter set of governance measures. Industries vary widely in the degree of fixed assets they carry and in the degree to which they use debt, with corresponding differences in firm value and financial performance. Accordingly, I also control for industry effects by applying dummies to the one-digit industry groups extracted from the Compustat database.[18]

4. Results
Descriptive analysis

Table 1, Panel A presents the summary statistics for the sample variables using the full sample (N=402), including means, medians, standard deviations, minimums, and maximums. Table 1, Panel B presents the variable means and standard deviations for the following sub-samples: firm-year observations for firms with a majority of large inside shareholders (LSH_inst, N=219) versus firms with a majority of large outside shareholders (LSH_outt, N=183). Column three in Table 1, Panel B presents the results of

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[13] If any of the following applied to a director of the sampled firms, she/he was not classified as an outside, unrelated director: employee of the company (currently or within the last three years); executive of an affiliated company; director providing legal, auditing, or consulting services to the company; or director with family links to the firm's CEO or a significant shareholder.

[14] Definition used by the Toronto Stock Exchange (TSE – 1994), Corporate Governance Guidelines.

[15] Murphy (1999) raises some issues related to the evaluation of stock options granted to executives (distinguishing between cost of

options to the firm and value to executives) and to the fact that no recognized valuation methodology has been developed to date. Lambert et al. (1993) state that evaluating options at 25% of their exercise price generates values similar to those obtained with more sophisticated evaluation models. This paper follows the stock option valuation method used by Core et al. (1999).

[16] I also used the logarithm of the sales to measure size, and the results are identical to those presented in the subsequent section. Yermack (1996) also shows robust results with diverse size measures.

[17] Further details on the level of debt financing as an internal governance mechanism can be found in Agrawal and Knoeber (1996).

[18] Similar to Morck et al. (1988), several authors also include a measure for R&D and marketing expenses. Unfortunately, the allowable capitalization for R&D expenses in Canada makes it difficult to determine this variable. In addition, Canadian firms are not required to post their marketing costs separately in their financial statements. Yermack (1996) also includes measures for current and past performance. The absence of these variables reduces the predictive power of our regression model.

a test of mean differences between the two sub-samples.

Insert Table 1, Panels A and B

The variable measuring firm's future performance (Qt+1) for the full sample of the firms has a skewed distribution with a mean (median) of 1,341 (0,844). For this variable, 25% of the firm-year observations have Qt+1 greater than 1,461, and 25% have Qt+1 lower than 0,606. As expected, most of the observations in the upper 95% percentile (Qt+1= > 5,092) represent firms with two-digit SIC 28 – Chemicals and allied products, classified in the non-durable manufacturing economic sector. Average Qt+1 are 1,235 and 1.468 for firms with a majority of large inside shareholders and large outside shareholders, respectively (Table 1b).

The proportion of shares owned by large shareholders (LSHt - Table 1, Panel A) is normally distributed with a mean (median) of approximately 50.3% (51.7%). Overall ownership by large shareholders and large inside shareholdings is greater in this Canadian sample of public companies than in US studies (e.g., Bushee, 1999). Large inside shareholder ownership is represented by the LSH_inst variable, with an overall mean (median) of 24% (12%). In the sub-sample of firms with a majority of large inside shareholders (N = 219), approximately 122 firms have as the main large shareholder either an individual who is also the CEO and/or board chairman, or else a company related to the CEO and/or board chairman. The variable LSH_outt measures overall ownership by large outside shareholders, with a mean (median) of 26.4% (15.4%). In the sub-sample of firms with a majority of large outside shareholders (N=183), the largest shareholder is either a financial institution (N = 96) or an industrial firm (N= 87). Overall, the variables LSHt, LSH_inst and LSH_outt document that this sample of Canadian firms has a greater proportion of outstanding shares held by large shareholders than the average US public firm. As mentioned above, this situation offers a unique setting to investigate whether the identity and closeness to management of large shareholders have different performance effects.

The OUTt variable measures the proportion of outside directors on the board. In the full sample (Table 1, Panel A), this variable is normally distributed with a mean (median) of 64.8% (66.7%). In the US, Barnhart and Rosenstein (1998) and Core et al. (1999) obtained results of 60.1% and 64% outside directors, respectively. Magnan et al. (1999) found an average of 66.2% outsiders in a sample comprising 139 of the 150 largest firms listed on the Toronto Stock Exchange. Table 1, Panel B documents that the average proportion of outside directors is significantly greater (71.1%) in the sub-sample of firms with a majority of large outside shareholders than that obtained in the sub-sample with a majority of large inside shareholders (59.5%) (t-test = 6.71). CEO is also the board chair, DUALITYt, in 42.0%

of the firm-year observations. CEO duality is significantly higher (56.2%) in the subgroup of firms with a majority of large inside shareholders than in the subgroup of firms with a majority of large outside shareholders (25.1%) (t-test = 6.28).

As discussed earlier, CEO shareholdings greater than 10 percent and/or CEO shareholdings with family links to a large shareholder are considered large inside shareholdings (LSH_inst). CEO ownership (CEOSHt) in the full sample is skewed with a mean (median) of approximately 0.8% (0%). However, CEOSHt as a measure of professional managerial ownership is meaningful in the sub-sample of companies with a majority of large outside shareholders, with a mean (median) of 1.1% (Table 1, Panel B). This level of managerial ownership is comparable to those found in the studies by Barnhart and Rosenstein (1998) and Core et al. (1999), which found slightly higher levels in the US, with managerial ownership at mean (median) of 2.2% (0%) and 1.5% (0.0%), respectively.

The CCOMPt variable captures the relative importance of CEO performance-contingent compensation. This variable is normally distributed with a mean (median) value of 36.4% (36.5%). Analysis of the percentiles for this variable indicates that almost 17% of our sample observations have values equal (or close) to 0. This means that CEO compensation packages do not include, or have an insignificant proportion of, performance-contingent components for approximately 20% of the sample. Although not reported, note that the average cash bonus in this sample is 28%, while the value of stock options is on average 19% of the CEO's total compensation for the same period.[19] Table 1, Panel B shows no significant difference (t-test = 0.792) in the variable CCOMPt between the two large shareholder sub-samples. The CROSSt variable indicates that 26.6% of firm-year observations, or 35 firms, are cross-listed in the US (20 in the large outside shareholder group and 15 in the large inside shareholder group). The SIZEt variable for the full sample is normally distributed with a mean (median) of 12.47 (12.42). Since the measure of firm performance (Qt+1) is also a function of the firm's total assets, SIZEt is expected to be negatively associated with the Qt+1 ratio. The variable DEBTt is also normally distributed, with a mean (median) of 43.8% (44.9%). As shown in Table 1, Panel B, there are no significant differences in SIZEt among the subgroups, although the large inside shareholder group is more highly indebted DEBTt) than the large outside shareholder group.

Insert Table 2, Panels A and B here

Table 2 compares sub-groups within firms with a majority of large inside (Panel A) and outside (Pa-

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[19] This result is similar to that of Magnan et al. (1999), which documents CEO average annual bonus at 31% and stock options at 25% of total compensation during 1994-1996 for the 100 largest Canadian firms.

nel B) shareholder sub-samples. Panel A contrasts large inside shareholdings in the absence of another large outside shareholder (136 of 219, or 62.1% of large inside shareholder observations, and 33.8% of the full sample) with large inside shareholdings in the presence of a large outside shareholder in the ownership structure (83 of 219, or 37.9% of large inside shareholder observations, and 20.6% of the full sample). It should also be noted that the majority of large inside shareholder firms are owned by individuals or families. The only significant difference between these two groups beyond the presence of a large outside shareholder is sole control of the firm by a large family shareholder in 40.4% percent of cases, compared to 22.9% percent when family-owned firms have a large outside shareholder.

Table 2, Panel B breaks down the majority of large outside shareholder sub-sample (183 observations) based on the identity of the largest outside shareholder: financial (96 of 183, or 52.6% of large outside shareholders, and 23.9% of the full sample) versus industrial (87 of 183, or 47.5% of large outside shareholders, and 21.6% of the full sample). These two sub-groups differ significantly. Firms with an industrial largest shareholder outperform the financial firms. Firms with an industrial largest shareholder are also larger and have fewer outsiders on the board, greater CEO contingent compensation, and less CEO duality. Table 3 presents the mean values of the Qt+1 ratio by different levels of large shareholdings for the full sample and for the sub-samples of firms with a majority of large inside and outside shareholders. Table 3 shows a decreasing and monotonic association between Qt+1 and the different levels of large shareholdings. Empirical evidence based on US samples documents a positive performance effect of large shareholders, suggesting that the presence of large shareholders increases the monitoring of managerial decision-making. In the US, however, large shareholder ownership, along with the presence of families, founders, and management among these large shareholders, is much lower than in Canadian public firms (Bushee, 1999). A decreasing and monotonic association between Qt+1 and large shareholding is also observed in the sub-sample of firms with a majority of large outside shareholders, while a curvilinear association is observed in the sub-sample of firms with a majority of large inside shareholders. In this last sub-sample, firm performance appears to increase when total large inside shareholdings reach fifty percent, or ownership control level.

Insert Table 3 here

Table 4, Panel A presents the Pearson correlation coefficients among the main variables investigated for the full sample. The proportion of ownership by large shareholders, LSHt, is negatively correlated with the measure of firm's future performance Qt+1. Surprisingly, the correlation between firm's future performance and large shareholdings is not statistically significant, for either large insider or large outsider shareholdings. As expected, Qt+1 is positively correlated with the proportion of outsiders on the board (OUTt), cross-traded firms (CROSSt), and the relative importance of CEO performance-contingent compensation (CCOMPt). Also as expected, firm future performance is negatively correlated with firm SIZEt and DEBTt. Table 4, Panel A documents a negative correlation between large inside shareholdings (LSH_inst) and the proportion of outside directors on the board (OUTt). However, this correlation is positive for large outside shareholdings (LSH_outt).

As expected, Table 4, Panel A documents a negative correlation of proportion of outside directors (OUTt) to duality, presence of a controlling shareholder, and CEO ownership. Finally, the dummy variable CROSSt is positively correlated with the relative importance of CEO performance-contingent compensation and firm size, and negatively correlated with firm's level of debt financing. Overall, these univariate results are consistent with empirical evidence in the prior governance literature (e.g., Agrawal and Knoeber, 1996; Barnhart and Rosenstein, 1998). Table 4, Panels B and C present the Pearson correlations for sample variables within the two subsamples of large shareholders. Surprisingly, the correlation between large shareholdings and firm future performance is not significant among the sub-sample of firms with a majority of inside large shareholders. Contrary to expectation, large shareholdings are negatively correlated with firm performance in the sub-sample of firms with a majority of large outside shareholders. The positive correlation between the proportion of outside directors (OUTt) and firm performance (Qt+1) remains significant only for the sub-sample of firms with a majority of large outside shareholders (LSH_outt). As expected, CEO ownership is positively correlated with firm performance and negatively correlated with large shareholdings in the sub-sample of firms with a majority of large outside shareholders (Table 4, Panel C). These results seem to support my argument that the performance effect of large shareholders may depend on their identity and closeness to management.

Insert Table 4, Panels A and B here

Regression analysis

Similar to numerous governance studies (e.g., Claessens et al., 2002; Maury and Pajuste, 2004; Klein et al.; 2004), I estimated the following multivariate regression model:

$Qit+1 = \alpha + \beta1LSH\_insit + \beta2LSH\_outit + \beta3CEOSHit + \beta4CONTRit + \beta5OUTit + \beta6DUALITYit + \beta7CCOMPit + \beta8CROSSit + \beta9DEBTit + \beta10SIZEit + Year\ dummies (Y97, Y98)^{20} + Industry\ dummies (IND1\ to\ IND4)^{21} + \varepsilon$

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[20] As discussed previously, the data used contains firm governance information for three consecutive fiscal years (1997, 1998, and 1999). Two dummy variables, with values of 1 or 0, were created to determine whether governance information relates to fiscal years 1997 and 1998.

where the subscript i = 1, …159 identifies individual firms, t = 1997, 1998 and 1999 denotes time periods, and
Qit+1 =firm i's Q ratio in year t+1
LSH_insit = percentage of outstanding shares held by firm i's large inside shareholders in year t
LSH_outit = percentage of outstanding shares held by firm i's large outside shareholders in year t
CEOSHit = firm i's level of CEO ownership in year t
CONTRit = dummy equals 1 if firm i has a controlling shareholder in year t
OUTt = firm i's percentage of independent board directors in year t
DUALITYit = dummy equals 1 if firm i's CEO and Chairman are the same person in year t
CCOMPit = firm i's relative importance of CEO performance-contingent compensation (total bonus and options/total compensation) in year t
CROSSit = dummy equals 1 if firm i's shares are cross-traded in year t
DEBTit = firm i's indebtedness in year t
SIZEit = firm i's log of total assets in year t

In order to test the proposed hypotheses, I estimated a panel regression model[22] using the General Least Square (GLS) method, with appropriate control for random effects. In a cross-sectional time-series sample such as this study data set, the Ordinary Least Square (OLS) assumption that all observations are independent can lead to misspecification due to serial correlation of the error terms for observations from the same firm (Baltagi, 2001). The pooled GLS technique, however, allows for cross-sectional heteroscedasticity and serial correlation, while the random-effects estimator is the weighted average effect of omitted variables that may be constant over the sampled firms. Although not reported here, I also estimated the year-by-year regression model using OLS and the pooled sample using clustered OLS. Overall, the results are very similar to the GLS estimation with random effects. Finally, I performed a Hausman test to evaluate whether fixed effects estimators would be more efficient than random effects estimators. The result of the Hausman test ($\chi^2 = 5.42$) leads to the conclusion that the GLS random estimation is as efficient as a fixed effects estimation.

Insert Table 5 here

Table 5 presents the GLS results for the regression model, which examines the main effects of large shareholdings along with other governance attributes on firm performance. In Equation (1), I examine the associations using the full sample, and do not distinguish whether the firm's large shareholdings are owned by inside or outside shareholders. In Equations (2), (3) and (4), I examine the proposed associations by looking at firms with a majority of inside large shareholders while distinguishing between inside shareholding with and without the presence of an outside large shareholder in the ownership structure. In equations (5), (6) and (7), I examine the proposed associations by looking at firms with a majority of large outside shareholders while distinguishing between financial and industrial largest shareholder. In all these analyses, the model controls for other internal mechanisms in the firm's governance structure, and proves to have significant predictive power, with adjusted r-squares ranging from 0.15 to 0.46. This compares very favorably with other governance studies, which generally explain from 5% to 10% of the performance variance.

The estimated coefficients reported in Table 5 Equation (1) document that ownership concentration, as measured by overall ownership of large shareholders, including both inside and outside shareholdings, is negatively associated with firm performance.[23] This suggests that large shareholdings tend to be harmful to firm performance in this sample of Canadian publicly-traded firms. This negative association contrasts with evidence found using a US sample (e.g. Shleifer and Vishny, 1997), and may be explained by higher levels of large shareholdings and the presence of multiple large shareholders in the ownership structures in this Canadian sample. This result is consistent, however, with the agency cost of private ownership proposed by Schulze et al. (2001), which suggests that large shareholdings compromise the efficiency of market forces as external governance mechanisms and negatively impact firm performance. In equations (2) and (5) I segment the sample and estimate the model for firms with a majority of large inside and outside shareholders, respectively. In Equation (2), the proportion of ownership by large shareholders is not significant for either large inside (LSH_ins$_t$) or outside (LSH_out$_t$) shareholder categories. Similarly, in Equation (5), the proportion of ownership by large outside shareholders is not significantly associated with firm performance. However, support for hypothesis (1) is found when the sub-sample of firms with a majority of large inside shareholders is segmented into two sub-groups: with and without large outside shareholders – Equations (3) and (4), respectively.

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[21] According to the firms' primary two-digit SIC codes, and following Standard & Poor's Economic Sector classification, the firms included in my final sample were reclassified into six separate economic sectors: (1) Primary, (2) Manufacturing (non-durable), (3) Manufacturing (durable), (4) Transportation and utilities, (5) Wholesales and retailers, and (6) Consumer service. A dummy variable, with values of 1 and 0, was created for each of the first five economic sectors mentioned above.

[22] See, Baltagi (2001) for more details on population models that explicitly contain time- and individual-constant unobserved effects. Before performing the regression analyses, I conducted certain diagnostic tests to improve model specification and better interpret further OLS or GSLS estimates. I also performed the Breusch-Pagan (B-P-G) and Goldfeld-Quandttest tests for the null hypothesis of equal error variance in the sample (Homoscedasticity) and the Chow test for structural change.

[23] The particular interest of this study is the distinction between large inside and outside shareholders, but to provide a further contrast to the previous literature, I also present the results (Equation 1) with a variable measuring the firms' total large shareholdings.

Interestingly, in Equation (3), the coefficient of large inside shareholdings is negative and significant, while in Equation (4), neither of the large shareholdings coefficients (LSH_ins_t and LSH_out_t) is significantly associated to firm performance. More precisely, Equation (3) in Table 5 indicates that when firms are exclusively controlled by large inside shareholders, a 1% increase in the ownership by insiders leads to an average 2% decrease in firm performance, as measured by firm's Q ratio. Contrastingly, Equation (4) suggests that large inside shareholdings do not have the same performance impact when in the presence of an outside shareholder with a significant interest in the firm. Although these results do not provide direct support for hypothesis (1), the contrast between Equations (2), (3), and (4) corroborates this study's argument that the impact of large shareholdings on firm performance varies by closeness to firm management. The results suggests that ownership concentrated in the hands of large inside shareholders tends to be perceived by the market as entrenched shareholding, and therefore better able to extract value to the detriment of the firm's value to minority shareholders. This is consistent with the evidence found in the studies by Morck et al. (1988) and Claessens et al. (2002). Further, the results contribute to the evidence provided by the study by Maury and Pajuste (2004) on the coalition and performance impact of large family and institutional shareholders. In sum, I interpret these results as evidence that the controlling coalition and negative performance effect of large inside shareholders is mitigated when in the presence of monitoring by outside large shareholders.

In contrast to hypothesis (2), the results in Table 5 suggest that voting control in the hands of a single shareholder is negatively associated to firm performance only in firms with a majority of large outside shareholders in this Canadian sample. More precisely, the coefficient estimated for the variable measuring voting concentration ($CONTROL_{it}$) in Equations (2), (3), and (4) is not significantly associated to firm performance. However, this coefficient is negative and statistically significant at 90% levels in Equations (5) and (7). Although not reported here, I also estimated equations (2) and (5), making a distinction between the presence of inside and outside controlling large shareholders, with similar results. As such, I interpret the null effect of controlling shareholders on firm performance among firms with a majority of large inside shareholders as evidence that entrenchment and/or voting power concentration is already captured by the variables measuring large inside shareholdings. This is apparently the case for the sub-sample of large inside shareholders (Equation 2), since firms with large individual and family shareholdings very often have a single shareholder with direct or indirect voting control. Moreover, the existence of non-voting or subordinate voting shares is greater in the sub-sample of firms with a majority of large inside shareholders than in the sub-sample of firms with a majority of large outside shareholders. As such, contrasting to hypothesis 2, the lack of association between the variables $CONTROL_{it}$ and Q_{t+1} seems to indicate that the penalty applied to the voting control of large inside shareholders is marginal when compared to firms with a majority of large outside shareholders. Apparently, the market does not discriminate between voting control and ownership concentration in owner-managed firms.

Given that the presence of multiple large shareholders is common in the ownership structure of this Canadian sample, the lack of support for hypothesis 2 may also be interpreted as evidence that voting concentration in the hands of a single shareholder among multiple large inside shareholders may not have the same negative performance impact as it does in a less concentrated ownership structure, such as in the US and the UK. On the other hand, as documented in Table 5, Equation 5, firms with a majority of large outside shareholders are apparently penalized for having a single controlling shareholder in the ownership structure. Nevertheless, the contrast between Equations (6) and (7) suggests that this result is driven by firms with an industrial shareholder as largest shareholder. This difference may be explained by the view that the fiduciary responsibilities of financial institutions make them closer monitors, which may in turn reduce the negative performance impact of voting control.

Along this line of reasoning, hypothesis 3 investigates whether the identity of the largest shareholder affects the association between ownership concentration and firm performance. In order to investigate this hypothesis, I segmented the sub-sample of firms with a majority of large outside shareholders into two complementary sub-groups: firms with a financial institution and firms with an industrial as the largest shareholder in the ownership structure – Equations (6) and (7) respectively. These two categories can be contrasted with Equation (3), which was estimated with firms having individuals and families as the largest shareholder. As discussed earlier, the coefficient of large shareholdings in Equation (3) is negative and statistically significant at 95% level, while these coefficients are not statistically significant (or different) in Equations (6) and (7). Thus, the results document a performance difference between the categories of individual/family and institutional largest shareholder, but no significant difference between the two categories of institutional shareholders, financial and industrial. Although these results may be driven by the limited number of observations in each largest outside shareholder category, the results are similar to the comparison between the performance impact of large inside and outside shareholders. As such, I interpret the results in Equations (3), (6), and (7) as providing no support for hypothesis 3. Apparently, the identity of large shareholders has no effect on the performance impact of either large inside or outside shareholders.

A further contrast among the equations reported in Table 5 provides some interesting results regarding the performance impact of other governance attributes. CEO ownership, for example, has a positive performance impact within the industrial largest shareholder category, while this effect seems to be negative within firms with a financial institution as largest shareholder, and it is not statistically significant within firms with an individual or family as largest shareholder. The relative importance of CEO's performance-contingent compensation and the firm's stock being traded on another stock exchange yield a significant positive association with our measure of firm performance, but only for firms with a majority of large inside shareholders. This mechanism probably plays a counterbalancing effect in closely held firms. A practical implication of this result is that large inside shareholders hoping to reduce agency costs should strengthen alternative governance mechanisms such as those provided by performance-contingent compensation.

Surprisingly, the conventional agency wisdom on the positive performance effect of outside directors is not supported by the results reported in Table 5. This may be interpreted as support for the argument that independent directors may be ineffective monitors when serving on boards dominated by large shareholders. First, despite their impartial status and ability to offer advice on certain decisions, independent directors may have little influence on decisions involving family members or other large inside shareholder matters. Second, large inside shareholders tend to appoint to their boards outside directors who are close friends and/or happen to have a fiduciary relationship with the firm, which may compromise the directors' independence and monitoring efforts.[24] Finally, firm's level of debt financing is negatively associated with performance only in firms with a majority of large outside shareholders, confirming the expected greater use of debt financing by this sub-group. As expected, firm's size is, in general, negatively associated with the measure of firm performance.[25]

5. Discussion and conclusions

This study provides evidence of the associations between ownership concentration and firm performance, while distinguishing between the presence of large inside and outside shareholders in the firm's ownership structure. I focused on Canadian public firms with large shareholders because the presence of multiple large shareholders as well as family owners is greater in Canada than in countries with similar levels of legal protection for investors, such as the US and the UK. The empirical results provide seve-

ral contributions to the literature of ownership concentration in publicly-traded firms. The results for the performance effect of ownership concentration contradict the prior governance literature, which suggests that the presence of large shareholders enhances firm performance by closely monitoring management actions and influencing management decisions to the benefit of all shareholders. The evidence documented in this study suggests the contrary. In this sample of closely held Canadian public firms, large inside shareholdings tend to be negatively associated to firm performance, while no association is found in firms with a majority of large outside shareholdings in their ownership structure. Consistent with the entrenchment perspective, I interpret the results as evidence that firm performance of closely held firms tends to be negatively affected when the presence of large inside shareholders, supported by officers and directors appointed by the dominant shareholder, threatens to capture private benefits to the detriment of residual owners. In addition, given the greater proportion of family owners among the large inside and outside shareholders in this Canadian sample of public firms, the results support the argument that conflicts of interest, combined with the effects of external market failures, threaten market performance in this type of privately held firm. The evidence seems to support the argument that owner management in closely held firms is not the governance panacea that agency theory assumes it to be (Schulze et al., 2001).

As to the distinction between large inside and outside shareholders, this study also investigates whether concentrated voting power in the hands of a single shareholder is associated to firm performance, and whether the identity of the owner affects this association. Concentrated voting power is negatively associated to firm performance only in firms with a majority of large outside shareholders. This could be because, relative to firms without a single controlling shareholder, voting rights by outsiders may represent a coalition between management and shareholders designed to efficiently divert profit to themselves. The results regarding the identity of the owners are not conclusive, but apparently a different performance impact exists between family and institutional large shareholders. Although I believe this study represents an important first step in the examination of the association between ownership concentration and firm performance, while distinguishing between inside and outside large shareholdings, it is important to point out the limitations inherent in this empirical investigation. I assume that large shareholders not directly participating in the firm's management are outsiders, and therefore independent monitors of management decision-making. Thus, a caveat should be noted, since an outside shareholder may have a certain amount of influence in the management through the appointment of managers and participation on the board of directors. Also, given the use of non-voting shares and the presence of multiple large

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[24] See for example the studies by Zeckhauser and Pound (1990) and Barnhart and Rosenstein (1998).

[25] For instance, sensitivity analysis shows that debt financing is negatively associated to firm performance only within the subgroup of firms with diffuse ownership and a majority of large outside shareholders.

shareholders in the ownership structure of this Canadian sample, further research might consider refining the classification of large inside and outside shareholders to take into account the different voting rights and fiduciary duties of large shareholders in the ownership structure. Finally, a number of important empirical issues undoubtedly remain to be investigated regarding the potential cost of large shareholders. One interesting extension of this study would be to examine the sensitivity of the firm's performance-contingent payouts to firm performance, while distinguishing between inside and outside control. This may provide some answers to the question of whether entrenched insiders use performance compensation packages to extract non-justified pecuniary benefits.

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Appendices

Table 1 Panel A Descriptive Statistics for a sample of Canadian firms with Large Shareholders from 1997-1999

Variables	N	Mean	Median	Std. Deviation	Minimum	Maximum
Q_{t+1}	402	1.341	0.844	1.394	0.033	8.588
LSH_t	402	0.503	0.517	0.247	0.090	0.988
LSH_out_t	402	0.264	0.154	0.283	0.097	0.970
LSH_ins_t	402	0.240	0.121	0.278	0.097	0.937
OUT_t	402	0.648	0.667	0.181	0.200	1.000
$DUALITY_t$	402	0.420	0.000	0.494	0.000	1.000
$CONTR_t$	402	0.343	0.000	0.475	0.000	1.000
$CEOSH_t$	402	0.008	0.000	0.018	0.000	0.089
$CROSS_t$	402	0.266	0.000	0.443	0.000	1.000
$CCOMP_t$	402	0.364	0.365	0.258	0.000	0.954
$SIZE_t$	402	12.470	12.425	1.699	7.012	17.301
$DEBT_t$	402	0.438	0.449	0.180	0.013	0.799

Panel B. Means and mean difference between the sub-samples of Canadian firms with a majority of large inside shareholders and a majority of large outside shareholders

	Sub-sample of firms with a majority of large INSIDE shareholders			Sub-sample of firms with a majority of large OUTSIDE shareholders			Mean difference between firms with a majority of large INSIDE and OUTSIDE shareholders	
Variables	N	Means	Std-Deviation	N	Means	Std-Deviation	*t*- statistic	*p*- value
Q_{it+1}	219	1.235	1.122	183	1.468	1.657	1.676	0.094
LSH_t	219	0.524	0.229	183	0.477	0.264	1.907	0.057
LSH_out_t	219	0.087	0.146	183	0.475	0.261	18.804	0.000
LSH_ins_t	219	0.440	0.231	183	-	-	-	-
OUT_{it}	219	0.595	0.178	183	0.711	0.164	6.710	0.000
$CEOSH_{it}$	-	-	-	183	0.011	0.021	-	-
$CCOMP_{it}$	219	0.355	0.265	183	0.375	0.250	0.792	0.428
$DEBT_{it}$	219	0.474	0.183	183	0.395	0.166	-4.472	0.000
$SIZE_{it}$	219	12.471	1.706	183	12.468	1.694	-0.016	0.987
							z- statistic	*p*- value
$DUALITY_{it}$	219	0.562	0.497	183	0.251	0.435	-6.276	0.000
$CONTR_{it}$	219	0.338	0.474	183	0.350	0.478	0.249	0.804
$CROSS_{it}$	219	0.242	0.429	183	0.295	0.457	1.199	0.230

Q_{it+1} = firm i's Q ratio in year t+1; LSH_{it} = percentage of outstanding shares held by large shareholders of firm i in year t; LSH_out_{it} = percentage of outstanding shares held by large outside shareholders of firm i in year t; LSH_ins_{it} = percentage of outstanding shares held by large inside shareholders of firm i in year t; OUT_t = firm i's percentage of independent directors on the board in year t; $DUALITY_{it}$ = dummy equals 1 if firm i's CEO and Chairman are the same person in year t; $CONTR_t$ = dummy equals 1 if firm i has a controlling shareholder in year t; $CEOSH_t$ = firm i's level of CEO ownership in year t; $CROSS_t$ = dummy equals 1 if firm i's share is cross-traded in year t; $CCOMP_t$ = firm i's relative importance of CEO's performance-contingent compensation in year t; $SIZE_t$ = firm i's log of total assets in year t; $DEBT_t$ = firm i's indebtedness in year t.

Table 2.

Panel A. Canadian firms with a majority of large inside shareholders: Sample means and tests of difference between the sub-group of firms having only large inside shareholders and the sub-group of firms combining large inside and outside shareholders

Variables	Firms with only large inside shareholders			Firms with large inside and outside shareholders			Mean difference between the two sub-groups	
	N	Means	Std-Deviation	N	Means	Std-Deviation	*t*- statistic	*p*- value
Q_{t+1}	136	1.261	1.134	83	1.192	1.107	-0.441	0.659
LSH_t	136	0.504	0.227	83	0.557	0.231	1.659	0.098
LSH_out_t	136	-	-	83	0.229	0.155	-	-
LSH_ins_t	136	0.506	0.219	83	0.331	0.209	5.836	0.000
OUT_t	136	0.594	0.192	83	0.598	0.154	0.200	0.842
$CCOMP_t$	136	0.366	0.268	83	0.337	0.260	-0.770	0.442
$DEBT_t$	136	0.480	0.183	83	0.465	0.185	-0.561	0.576
$SIZE_t$	136	12.596	1.809	83	12.265	1.510	-1.396	0.164
							z- statistic	*p*- value
$DUALITY_t$	136	0.551	0.499	83	0.578	0.497	0.388	0.698
$CONTR_t$	136	0.404	0.493	83	0.229	0.423	-2.664	0.007
$CROSS_t$	136	0.279	0.450	83	0.181	0.387	-1.654	0.098

Panel B. Canadian firms with a majority of large outside shareholders: Sample means and tests of difference between the sub-group of firms having a financial institution as largest outside shareholder and the sub-group of firms having an industrial as largest outside shareholder

Variables	Firms with Financial Institution as largest shareholder			Firms with Industrial as largest shareholder			Mean difference between the two sub-groups	
	N	Means	Std-Deviation	N	Means	Std-Deviation	*t*- statistic	*p*- value
Q_{t+1}	96	1.247	1.329	87	1.712	1.935	1.909	0.058
LSH_t	96	0.484	0.286	87	0.469	0.238	0.361	0.718
LSH_out_t	96	0.484	0.286	87	0.469	0.238	0.361	0.718
OUT_t	96	0.741	0.154	87	0.677	0.169	-2.681	0.008
$CEOSH_t$	96	0.012	0.022	87	0.010	0.019	-0.476	0.634
$CCOMP_t$	96	0.329	0.261	87	0.426	0.229	2.664	0.008
$DEBT_t$	96	0.382	0.165	87	0.410	0.167	1.138	0.256
$SIZE_t$	96	12.128	1.626	87	12.844	1.698	2.912	0.004
							z- statistic	*p*- value
$DUALITY_t$	96	0.302	0.462	87	0.195	0.399	-1.661	0.097
$CONTR_t$	96	0.312	0.466	87	0.391	0.491	1.109	0.267
$CROSS_t$	96	0.323	0.470	87	0.264	0.444	-0.867	0.386

Q_{it+1} = firm i's Q ratio in year t+1; LSH_{it} = percentage of outstanding shares held by large shareholders of firm i in year t; LSH_out_{it} = percentage of outstanding shares held by large outside shareholders of firm i in year t; LSH_ins_{it} = percentage of outstanding shares held by large inside shareholders of firm i in year t; OUT_t = firm i's percentage of independent directors on the board in year t; $CEOSH_t$ = firm i's level of CEO ownership in year t; $CCOMP_t$ = firm i's relative importance of CEO's performance-contingent compensation in year t; $DEBT_t$ = firm i's indebtedness in year t; $SIZE_t$ = firm i's log of total assets in year t; $DUALITY_{it}$ = dummy equals 1 if firm i's CEO and Chairman are the same person in year t; $CONTR_t$ = dummy equals 1 if firm i has a controlling shareholder in year t;; $CROSS_t$ = dummy equals 1 if firm i's share is cross-traded in year t.

Table 3. Q ratio by different levels of large shareholdings

Level of Large Shareholdings	Q_{it+1} Ratio					
	Full sample (LSH_t)		Sub-sample of firms with a majority of			
			Large outside shareholders (LSH_out_t)		Large inside shareholders (LSH_ins_t)	
	N		N		N	
10-30%	107	1.837	58	1.883	78	1.519
30-50%	88	1.197	34	1.661	50	0.884
>50%	207	1.152	91	1.132	91	1.184
Total N	402		183		219	

LSH_{it} = percentage of outstanding shares held by large shareholders of firm i in year t; LSH_out_{it} = percentage of outstanding shares held by large outside shareholders of firm i in year t; LSH_ins_{it} = percentage of outstanding shares held by large inside shareholders of firm i in year t.

Table 4 - Pearson Correlation Matrix Panel A – Full sample (N=402)

	Q_{t+1}	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. LSH$_t$	-0.173 ***										
	0.001										
2. LSH_ins$_t$	-0.077	0.396 ***									
	0.124	0.000									
3. LSH_out$_t$	-0.078	0.454 ***	-0.626 ***								
	0.117	0.000	0.000								
4. OUT$_t$	0.105 **	-0.255 ***	-0.315 ***	0.089 *							
	0.035	0.000	0.000	0.074							
5. DUALITY$_t$	-0.136 ***	0.068	0.275 ***	-0.198 ***	-0.101 **						
	0.006	0.177	0.000	0.000	0.043						
6. CONTR$_t$	-0.039	0.658 ***	0.301 ***	0.276 ***	-0.135 ***	-0.021					
	0.437	0.000	0.000	0.000	0.007	0.669					
7. CEOSH$_t$	0.079	-0.091 *	-0.108 **	0.027	-0.114 **	0.027	-0.024				
	0.116	0.069	0.031	0.962	0.023	0.594	0.630				
8. CROSS$_t$	0.195 ***	0.018	0.039	-0.031	0.070	-0.045	0.003	0.100 **			
	0.000	0.716	0.439	0.538	0.160	0.364	0.949	0.046			
9. CCOMP$_t$	0.169 ***	-0.056	-0.005	-0.058	0.068	-0.019	0.001	0.057	0.107 **		
	0.001	0.259	0.918	0.244	0.173	0.712	0.992	0.259	0.033		
10, SIZE$_t$	-0.119 **	0.153 ***	0.124 **	0.004	0.089 *	-0.036	0.227 ***	-0.204 ***	0.179 ***	0.367 ***	
	0.017	0.002	0.013	0.934	0.073	0.472	0.000	0.000	0.000	0.000	
11. DEBT$_t$	-0.303 ***	0.101 **	0.192 ***	-0.089 *	-0.091 *	0.100 **	0.032	-0.119 **	-0.164 ***	-0.071	0.317 ***
	0.000	0.043	0.000	0.074	0.068	0.045	0.517	0.017	0.001	0.154	0.000

Table 4 - Pearson Correlation Matrix, continued
Panel B – Sub-sample of firms with a majority of large inside shareholders (N = 219)

	Q_{t+1}	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. LSH$_t$	-0.054										
	0.424										
2. LSH_ins$_t$	-0.030	0.762 ***									
	0.658	0.000									
3. LSH_out$_t$	-0.054	0.273 ***	-0.364 ***								
	0.429	0.000	0.000								
4. OUT$_t$	-0.005	-0.087	-0.143 **	0.096							
	0.945	0.202	0.034	0.156							
5. DUALITY$_t$	-0.144 **	0.101	0.061	0.110	-0.045						
	0.034	0.136	0.372	0.105	0.504						
6. CONTR$_t$	0.045	0.667 ***	0.688 ***	-0.034	-0.037	-0.011					
	0.504	0.000	0.000	0.619	0.586	0.872					
7. CEOSH$_t$	-0.028	0.052	0.014	-0.027	-0.274 ***	-0.082	0.062				
	0.684	0.443	0.833	0.692	0.000	0.225	0.358				
8. CROSS$_t$	0.288 ***	0.163 **	0.196 ***	-0.090	-0.012	0.048	0.205 ***	0.231 ***			
	0.000	0.016	0.004	0.183	0.862	0.480	0.002	0.001			
9. CCOMP$_t$	0.124 *	0.079	0.056	-0.009	0.026	-0.063	0.132 *	0.133 **	0.152 **		
	0.068	0.246	0.407	0.901	0.706	0.356	0.050	0.049	0.025		
10, SIZE$_t$	-0.119 *	0.257 ***	0.271 ***	-0.055	0.063	0.001	0.321 ***	-0.098	0.208 ***	0.327 ***	
	0.080	0.000	0.000	0.420	0.357	0.986	0.000	0.151	0.002	0.000	
11. DEBT$_t$	-0.199 ***	-0.003	0.044	-0.035	-0.019	-0.001	-0.019	-0.101	-0.089	-0.137 **	0.292 ***
	0.003	0.971	0.522	0.610	0.780	0.994	0.776	0.135	0.190	0.043	0.000

Table 4 - Pearson Correlation Matrix, continued Panel C – Sub-sample of firms with a majority of large outside shareholders (N = 183)

	Q_{t+1}	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. LSH$_t$	-0.247 ***										
	0.001										
2. LSH_ins$_t$	.	.	.								
3. LSH_out$_t$	-0.248 ***	1.000 ***	.								
	0.001	0.000									
4. OUT$_t$	0.165 **	-0.412 ***	.	-0.412 ***							
	0.026	0.000		0.000							
5. DUALITY$_t$	-0.099	-0.032	.	-0.032	0.063						
	0.182	0.668		0.668	0.397						
6. CONTR$_t$	-0.110	0.660 ***	.	0.660 ***	-0.288 ***	-0.029					
	0.138	0.000		0.000	0.000	0.700					
7. CEOSH$_t$	0.127 *	-0.184 **	.	-0.184 **	-0.070	0.247 ***	-0.108				
	0.086	0.013		0.013	0.348	0.001	0.146				
8. CROSS$_t$	0.121	-0.112	.	-0.112	0.135 *	-0.126 *	-0.223 ***	-0.027			
	0.102	0.131		0.131	0.069	0.088	0.002	0.713			
9. CCOMP$_t$	0.211 ***	-0.199 ***	.	-0.199 ***	0.104	0.075	-0.166 **	-0.028	0.049		
	0.004	0.007		0.007	0.163	0.313	0.024	0.711	0.509		
10, SIZE$_t$	-0.124 *	0.045	.	0.045	0.137 *	-0.093	0.116	-0.311 ***	0.148 **	0.419 ***	
	0.094	0.544		0.544	0.065	0.212	0.119	0.000	0.046	0.000	
11. DEBT$_t$	-0.394 ***	0.182 **	.	0.182 **	-0.030	0.088	0.109	-0.083	-0.238 ***	0.038	0.368 ***
	0.000	0.014		0.014	0.688	0.239	0.143	0.267	0.001	0.614	0.000

Q_{it+1} = firm i's Q ratio in year t+1; LSH_{it} = percentage of outstanding shares held by large shareholders of firm i in year t; LSH_out_{it} = percentage of outstanding shares held by large outside shareholders of firm i in year t; LSH_ins_{it} = percentage of outstanding shares held by large inside shareholders of firm i in year t; OUT_t = firm i's percentage of independent directors on the board in year t; $DUALITY_{it}$ = dummy equals 1 if firm i's CEO and Chairman are the same person in year t; $CONTR_t$ = dummy equals 1 if firm i has a controlling shareholder in year t; $CEOSH_t$ = firm i's level of CEO ownership in year t; $CROSS_t$ = dummy equals 1 if firm i's share is cross-traded in year t; $CCOMP_t$ = firm i's relative importance of CEO's performance-contingent compensation in year t; $SIZE_t$ = firm i's log of total assets in year t; $DEBT_t$ = firm i's indebtedness in year t

Table 5. GLS Regressions on the association between firm performance (Q_{t+1}) and large shareholdings for a sample of Canadian firms over the period 1997-1999

Independent Variables	(1) Full Sample	(2) Firms with a majority of large inside shareholders	(3) Firms with only large inside shareholders	(4) Firms with large inside and outside shareholders	(5) Firms with a majority of large outside shareholders	(6) Firms with financial institution as largest shareholder	(7) Firms with industrial as largest shareholder
LSH$_t$	-0.708 **						
	(2.09)						
LSH_ins$_t$		-0.669	-1.852 **	1.577			
		(1.14)	(2.32)	(1.62)			
LSH_out$_t$		-0.257		0.265	-0.141	0.117	-0.758
		(0.46)		(0.31)	(0.24)	(0.18)	(0.60)
CEOSH$_t$					20.569 *	-6.679	25.405 *
					(1.85)	(0.850	(1.70)
CEOSH$_t$*FIN					-29.927 **		
					(1.98)		
LSH_out$_t$*FIN					0.121		
					(0.48)		
CONTR$_t$	0.000	0.349	0.353	0.221	-0.511 *	0.049	-0.849 *
	(0.00)	(1.52)	(1.12)	(0.61)	(1.75)	(0.17)	(1.80)
OUT$_t$	0.256	0.171	-0.156	0.398	-0.045	0.597	-1.069
	(0.69)	(0.39)	(0.26)	(0.65)	(0.07)	(0.91)	(0.85)
DUALITY$_t$	-0.061	-0.199	-0.057	-0.379	0.259	-0.122	0.667 *
	(0.43)	(1.12)	(0.24)	(1.52)	(1.07)	(0.48)	(1.65)
CCOMP$_t$	0.360 *	0.505 *	0.110	0.685 *	0.175	-0.073	0.53
	(1.72)	(1.89)	(0.29)	(1.68)	(0.56)	(0.31)	(0.76)
CROSS$_t$	0.617 ***	0.774 ***	1.124 ***	0.518	0.200	-0.317	0.663
	(2.73)	(2.96)	(3.52)	(1.21)	(0.54)	(0.79)	(1.040
DEBT$_t$	-0.357	0.805 *	0.706	0.166	-2.731 ***	-2.312 ***	-3.554 **
	(0.97)	(1.91)	(1.24)	(0.26)	(4.18)	(4.35)	(2.50)
SIZE$_t$	-0.159 ***	-0.218 ***	-0.143 *	-0.233 **	0.007	-0.227 **	0.242
	(2.76)	(3.24)	(1.67)	(2.10)	(0.07)	(2.02)	(1.44)
			Year and industry dummies variables not reported				
Constant	3.02 ***	3.614 ***	3.11 ***	3.721 ***	1.321	3.492 **	2.324
	(4.08)	(4.35)	(2.84)	(2.88)	(0.97)	(2.40)	(0.87)
Number of observ.	402	219	136	83	183	96	87
N of id_cg	159	85	59	40	79	44	41
AdjR-Sq	0.153	0.157	0.217	0.395	0.239	0.321	0.456

* significant at the 10 percent level; ** significant at the 5 percent level; *** significant at the 1 percent level.

Table 5, continued

The regressions are performed using a random-effects specification in which all observations within a firm are collapsed into one observation. Numbers in parentheses are t-statistics. Dependent variable is Q_{it+1} = firm i's Q ratio in year t+1. Independent variables are; LSH_{it} = percentage of outstanding shares held by large shareholders of firm i in year t; LSH_ins_{it} = percentage of outstanding shares held by large inside shareholders of firm i in year t; LSH_out_{it} = percentage of outstanding shares held by large outside shareholders of firm i in year t; $CEOSH_t$ = firm i's level of CEO ownership in year t; $CEOSH_t$*FIN= firm i's level of CEO ownership in year t interacting with a dummy variable for firms with a financial institution as largest shareholder; LSH_out_{it}*FIN= percentage of outstanding shares held by large outside shareholders of firm i in year t interacting with a dummy variable for firms with a financial institution as largest shareholder; $CONTR_t$ = dummy equals 1 if firm i has a controlling shareholder in year t; OUT_t = firm i's percentage of independent directors on the board in year t; $DUALITY_{it}$ = dummy equals 1 if firm i's CEO and Chairman are the same person in year t; $CROSS_t$ = dummy equals 1 if firm i's share is cross-traded in year t; $CCOMP_t$ = firm i's relative importance of CEO's performance-contingent compensation in year t; $DEBT_t$ = firm i's indebtedness in year t; $SIZE_t$ = firm i's log of total assets in year t.