

Institutional Ownership and Firm Performance: Evidence From Canada

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Abstract

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This study examines the relationship between institutional ownership and firm performance using a sample of 567 Canadian firms in 2011. The focus on the Canadian firms provides additional insight towards the topic of institutional ownership as a remedial measure towards agency problems, since Canada has shared legal traditions with the United States, but has ownership concentration more comparable to levels in Western Europe and Asia. A distinguishing feature of this study's analysis involves the consideration of institutional investor by type as well as the inclusion of the number of such investors as a measure of ownership.

The effects of institutional ownership on performance measures Tobin's Q, Industry-Adjusted Tobin's Q, and Return on Assets are estimated using ordinary least squares (OLS) and two-stage least squares (2SLS) methodology, where the latter is employed to offset the endogeneity bias to which the OLS method is susceptible. Although several relationships emerged between institutional ownership levels and measures of Tobin's Q in the OLS regression, only a negative relationship between both the percentage and the number of insurance company investors, was observed to be significant once estimated simultaneously under the 2 SLS method. For all measures of performance, Hausman tests reveal that OLS results are biased in multiple instances; meaningful interpretation must rely on the 2 SLS results.

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1 Introduction

Corporate value is destroyed by agency problems and conflicts of interest between providers of capital and the firm's decision makers. With an increase in the level of institutional investment worldwide, its role within corporate governance has gained interest as a prospective mechanism to reduce agency costs.

This study examines the relation between institutional ownership and firm performance measured by Tobin's Q and return on assets (ROA) using a sample of 567 Canadian firms in 2011. In light of research on U.S. firms, which has produced mixed results, a Canadian study on this topic allows for further understanding of the role institutional investors play in reducing agency costs. The two countries differ substantially, in terms of corporate ownership structures, concentration of firms in Canada in the natural resources sector compared to the U.S., a great number of family firms in Canada and the prevalence of dual class share structures, although both countries share a legal tradition derived from English common-law (La Porta et al., 1997, La Porta et al., 1999). Corporate ownership in Canada is characteristically more concentrated than in the United States and is more in line with ownership structures observed in Western Europe and East Asia, where widely held firms account for approximately 20% of the population¹ (Claessens et al 2000, Faccio and Lang 2002, Attig and Gadhoum 2003).

Furthermore, a significant presence of family ownership among Canadian firms has attracted attention from observers concerned that such structures harbour nepotism to the detriment of economic development (Mork et al., 1998). Studies devoted to the

¹ Ownership concentration in the United States is generally observed to be dispersed with 50% -80% of firms widely held at the 10% threshold. (La Porta et al 1999) Gadhoum et al (2005) estimates the percentage of widely held firms to be 40% at the 10% threshold.

relationship between family ownership and firm performance have produced mixed results, but none of which show family ownership to be directly detrimental to firm value. King and Santor (2008) conclude that control enhancing mechanisms (dual class shares and pyramid structures) which are more common among family firms lower firm performance. However, Pukthuaunthong et al. (2012) observe such control enhancing mechanisms increase firm value. Furthermore, the authors find that large levels of family ownership only erode a value premium which is created by their presence.

This study employs cross-sectional regressions using ordinary least squares (OLS) and two-stage least squares (2 SLS) methodology. Hausman (1978) tests reject the null hypothesis that OLS results are unbiased for Q, Industry-Adjusted Q, and ROA.

Although institutional ownership as a general category is not significant in explaining any measure of performance in the 2 SLS model, insurance company ownership is significantly negative in explaining industry-adjusted Tobin's Q. This finding suggests that insurance companies add to agency problems due to their inability to monitor management which may result from auxiliary business ties (Brickley et al., 1988).

The remainder of this paper is organized as follows. Section 2 presents a review of the literature on multiple agency problems, as well as mechanisms to reduce such problems, specifically institutional investors as blockholders. Section 3 provides as description of the OLS and 2SLS methodologies. Section 4 introduces the data on which the analysis is conducted. Section 5 presents the results and interpretation. Section 6 concludes.

2 Literature Review

2.1 Agency Costs

In traditional microeconomic theory, efficient resource allocation is achieved through markets which provide a good until its marginal benefit equals its marginal cost. In practice, many economic decisions are made internally at the firm level, and do not involve market mechanisms directly (Coase, 1938). In such cases, the allocation of capital is determined by managers who often act as agents on behalf of the firm's owners. When a firm is not owner-managed, the manager does not bear the full economic consequences of his decisions, and is therefore not incentivized to equate the firm's marginal cost with marginal benefit. This is a manifestation of the classic principal-agent problem, in which the agent is able to extract wealth at the expense of the principal (Bearle and Means, 1932). The magnitude of this problem is inversely related to the effective equity stake a manager holds in the firm (Jensen and Meckling, 1976). The lower a manager's ownership interest in a firm, the greater is the incentive for the manager to engage in self-serving behaviour to the detriment of firm value, as he bears less of the costs. Since large corporations are not entirely owner-managed, agency relationships (and costs) have attracted much attention in the economic literature, particularly over the past four decades.

While some value-loss may be attributable to agency, establishing a principal-agent is a solution to a problem, where the principal is unable to act on his own behalf with the same efficacy as the hired agent (White, 1985). The agency problem, therefore exists on the margin independent of the value added from the agency relationship. The magnitude

of the agency problem is the difference in wealth to the principal between the existing principal-agent scenario and a hypothetical principal-agent scenario where the agent acted as if he were facing the entire consequences from his decisions which are actually borne by the principals (Jensen and Meckling, 1976). This conception of the agency problem implies that its costs will always be positive, regardless of the value initially added by the principal-agent relationship.

More generally, agency costs need not be limited to the relationship between managers and stockholders. Agency relationships exist at almost every level of an organization; where in one context a manager is an agent to the board of directors and the shareholders, he is also a principal to his subordinates. For an organization to maximize its value, it must overcome the agency problems which arise from a large network of competing interests (Shapiro, 2005). Furthermore, shareholders do not necessarily form a homogenous group. In the way that managers have an incentive to extract wealth from the firm, large shareholders have a similar motivation to do the same, as they do not bear the full costs of particular policies, but may bear a disproportional benefit to their own welfare (Shleifer and Vishny, 1997).

Villalonga and Amit (2006) consider agency costs in two categories based on potential conflicts between owners and managers (Agency Cost I), and conflicts among owners (Agency Cost II). This is a departure from the bulk of the literature which from the onset of the work of Bearle and Means (1932), has focused primarily on Agency Cost I, with the image of a widely held firm considered to be the prevalent form of corporate ownership structure. La Porta et al. (1999) find that outside of the United States and the United Kingdom, the widely held firm is much less ubiquitous, and that family owned

firms make up a substantial portion of the market, up to 50% of medium and 30% of large-sized companies in Canada in particular. Remediating agency problems in the Canadian context must therefore consider both the owner-manager, and the inter-owner conflicts of interest.

2.2 Agency Cost I: The Owner-Manager Conflict

The mechanisms assumed to mitigate the manager-owner conflict rely on reducing the manager's discretion, or in the case of executive compensation and insider shareholdings, provide economic incentives which are intended to align decisions with shareholder welfare. Manager discretion is limited by two broad categories: the threat of dismissal and the partial deprivation of discretion over funds. A CEO can be removed from office by the board of directors, elected by the shareholders. Outside directors, large block holders, including institutional investors, and a market for managerial labour theoretically constrain the behaviour of management resulting from their ability to select the CEO (Agrawal and Knoeber, 1996).

The reduction of free cash flow entrusted to management may diminish the agency problem, since fewer value destroying actions are possible (Jensen, 1986). This is achieved through dividend and debt policy, where the firm pledges to repay a specific amount to its stakeholders on an ongoing basis (Jensen, 1986, Grossman and Hart, 1982). In the case of debt, restrictions are stricter as a failure to repay will have legal ramifications, resulting in the loss of certain control rights from the borrowing firm to the lender, potentially forcing bankruptcy on the firm (Shleifer and Vishny, 1997). In addition, dividends and debt repayment policies are believed to lower agency costs due to

the higher scrutiny they attract from the capital markets (Rozeff, 1982, Easterbrook, 1984).

On the incentive side, measures may be taken to make the manager's personal wealth more sensitive to the firm's performance. This may be achieved through insider stock-ownership, stock options-based compensation, performance-based bonuses, and an explicit threat of dismissal if income is low (Jensen and Meckling, 1976, Fama, 1980). Under such schemes, a manager is less likely to engage in value destroying projects, since the private benefits to be reaped from such activities will be at least partially offset by a loss in performance-based compensation (Schleifer and Vishny, 1997).

The mechanisms intended to reduce agency costs are not without particular trade-offs. The incentive schemes described above, although specific and designed to mitigate the manager-owner conflict, are incomplete; they do not prescribe the manager's remuneration according to every variable, measurable and immeasurable, which determine performance. Since complete contracts are not feasible, agency problems will persist and may even be amplified through such a system (Schleifer and Vishny, 1997). Managers, instead of promoting stable growth, may "manipulate accounting numbers and investment policy to increase their pay" (Shleifer and Vishny, 1997, p. 745). This is confirmed by Yermack (1997), who finds that managers time the redemption of their stock option grants according to future company specific news, thereby circumventing the intended disciplinary objectives of their performance based compensation.

Reducing free cash flow available to managers through dividend policy and increased leverage has drawbacks when financing value creating projects, as raising outside funds

is more expensive than reinvesting funds internally, due to transactions costs. With respect to dividends, there are typically taxes to be paid by investors upon their reception; if the dividends were to go to the shareholders and be immediately reinvested in a new equity issuance, the firm would lose the value of the taxes. Rozeff (1982) provides a model where the firm selects an optimal dividend payout which minimizes the total of agency and transaction costs. For the firm's debt policy, although a commitment to repay a loan at a fixed rate over time reduces agency problems associated with free cash flow, it creates an agency problem between the equity stakeholders and the bondholders (Jensen and Meckling, 1976). In this instance, equity holders will prefer a higher level of risk, which increases the expected value of the firm's equity. This results in an increase in the risk of default, which lowers the value of the firm's debt. The possibility of such a transfer of wealth from debt holders to equity holders poses an additional agency problem, which raises the cost of debt with increases in leverage. Jensen and Meckling (1976) model the firm's optimal level of debt, which minimizes total agency costs.

When ownership is dispersed among many shareholders with small levels of wealth invested in any individual firm, a free-rider problem exists where no one is incentivized to oversee the quality of management (Jensen and Meckling, 1976). Monitoring by the company's large shareholders and outside members of board of directors reduces the agency problem between the managers and the owners, but may create agency problems of its own, as there is no one to monitor the monitors (Shleifer and Vishny, 1986, Agrawal and Knoeber, 1996). Large investors may use the corporation as a tool to extract private benefits from minority shareholders (Schleifer and Vishny, 1997). The reduction

in firm value which rises from this inter-owner conflict is referred to as Agency Cost II (Amit and Villalonga, 2006), discussed next.

2.3 Agency Cost II: The Inter-Owner Conflict and Family Ownership

In countries with strong investor protections, such as in much of Western Europe, the United States, and Canada, controlling shareholders are constrained in their ability to expropriate, as the actions of the firm may be subject to litigation by oppressed stakeholders. Minority shareholders may challenge the decisions of management in court or oblige the corporation to repurchase their shares when they disagree with fundamental decisions, such as major acquisitions or asset sales (La Porta et al., 1998). To the extent that the legal system is unable to resolve such conflicts, the agency problem among owners persists. Barclay and Holderness (1989, 1992), who use American data, show that controlling blocks trade at a premium to post trade minority shares; even where minority shareholder rights are considered to be well-protected, control is valued. In countries with weaker investor protection, agency costs result in substantially smaller equity markets with higher control premiums (Zingales, 1994, Barca, 1995, Pagano et al., 1995, La Porta et al., 1997).

The occurrence of Agency Cost II is additionally related to the cash flow rights of the controlling shareholder. When a shareholder controls more than 50% of the shares of which all have equal voting rights, the firm's ownership is said to have a controlled structure (CS) (Bebchuck et al., 2000). Under the controlled structure, the dominant shareholder is entrenched, but faces the consequences of his decisions through the value

effects on his shareholdings (Bebchuck et al., 2000). This curtails the incentive to expropriate value from the minority shareholders, but does not eliminate it entirely.

The firm's ownership can be modified from a controlled structure (CS) to a controlled minority structure (CMS) by separating control from ownership via pyramid or cross-ownership schemes, or by simply issuing differential voting shares (Bebchuck et al., 2000). With a small minority of cash flow rights, a shareholder can hold a controlling position in the firm. This presents a more insidious opportunity for the controlling shareholder, compared with the controlled structure, as, "CMS firms can externalize progressively more of the costs of their moral hazard and [...] the agency costs of CMS firms can increase at a sharply increasing rate as a result" (Bebchuck et al., 2000 page 301). In the case of dual class equity, ownership structure, even without the majority of voting rights, dominant holders of voting shares are largely insulated from takeovers, as such events are intrinsically more difficult among companies with dual class shares (Hart, 1988).

2.4 Agency Costs Within Family Firms

Minority shareholders of controlled family firms are perceived to face a greater risk of expropriation as such expropriation may be accomplished more covertly and efficiently by families compared to other types of controlling block holders (Demsetz and Lehn, 1985). This may take the form of special dividends, excessive compensation for family members, and related party transactions (De Angelo and De Angelo, 2000). In addition, family nepotism, which can harbour mediocre management (Morck et al., 1998), is a

manifestation of one of the most costly forms of agency problems (Shleifer and Vishny, 1997).

Despite the costs associated with family ownership, the evidence of family ownership's effect on firm performance has been mixed. Claessens et al. (2002) find that family ownership increases Tobin's Q, but this is counteracted when control augmentation features are used. Likewise Maury (2006) reaches a similar conclusion, only for firms actively controlled by families. Anderson and Reeb (2003) and Villalonga and Amit (2006) document founder premiums for Tobin's Q, but these effects are offset either by descendent CEOs, control premiums, or lack of independent members on the board of directors. Holderness and Sheehan (1988) found family firms to have lower Tobin's Q without considering control enhancement tactics.

Canadian studies have produced similar results: King and Santor (2008) observe Tobin's Q to be on par for family firms when compared to their widely held counterparts, although value was destroyed when control exceeded ownership rights. Pukthuanthong et al. (2013) find that Tobin's Q is higher for family firms and is increased by control enhancing mechanisms. In addition, Ben-Amar and Andre (2006) document higher abnormal returns to family firms who are bidders in mergers and acquisitions activities.

On the whole, the evidence suggests that families do expropriate value, particularly when control enhancement features are used. Agency cost II that families bring to corporations is at least partially offset by their role in mitigating agency cost I, both by direct monitoring and participation in management. Gomez-Mejia et al. (2001) find that family ownership is associated with higher levels of managerial entrenchment. This implies that

at a certain point, the distinction between agency costs I and II become nuanced, as large shareholders and management can be one and the same. This point is reinforced by Anderson and Reeb (2003) who find that family firms use less incentive based pay or outside block holders to curtail management; there is less need to constrain management when it is also a significant shareholder.

2.5 Incentives to Reduce Agency Costs

Managers have an incentive to reduce agency costs, as these costs are capitalized into the price at which new equity is issued. This implies that from the first stage of accepting outside investment, the initial entrepreneur-manager will use constraints to bind himself from expropriating investor wealth, so as to maximize his total wealth which depends on his equity stake and total market value of the firm (Jensen and Meckling 1976). In corporations, managers share a similar incentive to lower agency costs, in order to avoid the problems associated with an underperforming stock value. Such problems include a higher cost of capital, a higher risk of being taken-over, and a higher risk of being personally ousted as manager.

A firm may benefit from a variety of mechanisms which contribute in the reduction of agency costs: the use of outside directors, debt policy, dividend policy, executive compensation structure, insider shareholdings, the market for corporate control (take-overs), the managerial labour market, large block holders, and institutional investors (Agrawal and Knoeber, 1996, Jensen, 1986, others). Of these mechanisms, only board composition, capital structure, dividend payout, executive compensation, and insider shareholdings are within the control of the firm's management. If their implementation is

made optimally, these mechanisms are used until their marginal benefit equals their marginal cost; their contribution to firm performance is unobservable in a cross-sectional regression (Demsetz, 1983, Demsetz and Lehn, 1985). Furthermore, combined with the market for managerial labour, the internally-controlled mechanisms treat exclusively the manager-owner conflict (Agency Cost I), while the remaining mechanisms, block holders and institutional investors, combat both Agency Cost I and Agency Cost II. As outsider ownership stakes are outside the control of management, they are selected to maximize not firm value, but the wealth of the respective owners. As a result, systematic variations in their usage may be associated with an observable change in firm value, even when all decisions are made optimally (Agrawal and Knoeber, 1996).

This assessment is slightly different from that of Demsetz and Lehn (1985), who contend that all mechanisms are chosen optimally by the market, based on unobserved firm heterogeneity, such that no systematic variation will be associated with firm value. This implies that the positive externalities brought on by external block holders, through monitoring for example, will be captured by these same block holders, such that their marginal contribution to firm performance is offset by their marginal cost; the value they generate is equal to the value they expropriate. The matter of whether external block holders may systematically affect firm performance is therefore a question of how efficiently do they create and internalize positive externalities on the firm.

2.6 Institutional and Blockholder Ownership as a Mechanism to Combat Agency Problems

The influence of large block holders within corporate governance has given rise to a subtopic of research which focuses on institutions as an agency cost reduction mechanism. This has attracted more attention since the late 1980s due to a decline in take-over activity and a continued rise in institutional ownership around the world (Davis, 2002).

Block holders are considered to be important components of corporate governance due to their influence both within the firm and the market. Grossman and Hart (1980) model the free-rider problem among atomistic shareholders as a phenomenon which thwarts takeover attempts, since the existing shareholders will expect to be compensated for the value created by the prospective "raider". Since large shareholders are in a position to assume the value gained from takeover on their current shares, they are more likely to spur such value enhancing transactions. Here, the simple prospect of a takeover will add value, as the market for capital control is strengthened.

Stulz (1988) models a curvilinear relationship between insider ownership level and firm value. Firm value is seen to be a function of the premium paid on the control block and the probability of such a transaction taking place. The greater the control block, the greater the premium the bidder is willing to pay. The value brought by the size of the control block is bounded since the probability of such a takeover decreases with the size of the block holder's position.

Shleifer and Vishny (1986) take the perspective of the large block holder's incentive to monitor management. Again, a free-rider problem is overcome as greater monitoring takes place as the block holder's ownership stake increases. In this model, monitoring complements the takeover mechanism, as other less costly strategies, such as "jawboning", are less effective. In addition to scale economies in monitoring, large shareholders can exercise their legal rights more effectively than small shareholders, thereby providing additional restraint on managerial discretion and agency costs (Shleifer and Vishny, 1997).

2.7 Empirical Evidence

Numerous studies have found a positive abnormal return associated with outsiders acquiring large blocks of equity: (Mikkelson and Ruback (1985), Sheehan (1985), and Barclay and Holderness (1990)). In addition, Wruck (1989) finds a positive abnormal return associated with private equity sales, despite a negative abnormal return on public equity offerings. These findings suggest that ownership concentration creates value within the market. Block holders are believed to improve efficiency by increasing future or immediate cash flows to equity holders (Holderness, 2003).

Several studies which have examined the relationship between ownership structure and firm performance outside the context of market based transactions, found little evidence that simple ownership concentration adds value. McConnell and Servaes (1990) determine outside block holdings to be insignificant in explaining Tobin's Q, however they observe a significant relationship between insider ownership and Tobin's Q which peaks between 40 and 50%. These results differ from Morck et al. (1988), who determine

insider ownership to increase value up until the 5% level. Despite the value added from executive stock holdings, Mehran (1995) finds no relationship between outside block holdings and firm value. Holderness and Sheehan (1988) observe no difference in Tobin's Q between widely held and majority owned firm. Demsetz and Lehn (1985) find no relationship between accounting returns and equity concentration using a variety of measures. A number of studies which have specified block ownership to terms as narrow as institutional investors as a broad group, have neither found significant associations with firm performance (Agrawal and Knoeber, 1996, Crasswell et al., 1997, Sundarurthy et al 2005, Rose, 2007).

The failure of these studies to observe the effects of institutional ownership on firm performance may be due to the heterogeneity of institutional investors, who may be either pressure-sensitive or pressure-resistant to the objectives of management (Brickley et al., 1988). Similarly, Pound (1988) postulates three types of institutional investor incentives: efficient monitoring, conflict of interest, and strategic alignment.

Only the efficient monitoring hypothesis implies that institutional ownership will improve performance, due to its greater size and expertise to overcome the free-rider problem. The requirement to monitor is a by-product of the relatively large positions held by institutions which prevent a costless exit (Aoki, 1984, Lowenstein, 1988, Maug, 1988). Despite such costs, Parrino et al. (2003) observe that institutions are more likely to liquidate their positions if dividends are cut.

The conflict of interest and strategic alignment hypotheses suggest that institutions will work to the detriment of minority shareholders, and resulting in lower firm performance.

The strategic alignment hypothesis is related to "pressure-sensitivity" described by Brickley et al. (1988): institutions enhance the agency problem from management so that they may be compensated by means outside their capacity as shareholders. This may include personal business connections (Jacobs, 1991). The conflict of interest motive amounts to an additional agency cost (Agency Cost II), as institutions may attempt to align the firm's strategy not entirely with value maximization, but with a secondary objective. Institutional investor myopia, where institutions are seen to prefer short term profits to the detriment of long term growth, is claimed to be an example of such a conflict of interest, although this remains unresolved in the literature (Graves, 1988, Hansen and Hill, 1991).

Given the range of objectives held by the various institutional investors, studies which have analyzed their impact on firm performance through finer classifications have yielded stronger results. Chaganti and Damanpour (1991) observe higher ROE and ROA among firms with greater outside institutional investors, as well as a lower debt to total capital ratio, which implies that institutional ownership at least partially substitutes for debt as an agency control mechanism. Cornett et al. (2003) observe pressure resistant institutions to improve firm operating cash flow, while pressure sensitive institutions are ineffective. Bhattacharya and Graham (2007) determine pressure sensitive institutions to have a worse impact on firm performance than pressure resistant institutions, although both were negative. In addition, Woodlke (2002) finds private pensions increase Tobin's Q, while public pensions lower Q. In order to assess an underlying relationship between the institutional investor and firm performance, Elyasiani and Jia (2010) determine that the stability of institutional ownership significantly increases the firm's Tobin's Q. From

this, it would appear that the identity of the owner is secondary to the role such an investor plays within the governance of the firm; longer term business connections likely foster information sharing and monitoring (Porter, 1992).

An additional consideration, particularly in the Canadian context, is the effect of institutional ownership as a mechanism to combat the agency problem which arises from large family ownership. Maury and Prajuse (2005) observe in Finland, where only 25% of firms are widely held, that Tobin's Q increases as the voting rights distribution among block holders becomes more equal. This suggests that institutional investors may contribute to agency cost reduction in the context of a family controlled business, which has supposedly eliminated the principle agent problem, agency cost I. Besides forming coalitions to affect policy (Davis, 2002), institutions may induce greater governance by making the firm's management more responsible to the market. This may be achieved by institutional trading, which embeds more future information into stock prices (Jimbalvo et al., 2002), lowers information asymmetry (Aghion et al., 2005, Elyasiani and Jia, 2010), and lowers volatility in non dividend-paying stocks (Rubin and Smith, 2009). As Shleifer and Vishny (1997) note that institutions "lever-up" investor legal protection due to their size and expertise, the disciplinary power of the market is also levered-up due to the scrutiny and information sharing brought about by institutional investors.

3 Methodology

3.1 Purpose of Regression Models

The principal hypothesis of this study is that ownership structure, specifically institutional ownership, contributes to firm performance. This is first measured through a

cross-sectional regression estimated using the ordinary least squares (OLS) methodology. Since ownership structure is an endogenous outcome of a series of factors which includes firm performance, an OLS regression of performance on ownership structure risks estimating parameters which are biased and inconsistent² (Demsetz and Lehn, 1985). A simultaneous equations model, using the method of two-stage least squares (2SLS) is employed in order to avoid the potential estimation bias. This is achieved by regressing institutional ownership on instrumental variables which are exogenous to the system in the first stage, thereby ensuring that the measure of institutional ownership is uncorrelated to the regression's error terms in the second stage.

The use of a 2SLS model comes with a trade-off as the OLS parameter estimates have smaller standard errors and are therefore more efficient when no bias or inconsistency is present. The absence of a statistically significant relationship in a 2SLS model may result from two possibilities when such a relationship is observed with statistical significance with the OLS model: the OLS estimates may be biased and inconsistent, or the 2SLS may be unable to affirm a true relationship with statistical significance due to its lack of efficiency. In order to assess the suitability of the OLS and 2SLS results, Hausman (1978) tests are conducted to detect the potential of a bias in the OLS parameter estimates.

² An estimate is considered biased and inconsistent when its expected value is neither equal to nor converges to the true value of the parameter estimated. In the case of an endogenous predictor variable, due to a potential omitted variable, a parameter estimate is biased and inconsistent when it is correlated with the regression's error term.

3.2 The Ordinary Least Squares (OLS) Model:

The relationship between firm performance and ownership structure is estimated using the following cross-sectional OLS model:

$$Y_i = \alpha + \beta' X_i + \gamma' GIC_i + \delta' OWN_i + \varepsilon_i \quad (1)$$

where Y_i is a measure of performance (Q, GIC-Adjusted Q, or ROA). X_i is a vector of control variables described in Table 4, GIC_i is a vector of dummy variables to control for industry, and OWN_i contains the measures of ownership either as a total percentage or as a count of the number of institutional and family owners. ε_i is a mean zero error term. The number of institutional owners is considered since Cornett et al. (2003) observed a positive relationship between the natural logarithm of pressure insensitive institutional owners and operating cash flow returns. This study considers the number of institutional and family owners without transformations since ownership counts are limited to 10 per firm; the possible effects of diminishing marginal contributions from ownership over this interval are not considered.

3.3 The Two-Stage Least Squares (2SLS) Model:

Due to a potential bias in the OLS parameter estimates, performance is explained with institutional ownership modelled endogenously within the following simultaneous equations framework:

$$Y_i = \alpha + \beta' X_i + \gamma' GIC_i + \delta \text{own}_i + \varepsilon_i \quad (2)$$

$$\text{own}_i = a + B' Z_i + c Y_i + e_i \quad (3)$$

where Y_i , X_i , GIC_i and ε_i are defined as in equation (1). The endogenous variable, own_i , represents the level of institutional ownership either as a number or as a percentage. This differs slightly from OWN_i in equation (1) which stands as a vector for multiple ownership levels regressed together.³ Z_i is a vector containing measures for size, leverage, block holder wedge, as well as dummy variables for dividend, cross-listing and Quebec. Family and industrial levels of ownership are measured in percentages.⁴ GIC_i is a vector of dummy variables as a control for industry.⁵ Quebec is selected as a dummy variable to explain ownership as there exists a distinct ownership pattern in the province (Attig and Gadhoun 2003). Block holder wedge is a measure of excess control rights among shareholders with an ownership stake larger than 10%.

The 2 SLS system mitigates the estimation biases which may result from the endogenous relation between ownership and performance by estimating these variables in the first stage using exogenous instruments:

$$V_i = k + \Phi' I_i + \mu_i \quad (4)$$

where V_i is an estimated variable in the first stage of the two-stage least squares procedure, either \hat{Y}_i or \widehat{own}_i . I_i represents a vector of instruments: $\ln(\text{assets})$, leverage, block holder wedge, family percent ownership, industrial firm percent ownership,

³ It is possible to regress several ownership variables in a first stage of a 2 SLS procedure and use them as explanatory variables in a second stage. This was not conducted as it would amplify the potential of multicollinearity and linear dependence when instruments also act as regressors in the second stage.

⁴ Using a least squares regression to predict ownership levels in the first stage may produce estimate levels which happen to be negative. Although such values do not have a directly interpretable significance, their use still produces unbiased and consistent parameter estimates in the second stage of the 2 SLS regression. (Angrist and Krueger 2001)

⁵ The vector containing industry dummy variables is omitted in the equations which estimate the industry-adjusted Tobin's Q.

Quebec, as well as dummy variables for industry. Parameter k is a constant and μ_i is an error term.

The second stage of the 2 SLS procedure estimates the endogenous relation between ownership and firm performance, using the estimated levels of ownership and performance from the first stage:

$$Y_i = \alpha + \beta' X_i + \gamma' GIC_i + \delta \widehat{own}_i + \varepsilon_i \quad (5)$$

$$own_i = a + B' Z_i + c \hat{Y}_i + e_i \quad (6)$$

where \hat{Y}_i and \widehat{own}_i are estimated by equation (4). All other variables are defined as in equations (2) and (3). Since instruments contained within vector I in equation (4) are presumed to be exogenous to the system of equations, the subsequent estimates of ownership and performance used in equations (5) and (6) will similarly be determined from outside the system. The resulting parameter estimates will therefore be unbiased and consistent.

4 Data

4.1 Data Description

This study measures the cross-sectional relationship between firm performance and ownership structure for the year 2011, using a final sample of 567 Canadian companies listed on the TSX. The original data sample consisted of 691 TSX listed stocks which were simultaneously present in the StockGuide, Osiris and Compustat databases.

Ownership data was gathered from the Bureau van Dijk's Osiris database. Ownership percentage, investor type, and identities for the top equity holders by size, up to 10, were

collected for each firm over the 2007-2011 period, the time interval over which the database measured Canadian corporate ownership. For each firm, both the number of individual owners and the total percentage were calculated for the following categories: bank, financial company, industrial company, insurance company, mutual or pension fund, family, and private equity. Financial statement and market valuation data were collected from Standard & Poor's Compustat database. Data on multiple share class equity were individually collected from the TMX Group website. A measure of control augmentation, Blockholder Wedge, was calculated as the difference in cash flow rights and control rights for owners exceeding 10% control of a given company obtained from StockGuide. In order to remain consistent with prior studies, such as King and Santor (2008), the number of firms in the sample was reduced to 567 after 124 observations were removed for failing to meet any of the following criteria: positive sales, non-missing book value of equity, positive assets, and non-missing values for income before depreciation, Tobin's Q less than or equal to 10. All variables have 567 observations with the exception of the Multiple Class Dummy, and 5 Year % Sales Growth, that are collected for 549 and 393 firms respectively.

4.2 Performance Measures

Table 1 describes the variables used in the present study. Firm performance is measured by Tobin's Q and Return on Assets (ROA). Tobin's Q, defined as the sum of short term debt, long term debt and market value of equity, divided the book value of assets proxies the firm's market performance. ROA, defined as the operating income before depreciation scaled by assets, proxies the firm's accounting performance. Since Q derives from the firm's market valuation, it is considered to be a forward looking measure of performance,

in contrast to ROA which evaluates past performance documented in accounting data. This study also includes an industry adjusted measure of Q, defined as the firm's Q divided by the firm's Global Industry Classification (GIC) industry average Q. GIC industry classifications are used due to their greater ability to explain cross-sectional stock valuation multiples, compared to alternative industry measures (Bhojraj et al., 2003).

4.3 Control Variables

The control variables are presented in Table 1. Ln(Assets) is the natural logarithm of assets for each firm. Leverage measures each firm's debt to assets ratio, where debt is the sum of both short term and long term debt. Capital expenditures is the firm's capital expenditures divided by the book value of total assets. The 5 year sales growth was calculated as the percent difference in sales from 2006 to 2011. Dividend, Crosslist, and multiple class dummy variables respectively take on a value of 1 when a firm either issues dividends, is cross-listed, or has multiple shares, and 0 otherwise. GIC dummy variables take on a value of 1 when a firm belongs to a particular industry (measured to the 4-digit level of the classification system), and 0 otherwise.⁶ All control variables represent values in the year 2011, with the exception of the multiple dummy class, which was collected in 2013 reflecting contemporary data.

4.4 Ownership Measures

Institutional ownership is defined as either the total holdings or the total number of investors among banks, financial companies, mutual and pension funds, and insurance

⁶ An arbitrary industry dummy variable must be omitted from the regression equations to avoid linear dependence among regressors.

companies. These subcategories of institutional ownership are also measured separately. Family ownership measures holdings from individuals and families. This variable is distinct from industrial companies as a category, which may have a family as an ultimate owner. This implies that industrial companies may be an indirect manifestation of family ownership within the context of a pyramid structure.⁷

As an example, Figure 1 displays an ownership chain from the Wallace McCain Family Group to the Canada Bread Company Limited. (Source: Statistics Canada Intercorporate Ownership Database) Canada Bread Company Limited is 89.8% owned by Canadian Bakeries Inc, an industrial company, which is in turn partially owned by a chain of four additional entities which ends with the Wallace McCain Family Group. The ultimate owner's cash flow rights are the product of the ownership percentages at each level of the pyramid, while the level control is considered to be the weakest link along the chain of ownership (Faccio and Lang, 2002). In the case of the Wallace McCain Family Group, they retain 25.94% control of the Canada Bread Company Limited with 3.73% of the cash flow rights.

4.5 Descriptive Statistic

Table 2 reports the summary statistics and difference of mean tests for the central variables in the analysis. Average Tobin's Q and industry-adjusted Tobin's Q are 1.40 and 0.90 respectively; average return on assets is 5.8%. The largest average level of ownership is held by institutions totalling 20.82%, defined as the sum of bank, financial company, mutual and pension funds, and insurance company ownership which average

⁷ Industrial companies are distinct from widely held corporations; they therefore have an ultimate owner by definition.

5.61%, 6.87%, 8.31% and 2.92 % respectively. Average ownership by family and industrial firms equal 6.69% and 8.40% respectively. The mean level of assets is \$2.47 billion. The average ratios of debt to assets and capital expenditures to assets are 0.17 and 0.10. Dividend, Crosslist and Multiple Class represent dummy variables; among the firms in the sample 41%, 70%, and 23% issue dividends, are crosslisted, and use multiple classes of shares. The average blockholder wedge is 2.37%.

The difference of mean tests compare firms with high levels of family ownership compared to those with low levels, based on a 20% ownership criterion. The subsample of firms with family ownership greater than 20% totals 70, approximately 12% of the total sample. In comparison with the subsample of 497 firms with family ownership less than 20%, the group with family ownership greater than 20% has a (statistically significant 5% or stronger) lower mean size, sales growth, capital expenditures and level of cross listing. With marginal statistical significance, the high-family ownership group has lower leverage and a blockholder control wedge, despite a lower occurrence of listed dual class shares.⁸ The differences in ownership structure involve lower levels of institutions both in number and percentage among high-family ownership firms, significant at the 1% level, with the exceptions of insurance companies as a percentage and the number of private equity investors. Industrial companies are less prevalent within the high-family ownership group. This may in part be due to their use within family ownership pyramids; families appear to substitute from direct ownership in favor of indirect ownership through industrial corporations.

⁸ Only listed dual-class shares are observed on the TMX website, www.tmx.com. Some family firms may refrain from listing certain classes of shares with augmented voting rights.

4.6 Correlation Matrix

Table 3 presents a correlation matrix for the key variables in the study. Although many relationships are statistically significant, none of the variables to be used together in the regressions have correlations above 0.7, a standard benchmark for multicollinearity (Pukthuanthong et al., 2012). Although Q and ROA each measure firm performance, the aspects which they capture are distinct; their correlation is -0.258 statistically significant at the 1% level. This relationship is similar to that found by King and Santor (2008) who document a negative relationship between Q and ROA, a correlation of -0.278.

4.7 Controlling Positions

Table 4 presents, across several studies, the percentages of firms with ultimate owners at both the 10% and 20% thresholds. Although the present study considers family ownership to be distinct from industrial company ownership, on the aggregate, the two are added together in this table for a more direct comparison with others studies. This is intended to reflect that industrial firms have an ultimate owner, who must be an individual or a family. In the current sample, the percentage of firms controlled by the sum of families and industrial companies at the 10% (20%) average 33.73% (23.58%). These values are smaller than those from prior studies. This likely results from the manner in which family ownership and industrial company ownership are summed. Since the present data does not allow an inference with regard to the relationship between the family owner and the industrial company owner at the firm level, they are assumed to be independent. At the firm level, their shareholdings therefore are not summed for the purposes of calculating the ownership threshold. Instances where a particular family

meets an ownership threshold only through stock both directly and indirectly through an industrial company are not observed.

Although institutional ownership is more pronounced than family ownership as an average percentage, family ownership is distributed less evenly across firms. This is evidenced by family investors holding proportionately 63% (41%) more controlling positions in firms at the 10% (20%) level. While the average family ownership stake is 6.61%, 16.18% (9.81%) of firms are controlled at the 10% (20%) level, compared with 35.11% (8.95%) for institutions, which as a group hold an average of 20.82% in a given company. This is consistent with families holding large stakes in specific firms for the purpose of control instead of holding a large diversified portfolio for the purpose of maximizing risk-adjusted returns.

5 Empirical Results

5.1 Full Sample OLS Analysis

Table 5 presents results for the estimation of equation (1) using the entire sample. Panel A presents the results where Tobin's Q is the measure of performance. Robust to all but two specifications, Ln(Assets), Leverage, Blockholder Wedge, and Multiple Class Dummy are negatively associated with Tobin's Q, while Dividend Dummy and Crosslist have a positive relationship at the standard levels of statistical significance. Capital expenditures and sales growth are not statistically significant. The signs on these control variables agree with similar empirical studies (Villalonga and Amit, 2006, King and Santor, 2008).

The effects of dividends, crosslistings, multiple class shares and blockholder control wedges may have an effect on Tobin's Q due to their impact on agency costs within the firm. Dividends increase market value by reducing free cash flow available to managerial discretion thereby reducing the possibility of value destroying investments.⁹ (Jensen, 1986) Crosslisting in the United States lowers agency costs by forcing higher information disclosure and increases scrutiny from the market as a whole. (Coffee, 2002, King and Segal, 2009) Multiple class shares and blockholder control wedges reduce Tobin's Q since agency problem II is exacerbated, as large owners may have the power to make decisions without bearing the entirety of their economic consequences (Bebchuck et al., 2000, Villalonga and Amit, 2006).

Institutional ownership measured as a percentage is not significant in explaining Tobin's Q. Private equity has a significant negative relationship with Tobin's Q which is not robust. This observation stands as a potential signal of endogeneity, since private equity firms are associated with take-over activity such as leveraged buyouts. It is possible that the negative association between private equity and underperforming firms results from private equity selecting underperforming firms for investment. The absence of a association between any form of ownership by percentage with Tobin's Q is consistent with the endogeneity argument of Demsetz and Lehn (1985).

The count measures of ownership show a statistically significant positive relationship between institutional ownership and Tobin's Q. When institutional ownership is broken down into subcategories, banks and financial companies maintain a statistically

⁹ Aside from the reduction in free cash flow caused by dividends, Myers and Majluf (1984) argue market valuation levels are increased due to a signalling effect caused by such payments.

significant relationship at the 1% level. Insurance companies have a marginally significant positive estimate which is not robust. The relationship between the number of institutional owners and performance is similar to results from Cornett et al. (2003) who observe a positive relationship between the number of institutional owners and corporate operating performance. The positive association between financial companies and Tobin's Q is consistent with the findings of Brickley et al. (1988) who suggest that owners who are pressure-resistant to management may be effective monitors. The positive relationship associated with banks is inconsistent with the assumption that they are considered pressure-sensitive. This positive relation is consistent with the results of Gorton and Schmid (2000) who report a positive relationship between bank ownership levels and the market to book ratio of German firms.

Panel B of Table 5 presents the estimation for equation (1) using the GIC Industry-Adjusted Tobin's Q as a measure of firm performance. Instead of industry control dummies, Industry-Adjusted Q is defined as the ratio of the firm's Q over the industry average Q. Although the direction of parameter estimates in Panel B is unchanged from Panel A, statistical significance levels change slightly. The ownership percentage of insurance companies is associated with a lower industry-adjusted Q, and this is robust in two out of three specifications. This is consistent with the assumption that insurance companies as a pressure-sensitive investors (Brickley et al., 1988). Private equity maintains a negative relationship with performance, consistent with a potential endogenous selection of underperforming firms for investment.

An increase in the number of individual and family owners has a marginally significant positive effect on the industry adjusted Tobin's Q as was the case for the unadjusted Q.

This is consistent with studies that find family ownership increases performance by combating the owner-manager conflict (Villalonga and Amit, 2004, Pukthuanthong et al., 2012). A characteristic difference between the Q and Industry-Adjusted Q results is that the R-Square values are consistently lower in the Industry-Adjusted Q regressions. The change in the R-Square may result from the fact that some information within of the industry classification dummies becomes part of the dependent variable in the Industry-Adjusted Q regressions.

Panel C presents the regression results of equation (1) with ROA as the measure performance. Ln(Assets), Dividend, Sales Growth and Capital Expenditures are positive, while Crosslist is negative. These variables are significant across all specifications. Leverage has marginal statistical significance only under models which contain sales growth. The measures of control augmentation provide mixed results: the Multiple Class Dummy is negative, with inconsistent levels of significance and Blockholder Wedge has no observable relationship with ROA; the weak negative relationship between the Multiple Class Dummy and ROA suggests the presence of agency problems among dual class firms. Although Crosslist is hypothesized to lower agency costs via self "bonding" to higher disclosure standards (Coffee, 2002), it has a significant negative relationship with ROA. On the whole, results for the control variables are consistent with those of King and Santor (2008) with the exception of Leverage, which they find to be negatively related to ROA.

The positive relationships both leverage and dividend share with ROA is consistent with the use of these variables as agency cost control mechanisms because they reduce free cash flow to management (Jensen, 1986). According to this explanation, firms with

dividend or debt obligations pay out free cash flow that would otherwise go towards investments in assets. Since there are diminishing marginal returns to investments, firms which are constrained in their spending will be forced to select more profitable projects with higher returns on assets.

The institutional ownership variable has a marginally significant positive relation with ROA, but only in the model specification which omits sales growth. The same relationship exists for private equity firms, financial companies as well as for mutual and pension funds. The results suggest that banks and insurance company ownership percent ownership levels have no statistical association with ROA, consistent with their position as pressure sensitive investors (Brickley et al., 1988).

This finding is reinforced with a strong negative relationship between the number of bank owners and ROA, despite insignificant values for the number of institutions as a whole. The inferior performance associated with pressure sensitive banks is consistent with the results of Cornet et al. (2003), who find the number of pressure sensitive institutional investors has no relationship with operating cash flow returns, while the number of pressure resistant institutional investors has a positive relationship.

5.2 Subsample OLS Analysis: Firms with Family Ownership Greater than 20%

The hypothesis that there exists a relationship between firm performance and ownership structure is tested among firms with family ownership greater than 20%, since these firms are more likely to face Agency Cost II. OLS regression equation (1) estimates are presented in Table 6. Panels A and B present regression results for measures of performance Q and Industry-Adjusted Q. Coefficients cannot be given a statistical interpretation because across all specifications, F-statistics do not reject the null hypothesis that all parameters are equal to zero.

Panel C presents regression results where performance is measured by ROA. Under these specifications, all 10 equations have p-values associated with the F-test of joint significance below 1%. Adjusted R-square values are above 35%. Statistically significant control variables are consistent with their counterparts in the entire-sample regressions, suggesting that their role within the dynamics of family firms mirrors that of the market as a whole. Although not robust across specifications, percent ownership levels of mutual and pension funds as well as private equity firms are associated with higher levels of ROA, as is the case with the entire-sample results.

5.3 Subsample OLS Analysis: Firms with Institutional Ownership Greater than 20%

Table 7 presents regression results for model (1) applied to the subsample of firms with total institutional ownership greater than 20%. The subsample consists of 306 firms, overlapping with over half of the entire sample. Q, Industry-Adjusted Q and ROA results are presented in panels A, B and C respectively. Parameter estimates maintain the same direction within the subsample, although their associated levels of significance vary. The

percentage ownership of insurance companies is significantly negative for both measures of Tobin's Q. In addition, unlike the entire sample, a similar negative relation for the percent ownership of mutual or pension funds is significant across several specifications. This may be indicative of agency problems which arise due to excessive institutional investment.

A non-robust positive association for family ownership with ROA exists within the subsample, significant at the 5% level. This finding may be attributable to families playing a larger marginal role among within firms dominated by other types of shareholders. However the evidence overall suggests that all agency control mechanisms may have similar associations with performance across subsamples.

5.4 Full Sample 2 SLS Analysis

Table 8 presents regression results for equation (5), where levels of institutional ownership are simultaneously estimated by equation (4). Industrial and family ownership levels, as well as all control variables maintain the same directions and similar levels of significance, since they are estimated in the same manner as in the OLS procedure.

Regressions in which Tobin's Q is the measure of firm performance yield no statistically significant results among the endogenous ownership variables. This is also the case in panels E and F for ROA. When the industry-adjusted Q is used, insurance companies are associated with lower levels of performance. This is illustrated once in Panel C, model 14, where the percent ownership of insurance companies is negative at the 5% level, and 3 out of 3 times in Panel D for the ownership count. There are no other statistically significant results for the endogenously determined parameters estimates of equation (5).

The negative association between insurance company ownership and firm performance observed both in the OLS and 2 SLS regressions with the industry-adjusted Tobin's Q, is the only relationship robust across both estimation procedures. The reduction in value due to insurance companies as investors is consistent with their position as pressure sensitive investors (Brickley et al., 1988). The failure of any ownership type to add value to the performance of firms within the 2 SLS framework is consistent with the endogeneity argument of Demsetz and Lehn (1985).

The regression results for equation (6) are presented in Table 9 where ownership is explained in part by performance, which is estimated in the first stage by equation (4). Panels A and B report results for which Q is the measure of performance. The results in Panel A suggest that Q is generally associated with higher percentage levels of institutional ownership although not in the case mutual and pension funds or insurance companies. In the regressions which model the number of owners, Q is associated with a greater number of bank and financial investors although the relation is less robust in the case of bank ownership. Tobin's Q has a significantly negative relation with the number of mutual and pension fund investors. These disparities may be attributable to differences in investment strategy. Negative or non-significant values associated with passive mutual and pension funds or insurance companies may result from such investors rebalancing their portfolios on a regular basis. Companies which increase (decrease) in market value and Tobin's Q could be sold (bought) to maintain particular portfolio characteristics such as beta or a predetermined asset allocation.

The only significant relation between industry-adjusted Q and ownership is negative with the number of insurance companies, presented in Panel D and robust to both

specifications at the 5% and 10% level. ROA has a positive significant relation with both measures of insurance companies, presented in Panels E and F. ROA has a significantly negative relation with the number of bank owners in Panel F. No other significant relationships were found to exist between performance and ownership within the 2 SLS framework.

Based on the 2 SLS analysis, the relation between insurance company investment and firm performance appears to be endogenous, particularly in the case of market performance proxied by the industry-adjusted Tobin's Q. Increases in count or percentage levels of insurance company ownership is associated with lower levels of industry-adjusted Tobin's Q (Table 8, Panel C and D), while increases in the industry-adjusted Tobin's Q is associated with a lower number of insurance company investors (Table 9, Panel D). Although endogeneity is apparent in this case, the Hausman (1978) tests which appear in the following section, discuss the possible implications on the interpretation of the OLS results.

5.5 Hausman (1978) Tests For Endogeneity

The null hypothesis that parameter estimates associated with measures of institutional ownership are consistent between the OLS and 2 SLS methodologies is rejected using the Hausman tests. This finding, which is not robust to all specifications, compliments many of the results of equation (6) in Section 5.4. These results tend to confirm the existence of an endogenous relationship between institutional ownership and firm performance.

Analysis of the OLS results does not permit the attribution of performance levels to a measure of ownership, as OLS parameter estimates may be spurious (Duggal and Millar, 1999). Meaningful interpretation of the results must rely exclusively on the 2 SLS regressions.

6 Conclusion

This study presents an analysis of the relationship between institutional ownership and firm performance measured by Tobin's Q and return on assets (ROA) using a sample of 567 Canadian firms in 2011. The focus on the Canadian firms provides additional insight towards the topic of institutional ownership as a remedial measure towards agency problems, since Canada has shared legal traditions with the United States, but has ownership concentration more comparable to levels in Western Europe and Asia (La Porta et al., 1997, La Porta et al., 1999). Moreover, compared to their American counterparts, controlling shareholders of Canadian firms make greater use of control augmentation mechanisms such as dual class shares and pyramid structures (Attig and Gadhoun, 2003, Gadhoun et al., 2006).

A distinguishing feature of this study's analysis involves the consideration of institutional investor type as well as the inclusion of the number of such investors as a measure of ownership. This distinction among investors by type attempts to account for differences in their respective motivations. Pressure-sensitive institutional investors may choose to categorically support the firm's management in an effort to promote other business relationships (Brickley et al., 1988). Such investors would be ineffective as monitors. The number of owners is considered as prior studies have found investor coalitions to influence firm performance (Gorton and Schmid, 2000, Cornett et al., 2003).

The effects of institutional ownership on performance measures Tobin's Q, Industry-Adjusted Tobin's Q, and Return on Assets are estimated using ordinary least squares (OLS) and two-stage least squares (2SLS) methodology, where the latter is employed to offset the endogeneity bias to which the OLS method is susceptible. The OLS regression results suggest statistically significant relations between institutional ownership and firm performance, using both Tobin's Q and ROA. Specifically, the number of institutional investors, particularly in the subcategories of bank and financial company, are associated with higher levels of Tobin's Q, unadjusted and adjusted for industry. A greater number of bank investors are observed with lower levels of ROA. Once the 2 SLS methodology was employed, these relations were not observed with statistical significance. However, the 2 SLS results suggested a statistically negative relation between firm performance measured by the industry-adjusted Tobin's Q and insurance company ownership measured both as a percentage and as the number of owners. For all measures of performance, Hausman tests reveal that OLS results are biased in multiple instances; meaningful interpretation must therefore rely on the 2 SLS results.

The findings of this study are largely consistent with the endogeneity argument of Demsetz and Lehn (1985): the market equilibrates the marginal costs and benefits of all performance enhancing mechanisms such that in a cross sectional regression, no relationships between such mechanisms and performance may be observed. The exception is both types ownership levels by insurance companies, which are negatively related to Tobin's Q and the Industry-Adjusted Tobin's Q in both the OLS and 2 SLS methodologies. The inferior performance associated with insurance company ownership may be related to their place as pressure-sensitive investors who are not willing to challenge management for fear of hurting other business relations (Brickley et al., 1988). The results suggests that there is a failure in the market for corporate control to equilibrate the marginal costs with the marginal benefits brought upon by insurance company ownership. This may be due to lacking mechanisms (Agrawal and Knoeber, 1996) which would have to specifically compensate insurance companies for divesting their positions.

While this study suggests that ownership structure affects firm performance, future research may bring about greater insight into the relationship's causal dynamics. A natural extension would involve the examination of cross-sectional data over several years which would allow the possibility of establishing causality through lagged variables. In addition, an investigation into the actual business relations between apparent pressure-sensitive investors and the corporations in which they own equity would clarify how such owners are compromised as monitors. Specifically such research could involve a consideration for bank loans and insurance policies held by firms.

7. References

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8 Tables and Figures

Figure 1: Canada Bread Ownership Chain to Wallace McCain Family Group

	% Ownership Along Chain	% Cashflows Rights to Wallace McCain Family Group	Control Rights to Wallace McCain Family Group%
1: WALLACE MCCAIN FAMILY GROUP	53.03%	53.03%	53.03%
2: JSM CAPITAL CORPORATION	24.94%	13.23%	24.94%
3: MCCAIN CAPITAL CORPORATION	31.37%	4.15%	24.94%
4: MAPLE LEAF FOODS INC	100.00%	4.15%	24.94%
5: CANADIAN BAKERIES INC	89.80%	3.73%	24.94%
6: CANADA BREAD COMPANY, LIMITED			

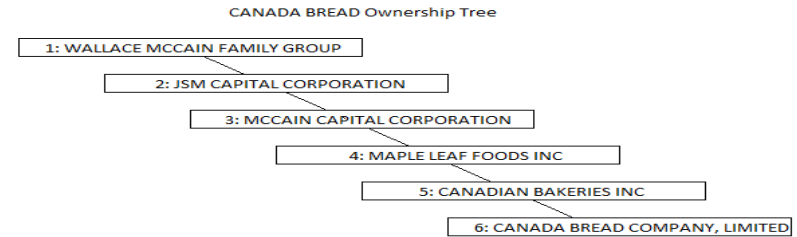


Figure 1: Ownership and control rights to Wallace McCain Family Group, the ultimate owner of the Canada Bread Company Limited. Ownership along the chain is the direct ownership from the owner immediately above in the hierarchy, where the Wallace McCain Family Group is the highest. Cash flow rights to the Wallace McCain group are the product of the cash flow rights along the ownership chain. Control Rights to the Wallace McCain Family group are defined as the weakest link of ownership rights along the chain, according to Faccio and Lang (2002). Source: Statistics Canada Intercompany Ownership Database 1st Quarter 2012

Table 1: List of Variable Descriptions and Data Sources

	Variable Description	Data Source
Control Variables		
Ln(Assets)	Natural Logarithm of Total Assets	Compustat
Dividend Dummy	Equals 1 if firm issues dividends; 0 otherwise.	Compustat
Leverage	(Short Term Debt + Long Term Debt) / Total Assets	Compustat
Mclass	Equals 1 if firm has multiple classes of shares traded on the TSX; 0 otherwise.	TMX Website
Blockholder Wedge	Σ (Voting Control % - Cash flow rights %) for blockholders greater than 10%	StockGuide
5 Year % Sales Growth	Percent Change in Sales from 2006-2011	Compustat
Crosslist	Equals 1 if firm is additionally listed in the United States; 0 otherwise.	Compustat
Capital Expenditures	Capital Expenditures / Total Assets	Compustat
Performance Measures		
ROA	Return on Assets: Operating Income Before Depreciation / Total Assets	Compustat
Q	Tobin's Q: (Market Value of Equity + Book Value of Short Term Debt + Book Value of Long Term Debt) / Book Value of Assets	Compustat
GIC Industry-Adjusted Q	GIC Industry Adjusted Q: (Tobin's Q) / (GIC Industry Average Tobin's Q)	Compustat
Ownership Percentage Values		
Institution	Sum of Bank, Financial, Mutual / Pension Fund, and Insurance	Osiris Database: Bureau Van Dijk
Bank	Sum of Ownership Percentage Values for all Banks among the top 10 Shareholders by Percentage	Osiris Database: Bureau Van Dijk
Financial	Sum of Ownership Percentage Values for all Financial Companies among the top 10 Shareholders by Percentage	Osiris Database: Bureau Van Dijk
Mutual / Pension Fund	Sum of Ownership Percentage Values for all Mutual or Pension Funds among the top 10 Shareholders by Percentage	Osiris Database: Bureau Van Dijk
Insurance	Sum of Ownership Percentage Values for all Insurance Companies among the top 10 Shareholders by Percentage	Osiris Database: Bureau Van Dijk
Private equity	Sum of Ownership Percentage Values for all Private Equity Firms among the top 10 Shareholders by Percentage	Osiris Database: Bureau Van Dijk
Family	Sum of Ownership Percentage Values for all Individuals or Families among the top 10 Shareholders by Percentage	Osiris Database: Bureau Van Dijk
Industrial	Sum of Ownership Percentage Values for all Industrial Companies among the top 10 Shareholders by Percentage	Osiris Database: Bureau Van Dijk
Ownership Count Values		
Institution	Sum of Bank, Financial, Mutual / Pension Fund, and Insurance	Osiris Database: Bureau Van Dijk
Bank	The Number of Distinct Bank Owners among the top 10 Shareholders	Osiris Database: Bureau Van Dijk
Financial	The Number of Distinct Financial Company Owners among the top 10 Shareholders	Osiris Database: Bureau Van Dijk
Mutual / Pension Fund	The Number of Distinct Mutual and Pension Fund Owners among the top 10 Shareholders	Osiris Database: Bureau Van Dijk
Insurance	The Number of Distinct Insurance Company Owners among the top 10 Shareholders	Osiris Database: Bureau Van Dijk
Private Equity	The Number of Distinct Private Equity Firm Owners among the top 10 Shareholders	Osiris Database: Bureau Van Dijk
Family	The Number of Distinct Individual and Family Owners among the top 10 Shareholders	Osiris Database: Bureau Van Dijk
Industrial	The Number of Distinct Industrial Company Owners among the top 10 Shareholders	Osiris Database: Bureau Van Dijk

Table 2 -Descriptive Statistics

	Entire Sample Values						Subsample Difference of Mean Test		
	N	Mean	Std Dev	Sum	Minimum	Maximum	Family<20% N=497	Family>20% N=70	t-statistic
Performance Measures									
Q	567	1.396	1.084	791.532	0.168	8.36	1.432	1.139	2.139**
GIC_ADJ_Q	567	0.889	0.571	504.063	0.571	4.355	0.896	0.835	0.841
ROA	567	0.058	0.165	32.7487	-0.94004	0.55365	0.05	0.09	-2.109**
Ownership Percentage Values									
Institution	567	20.819	16.001	11825	0	97.57	29.81	18.32	4.982***
Bank	567	5.605	6.468	3184	0	45.85	6.13	3.44	3.706***
Financial	567	6.865	8.403	3899	0	75.54	7.54	3.59	5.536***
Mutual / Pension Fund	567	8.313	11.354	4722	0	94.76	10.05	6.15	3.010***
Insurance	567	2.922	5.522	1659	0	73.5	2.84	3.32	-0.55
Private equity	567	3.115	10.778	1772	0	89.96	3.25	1.82	2.040**
Family	567	6.689	16.294	3806	0	94.15	1.39	43.16	-17.205***
Industrial	567	8.395	18.268	4768	0	95.36	9.09	3.18	4.834***
Ownership Count Values									
Institution	567	5.320	2.384	3027	0	10	29.81	18.32	4.982***
Bank	567	1.745	1.393	993	0	6	1.83	1.17	4.525***
Financial	567	1.559	1.158	887	0	5	1.62	1.09	4.007***
Mutual / Pension Fund	567	2.016	1.438	1147	0	7	2.11	1.41	4.181***
Insurance	567	0.791	0.805	450	0	4	0.81	0.57	2.691***
Private Equity	567	0.620	0.765	353	0	4	0.62	0.61	0.01
Family	567	0.420	0.816	239	0	6	0.22	1.79	-13.460***
Industrial	567	0.747	0.909	425	0	5	0.78	0.49	2.916***
Control Variables									
Assets	567	2469.938	7696.364	1432564.27	6.193	91030	2681.76	926.69	3.675***
Dividend Dummy	567	0.413	0.493	235	0	1	0.41	0.46	-0.70
Leverage	567	0.170	0.173	96.52147	0	0.66538	0.17	0.20	-1.376*
mclass	549	0.228	0.420	125	0	1	0.24	0.17	1.311*
Blockholder Wedge	567	2.365	10.408	1346	0	89.04	2.37	4.43	-1.439*
5 Year % Sales Growth	393	3.963	16.523	1557	-0.92718	186.08046	4.19	2.14	1.961**
Crosslist	567	0.703	0.457	400	0	1	0.72	0.54	2.866***
Capital Expenditures	567	0.101	0.106	57.974	-0.0026	0.88	0.10	0.08	1.667*

Table 2- Descriptive Statistics. Sample includes 567 Canadian firms from 2011. Tobin's Q is $(\text{Market Value of Equity} + \text{Book Value of Short Term Debt} + \text{Book Value of Long Term Debt}) / \text{Book Value of Assets}$. GIC Industry-Adjusted Q is Tobin's Q divided by the GIC industry average Tobin's Q, where the GIC average is determined using a sample of 1161 Canadian Firms from Compustat. ROA is $\text{Operating Income Before Depreciation} / \text{Total Assets}$. $\text{Ln}(\text{Assets})$ is the natural logarithm of total assets. Dividend Dummy takes on a value of 1 when dividends are issued and 0 otherwise. Leverage is $(\text{Short Term Debt} + \text{Long Term Debt}) / \text{Assets}$. Multiple Class Dummy takes on a value of 1 if multiple classes of shares are traded. Blockholder Wedge is the difference in control rights and cash flow rights for blockholders greater than 10%. Crosslist Dummy takes on a value of 1 if shares are listed in the United States and 0 otherwise. Capital Expenditures is scaled by assets. Ownership Percentage values equal the total ownership percentage for a category of owner. Ownership count values equal the number of owners for a category of ownership. Institution is the sum of Bank, Financial, Mutual/Pension Fund, and Insurance. Subsample difference of mean test t-statistic values significant at the 10%, 5%, and 1% levels are denoted by *, **, and *** respectively.

Table 3 - Correlation Matrix

	<u>Control Variables</u>								<u>Performance Measures</u>		
	Ln(Assets)	Dividend Dummy	Leverage	mclass	vospread	5 Year % Sales Growth	Crosslist	Capital Expenditures	ROA	Q	GIC_ADJ_Q
Control Variables											
Ln(Assets)	1										
Dividend Dummy	0.52***	1									
Leverage	0.38***	0.33***	1								
mclass	0.33***	0.26***	0.33***	1							
vospread	0.15***	0.19***	0.03	0.12***	1						
5 Year % Sales Growth	0.04	-0.08	-0.03	-0.04	-0.03	1					
Crosslist	0.23***	-0.15***	-0.12***	0.10**	-0.02	0.05	1				
Capital Expenditures	-0.028	-0.256***	-0.115***	-0.039	-0.108	0.003	0.183***	1			
Performance Measures											
ROA	0.39***	0.43***	0.22***	0.06	0.11***	0.08	-0.15***	0.005	1		
Q	-0.203***	-0.114***	-0.242***	-0.149***	-0.091**	0.08	0.182***	0.085**	-0.258*	1	
GIC_ADJ_Q	-0.06	0.05	0.1122**	-0.073*	-0.05	0.03	0.115***	0.086**	-0.07	0.873***	1
Ownership Percentage Values											
Institution	0.13***	0.09**	0.01	0.02	0.16***	-0.01	0.04	0.024	0.14***	-0.01	-0.02
Bank	0.26***	0.13***	0.04	0.09**	-0.01	-0.03	0.10**	0.049	0.09**	0.03	0.05
Financial	0.13***	0.10**	0.05	-0.01	0.04	0.05	0.03	-0.042	0.14***	0.02	0.02
Mutual / Pension Fund	-0.03	0.00	-0.03	-0.01	0.19***	-0.02	-0.02	0.028	0.06	-0.01	-0.03
Insurance	0.17***	0.07*	-0.02	0.08*	0.11***	-0.06	0.00	0.028	0.11**	-0.076*	-0.071*
Private equity	0.02	-0.07	0.01	-0.01	0.09**	0.00	0.08*	-0.029	0.02	-0.04	-0.077*
Family	-0.09**	0.04	0.01	-0.04	0.15***	-0.04	-0.12***	-0.083**	0.05	-0.05	0.00
Industrial	-0.03	0.06	-0.05	0.00	0.19***	-0.01	-0.15***	-0.062	-0.02	-0.05	-0.05
Ownership Count Values											
Institution	0.39***	0.09**	0.01	0.12***	-0.03	0.02	0.31***	0.130***	0.05	0.139***	0.168***
Bank	0.46***	0.20***	0.07	0.16***	-0.03	-0.06	0.25***	0.108**	0.02	0.117***	0.161***
Financial	0.23***	0.08*	0.01	0.05	0.03	0.06	0.16***	0.047	0.08*	0.161***	0.171***
Mutual / Pension Fund	0.01	-0.10**	-0.06	0.01	-0.04	0.05	0.14***	0.074*	0.00	0.01	0.00
Insurance	0.34***	0.26***	-0.01	0.12***	0.19***	-0.06	0.07*	0.038	0.20***	0.01	0.03
Private Equity	0.02	-0.02	0.09**	0.02	0.00	-0.05	0.02	0.060	0.02	-0.01	-0.04
Family	-0.19***	-0.05	-0.03	-0.08*	0.04	-0.02	-0.10**	0.003	0.00	0.01	0.00
Industrial	-0.12***	-0.13***	-0.19***	-0.03	0.03	0.06	0.02	0.079*	-0.16***	0.083***	0.05

	Ownership Percentage Values								Ownership Count Values							
	Institution	Bank	Financial	Mutual / Pension Fund	Insurance	PrivateEquity	Family	Industrial	Institution	Bank	Financial	Mutual / Pension Fund	Insurance	PrivateEquity	Family	Industrial
Ownership Percentage Values																
Institution	1															
Bank	0.41***	1														
Financial	0.50***	0.09**	1													
Mutual / Pension Fund	0.80***	0.00	0.04	1												
Insurance	-0.01	0.01	0.00	-0.02	1											
Private equity	-0.02	-0.02	-0.03	0.01	0.06	1										
Family	-0.16***	-0.12***	-0.14***	-0.08*	0.03	-0.05	1									
Industrial	-0.11***	-0.12***	-0.08**	-0.04	-0.03	0.03	-0.10	1								
Ownership Count Values																
Institution	0.39***	0.37***	0.27***	0.16***	-0.01	-0.02	-0.25***	-0.20***	1							
Bank	0.22***	0.57***	0.06	-0.03	-0.01	-0.02	-0.15***	-0.15***	0.65***	1						
Financial	0.20***	0.11**	0.52***	-0.08*	-0.01	0.00	-0.16***	-0.14***	0.59***	0.20***	1					
Mutual / Pension Fund	0.27***	-0.01	-0.03	0.36***	0.00	0.00	-0.15***	-0.07*	0.56***	-0.05	-0.03	1				
Insurance	0.00	0.09**	0.01	-0.05	0.48***	0.01	-0.08**	-0.04	0.16***	0.16***	0.12***	0.02	1			
Private Equity	-0.07*	-0.07	0.00	-0.07	0.08*	0.35***	-0.01	-0.02	0.01	0.01	0.00	0.00	0.11***	1		
Family	-0.13***	-0.14***	-0.12***	-0.04	-0.03	-0.06	0.70***	-0.07*	-0.33***	-0.23***	-0.21***	-0.14***	-0.16***	-0.09**	1	
Industrial	-0.14***	-0.09**	-0.13***	-0.05	-0.09**	-0.06	-0.09**	0.51***	-0.13***	-0.12***	-0.10**	-0.03	-0.13***	-0.12***	-0.08***	1

Table 3- Correlation Matrix. Sample includes 567 Canadian firms from 2011. Variable descriptions are available in Table 1. Tobin's Q is (Market Value of Equity + Book Value of Short Term Debt + Book Value of Long Term Debt)/Book Value of Assets. GIC Industry-Adjusted Q is Tobin's Q divided by the GIC industry average Tobin's Q, where the GIC average is determined using a sample of 1161 Canadian Firms from Compustat. ROA is Operating Income Before Depreciation / Total Assets. Ln(Assets) is the natural logarithm of total assets. Dividend Dummy takes on a value of 1 when dividends are issued and 0 otherwise. Leverage is (Short Term Debt + Long Term Debt) / Assets. Multiple Class Dummy takes on a value of 1 if multiple classes of shares are traded. Blockholder Wedge is the difference in control rights and cash flow rights for blockholders greater than 10%. Crosslist Dummy takes on a value of 1 if shares are listed in the United States and 0 otherwise. Capital Expenditures is scaled by assets. Ownership Percentage values equal the total ownership percentage for a category of owner. Ownership count values equal the number of owners for a category of ownership. Institution is the sum of Bank, Financial, Mutual/Pension Fund, and Insurance. Correlation values significant at the 10%, 5%, and 1% levels are denoted by *, **, and *** respectively.

Table 4- Frequency Distribution of Ultimate Owners Across Studies

	This Study		La Porta et al. 1999		Attig and Gadhoum 2003		King and Santor 2008	
Year	2011		1995		1996		1998	
Country	Canada		Canada		Canada		Canada	
Ownership Threshold	10%	20%	10%	20%	10%	20%		20%
Widely Held	25.13%	63.86%	40.00%	60.00%	18.22%	37.21%		55.40%
Ultimate Owner	74.87%	36.14%	60.00%	40.00%	81.78%	62.79%		44.60%
Family Group	33.73%	23.58%	50.00%	30.00%	56.60%	41.07%		31.20%
Family	16.18%	9.81%						
Industrial company	17.56%	13.77%						
Corporation	0.52%	0.52%	0.00%	0.00%	10.79%	9.66%		2.60%
Institution	35.11%	8.95%	0.00%	0.00%	17.94%	11.15%		10.80%
Bank	5.51%	0.86%						
Financial company	14.80%	3.79%						
Insurance company	1.72%	0.17%						
Mutual / Pension Fund	13.08%	4.13%						
State	0.17%	0.00%	10.00%	10.00%	4.46%	2.03%		0.00%
Miscellaneous	5.33%	3.10%	0.00%	0.00%	10.88%	4.96%		0.00%
Market Capitalization	> 10 Million		>500 Million					>10 Million

Percentages of firms with ultimate owners at the 10% and 20% level. Family Group is the sum of Family and Industrial Company for a more direct comparison with other studies which trace ultimate ownership beyond the level of industrial companies. Institution is the sum of bank, financial company, insurance company, as well as mutual / pension fund. Firms which do not have an ultimate owner are considered to be widely held.

Table 5 - Full Sample OLS Regression Results

Panel A										
Model	1	2	3	4	5	6	7	8	9	10
Dependent Variable: Q										
Parameter Estimates										
Intercept	1.353***	1.672***	1.713***	1.748***	1.413***	1.111***	1.501***	1.682***	1.449***	1.109***
<u>Ownership Percentage Values</u>										
Institution	0.000	-0.001								
Bank			0.007	0.006	0.007					
Financial			0.002	0.000	0.006					
Mutual / Pension Fund			-0.004	-0.004	-0.004					
Insurance			-0.007*	-0.007	-0.010					
Private Equity				-0.005**	-0.007					
Family				-0.001	-0.002					
Industrial Company				-0.004	0.000					
<u>Ownership Count Values</u>										
Institution						0.089***	0.086***			
Bank								0.136***	0.153***	0.120***
Financial								0.143***	0.162***	0.185***
Mutual / Pension Fund								0.011	0.023	0.031
Insurance								0.065	0.090**	0.052
Private Equity									-0.010	0.057
Family									0.109*	0.009
Industrial Company									0.083*	0.094*

Control Variables										
Ln (Assets)	-0.081**	-0.124***	-0.129***	-0.128***	-0.088**	-0.143***	-0.189***	-0.210***	-0.209***	-0.165***
Dividend Dummy	0.330***	0.360***	0.338***	0.342***	0.313***	0.315**	0.352***	0.319***	0.315***	0.301**
Leverage	-0.814***	-0.744***	-0.761***	-0.764***	-0.822***	-0.561**	-0.540**	-0.530**	-0.428*	-0.538*
Multiple Class Dummy	-0.247***				-0.262***	-0.297***				-0.291***
Blockholder Wedge	-0.008***	-0.006***	-0.005**	-0.003	-0.006**	-0.007***	-0.005**	-0.005**	-0.006**	-0.007***
5 Year % Sales Growth	0.005				0.005	0.005				0.005
Crosslist Dummy	0.296***	0.410***	0.407***	0.387***	0.328***	0.228***	0.342***	0.341***	0.337***	0.258**
Capital Expenditures	0.478	0.708	0.720	0.670		0.283	0.456	0.408	0.325	
GIC Dummy Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	381	567	567	567	382	381	567	567	567	382
R-Square	0.237	0.199	0.204	0.209	0.245	0.272	0.229	0.247	0.255	0.299
Adj R-Sq	0.176	0.161	0.161	0.162	0.174	0.214	0.192	0.206	0.210	0.232
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Panel B										
Model	1	2	3	4	5	6	7	8	9	10
Dependent Variable: GIC Industry-Adjusted Q										
Parameter Estimates										
Intercept	0.928***	0.975***	1.015***	1.000***	0.958***	0.833***	0.904***	0.969***	0.868***	0.817***
<u>Ownership Percentage Values</u>										
Institution	-0.001	-0.001								
Bank			0.004	0.004	0.003					
Financial			0.001	0.001	0.003					
Mutual / Pension Fund			-0.002	-0.002	-0.002					
Insurance			-0.007***	-0.006**	-0.010					
Private Equity				-0.003**	-0.005*					
Family				0.000	0.000					
Industrial Company				-0.001	0.000					
<u>Ownership Count Values</u>										
Institution						0.045***	0.044***			
Bank								0.074***	0.082***	0.080***
Financial								0.080***	0.089***	0.102***
Mutual / Pension Fund								0.005	0.011	0.013
Insurance								0.012	0.030	0.004
Private Equity									-0.016	0.011
Family									0.050	0.012
Industrial Company									0.051*	0.069**

Control Variables										
Ln (Assets)	-0.025	-0.051***	-0.031*	-0.052***	-0.023	-0.056**	-0.083***	-0.093***	-0.094***	-0.069**
Dividend Dummy	0.243***	0.263***	0.204***	0.247***	0.210***	0.224***	0.259***	0.253***	0.249***	0.216***
Leverage	-0.415**	-0.326**	-0.422***	-0.329**	-0.419**	-0.281*	-0.204	-0.198	-0.133	-0.219
Multiple Class Dummy	-0.111**				-0.116**	-0.131**				-0.136*
Blockholder Wedge	-0.005***	-0.003***	-0.002	-0.002	-0.005**	-0.005***	-0.003*	-0.002	-0.003*	-0.005***
5 Year % Sales Growth	0.001				0.001	0.002				0.001
Crosslist Dummy	0.144**	0.193***		0.188***	0.175**	0.111	0.152***	0.145***	0.142***	0.120*
Capital Expenditures	0.429	0.513**	0.595**	0.497**		0.357	0.406*	0.396	0.341	
GIC Dummy Controls	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Observations	381	567	567	567	382	381	567	567	567	382
R-Square	0.065	0.061	0.050	0.072	0.073	0.095	0.090	0.113	0.122	0.133
Adj R-Sq	0.043	0.049	0.034	0.050	0.037	0.073	0.079	0.097	0.102	0.100
Pr > F	0.003	<.0001	0.001	<.0001	0.014	<.0001	<.0001	<.0001	<.0001	<.0001

Panel C										
Model	1	2	3	4	5	6	7	8	9	10
Dependent Variable: ROA										
Parameter Estimates										
Intercept	-0.196***	-0.147***	-0.152***	-0.152***	-0.176***	-0.189***	-0.130***	-0.152***	-0.141***	-0.175***
<u>Ownership Percentage Values</u>										
Institution	0.000	0.0007*								
Bank			-0.001	-0.001	-0.001					
Financial			0.002*	0.002**	0.001					
Mutual / Pension Fund			0.001*	0.001*	0.000					
Insurance			0.000	0.000	0.001					
Private Equity				0.0007**	0.000					
Family				0.0005*	0.0006*					
Industrial Company				0.000	0.000					
<u>Ownership Count Values</u>										
Institution						-0.003	-0.003			
Bank								-0.019***	-0.019***	-0.013**
Financial								0.004	0.004	0.001
Mutual / Pension Fund								0.002	0.002	0.000
Insurance								0.003	0.002	0.008
Private Equity									0.002	0.000
Family									0.006	0.012
Industrial Company									-0.013*	-0.012

Control Variables										
Ln (Assets)	0.032***	0.025***	0.027***	0.028***	0.033***	0.034***	0.030***	0.033	0.033***	0.037***
Dividend Dummy	0.100***	0.088***	0.090***	0.090***	0.088***	0.100***	0.088***	0.093***	0.092***	0.085***
Leverage	0.100**	0.047	0.042	0.037	0.092**	0.091**	0.032	0.026	0.016	0.078*
Multiple Class Dummy	-0.039**				-0.032	-0.037*				-0.030
Blockholder Wedge	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5 Year % Sales Growth	0.001***				0.001**	0.001**				0.001***
Crosslist Dummy	-0.063***	-0.061***	-0.062***	-0.063***	-0.058***	-0.061***	-0.059***	-0.057***	-0.057***	-0.055***
Capital Expenditures	0.264***	0.220***	0.227***	0.230***		0.270***	0.233***	0.237***	0.231***	
GIC Dummy Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	381	567	567	567	382	381	567	567	567	382
R-Square	0.398	0.360	0.365	0.370	0.381	0.400	0.356	0.373	0.379	0.391
Adj R-Sq	0.351	0.329	0.331	0.332	0.322	0.352	0.325	0.339	0.342	0.333
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Table 5 - Full Sample OLS Regressions: This table reports the results from the ordinary least squares regressions that estimate the impact of ownership structure performance measures: Tobin's Q, GIC Industry-Adjusted Q, and Return on Assets (ROA). Tobin's Q is (Market Value of Equity + Book Value of Short Term Debt + Book Value of Long Term Debt)/Book Value of Assets. GIC Industry-Adjusted Q is Tobin's Q divided by the GIC industry average Tobin's Q, where the GIC average is determined using a sample of 1161 Canadian Firms from Compustat. ROA is Operating Income Before Depreciation / Total Assets. Ln(Assets) is the natural logarithm of total assets. Dividend Dummy takes on a value of 1 when dividends are issued and 0 otherwise. Leverage is (Short Term Debt + Long Term Debt) / Assets. Multiple Class Dummy takes on a value of 1 if multiple classes of shares are traded. Blockholder Wedge is the difference in control rights and cash flow rights for blockholders greater than 10%. Crosslist Dummy takes on a value of 1 if shares are listed in the United States and 0 otherwise. Capital Expenditures is scaled by assets. Ownership Percentage values equal the total ownership percentage for a category of owner. Ownership count values equal the number of owners for a category of ownership. Institution is the sum of Bank, Financial, Mutual/Pension Fund, and Insurance. The inclusion of industry dummies is indicated by a Yes or No although results are not shown. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Table 6 - Sub-Sample OLS Regressions- Firms with Family Ownership Greater than 20%

Panel A										
Model	1	2	3	4	5	6	7	8	9	10
Dependent Variable: Q										
Parameter Estimates										
Intercept	-0.060	1.229***	1.481***	1.693**	-0.087	-0.114	1.288***	1.185***	0.841**	0.078
Ownership Percentage Values										
Institution	-0.006	-0.001								
Bank			0.014	0.016	0.008					
Financial			-0.017	-0.013	0.006					
Mutual / Pension Fund			0.000	-0.003	-0.013					
Insurance			-0.008	-0.007	0.039					
Private Equity				0.018	-0.063					
Family				0.001	0.003					
Industrial Company				-0.014	-0.026					
Ownership Count Values										
Institution						-0.004	0.041			
Bank								0.106	0.113	0.086
Financial								0.089	0.084	0.116
Mutual / Pension Fund								0.018	0.030	-0.149
Insurance								-0.117	-0.105	0.053
Private Equity									0.135	0.126
Family									0.147*	0.076
Industrial Company									-0.005	-0.096

Control Variables										
Ln (Assets)	0.148	0.072	0.071	0.072	0.218	0.161	0.039	0.057	0.038	0.142
Dividend Dummy	0.161	0.029	0.010	-0.009	0.047	0.165	0.017	0.050	0.013	0.188
Leverage	-1.994**	-1.292*	-1.211	-1.054	-1.895**	-2.025**	-1.194*	-1.325*	-1.199	-2.334***
Multiple Class Dummy	0.282				0.127	0.267				0.366
Blockholder Wedge	-0.003	-0.002	0.000	-0.001	-0.012	-0.004	-0.004	-0.005	-0.006	-0.012
5 Year % Sales Growth	0.024				-0.004	0.018				-0.015
Crosslist Dummy	-0.014	0.033	0.081	0.062	-0.024	-0.067	-0.026	-0.037	-0.011	0.019
Capital Expenditures	2.322**	1.806*	2.040*	1.870*		2.177*	1.335	1.242	1.179	
GIC Dummy Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	49	70	70	70	49	49	70	70	70	49
R-Square	0.331	0.230	0.247	0.268	0.349	0.325	0.241	0.266	0.300	0.383
Adj R-Sq	-0.235	-0.106	-0.155	-0.202	-0.488	-0.246	-0.092	-0.125	-0.150	-0.411
Pr > F	0.898	0.827	0.900	0.937	0.983	0.908	0.788	0.844	0.867	0.962

Panel B										
Model	1	2	3	4	5	6	7	8	9	10
Dependent Variable: GIC Industry-Adjusted Q										
Parameter Estimates										
Intercept	0.211	0.525**	0.5264**	0.301	-0.088	0.156	0.573***	0.575***	0.406*	0.113
<u>Ownership Percentage Values</u>										
Institution	-0.002	0.000								
Bank			0.004	0.003	0.003					
Financial			-0.003	-0.003	0.012					
Mutual / Pension Fund			0.002	-0.002	-0.003					
Insurance			-0.003	-0.003	0.015					
Private Equity				0.027	-0.014					
Family				0.005	0.003					
Industrial Company				0.001	-0.009					
<u>Ownership Count Values</u>										
Institution						0.019	0.047			
Bank								0.040	0.031	0.033
Financial								0.123	0.129*	0.109
Mutual / Pension Fund								0.051	0.054	-0.056
Insurance								-0.094	-0.099	0.030
Private Equity									0.089	0.056
Family									0.082	-0.009
Industrial Company									0.044	-0.014

Control Variables										
Ln (Assets)	0.129*	0.054	0.053	0.033	0.187**	0.128*	0.024	0.029	0.014	0.150**
Dividend Dummy	0.172	0.129	0.130	0.102	0.093	0.171	0.130	0.174	0.158	0.159
Leverage	-1.219	-0.471	-0.456	-0.166	-1.269*	-1.223*	-0.415	-0.566	-0.449	-1.414**.
Multiple Class Dummy	0.236				0.144	0.223				0.240
Blockholder Wedge	-0.002	-0.002	-0.002	-0.004	-0.008	-0.004	-0.005	-0.005	-0.005	-0.006
5 Year % Sales Growth	-0.003				-0.007	-0.008				-0.016
Crosslist Dummy	-0.127	-0.024	-0.019	0.006	-0.128	-0.155	-0.080	-0.083	-0.069	-0.093
Capital Expenditures	1.165*	0.662	0.624	1.006		0.872	0.134	-0.068	0.049	
GIC Dummy Controls	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Observations	49	70	70	70	49	49	70	70	70	49
R-Square	0.239	0.048	0.052	0.106	0.234	0.242	0.081	0.116	0.143	0.300
Adj R-Sq	0.063	-0.059	-0.109	-0.101	-0.081	0.068	-0.023	-0.034	-0.055	0.011
Pr > F	0.240	0.869	0.972	0.907	0.718	0.227	0.607	0.656	0.735	0.441

Panel C										
Model	1	2	3	4	5	6	7	8	9	10
Dependent Variable: ROA										
Parameter Estimates										
Intercept	-0.006	0.058	0.117**	0.172***	0.018	0.093*	-0.009	0.110*	0.122*	0.006
<u>Ownership Percentage Values</u>										
Institution	0.000	0.001								
Bank			0.002	0.001	0.002					
Financial			-0.003	-0.003**	0.000					
Mutual / Pension Fund			0.002**	0.000	0.002					
Insurance			-0.002	-0.003**	-0.005*					
Private Equity				0.011***	0.017***					
Family				0.000	0.000					
Industrial Company				0.000	-0.003*					
<u>Ownership Count Values</u>										
Institution						0.008	-0.004			
Bank								0.014	0.015	0.012
Financial								-0.006	-0.007	-0.018
Mutual / Pension Fund								0.016*	0.016	0.006
Insurance								0.002	0.002	-0.005
Private Equity									0.015	0.013
Family									0.004	0.014
Industrial Company									-0.019	-0.035***

Control Variables										
Ln (Assets)	0.002	0.004	0.005	-0.001	0.000	-0.001	0.006	-0.002	-0.003	-0.003
Dividend Dummy	0.091***	0.065***	0.067***	0.065***	0.086***	0.063***	0.090***	0.064***	0.063***	0.078***
Leverage	0.182*	0.067	0.083	0.169*	0.193**	0.088	0.172**	0.110*	0.116*	0.167*
Multiple Class Dummy	-0.059*				-0.068*		-0.060*			-0.053
Blockholder Wedge	0.001**	0.001	0.001	0.002**	0.002**	0.000	0.002**	0.001	0.001	0.001
5 Year % Sales Growth	-0.004				-0.002		-0.004			0.000
Crosslist Dummy	-0.113***	-0.081***	-0.073***	-0.060**	-0.125***	-0.090***	-0.108***	-0.088***	-0.082***	-0.107***
Capital Expenditures	0.271*	0.219	0.244*	0.273**		0.157	0.294*	0.176	0.131	
GIC Dummy Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	49	70	70	70	49	70	49	70	70	49
R-Square	0.746	0.564	0.601	0.703	0.800	0.575	0.749	0.593	0.613	0.784
Adj R-Sq	0.531	0.374	0.388	0.512	0.542	0.389	0.537	0.375	0.365	0.507
Pr > F	0.002	0.001	0.001	<.0001	0.005	0.001	0.001	0.002	0.004	0.009

Table 6 - This table reports the results from the ordinary least squares regressions that estimate the impact of ownership structure performance measures: Tobin's Q, GIC Industry-Adjusted Q, and Return on Assets (ROA). Tobin's Q is (Market Value of Equity + Book Value of Short Term Debt + Book Value of Long Term Debt)/Book Value of Assets. GIC Industry-Adjusted Q is Tobin's Q divided by the GIC industry average Tobin's Q, where the GIC average is determined using a sample of 1161 Canadian Firms from Compustat. ROA is Operating Income Before Depreciation / Total Assets. Ln(Assets) is the natural logarithm of total assets. Dividend Dummy takes on a value of 1 when dividends are issued and 0 otherwise. Leverage is (Short Term Debt + Long Term Debt) / Assets. Multiple Class Dummy takes on a value of 1 if multiple classes of shares are traded. Blockholder Wedge is the difference in control rights and cash flow rights for blockholders greater than 10%. Crosslist Dummy takes on a value of 1 if shares are listed in the United States and 0 otherwise. Capital Expenditures is scaled by assets. Ownership Percentage values equal the total ownership percentage for a category of owner. Ownership count values equal the number of owners for a category of ownership. Institution is the sum of Bank, Financial, Mutual/Pension Fund, and Insurance. The inclusion of industry dummies is indicated by a Yes or No although results are not shown. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Table 7 - Sub-Sample OLS Regressions- Firms with Institutional Ownership Greater than 20%

Panel A										
Model	1	2	3	4	5	6	7	8	9	10
Dependent Variable: Q										
Parameter Estimates										
Intercept	2.130***	2.072***	2.082***	2.129***	2.123***	1.570***	1.510***	1.700***	1.336***	1.785***
<u>Ownership Percentage Values</u>										
Institution	-0.005	-0.004								
Bank			0.005	0.003	0.001					
Financial			-0.003	-0.004	0.001					
Mutual / Pension Fund			-0.006	-0.007	-0.009*					
Insurance			-0.008*	-0.008*	-0.006					
Private Equity				-0.005**	-0.009					
Family				-0.001	-0.008*					
Industrial Company				-0.003	-0.003					
<u>Ownership Count Values</u>										
Institution						0.061	0.085***			
Bank								0.147***	0.172***	0.104*
Financial								0.137**	0.171***	0.190**
Mutual / Pension Fund								0.020	0.042	-0.022
Insurance								0.058	0.095	0.027
Private Equity									-0.002	-0.045
Family									0.121	-0.026
Industrial Company									0.142**	0.074

Control Variables										
Ln (Assets)	-0.130**	-0.140***	-0.146***	-0.148***	-0.150***	-0.160***	-0.177***	-0.207***	-0.205***	-0.214***
Dividend Dummy	0.212	0.290**	0.254**	0.252**	0.210	0.221	0.278**	0.238**	0.261**	0.228
Leverage	-0.937**	-0.481	-0.568	-0.558	-0.974**	-0.888**	-0.460	-0.528	-0.440	-0.812*
Multiple Class Dummy	-0.205				-0.233*	-0.244*				-0.248*
Blockholder Wedge	-0.007***	-0.007***	-0.006**	-0.004	-0.003	-0.006**	-0.005**	-0.004	-0.005*	-0.005
5 Year % Sales Growth	0.010***				0.011**	0.011**				0.011***
Crosslist Dummy	0.280**	0.364***	0.361***	0.342***	0.266*	0.301**	0.360***	0.361***	0.355***	0.382***
Capital Expenditures	-0.269	0.473	0.470	0.389		-0.286	0.304	0.217	0.194	
GIC Dummy Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	199	306	306	306	200	199	306	306	306	200
R-Square	0.354	0.232	0.239	0.245	0.374	0.359	0.248	0.272	0.288	0.407
Adj R-Sq	0.248	0.160	0.159	0.156	0.250	0.253	0.178	0.195	0.204	0.289
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Panel B										
Model	1	2	3	4	5	6	7	8	9	10
Dependent Variable: GIC Industry-Adjusted Q										
Parameter Estimates										
Intercept	1.319***	1.190***	1.120***	1.240***	1.369***	1.084***	0.900***	1.003***	0.876***	1.175***
<u>Ownership Percentage Values</u>										
Institution	-0.003	-0.003*								
Bank			0.003	0.002	-0.001					
Financial			-0.003	-0.003	0.000					
Mutual / Pension Fund			-0.004	-0.004*	-0.005*					
Insurance			-0.006**	-0.006**	-0.008					
Private Equity				-0.003**	-0.005*					
Family				-0.001	-0.003					
Industrial Company				-0.001	-0.001					
<u>Ownership Count Values</u>										
Institution						0.026	0.043**			
Bank								0.080***	0.088***	0.052
Financial								0.072**	0.086***	0.101**
Mutual / Pension Fund								0.009	0.017	-0.015
Insurance								0.015	0.034	-0.017
Private Equity									-0.016	-0.052
Family									0.056	-0.006
Industrial Company									0.062	0.049

Control Variables										
Ln (Assets)	-0.060*	-0.065***	-0.069***	-0.069***	-0.064**	-0.073**	-0.084***	-0.100***	-0.100***	-0.101***
Dividend Dummy	0.121	0.206***	0.189***	0.181***	0.112	0.119	0.196***	0.186***	0.193***	0.134
Leverage	-0.239	-0.152	-0.165	-0.170	-0.224	-0.215	-0.133	-0.148	-0.091	-0.104
Multiple Class Dummy	-0.080				-0.087	-0.089				-0.100
Blockholder Wedge	-0.004**	-0.003**	-0.002*	-0.002	-0.002	-0.003**	-0.002*	-0.001	-0.002	-0.003
5 Year % Sales Growth	0.003				0.003	0.003				0.003
Crosslist Dummy	0.110	0.162**	0.151**	0.148**	0.106	0.121	0.153**	0.143**	0.133**	0.139*
Capital Expenditures	-0.018	0.365	0.345	0.321		0.008	0.306	0.262	0.238	
GIC Dummy Controls	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Observations	199	306	306	306	200	199	306	306	306	200
R-Square	0.074	0.069	0.079	0.084	0.096	0.074	0.081	0.109	0.122	0.145
Adj R-Sq	0.030	0.047	0.047	0.043	0.028	0.030	0.059	0.079	0.083	0.080
Pr > F	0.095	0.003	0.007	0.017	0.153	0.099	0.001	0.000	0.000	0.008

Panel C										
Model	1	2	3	4	5	6	7	8	9	10
Dependent Variable: ROA										
Parameter Estimates										
Intercept	-0.229***	-0.156***	-0.158***	-0.165***	-0.197***	-0.237***	-0.0926**	-0.117**	-0.124**	-0.274***
<u>Ownership Percentage Values</u>										
Institution	0.000	0.001*								
Bank			0.000	0.000	-0.001					
Financial			0.002*	0.002*	0.000					
Mutual / Pension Fund			0.001*	0.001*	0.000					
Insurance			0.000	0.000	0.000					
Private Equity				0.0009***	0.001					
Family				0.001	0.001**					
Industrial Company				0.000	0.000					
<u>Ownership Count Values</u>										
Institution						0.001	-0.004			
Bank								-0.017**	-0.016*	-0.005
Financial								0.000	0.000	0.000
Mutual / Pension Fund								0.003	0.004	0.011
Insurance								-0.006	-0.005	0.012
Private Equity									0.004	0.011
Family									0.008	0.015
Industrial Company									-0.004	0.004

Control Variables										
Ln (Assets)	0.033***	0.023***	0.025***	0.026***	0.035***	0.033***	0.025***	0.029***	0.029***	0.038***
Dividend Dummy	0.113***	0.090***	0.091***	0.092***	0.099***	0.113***	0.090***	0.099***	0.098***	0.102***
Leverage	0.112*	0.034	0.034	0.030	0.098*	0.112*	0.036	0.042	0.037	0.103*
Multiple Class Dummy	-0.009				0.002	-0.009				-0.004
Blockholder Wedge	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5 Year % Sales Growth	0.001				0.000	0.001				0.000
Crosslist Dummy	-0.090***	-0.064***	-0.066***	-0.064***	-0.085***	-0.090***	-0.068***	-0.065***	-0.066***	-0.091***
Capital Expenditures	0.295***	0.217**	0.225**	0.232***		0.294***	0.217**	0.236**	0.225**	
GIC Dummy Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	199	306	306	306	200	199	306	306	306	200
R-Square	0.446	0.345	0.349	0.355	0.418	0.446	0.335	0.349	0.351	0.428
Adj R-Sq	0.355	0.284	0.281	0.279	0.302	0.355	0.274	0.281	0.275	0.314
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Table 7 - Sub-Sample OLS Regressions- Firms with Institutional Ownership Greater than 20%: This table reports the results from the ordinary least squares regressions that estimate the impact of ownership structure performance measures: Tobin's Q, GIC Industry-Adjusted Q, and Return on Assets (ROA). Tobin's Q is (Market Value of Equity + Book Value of Short Term Debt + Book Value of Long Term Debt)/Book Value of Assets. GIC Industry-Adjusted Q is Tobin's Q divided by the GIC industry average Tobin's Q, where the GIC average is determined using a sample of 1161 Canadian Firms from Compustat. ROA is Operating Income Before Depreciation / Total Assets. Ln(Assets) is the natural logarithm of total assets. Dividend Dummy takes on a value of 1 when dividends are issued and 0 otherwise. Leverage is (Short Term Debt + Long Term Debt) / Assets. Multiple Class Dummy takes on a value of 1 if multiple classes of shares are traded. Blockholder Wedge is the difference in control rights and cash flow rights for blockholders greater than 10%. Crosslist Dummy takes on a value of 1 if shares are listed in the United States and 0 otherwise. Capital Expenditures is scaled by assets. Ownership Percentage values equal the total ownership percentage for a category of owner. Ownership count values equal the number of owners for a category of ownership. Institution is the sum of Bank, Financial, Mutual/Pension Fund, and Insurance. The inclusion of industry dummies is indicated by a Yes or No although results are not shown. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Table 8 - Full Sample 2SLS Regressions

Panel A														
Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Dependent Variable: Q														
Parameter Estimates														
Intercept	-2.620	1.621	1.649***	1.697***	1.298***	0.814	1.100	0.874	7.086	5.756	0.447	2.01***	1.975***	1.464***
Ownership Percentage Values														
Institution	0.253	-0.003												
Bank			0.068	0.040	0.078									
Financial						0.259	0.186	0.223						
Mutual / Pension Fund									-0.503	-0.375	0.066			
Insurance												-0.135	-0.101	-0.192
Private Equity														
Family				-0.001	-0.002		-0.001	-0.002		-0.001	-0.003		-0.001	-0.002
Industrial Company				-0.004	-0.001		-0.004	-0.001		-0.004	-0.002		-0.004	-0.001
Control Variables														
Ln (Assets)	-0.758	-0.120	-0.206**	-0.176*	-0.160	-0.306	-0.257	-0.256	0.022	-0.018	-0.109*	-0.029	-0.055	0.030
Dividend Dummy	0.201	0.35***	0.273*	0.319**	0.251	0.129	0.203	0.067	-0.774	-0.476	0.407*	0.293*	0.319**	0.329*
Leverage	1.704	-0.747	-0.537	-0.639*	-0.633	-0.886	-0.864	-0.590	-4.042	-3.222	-0.370	-1.109**	-1.038**	-0.955**
Multiple Class Dummy	-0.242				-0.263*			-0.248			-0.265			-0.246
Blockholder Wedge														
5 Year % Sales Growth	0.005				0.005			0.005			0.005			0.005
Crosslist Dummy	0.310	0.411***	0.408***	0.382***	0.291**	0.412	0.387*	0.301	0.415	0.389	0.304*	0.416***	0.39***	0.305*
Capital Expenditures	0.509	0.724	0.702	0.678		0.706	0.681		0.717	0.689		0.721	0.691	
GIC Dummy Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	381.000	567.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000
R-Square	0.017	0.196	0.179	0.195	0.202	0.043	0.070	0.074	0.007	0.013	0.155	0.145	0.168	0.165
Adj R-Sq	-0.058	0.159	0.141	0.155	0.139	-0.001	0.024	0.000	-0.039	-0.036	0.088	0.105	0.127	0.098
Pr > F	1.000	<.0001	<.0001	<.0001	<.0001	0.505	0.051	0.461	1.000	1.000	<.0001	<.0001	<.0001	<.0001

Panel B	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Model														
Dependent Variable: Q														
Parameter Estimates														
Intercept	1.59***	1.095**	1.605***	1.661***	1.636***	1.587***	2.046*	5.177	1.617***	1.435	6.557	1.586***	1.663***	1.401***
Ownership Count Values														
Institution	-0.013	0.046												
Bank			0.049	0.470	0.708									
Financial						-0.060	-0.574	-4.513						
Mutual / Pension Fund									-0.023	0.041	-1.781			
Insurance												-0.262	-0.384	-0.458
Private Equity														
Family				0.127	0.061		-0.141	-1.226		0.017	-0.502		-0.031	-0.130
Industrial Company				0.098	0.140		-0.090	-0.548		0.016	-0.236		-0.024	-0.013
Control Variables														
Ln (Assets)	-0.119**	-0.122*	-0.148**	-0.289**	-0.356*	-0.118**	-0.034	0.662	-0.128***	-0.131***	-0.018	-0.087	-0.072	-0.029
Dividend Dummy	0.35***	0.322**	0.346***	0.29**	0.344**	0.346***	0.292	0.617	0.342**	0.372	-0.353	0.418***	0.449***	0.455**
Leverage	-0.739**	-0.629	-0.664**	-0.226	-0.111	-0.727**	-0.959	-3.105	-0.72**	-0.675	-2.375	-0.891**	-0.993**	-1.079**
Multiple Class Dummy		-0.271**			-0.27*			-0.273			-0.276			-0.282**
Blockholder Wedge														
5 Year % Sales Growth		0.005*			0.005			0.005			0.005			0.005
Crosslist Dummy	0.412***	0.302**	0.41***	0.411***	0.316**	0.412***	0.409***	0.335	0.412***	0.411***	0.336	0.412***	0.41***	0.312**
Capital Expenditures	0.719	0.513	0.724	0.698		0.716	0.705		0.722	0.720		0.700	0.697	
GIC Dummy Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	567.000	381.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000
R-Square	0.195	0.239	0.199	0.184	0.172	0.192	0.131	0.010	0.196	0.196	0.034	0.190	0.183	0.213
Adj R-Sq	0.157	0.180	0.162	0.143	0.107	0.155	0.087	-0.069	0.159	0.156	-0.043	0.152	0.142	0.150
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	1.000	<.0001	<.0001	0.994	<.0001	<.0001	<.0001

Panel C														
Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Dependent Variable: GIC_ADJ_Q														
Parameter Estimates														
Intercept	0.969***	1.093***	0.959***	0.978***	0.971***	0.998***	1.013***	1.006***	1.08***	1.09***	0.91***	0.965***	1.022***	0.952***
<u>Ownership Percentage Values</u>														
Institution	-0.004	-0.011												
Bank			-0.007	-0.009	-0.006									
Financial						-0.007	-0.007	-0.011						
Mpfund									-0.013	-0.012	0.007			
Insurance												-0.028	-0.029	-0.055**
Private Equity														
Family				0.000	-0.001		0.000	-0.001		0.000	-0.001		0.000	-0.001
Industrial Company				-0.001	-0.001		-0.001	-0.001		-0.001	-0.001		-0.002	0.000
<u>Control Variables</u>														
Ln (Assets)	-0.022	-0.027	-0.046*	-0.045*	-0.022	-0.051***	-0.051***	-0.021	-0.052***	-0.052***	-0.029	-0.036	-0.015	0.002
Dividend Dummy	0.24***	0.253***	0.262***	0.266***	0.209***	0.261***	0.264***	0.221***	0.236***	0.24***	0.208***	0.252***	0.209***	0.217***
Leverage	-0.418**	-0.459**	-0.335**	-0.352**	-0.407**	-0.309**	-0.32**	-0.407**	-0.371**	-0.378**	-0.363*	-0.395**	-0.5***	-0.493**
Multiple Class Dummy	-0.125				-0.122			-0.124			-0.118			-0.136*
Blockholder Wedge														
5 Year % Sales Growth	0.001				0.001			0.001			0.001			0.001
Crosslist Dummy	0.155**	0.199***	0.199***	0.19***	0.162**	0.195***	0.187***	0.162**	0.197***	0.189***	0.164**	0.19***		0.162**
Capital Expenditures	0.442*	0.507**	0.544**	0.539**		0.52**	0.515**		0.527**	0.522**		0.484**	0.549**	
GIC Dummy Controls	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Observations	381.000	567.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000
R-Square	0.058	0.057	0.058	0.059	0.050	0.058	0.060	0.050	0.057	0.059	0.049	0.060	0.045	0.057
Adj R-Sq	0.037	0.047	0.048	0.046	0.027	0.048	0.046	0.027	0.047	0.045	0.026	0.049	0.033	0.034
Pr > F	0.005	<.0001	<.0001	<.0001	0.023	<.0001	<.0001	0.025	<.0001	<.0001	0.025	<.0001	0.001	0.009

Panel D														
Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Dependent Variable: GIC_ADJ_Q														
Parameter Estimates														
Intercept	1.03***	0.931***	0.973***	0.956***	0.964***	1.013***	0.998***	1.024***	1.121***	1.198***	0.934***	0.96***	1.003***	1.022***
Ownership Count Values														
Institution	-0.034	-0.005												
Bank			0.006	0.025	0.124									
Financial						-0.021	-0.046	-0.082						
Mpfund									-0.086	-0.118	0.006			
Insurance												-0.224**	-0.277**	-0.288**
Private Equity														
Family				0.005	-0.012		-0.013	-0.058		-0.031	-0.038		-0.035	-0.073*
Industrial Company				0.024	0.054*		0.013	0.030		0.008	0.041		-0.010	0.013
Control Variables														
Ln (Assets)	-0.027	-0.027	-0.057**	-0.063**	-0.076**	-0.028	-0.047**	-0.019	-0.048**	-0.048**	-0.031	-0.022	-0.018	0.002
Dividend Dummy	0.246***	0.233***	0.256***	0.258***	0.229***	0.201***	0.253***	0.228***	0.222***	0.213***	0.217***	0.313***	0.329***	0.325***
Leverage	-0.404**	-0.386*	-0.296*	-0.259	-0.224	-0.411***	-0.316*	-0.377*	-0.345**	-0.349**	-0.316	-0.495***	-0.542***	-0.596**
Multiple Class Dummy		-0.119			-0.134*			-0.133*			-0.132*			-0.15*
Blockholder Wedge														
5 Year % Sales Growth		0.001			0.001			0.001			0.001			0.001
Crosslist Dummy	0.206***	0.154**	0.194***	0.192***	0.158**		0.198***	0.173**	0.199***	0.198***	0.169**	0.204***	0.203***	0.172**
Capital Expenditures	0.535**	0.457*	0.529**	0.51**		0.612**	0.516**		0.547**	0.554**		0.47*	0.467*	
GIC Dummy Controls	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
Observations	567.000	381.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000
R-Square	0.057	0.057	0.058	0.060	0.063	0.038	0.057	0.053	0.059	0.058	0.057	0.061	0.061	0.062
Adj R-Sq	0.047	0.037	0.048	0.047	0.041	0.029	0.044	0.030	0.049	0.045	0.034	0.051	0.047	0.039
Pr > F	<.0001	0.005	<.0001	<.0001	0.003	0.001	<.0001	0.015	<.0001	<.0001	0.009	<.0001	<.0001	0.004

Panel E														
Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Dependent Variable: ROA														
Parameter Estimates														
Intercept	-0.071	0.015	-0.141***	-0.14***	-0.173***	-0.136	-0.130	-0.162**	0.038	0.004	-0.100	-0.116*	-0.119*	-0.179***
Ownership Percentage Values														
Institution	-0.008	-0.009												
Bank			-0.006	-0.007	0.001									
Financial						0.001	-0.001	-0.006						
Mpfund									-0.016	-0.013	-0.006			
Insurance												-0.005	-0.005	0.006
Private Equity														
Family				0.000	0.001		0.000	0.000		0.000	0.001		0.000	0
Industrial Company				0.000	0.000		0.000	0.000		0.000	0.000		0.000	0
Control Variables														
Ln (Assets)	0.053	0.054	0.034**	0.035**	0.031*	0.027	0.029	0.037**	0.032	0.032	0.035***	0.032***	0.031***	0.029**
Dividend Dummy	0.104***	0.082***	0.095***	0.096***	0.089***	0.087***	0.089***	0.096***	0.053	0.060	0.081***	0.086***	0.086***	0.089***
Leverage	0.021	-0.069	0.023	0.019	0.095	0.038	0.037	0.088	-0.066	-0.047	0.058	0.022	0.023	0.099*
Multiple Class Dummy	-0.039				-0.034*			-0.034			-0.034			-0.035*
Blockholder Wedge														
5 Year % Sales Growth	0.001*				0.001**			0.001**			0.001**			0.001**
Crosslist Dummy	-0.063***	-0.061***	-0.061***	-0.063***	-0.058***	-0.062***	-0.063***	-0.058***	-0.062**	-0.063***	-0.059***	-0.062***	-0.063***	-0.058***
Capital Expenditures	0.262***	0.228**	0.226***	0.223***		0.224***	0.222***		0.224**	0.222**		0.224***	0.222***	
GiC Dummy Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	381.000	567.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000
R-Square	0.272	0.179	0.343	0.342	0.377	0.356	0.353	0.350	0.156	0.194	0.337	0.344	0.349	0.372
Adj R-Sq	0.216	0.141	0.313	0.309	0.327	0.326	0.321	0.298	0.117	0.153	0.285	0.314	0.317	0.322
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Panel F														
Model	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Dependent Variable: ROA														
Parameter Estimates														
Intercept	-0.131***	-0.189***	-0.137***	-0.131***	-0.174**	-0.135***	-0.204	-0.314	-0.078	0.018	-0.384	-0.136***	-0.133***	-0.166**
Ownership Count Values														
Institution	-0.002	-0.001												
Bank			-0.003	-0.013	-0.014									
Financial						0.002	0.087	0.170						
Mpfund									-0.026	-0.056	0.073			
Insurance												0.019	0.018	0.001
Private Equity														
Family				0.006	0.011		0.032	0.056		-0.005	0.031		0.011	0.014
Industrial Company				-0.013	-0.014		0.005	0.010		-0.015	-0.001		-0.009	-0.012
Control Variables														
Ln (Assets)	0.029***	0.033***	0.029***	0.032*	0.038	0.027***	0.014	0.005	0.029***	0.031***	0.03**	0.024***	0.025***	0.033***
Dividend Dummy	0.088***	0.1***	0.088***	0.088***	0.087***	0.088***	0.096***	0.076	0.076***	0.061	0.115	0.083***	0.082***	0.087***
Leverage	0.034	0.095*	0.035	0.018	0.070	0.039	0.070	0.172	0.025	-0.003	0.150	0.051	0.045	0.083
Multiple Class Dummy		-0.038*												-0.031
Blockholder Wedge														
5 Year % Sales Growth		0.001**			0.001**			0.001			0.001**			0.001**
Crosslist Dummy	-0.062***	-0.063***	-0.062***	-0.062***	-0.059***	-0.062***	-0.061***	-0.059*	-0.061***	-0.061***	-0.06**	-0.062***	-0.062***	-0.059***
Capital Expenditures	0.224***	0.262***	0.224***	0.219***		0.224***	0.221***		0.223***	0.221***		0.226***	0.219***	
GiC Dummy Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	567.000	381.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000	567.000	567.000	382.000
R-Square	0.355	0.399	0.357	0.366	0.385	0.355	0.277	0.183	0.336	0.288	0.283	0.353	0.359	0.383
Adj R-Sq	0.325	0.353	0.327	0.334	0.336	0.325	0.240	0.118	0.305	0.252	0.227	0.324	0.327	0.334
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Table 8 - Full Sample 2 SLS Regressions: This table reports the results from the 2-Stage Least Squares regressions that estimate the impact of ownership structure performance measures: Tobin's Q, GIC Industry-Adjusted Q, and Return on Assets (ROA). Tobin's Q is $(\text{Market Value of Equity} + \text{Book Value of Short Term Debt} + \text{Book Value of Long Term Debt}) / \text{Book Value of Assets}$. GIC Industry-Adjusted Q is Tobin's Q divided by the GIC industry average Tobin's Q, where the GIC average is determined using a sample of 1161 Canadian Firms from Compustat. ROA is $\text{Operating Income Before Depreciation} / \text{Total Assets}$. $\ln(\text{Assets})$ is the natural logarithm of total assets. Dividend Dummy takes on a value of 1 when dividends are issued and 0 otherwise. Leverage is $(\text{Short Term Debt} + \text{Long Term Debt}) / \text{Assets}$. Multiple Class Dummy takes on a value of 1 if multiple classes of shares are traded. Blockholder Wedge is the difference in control rights and cash flow rights for blockholders greater than 10%. Crosslist Dummy takes on a value of 1 if shares are listed in the United States and 0 otherwise. Capital Expenditures is scaled by assets. Ownership Percentage values equal the total ownership percentage for a category of owner. Ownership count values equal the number of owners for a category of ownership. Institution is the sum of Bank, Financial, Mutual/Pension Fund, and Insurance. Institution, Bank, Financial, Mutual/Pension Fund, and Insurance levels of ownership are estimated endogenously within the 2 SLS simultaneous equations system. The inclusion of industry dummies is indicated by a Yes or No although results are not shown. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.

Table 9- Full Sample 2 SLS Regression Results: Equation 6

Panel A: Percent Measures of Ownership										
Dependent Variable	Institution	Institution	Bank	Bank	Financial	Financial	Mutual /Pension Fund	Mutual /Pension Fund	Insurance	Insurance
Parameter Estimates										
Intercept	2.227	1.341	-4.903**	-3.359	-0.326	-2.293	6.733*	7.446*	0.978	-0.498
Control Variables										
Ln(Assets)	3.028***	2.717***	1.39***	1.076***	0.698**	0.921***	0.278	0.351	0.641***	0.386**
Dividend	-0.963	0.511	0.607	0.692	0.601	0.642	-1.805	-1.202	-0.307	0.372
Leverage	-9.217*	-5.405	-2.612	-1.569	1.375	0.867	-4.233	-3.21	-3.883**	-1.284
Blockholder Wedge	0.049	0.057	-0.031	-0.016	-0.002	0.006	0.028	0.017	0.053**	0.049**
Crosslist	-1.371	-1.983	-0.137	-0.397	-0.403	-1.645*	-0.119	-0.978	-0.726	0.911*
Quebec	-1.129	0.7	-1.328	-1.248	0.563	0.254	0.066	1.873	-0.392	-0.204
Performance Measures										
Q	4.486**	5.062**	1.906**	1.941**	1.964*	2.803**	0.987	0.208	-0.486	0.114
Industry-Adjusted Q										
ROA										
Observations	567	381	567	382	567	382	567	382	567	382
R-Square	0.064	0.067	0.122	0.083	0.022	0.048	0.014	0.008	0.052	0.066
Adj R-Square	0.052	0.05	0.111	0.066	0.01	0.031	0.001	-0.01	0.04	0.049
Pr > F	<.0001	0.0005	<.0001	<.0001	0.0792	0.0093	0.3628	0.865	<.0001	0.0005

Panel B: Count Measures of Ownership										
Dependent Variable	Institution	Institution	Bank	Bank	Financial	Financial	Mutual /Pension Fund	Mutual /Pension Fund	Insurance	Insurance
Parameter Estimates	0.819	1.662**	-1.261***	-0.879**	-0.016	-0.062	2.429***	2.78***	-0.332	-0.191
Intercept	0.75***	0.672***	0.402***	0.381***	0.185***	0.187***	0.005	-0.014	0.158***	0.123***
Control Variables	-0.098	0.319	0.044	-0.018	-0.084	0.136	-0.252	-0.14	0.195**	0.348***
Ln(Assets)	-2.157***	-2.352***	-0.586	-0.431	-0.151	-0.183	-0.744	-0.949	-0.675***	-0.731**
Dividend	-0.003	-0.003	-0.013**	-0.013*	0.002	0.003	-0.004	-0.004	0.011***	0.01**
Leverage	0.923***	0.845***	0.365***	0.303**	0.183	0.019	0.398***	0.44**	-0.022	0.046
Blockholder Wedge	-0.179	-0.019	-0.151	-0.016	0.053	-0.137	-0.227	-0.019	0.145	0.131
Crosslist										
Quebec										
Performance Measures										
Q	0.404	0.168	0.328**	0.189	0.275*	0.35**	-0.329*	-0.482**	0.129	0.115
Industry-Adjusted Q										
ROA										
Observations	567	381	567	382	567	382	567	382	567	382
R-Square	0.28	0.25	0.274	0.231	0.075	0.087	0.039	0.033	0.181	0.174
Adj R-Square	0.271	0.236	0.265	0.217	0.063	0.07	0.027	0.015	0.171	0.159
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.0024	0.0767	<.0001	<.0001

Panel C: Percent Measures of Ownership										
Dependent Variable	Institution	Institution	Bank	Bank	Financial	Financial	Mutual /Pension Fund	Mutual /Pension Fund	Insurance	Insurance
Parameter Estimates										
Intercept	14.248**	20.919***	-0.546	1.268	4.845	7.414**	10.672**	6.001	1.709	3.328
Control Variables										
Ln(Assets)	2.261***	2.353***	1.186***	0.903***	0.669**	0.413	0.134	0.345	0.363**	0.612***
Dividend	1.748	1.194	0.928	1.119	1.329	1.472	-1.359	-1.451	0.691	0.186
Leverage	-14.096**	-18.553***	-5.07***	-4.711**	-3.927	-2.526	-6.214*	-2.456	-2.557*	-4.713***
Blockholder Wedge	-0.019	-0.02	-0.048*	-0.043	-0.036	-0.03	0.013	0.026	0.036	0.046*
Crosslist	-1.073	-0.546	0.204	-0.05	-1.145	-0.043	0.062	-0.941	0.931*	-0.803
Quebec	1.814	-0.639	-1.129	-0.83	0.866	0.776	0.173	1.875	-0.138	-0.434
Performance Measures										
Q										
Industry-Adjusted Q	-2.909	-9.19	-0.464	-0.791	-1.604	-3.598	-1.854	1.879	-2.004	-3.203
ROA										
Observations	381	567	567	382	382	567	567	382	382	567
R-Square	0.061	0.06	0.12	0.077	0.036	0.019	0.013	0.009	0.069	0.052
Adj R-Square	0.044	0.048	0.109	0.06	0.018	0.006	0.001	-0.01	0.052	0.04
Pr > F	0.0012	<.0001	<.0001	<.0001	0.0563	0.1569	0.3779	0.8475	0.0003	<.0001

Panel D: Count Measures of Ownership										
Dependent Variable	Institution	Institution	Bank	Bank	Financial	Financial	Mutual /Pension Fund	Mutual /Pension Fund	Insurance	Insurance
Parameter Estimates										
Intercept	2.485***	3.13***	-0.93*	-0.837*	0.82*	0.804*	1.956***	2.554***	0.502	0.702**
Control Variables										
Ln(Assets)	0.654***	0.675***	0.377***	0.367***	0.156***	0.151***	0.027	0.02	0.11***	0.127***
Dividend	0.42	0.201	0.03	-0.038	0.22	-0.006	-0.197	-0.162	0.437***	0.339***
Leverage	-2.864***	-3.262***	-0.833**	-0.507	-0.777*	-0.586	-0.351	-0.69	-1.152***	-1.153***
Blockholder Wedge	-0.008	-0.011	-0.014***	-0.013*	-0.002	-0.001	0.001	-0.004	0.006	0.008**
Crosslist	0.875***	0.999***	0.422***	0.337**	0.081	0.232**	0.354**	0.341**	0.066	0.003
Quebec	0.027	-0.133	-0.117	0.016	-0.06	0.083	-0.115	-0.259	0.165	0.161
Performance Measures										
Q										
Industry-Adjusted Q	-0.497	-1.431	0.321	0.338	-0.192	-0.25	-0.132	-0.762	-0.471*	-0.74**
ROA										
Observations	381	567	567	382	382	567	382	567	382	567
R-Square	0.235	0.229	0.271	0.231	0.07	0.064	0.025	0.036	0.163	0.146
Adj R-Square	0.221	0.22	0.262	0.217	0.053	0.052	0.006	0.024	0.147	0.136
Pr > F	<.0001	<.0001	<.0001	<.0001	0.0003	<.0001	0.2275	0.0048	<.0001	<.0001

Panel E: Percent Measures of Ownership										
Dependent Variable	Institution	Institution	Bank	Bank	Financial	Financial	Mutual /Pension Fund	Mutual /Pension Fund	Insurance	Insurance
Parameter Estimates										
Intercept	13.33***	12.209***	0.083	-1.375	3.94**	4.235***	7.655***	8.365***	1.451	1.058
Control Variables										
Ln(Assets)	1.92***	2.404***	0.982***	1.266***	0.555	0.387	0.37	0.252	0.061	0.479**
Dividend	-0.151	-1.175	1.301	1.158	0.582	0.335	-1.017	-1.342	-0.894	-1.33*
Leverage	-13.457***	-14.686***	-4.073**	-4.801***	-3.369	-1.056	-3.401	-5.33*	-2.287	-3.511**
Blockholder Wedge	-0.006	0.012	-0.037	-0.046*	-0.028	-0.018	0.015	0.02	0.043*	0.056**
Crosslist	-0.817	-0.469	-0.1	0.162	-1.06	0.014	-0.966	0.013	1.146**	-0.686
Quebec	1.713	-0.781	-0.838	-1.082	0.816	0.689	1.92	0.22	-0.22	-0.589
Performance Measures										
Q										
Industry-Adjusted Q										
ROA	14.396	7.854	-2.969	-3.131	5	5.185	-1.495	-3.412	12.679***	9.7**
Observations	381	567	382	567	382	567	382	567	382	567
R-Square	0.062	0.062	0.078	0.121	0.037	0.019	0.009	0.013	0.077	0.056
Adj R-Square	0.045	0.051	0.061	0.11	0.019	0.006	-0.01	0.001	0.06	0.044
Pr > F	0.0011	<.0001	<.0001	<.0001	0.0482	0.1578	0.8642	0.3892	<.0001	<.0001

Panel F: Count Measures of Ownership										
Dependent Variable	Institution	Institution	Bank	Bank	Financial	Financial	Mutual /Pension Fund	Mutual /Pension Fund	Insurance	Insurance
Parameter Estimates										
Intercept	1.677***	2.282***	-0.793***	-0.863***	0.554***	0.722***	2.023***	1.93***	0.055	0.267
Control Variables										
Ln(Assets)	0.702***	0.605***	0.418***	0.422***	0.155***	0.14***	-0.008	0.005	0.12***	0.071**
Dividend	-0.08	0.13	0.228	0.326**	-0.059	0.123	-0.363	-0.447**	0.099	0.194
Leverage	-2.641***	-2.731***	-0.553	-0.923***	-0.479	-0.715*	-0.374	-0.388	-0.852***	-1.003***
Blockholder Wedge	-0.006	-0.006	-0.014**	-0.015***	0	-0.001	0.001	-0.001	0.01***	0.008**
Crosslist	0.999***	0.913***	0.301**	0.391***	0.233**	0.093	0.379**	0.359**	0.016	0.095
Quebec	-0.142	0.01		-0.08	0.081	-0.067	-0.123	-0.285	0.142	0.15
Performance Measures										
Q										
Industry-Adjusted Q										
ROA	0.337	2.116	-2.13*	-2.431**	0.096	0.676	1.448	1.542	1.13*	1.694**
Observations	567	381	382	567	567	382	382	567	567	382
R-Square	0.269	0.242	0.231	0.272	0.067	0.073	0.026	0.038	0.181	0.173
Adj R-Square	0.26	0.228	0.217	0.263	0.055	0.056	0.008	0.026	0.171	0.158
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	0.0002	0.1832	0.0031	<.0001	<.0001

Table 9 - Full Sample 2 SLS Regressions: This table reports the results from the 2-Stage Least Squares regressions that estimate the impact of performance measures on ownership structure: Tobin's Q, GIC Industry-Adjusted Q, and Return on Assets (ROA). Tobin's Q is $(\text{Market Value of Equity} + \text{Book Value of Short Term Debt} + \text{Book Value of Long Term Debt}) / \text{Book Value of Assets}$. GIC Industry-Adjusted Q is Tobin's Q divided by the GIC industry average Tobin's Q, where the GIC average is determined using a sample of 1161 Canadian Firms from Compustat. ROA is $\text{Operating Income Before Depreciation} / \text{Total Assets}$. $\ln(\text{Assets})$ is the natural logarithm of total assets. Dividend Dummy takes on a value of 1 when dividends are issued and 0 otherwise. Leverage is $(\text{Short Term Debt} + \text{Long Term Debt}) / \text{Assets}$. Multiple Class Dummy takes on a value of 1 if multiple classes of shares are traded. Blockholder Wedge is the difference in control rights and cash flow rights for blockholders greater than 10%. Crosslist Dummy takes on a value of 1 if shares are listed in the United States and 0 otherwise. Capital Expenditures is scaled by assets. Ownership Percentage values equal the total ownership percentage for a category of owner. Ownership count values equal the number of owners for a category of ownership. Institution is the sum of Bank, Financial, Mutual/Pension Fund, and Insurance. Institution, Bank, Financial, Mutual/Pension Fund, and Insurance levels of ownership are estimated endogenously within the 2 SLS simultaneous equations system. The inclusion of industry dummies is indicated by a Yes or No although results are not shown. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels.