

March 24, 2006

Voluntary Adoption of Corporate Governance Mechanisms

Anita Anand¹, Frank Milne², and Lynnette Purda³

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Comments are welcome.

¹ Visiting Olin Scholar, Yale Law School and Associate Professor, Faculty of Law, Queen's University, anita.anand@yale.edu.

² Bank of Montreal Professor, Queen's Economics Department, Queen's University, milnef@qed.econ.queensu.ca.

³ Assistant Professor, Queen's School of Business, Queen's University, lpurda@business.queensu.ca.

This paper was presented at the 2006 American Association of Law Schools' annual meeting in Washington D.C., Florida State University College of Law, the University of Texas School of Law, Queen's University, Yale Law School, the University of Toronto and Fordham University College of Law. We extend our thanks to participants of these sessions and to Ian Ayres, Bernie Black, Laura Beny, Brian Cheffins, Edward Iacobucci, Kate Litvak, Curtis Milhaupt, Paul Mahoney and Michael Trebilcock for their helpful comments and Roberta Romano for early discussions. We also thank Kate Andersen, Scott Cooper, Benjamin Crosskill-Macdonald, Colin Lynch, Jessie Palmer, Natalie Sediako, Nicole Stephenson, and Wei Wang for excellent research assistance. We thank the Queen's University Advisory Research Council for funding assistance.

ABSTRACT

We examine the extent to which firms adopt recommended but not required corporate governance guidelines and establish that firms voluntarily implement suggested domestic best practices and the mandatory practices of neighboring countries as well. Drawing on the intuition of a principal-agent model in which the entrepreneur cannot fund all positive NPV projects, we hypothesize that access to capital is a primary determinant of the willingness of firms to voluntarily adopt corporate governance mechanisms. Our empirical results provide significant evidence that firms voluntarily adopt corporate governance guidelines. These results suggest that global competition for capital encourages firms to voluntarily adopt governance mechanisms that are attractive to both domestic and foreign investors. We provide some evidence that the integration of global capital markets may lead to convergence in governance standards across countries.

Voluntary Adoption of Corporate Governance Mechanisms: The Role of Domestic and International Governance Guidelines

It is well-known that corporate governance practices vary significantly from country to country (Doidge et al, 2004; Dyck and Zingales, 2004; La Porta et al, 1998). While a country's guidelines and standards provide a general framework for these practices, significant variation also occurs among individual firms within a country (Klein et al, 2004; Gompers et al, 2003). This variability suggests that implementing governance practices is in part a voluntary choice. In fact, the laws of many countries, such as Canada, the United Kingdom, and Australia make explicit the voluntary nature of corporate governance. Corporate governance law in these jurisdictions is two-tiered. Like US corporate law, it consists at a first level of voluntary or enabling statutory provisions (Black, 1990). Yet unlike the US system, these countries also have in place a set of best practice guidelines. Firms are not required to implement these guidelines; they are only required to disclose which governance practices they have not implemented and explain why (the "comply and explain" system).

Unfortunately, we know very little about firms' governance decisions under these voluntary regimes. Have firms implemented additional governance standards over time? What motivates some firms to adopt rigorous corporate governance guidelines in the absence of any legal requirement to do so while their country cohorts employ relatively lax standards? Do firms look beyond

their home-country borders when determining which governance standards to employ? This paper seeks to answer these questions by examining firms' governance practices under voluntary regimes. We examine the extent to which firms voluntarily adopt recommended but not required corporate governance practices. Having established that some level of voluntary adoption occurs, we then proceed to identify firm characteristics associated with this adoption.

The bulk of academic attention in corporate governance has been devoted to making predictions about the firm's performance as a result of the governance practices it chooses (Coles, 2000; Jog and Dutta, 2004). For instance, Black, Jang and Kim (2005) demonstrate near causal relation between corporate governance and firm valuation in Korea. Doidge, Karolyi and Stultz (2003) show that foreign firms with cross-listings are valued higher than their domestic peers. Unlike this literature, we analyze firms' governance practices and relate these practices to particular characteristics of the firm. We seek to answer the fundamental question of what determines a firm's decision to adopt governance standards that are not mandatory in nature. Do certain firm characteristics impact the governance structure that the firm will adopt?

Durnev and Kim (2005) provide one of the few existing examinations of the influence of firm characteristics on the level of corporate governance practices. They find that investment opportunities, external financing, and ownership structure are influential determinants of governance practices and that the strength of their influence depends in part on the country's legal

environment. While we will examine the influence of similar characteristics on a firm's corporate governance, our study differs from theirs in two primary ways. First, we provide explicit evidence that firms voluntarily adopt governance practices over and above those required in corporate legislation and that the level of this adoption has been increasing over time. Second, we show that it is not only the home country's governance regime that influences the chosen level of governance but also the standards of neighboring countries, particularly the United States, through which external financing may also be raised. As a result of this case study, we contribute to the debate on whether the globalization of financial markets leads to convergence in corporate governance practices across countries (Hansmann and Kraakman, 2004; Coffee, 1999; Berglof and von Thadden, 2000).

Our analysis relies on hand-collected governance data for Canadian firms. We turn to the Canadian market for two reasons: 1) the voluntary nature of its domestic governance guidelines and 2) the tendency for Canadian firms to raise capital in the United States. The voluntary nature of the Canadian guidelines between 1999 and 2003 provides us with a relatively long time period during which to examine whether firms alter their governance guidelines to align with recommended domestic standards in the absence of any legal requirement to do so. We can then identify firm characteristics that were particularly powerful motivators in encouraging the adoption of these domestic standards.

The enactment of the U.S. Sarbanes-Oxley Act (SOX) in 2002 provides a second opportunity to examine the nature of voluntary governance. If competition for capital extends beyond domestic borders, then, Canadian firms may feel compelled to adopt SOX provisions in order to attract US investors. As a result, the relevant corporate governance guidelines are not only those in place under the Canadian legal regime but also extend much more broadly to incorporate foreign (US) guidelines as well.

Our empirical results suggest that recent years have seen an increase in the overall level of corporate governance mechanisms employed by Canadian firms. Firm characteristics that are associated with the adoption of the Canadian guidelines include the absence of a large executive block holding and a high need for external financing. When it comes to voluntarily adopting the SOX provisions, firm size becomes an important determinant. This is perhaps not surprising since it is the largest Canadian firms that may be most in need of attracting capital from foreign investors.

The remainder of the paper proceeds as follows. Section I provides an overview of the Canadian corporate governance guidelines in place over the sample period and discusses the incentives that firms may have for voluntarily adopting these guidelines. Section II provides a simple model outlining the mechanisms behind voluntary adoption and yields our primary hypothesis for the empirical tests. Section III discusses the construction of the dataset and

collection of measurement variables while Section IV presents the empirical results. Section V concludes with directions for our further research.

I. An Overview of Governance Guidelines Relevant for Canadian Firms

The Canadian governance regime is built largely on a “comply and explain” system (for comparisons with other legal regimes see Anand, 2006). The regime has been in place since 1995 when the Toronto Stock Exchange (TSX) issued a list of best practice guidelines that firms may adopt, but that they were not obliged to.⁴ The guidelines addressed the following issues: the board’s mandate; its independence and composition (including minority shareholder representation); the independence of board committees; board approval; procedures for recruiting new directors and assessing board performance; measures for receiving shareholder feedback; and the board’s expectations of management.

Added to the best practice guidelines was a disclosure requirement. Disclosure regarding the extent of a firm’s compliance with the best practices was required in a “Statement of Corporate Governance Practices” in the firm’s

4 See Toronto Stock Exchange Committee on Corporate Governance in Canada, “*Where Were the Directors?*” *Guidelines for Improved Corporate Governance in Canada*, Guideline (12)(i), (1994) [Dey Report]. The TSX adopted the Dey Report in February 1995 and on May 3, 1995, released TSE By-Law 19.17, which requires companies incorporated in a Canadian jurisdiction and listed on the Exchange to make disclosure annually regarding their corporate governance practices in an annual report or information circular. These guidelines came into effect beginning with companies whose fiscal year ended on June 30, 1995. See *Guidelines*, in Toronto Stock Exchange, TSX COMPANY MANUAL § 472 (2004). Section 474 lists the fourteen recommendations of the Dey Committee.

proxy circular or annual report.⁵ A listed company was obliged to make disclosure with reference to the guidelines and where its governance system differed from the guidelines, it was to explain the differences.⁶ In 2004, securities regulators implemented mandatory rules relating to audit committee composition and certification of financial disclosure.⁷ As a result, we restrict our analysis to the period of voluntary governance guidelines ending in 2003.

Since a large number of Canadian firms are listed on both Canadian and US stock exchanges, US corporate governance requirements are as relevant as Canadian guidelines for several firms. Most notable among these guidelines is of course the Sarbanes-Oxley Act, which departs from the traditional voluntary structure in place in several countries⁸ and mandates firms, including cross-listed firms, to implement the Act's provisions. Thus, Canadian firms listed on US exchanges are required to comply with SOX as well as listing requirements of US exchanges. As a result, it has been suggested that US corporate governance standards have become the de facto guidelines for Canadian firms. Even those firms that are currently not cross-listed in the US and therefore not mandated to comply with SOX or US listing requirements may feel significant pressure to

⁵ See e.g. *Guidelines*, in Toronto Stock Exchange, TSX COMPANY MANUAL § 473 (2004) <http://www.tse.com/en/pdf/CompanyManual.pdf> [TSX Guidelines].

⁶ The TSX Company Manual, *supra* note 23 at § 473. Section 474 lists the fourteen recommendations of the Dey Committee.

⁷ Multilateral Instrument 52-110: Audit Committees (2004), online: Ontario Securities Commission www.osc.gov.on.ca <http://www.osc.gov.on.ca/Regulation/Rulemaking/Current/Part5/rule_20040326_52-110-audit-comm.jsp>. See also Multilateral Instrument 52-109: Certification of Disclosure in Issuers' Annual and Interim Filings (2004), online: Ontario Securities Commission <http://www.osc.gov.on.ca/Regulation/Rulemaking/Current/Part5/rule_20040326_52-109-cert.jsp>.

⁸ For a useful discussion of voluntary corporate governance standards in the E.U. see de Jong et al (2005).

voluntarily comply if they believe that US investors view these provisions favorably.⁹ In other words, global competition for capital may be a strong incentive for non cross-listed Canadian firms to voluntarily adopt US governance mechanisms. It is worth noting that SOX addresses a number of issues that are not duplicated in the Canadian corporate governance regime, including: prohibition on insider loans; disclosure of material-off balance sheet transactions (the corresponding Canadian rule is weaker); internal control procedures, and forfeiture of bonuses in the event of a restatement of a financial document that arises as a result of misconduct. During the time period of this study (pre 2004), SOX further differed from Canadian requirements which did not contain financial certification and audit committee composition rules. Additional differences arise under the listing rules of US exchanges. For example, both the NYSE and NASDAQ require a majority of independent directors on the board and the compensation committee while these are only suggested practices in Canadian jurisdictions. Thus, for Canadian firms that do not cross-list, compliance with SOX, US listing standards as well as the TSX guidelines is ultimately voluntary.

II. Model and Hypothesis Development

A) Model of Voluntary Adoption

⁹ Canadian companies are able to raise capital in the US without cross listing under the Multi-Jurisdictional Disclosure System and through exemptions from registration for private offerings as is found in Regulation D/Section 4(2) and Rule 144A for example.

III. Model and Hypothesis Development

A) Model of Voluntary Adoption

There is an extensive theoretical literature discussing voluntary governance structures for firms (see Becht, Bolton and Roell, 2003 and Tirole, 2001 for extended surveys). This literature makes clear that there does not exist a single model that encompasses the complexity of the governance of the modern firm and its interaction with associated agents and its market environment. In this section, we sketch the basic ideas for an informal model and the restricted use that we will make of it in our empirical study. We will see that this model is general enough to capture the intuition of our proposed hypotheses.

Consider a simple example, which is a standard, principal-agent model with moral hazard, where there are incentives for voluntary monitoring, stemming from market incentives (our exposition here follows closely that presented in Tirole, 2001). An inside management group can alter the probability of success of a random return on a project to make it less profitable. But this action allows management to receive a private benefit valued at B . Therefore management is tempted by the private return B , to alter their behavior (to misbehave) and invest in a project with a low net present value. In turn, outside investors (Tirole draws no distinction between equity and debt in this risk neutral world, but we assume that we are discussing outside equity) , understanding management's incentives, will be wary of investing in a firm where management may misbehave and invest in a low net present value

project. In some cases, the firm may not be able to secure outside capital, even though the project has a positive net present value. This leads to an incentive for management to commit to credible control structures that will ensure that the high net present value project will be chosen. An example of such a credible structure is a governance structure that incorporates monitoring mechanisms to ensure that management will not be tempted to misbehave.

We can see that management's commitment to a credible governance structure may be important to investors for several reasons. First, investors will value the increased probability of high net present value projects that is associated with good behaviour and therefore be more willing to provide the necessary capital to invest in these projects. In addition, foreign investors may be attracted to companies complying with the guidelines of investor-friendly jurisdictions.¹⁰

We will sketch the formal model of voluntary adoption, setting out the principal assumptions and equations and giving a brief summary of the key results. Assume there are three dates: at the first date the firm has some initial equity capital A , and decides whether to invest in a project that costs a larger amount I . That is, the firm must obtain an amount $I - A \geq 0$ from outside investors. At the second date, management can choose to behave and the project will have a probability of success of p_H , paying R , and zero otherwise. If management

¹⁰ There is a large literature on the impact of legal jurisdictions on investment. La Porta et al (1998) document that legal regimes offering strong investor protection have larger capital markets (both debt and equity) and more initial public offerings.

misbehaves (and earns a private benefit B) then the probability of earning R falls to $p_L < p_H$. Define $\Delta P = p_H - p_L > 0$ as the decline in probability from misbehaving. Assume that the project has a positive net present value $p_H R - I > 0$. Finally, at the third date, the investment pays a verifiable return R , or zero.

To ensure that investors are willing to lend to the firm, we require incentive compatibility constraints that will guarantee that management will not misbehave with the borrowed money. First, the risk neutral management must be compensated by an amount $w \geq 0$ to forgo the private benefit and choose the higher probability project. As a result, w must satisfy $(p_H - p_L)w \geq B$; that is, the benefits from choosing the better project must exceed the private reward from misbehaving. This implies that the outside investors are constrained in the good outcome to earn at most $R - [B / (p_H - p_L)]$ without violating management's incentives.

As a consequence, a necessary and sufficient condition for financing is that $p_H (R - [B / (p_H - p_L)]) \geq I - A$, or $p_H R - (I - A) \geq p_H [B / (p_H - p_L)]$. That is the expected income for the good project must exceed the investor's contribution. If we assume that there is a competitive investor market, then the inequality will be satisfied with equality in equilibrium, and management will receive the residual from their monopoly of inside information.

It is easy to show that if $p_H R - I > 0 > p_H (R - [B / (p_H - p_L)]) - (I - A)$, then a positive net present value project will not be funded. This is said to be a case of *capital rationing*. Notice that the amount of inside equity A has a positive

benefit in that it allows management to circumvent the necessity for large-scale capital raising. In the extreme case where $I = A$, then management can choose the good project, internalizing the loss of efficiency from taking the inferior project. Another obvious conclusion is that if management has a good reputation for integrity (we can think of this as being represented by B being small) then the firm is much more likely to be funded. Both of these factors (more inside equity and a good reputation) improve the ability of the firm to raise capital and invest in the project.

To allow for outside capital raising with different governance structures, we adapt Tirole's model and particularly the allowance for costly active monitoring that improves management's performance by reducing management's incentive to misbehave. Assume that the standard financing constraint has basic governance costs and benefits built into the returns R and private benefits B . Assume that costly monitoring (eg. conforming to SOX) costs $C_A > 0$, and that the monitoring reduces the private benefit to b where $b < B$. Now management has a choice between the standard constraint $p_H (R - [B / (p_H - p_L)]) \geq (I - A)$ with no active monitoring; and $p_H (R - [b / (p_H - p_L)]) - C_A \geq (I - A)$ with active monitoring. Clearly there is a trade-off for management, when choosing the amount of governance, between the direct costs of monitoring and the indirect cost of improved incentives. This simple structure allows for endogenous choice of corporate governance structures.

Our empirical hypothesis stems directly from the model as outlined above. We propose that management's need for external capital and their ability to access it will influence their willingness to voluntarily adopt additional governance standards in order to appear attractive to external investors. In other words, maintaining a relatively high value of A , internal capital, reduces the manager's dependence on external funding and therefore his or her motivation for adopting governance measures declines. We elaborate on how we proceed to test this hypothesis below.

B) Relating Capital Access to Governance

We suggest that the extent to which a firm needs access to capital will be an important determinant of its corporate governance structure under a voluntary legal regime. The more the firm must access public equity markets, the more emphasis it may place on ensuring that adequate conditions are present to protect minority shareholders' interests. Improving board quality as suggested by the Canadian guidelines is one way to signal a commitment to strong corporate governance and may allow the firm to raise capital at a lower cost if these measures are seen to reduce shareholder risk (Macey, 1998).

In order to identify a firm's need for capital, we examine the company's current capital expenditures, its retained earnings, and its research and development expenses (R&D). All three of these measures are scaled by total assets to control for differences in firm size. We suspect that the greater the need

for capital, as indicated by high capex, low retentions, or high R&D, the more willing the firm will be to voluntarily adopt additional governance standards.

To identify the firm's ability to access alternative sources of capital, we control for its total leverage ratio, its market to book ratio, the tangibility of its assets and firm size as measured by total assets. We expect that firms with tangible assets that may be used for collateral and a low total leverage ratio may be better able to turn to debt for funds. Firms that turn to debt may not implement the same governance mechanisms since lenders often have the ability to request firm compliance with specific practices through covenants in the case of public debt or direct monitoring in the case of bank loans. Firms with high leverage and intangible assets may be more likely to raise funds through equity and therefore be more willing to voluntarily implement additional governance mechanisms.

The predictions for large firms and those with a high market to book ratio are harder to determine. Our intuition suggests that large firms and those with a higher market to book ratio may find it easier to access capital markets. A high market to book ratio implies that the current stock price is strong and may signify the premium that the market puts on a well-governed firm. Therefore management may find investors willing to accept a new stock issue. As a result, these firms may not need to improve board quality to the same extent to attract investors. However, since a high market to book ratio makes an equity issue particularly appealing, management may want to implement strong governance

practices to further enhance investor protection and make the issue even more attractive to investors. As a result, the relationship between the market to book ratio and board quality is unclear. Similarly, large firms are more likely to need access to additional sources of capital, particularly in a relatively small domestic market like Canada. While overall it may be easier for a large firm to access equity markets than a small firm and therefore less necessary for larger firms to improve their governance, the sheer volume of financing that must be raised may still encourage large firms to voluntarily incorporate governance guidelines.

Several other firm characteristics beyond need for capital may influence a firm's willingness to voluntarily adopt governance guidelines as we explain below. The actions of other firms in the industry, the presence of block shareholders, or overall time trends are all likely to be powerful influences. We include these conditions as controls and identify the variables used to proxy for them in the discussion of the dataset below.

IV. Data Description and Summary Statistics

A) Construction of the Dataset

In order to establish the propensity of Canadian firms to implement governance practices voluntarily, we hand-collected time-series data from the proxy circulars of a sample of firms. We chose to use proxy circulars since Canadian securities law specifies the type of information that should be disclosed in these documents unlike annual reports whose content is not

mandated by securities law. Proxy circulars, for instance, must provide a description of board members and their relation to the firm. The firm must also disclose any shareholders who hold 10% or more of the firm's voting shares. While Canadian governance guidelines recommend certain practices related to board quality such as training sessions for new board members and the separation of chair and CEO, these practices are not mandatory. We can deduce from the proxy circulars whether or not the company has chosen to implement them.

The resulting dataset consists of a panel of companies listed on the Toronto Stock Exchange from 1999 to 2003. We begin our examination in 1999 as this was the year in which the TSX attempted to clarify its requirements relating to firm disclosure of governance practices.¹¹ We examined proxy circulars for 2003 but not beyond this year since by 2004 securities regulators had adopted two mandatory rules that mirrored two SOX provisions relating to audit committee composition and financial statement certification. Thus, our data collection covers the time period between the request for formatted disclosure by the TSX (1999) and prior to the implementation of mandatory requirements that affected both non cross-listed and cross-listed firms (2003).

The companies chosen are those included in the S&P/TSX index (formerly the TSE300). Since many firms remain in the index for multiple years, the

¹¹ In 1999, the TSX stated that the disclosure should take a certain format. *See* letter from Clare Gaudet, Vice President Corporate Finance Services, Toronto Stock Exchange (Nov. 17, 1999) (on file with author).

resulting dataset contains 942 firm-year observations from a total of 338 different firms. For each observation we collect information on the board of directors, large block holders of common shares, the existence of dual classes of common stock, and certain mechanisms explicitly related to SOX such as financial statement certification.

B) Measures of Voluntary Adoption

We create two indices measuring the extent to which a firm voluntarily adopted the suggested Canadian guidelines and those practices mandated by SOX or US listing requirements. The majority of the Canadian governance guidelines implemented by the TSX in 1995 relate to board composition. As a result, we begin our analysis with an assessment of board quality. In this assessment we focus on four characteristics of boards that were suggested to be good practice by the Canadian guidelines. These characteristics include: separation of the CEO and board chair; a fully independent audit committee; a majority of independent directors; and the provision of training for new members. A firm-year observation is allocated a point for each of these guidelines that it follows up to a maximum of 4.

In the second part of our analysis, we examine whether a firm's need for capital motivates it to voluntarily adopt governance guidelines that extend beyond its country's borders. We focus only on non cross-listed Canadian firms (i.e. those not mandated to comply with SOX). We again create an index related

to corporate governance standards, this time incorporating requirements contained in SOX and listing standards from American exchanges. In a small number of instances, the suggested Canadian guidelines overlap with the SOX practices. The US governance index has eight components with a firm receiving one point for each of the following standards that it has implemented: a financial expert on the audit committee, the ability of the board to hire advisors, an independent audit committee, an independent compensation committee, a code of ethics, financial certification, the elimination of internal loans to managers, and a majority of independent directors. A maximum of 8 points are possible.

C) Evidence of Voluntary Adoption

Prior to examining the influence of firm characteristics on the willingness of firms to voluntarily adopt corporate governance mechanisms, we provide evidence that a number of our sample firms do in fact implement governance practices in the absence of any legal requirement to do so. In their examination of voluntary guidelines in place in the Netherlands, de Jong et al (2005) find little evidence that firms heightened their governance practices in response to the country's self-regulation initiative. Here, we make no causal claim that voluntary adoption is in response to the Canadian guidelines and in fact hypothesize explicitly that firms improve governance practices to enhance their corporate position. As a starting point, we seek to establish the extent to which Canadian firms voluntarily adopt both the Canadian and SOX governance standards.

We begin by examining the index that concerns the voluntary adoption of Canadian guidelines. Since the majority of these guidelines refer to board quality we denote the index by BQ and recall that its maximum value is 4. Panel A of Table 1 provides values for the average level of the BQ index for each year of the sample. This average value is 2.78 in 1999 and increases monotonically to a value of 3.43 in 2003. The overall average across all years is 3.04. Univariate tests show that in each year from 1999 to 2003 and across all firm-year observations the average BQ value is significantly different from zero. In other words, a significant number of firms chose to implement some of the best practice guidelines suggested by the Toronto Stock Exchange.

Figure 1 plots the proportion of firms implementing each of the four suggested best practices that form the BQ index. We see that for each component, the proportion of firms complying with the guidelines has increased between 1999 and 2003. This is perhaps most dramatic for the proportion of firms providing training for new board members and maintaining a fully independent audit committee. There has been much less of an increase in the proportion of firms with a majority of independent directors. However, it should be noted that the vast majority of firms (close to 90%) already maintained boards with this characteristic even in 1999. As a result, room for improvement was small.

Having established that firms' boards reflect voluntary standards put in place by the Toronto Stock Exchange in the mid-90s, we turn to a second setting in which voluntary adoption may occur. This setting is the implementation of

standards contained in the Sarbanes-Oxley Act and the listing rules of US stock exchanges. While Canadian firms with stocks cross-listed in the US must comply with SOX and listing rules, non cross-listed firms do not. We therefore focus on non cross-listed Canadian firms that are in no way obligated to comply with the US standards.

Recall that our second governance index (the SX index) consists of eight elements. We plot the values of the index across all firm-year observations in Figure 2. Values are plotted both for the entire sample of firms and only those that are not-cross-listed in the United States. For both groups, the most common value for the index is 5 out of 8.

We note that cross-listed firms in 2002 and 2003 did not all reach the maximum index value of 8 since many of the provisions of SOX and the listing standards were not required to be implemented by foreign firms by year-end fiscal 2003. While some did manage full compliance by 2003, we note that some non cross-listed firms also maintained index values of 8 during our sample period. As in the case of the Canadian standards, we see that firms frequently adopt additional governance practices in the absence of any formal requirement to do so. A formal test of whether the SOX index is equal to 0 for all non cross-listed firm-year observations is easily rejected at the 1 percent level.

D) Control Variables

Our primary hypothesis is that a firm's need for capital will motivate it to implement sound corporate governance practices appealing to both domestic and foreign investors. We are not so naïve however to believe that the need for capital is the only determinant of governance practices and in this section describe the variables that we will implement as controls while testing our hypothesis. These controls fall under 4 categories: year of observation, presence of large block holders, industry practice, and existence of multiple listings for the stock. Each will be described in turn.

Since our sample period covers a tumultuous time filled with corporate scandals, we control for the year to which our observation of a firm's corporate governance relates. The increased awareness of corporate governance issues brought about by scandals in the early 2000s may have been enough to motivate firms to adopt additional governance mechanisms regardless of their need for capital. These firms may have foreseen the implementation of mandatory governance legislation or sought to resemble their peers that were also adopting heightened governance practices. As a result, we define the variable *YR* to be equal to 0 in 1999, 1 in 2000 etc. until reaching a maximum of 4 in 2003. As the average values for the *BQ* index have suggested, we anticipate that the *YR* variable will be positively related to the voluntary adoption of governance standards.

A second firm characteristic that we expect to influence the voluntary adoption of corporate governance standards is the presence of a large block holder. As noted, proxy circulars must disclose all individuals or groups holding over 10% of the voting power of common shares. We examine these block holders and classify them into one of three groups; families, executives, and other investors. Typically family block holdings are possessed by the original founding family of the firm (Morck et al, 2004) whereas we define executive block holdings to be holdings maintained by senior management members. If an executive is also a member of the family we consider his/her holdings to be part of the family block. The third group of block holders is neither family nor executives. Instead they are typically large institutional investors such as pension or mutual funds. While families and executives with significant stock holdings may be less inclined to adopt governance practices voluntarily, we suggest that the presence of large institutional investors may in fact encourage the adoption of additional governance mechanisms in keeping with their monitoring role, which has extensively been described elsewhere (see Black, 1990).¹² But we admit that the opposite hypothesis is equally plausible. That is, once institutional investors own large stakes, they arguably require an appearance of compliance with governance guidelines less. They can rely on

¹² In formulating this study, we met with representatives from the two largest institutional investors in Canada being the Ontario Teachers Pension Plan Board and the Ontario Municipal Employee Retirement System. We also met with the Canadian Coalition for Good Governance (CCGG) which is a group of institutions formed in 2002 to fight for improved governance in Canadian corporations. Members of the CCGG hold in aggregate \$135 billion of assets of Canadian corporations. These bodies affirmed their

their share ownership to exercise leverage. In other words, blockholding may be a substitute for governance, implying less compliance with the TSX guidelines.

An additional control variable related to block holdings is the presence of dual classes of shares. One of the most contentious corporate governance issues in Canada is the existence of shares with differential voting power (dual class shares). These shares provide a significant amount of control to a small number of individuals at the expense of minority investors. We identify whether firms in our sample maintain dual classes of shares and hypothesize that these firms will be less likely to voluntarily implement recommended governance practices.

The third influence that we believe may determine a firm's propensity to voluntarily adopt corporate governance practices is the actions of its peers. We suggest that if a firm's peers (i.e. firms within the same industry) adopt strong governance standards, the firm may feel pressure to implement these same practices in order to compete for capital on level footing. We test whether this is the case by examining whether voluntary adoption varies by industry. To do so, we broadly classify firms as belong to one of six industry groups where these groups are defined according to the first two digits of the firm's SIC code. In addition, we control for the firm's profitability, as measured by return on equity, as a proxy for whether the firm is a leader in its industry.

commitment to good governance. The CCGG indicated that it does perform a monitoring role in Canadian corporations.

As a final control we examine whether the firm has shares listed on a US exchange. While we restrict our examination of the voluntary adoption of SOX and US exchange listing standards to only non cross-listed firms, it is possible that the voluntary adoption of *Canadian* guidelines, in other words the level of the *BQ* index, is in part influenced by whether the firm also lists its shares south of the border. Unfortunately, it is difficult to predict what the impact of cross-listing will be on board quality during our sample period. On the one hand, the Canadian guidelines were in place long before the US mandated additional governance standards under SOX with US corporate law existing at the state level. It could therefore be argued that although these guidelines were not mandatory, their mere presence indicated a more comprehensive governance regime than what was in place in the US at the time. On the other hand, the implementation of SOX near the end of our sample time period ensures that the US standards were more stringent than the corresponding Canadian guidelines. As a result, we may expect these mandated requirements to be more effective than the voluntary guidelines. For now, we make no clear prediction of the relation between board quality and cross-listing.

We have outlined firm characteristics that may influence a company's propensity to voluntarily adopt corporate governance guidelines related to board quality. Table 2 summarizes these factors and our predictions for their influence on a firm's willingness to voluntarily adopt governance standards. Panel B of Table 1 provides some initial evidence of the influence of block holdings and

share listings by reporting average BQ index values for cross-listed firms versus non cross-listed, firms with dual classes of stock versus those without, and firms with family, executive, or other block shareholdings. Univariate results presented in the table suggest that non cross-listed stocks and those with dual class shares score lower on the board quality index measure. The same can be said for firms with significant executive block holdings. However, firms with family blocks or other block-holdings (typically institutional investors) do not exhibit this phenomenon. We turn now to a more detailed multivariate analysis to establish how these control variables influence the adoption of governance mechanisms for firms with varying needs for capital.

IV. Results of Multivariate Tests

Our empirical results are divided into two parts. The first relates to the behaviour of Canadian firms under a best practices governance regime. The second relates to the governance choices of non cross-listed firms that are not legally obliged to adhere to SOX or American listing requirements but nevertheless have chosen to do so.

A) The BQ Index

Table 3 examines whether the level of voluntary adoption of Canadian governance guidelines referring to board quality is related to both our control variables and measurements proxying for the firm's need for capital. The first column of the table examines whether an increased awareness of corporate

governance issues since the introduction of the TSX guidelines in the mid-1990s has provided firms with greater incentives to implement the recommended board practices even in the absence of any formal requirement to do so. In other words we are interested in whether the *YR* variable which is equal to 0 in 1999, 1 in 2000 and so on is positively related to voluntary adoption. Given the general trend observed in both Table 1 and Figure 1, it is not surprising that the *YR* variable is highly significant with a t-stat of 8.28. As a robustness check, we examine whether the increasing implementation of these practices over time is driven by cross-listed firms preparing to conform with the regulatory requirements of SOX which in part overlap with the Canadian guidelines. We confirm that this is not the case by repeating the same regression with only the sub-sample of non cross-listed firms (reported in Table 5). Again, the coefficient on the *YR* variable is positive and highly significant, indicating increasing adoption of these practices over time.

The second column of Table 3 examines whether the control variables related to shareholdings and share structure influence the level of voluntary adoption reflected in the BQ index. Table 1 provided some initial evidence of this influence by reporting average index values for cross-listed firms versus non cross-listed, firms with dual classes of stock versus those without, and firms with family, executive, or other block shareholdings. The univariate results suggested that non cross-listed stocks, those with dual class shares, and those with large executive block holdings score lower on the board quality index measure.

A more robust examination of the factors influencing board quality requires a multivariate regression simultaneously controlling for all aspects of shareholdings and share structure. In addition, in Model 1, we include the *YR* variable to control for the observed general trends in the data. Robust standard errors are provided to account for correlation between firm-year observations from the same firm. Results are presented in the second column of Table 3.

The results show the continued robustness of the *YR* variable. Despite the inclusion of the shareholding variables in Model 2, evidence of an increasing trend remains. More recent years show higher levels of governance adoption. In addition to time, the most significant (negative) influence on board composition is whether the firm's executive holds more than 10% of voting power. While share ownership by executives is often advocated as a way to align the interests of managers and owners, we see little evidence that it encourages the adoption of good corporate governance practices related to board composition. Firms with executive block holdings score significantly worse on the board quality index.

We examine the correlation among our variables of shareholdings and share structure to establish if multicollinearity is a possible concern. More specifically, we are interested in whether firms with executive block holdings have other characteristics in common such as the presence of dual classes of shares. We find low correlation (less than ± 0.17) among executive blocks and all other characteristics. In fact, correlation is very low across all variables with the only relation of note being the tendency for firms with family block holdings to

maintain dual classes of shares (correlation of 0.37). This is not surprising given that many founding families hold a different class of shares from outside investors. As a robustness check, we repeat the regression excluding the family block variable. We find the results are largely the same. The fiscal year and presence of executive blocks influence the board quality index while cross-listed securities, dual class shares, and the presence of non-family, non-executive block holdings do not.

With controls for year and shareholdings in place, we turn in Model 3, to examine whether the company's need for capital and its ability to access that capital influence the quality of its board. Need for capital is measured by the firm's current capital expenditures, research and development spending and level of retained earnings. All three measures are scaled by total assets. Access to capital is measured by the firm's current leverage ratio as measured by debt to assets, the tangibility of its assets as measured by the proportion of property, plant and equipment over total assets, the market to book ratio, and finally firm size (ln of total assets). The values for these variables are downloaded from the Canadian Compustat Database. Unfortunately, this database does not include all of the firms in our sample nor is data always complete for the firms it does cover. In particular the amount of spending on research and development is missing for a large portion of the sample. As a result, we drop this variable from the analysis.

The third column of Table 3 examines whether a firm with a significant need for capital or a reduced ability to access capital adopts board practices that

may be viewed favorably by investors. There is evidence that firms with little need for additional capital have little incentive to voluntarily improve their board structure. The estimated coefficient on the retained earnings to assets ratio is negative and significant at the five percent level. Also significant are the coefficients on the market to book ratio and asset tangibility measure. In the case of market to book, the estimated coefficient is positive indicating that firms with a high market to book ratio tend to have better quality boards. Contrary to our expectation, firms with more tangible assets also have better quality boards. While we had expected that these firms would rely more on debt than equity and therefore face fewer incentives to voluntarily adopt additional governance mechanisms, we find that this is not the case.

The key variables from the previous specifications of the model remain significant with the addition of the Compustat variables. In other words, the *YR* variable and executive block holding dummy remain highly significant.

As a final control we introduce a set of industry dummies to the regression to establish if firms face competitive pressure to adopt additional governance standards within certain industries. Six industry classifications based on the SIC codes of the firms in our sample are constructed. These industry groupings are mining and minerals, manufacturing, transportation and utilities, retail, financial, and the service sector. We first report average values for the board quality index across these industry groupings and conduct t-tests to

establish whether any one group has a significantly different level of voluntary adoption than the rest of the sample. Results are reported in Panel A of Table 4.

We find little evidence of significantly different governance standards across the industry groups. The exception to this statement is the financial industry group which tends to have a lower level of voluntary adoption than firms from all other industries. Panel B of Table 4 examines whether this finding holds after controlling for other firm characteristics that we have seen to be associated with varying levels of board quality. For instance, if financial firms also have high levels of retained earnings, they may have fewer incentives to voluntarily adopt governance standards not so much because of industrial pressures but rather because of firm characteristics. In Panel B, we control for our same shareholding variables and those associated with the demand for and access to capital. In addition, we include a measure of the firm's general profitability (return on equity) and dummy variables for industry groupings. We use the mineral group as our base industry and provide dummies for firms in the manufacturing, transportation, retail, financial and service industries.

After controlling for shareholdings and capital access/demand we find that industrial pressures appear to have little impact on firms' incentives to adopt the suggested Canadian governance standards. None of the dummy variables are significant. Controlling for industry however does alter the significance of some of the other factors. While the estimated coefficient for the market to book ratio and proportion of tangible assets remain positive, they are

no longer significant. Executive block holdings, fiscal year, and level of retained earnings however remain important factors in determining the extent to which a firm voluntarily adopts the Canadian guidelines even with the addition of industry controls.

A) The SX Index

We proceed to establish whether the same firm characteristics that are associated with voluntary adoption of the Canadian guidelines are also correlated with the adoption of SOX and listing standards for non cross-listed firms. The results are presented in Table 5. To conserve space, we report only the estimated coefficients and their significance level. Model 1 includes only the *Yr* variable to establish the influence of time on index levels. Model 2 includes the shareholding variables, Model 3 adds the capital access factors and Model 4 includes the industry dummies. Again robust standard errors are used in all model specifications. Note that because results are based only on non cross-listed corporations, the number of firm-year observations declines significantly.

Table 5 shows that many of the same factors that influenced firms to adopt the Canadian standards also influence non cross-listed firms to adopt components of the SX index. Starting with the first column we note that the year of the observation again plays a large role with firms adopting additional governance standards in recent years. Regardless of model specification, year is always positively related to the SX index level. When shareholding characteristics are added to the model in the second column of the table we again

see that firms with executive block holdings tend to have lower levels of the SX index. While the estimated coefficient on the executive block holding dummy is significant at the five percent level in Model 2, it falls to only 10% significance in the third and fourth models. Interestingly, the “other” block holding dummy, associated with holdings by institutional investors, enters the model significantly in Model 3 with the hypothesized positive sign. This indicates that the presence of institutional investors, perhaps some of whom are US-based, may influence firms to adopt SOX standards. However, this result is not robust to the inclusion of industry controls.

The addition of variables proxying for a firm’s ability to access capital markets and its need for capital again show the importance of a company’s retained earnings in supporting its investments. Retained earnings are negatively correlated with the SX index suggesting that in cases where the firm has high retained earnings, it is less likely to voluntarily adopt additional governance standards. The level of capital expenditures is again positively associated with higher levels of the index with 10 percent significance in Model 3 and 5 percent significance in Model 4. As in the case of the Canadian guidelines, Model 4 demonstrates that a firm’s willingness to adopt SOX guidelines is not significantly influenced by competitive pressures such as common industry practice.

While many of the firm characteristics act similarly in both of our experimental settings – Canadian guidelines and adoption of SOX by non cross-

listed firms – we note one interesting difference. Firm size had no significant influence on a company's willingness to adopt the Canadian standards. However, it is positively and significantly related to the adoption of SOX requirements. We hypothesize that this may be the case since larger Canadian firms will be more likely to cross-list their shares in upcoming years. As a result, they may begin implementing SOX standards in preparation for future cross-listings. While further examination of this theory is beyond the scope of this paper we note that the average size of our cross-listed firms is almost four times that of the non cross-listed sample.

V. Conclusion

In this study, we examined two issues: the behavior of Canadian companies under the domestic best practices regime and the impact of US governance requirements on Canadian firms that are not listed on US stock exchanges. In both instances, there is no requirement for firms to adopt suggested governance guidelines and yet we have found significant evidence that they do so voluntarily. In addition, the extent to which voluntary governance guidelines are implemented has increased considerably in recent years.

Drawing on a simple principal-agent model we hypothesize that firms will be particularly motivated to adopt additional governance mechanisms when their need for capital is high. We argue that capital is a global resource and that

as a result, firms may seek to adopt foreign governance guidelines in addition to domestic standards in the hope of attracting capital from investors at home and abroad. We test this hypothesis by hand-collecting governance data for Canadian firms and measuring the extent to which they voluntarily adopt both Canadian and American guidelines.

Our empirical results show that the adoption of both domestic and foreign governance standards is inversely related to the internal capital of the firm (as proxied by retained earnings). Firms are less likely to adopt strong governance mechanisms if they have sufficient capital on hand to fund their investments. This result is robust to the addition of a variety of controls (such as industry dummies and the presence of block holdings) which may reasonably be expected to influence the firm's choice of governance.

While this paper has provided preliminary results on firm motivation to adopt good governance, much remains to be done. Future versions will provide robustness tests involving alternative measures of the firm's need for capital and control for possible sample biases during the period of analysis. In addition, we will investigate whether more direct evidence relating governance to the demand for external capital can be found by examining the frequency with which our sample firms access public markets. We hypothesize that firms with a frequent need for external capital will be highly motivated to adopt strong corporate governance practices in order to appear attractive to potential investors.

REFERENCES

- Anand, A. (2006), "An Analysis of Enabling vs. Mandatory Corporate Governance post Sarbanes-Oxley", *The Delaware Journal of Corporate Law* (in press).
- Bebchuk, L. and M. Roe (1999), "A Theory of Path Dependence in Corporate Ownership and Governance", *Stanford Law Review* 52, 127 - 170.
- Becht, M., P. Bolton and A. Roell (2003), "Corporate Governance and Control", in G. Constantinides, M. Harris and R. Stulz (eds.) *Handbook of the Economics of Finance*. (Amsterdam: Elsevier).
- Berger, Li and Wong (2004) "The Impact of Sarbanes-Oxley on Foreign Private Issuers" (Oct 21, 2004).
- Berglof, E. and E. von Thadden (2000), "The Changing Corporate Governance Paradigm: Implications for Transition and Developing Countries, in Boris Pleskovic and Joseph Stiglitz eds: *Annual World Bank Conference on Development Economics* (World Bank, Washington, D.C.).
- Black, B (1990) "Shareholder Passivity Reexamined" 89 *Mich. L. Rev.* 520.
- Black, B. (1998), "Is Corporate Law Trivial?: A Political and Economic Analysis" *Northwestern University Law Review* 84: 542-597.
- Black, B., W. Kim, H. Jang, (2006), "Does Corporate Governance Affect Firms' Market Values? Evidence from Korea," *Journal of Law, Economics, & Organization* (forthcoming).
- Black, B., W. Kim, H. Jang, and K.S. Park, "Does Corporate Governance Predict Firms' Market Values? Time Series Evidence from Korea" (November 2005 draft).
- Coffee, J. (1999), "The Future as History: The Prospects for Global Convergence in Corporate Governance and its Implications", *Northwestern University Law Review* 93, 641-707.

- Coles, J.W., V.B. McWilliams and N. Sen (2000), "An Examination of the Relationship of Governance Mechanisms to Performance", *Journal of Management* 27: 23-50.
- de Jong, A., D. DeJong, G. Mertens, and C. Wasley (2005), "The Role of Self-Regulation in Corporate Governance: Evidence and Implications from The Netherlands", *Journal of Corporate Finance* 11, 473-503.
- Dittmar, A., J. Mahrt-Smith, and H. Servaes (2003), "International Corporate Governance and Corporate Cash Holdings" *Journal of Financial and Quantitative Analysis* 38 (1), 111-133.
- Doidge, C., A. Karolyi, and R. Stultz (2004), "Why do countries matter so much for corporate governance?" *European Corporate Governance Institute - Finance Working Paper No. 50/2004*.
- Durnev, A. and E.H. Kim (2005), "To Steal or Not to Steal: Firm Attributes, Legal Environment, and Valuation", *Journal of Finance* 60 (3) 1461 - 1493.
- Dyck, A. and L. Zingales (2004), "Private Benefits of Control: An International Comparison", *Journal of Finance* 59, 537-600.
- Gompers, P., J. Ishii, and A. Metrick (2003), "Corporate Governance and Equity Prices", *Quarterly Journal of Economics* 118: 107-155.
- Harford, J., A. Mansi, and W. Maxwell (2005), "Corporate Governance and a Firm's Cash Holdings" *SSRN website*, presented at AFAs 2006.
- Hart, O. (1995), "Corporate Governance: Some Theory and Implications", *Economic Journal* 105: 678-689.
- Healy, P.M. and K.G. Palepu (2001), "Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature", *Journal of Accounting and Economics* 31: 405-440.
- Jog, V. and S. Dutta (2004), "Searching for the Governance Grail", *Canadian Investment Review* 17: 33-40.
- Kamar, E., P. Karacha-Mandic and E. Talley, (2005) "Going-private decisions and the Sarbanes-Oxley Act of 2002: A Cross-country Analysis" *University of California, Berkeley Law and Economics Paper #12*.

- Kelsey, D. and F. Milne (2005a), "Externalities, Monopoly and the Objective Function of the Firm" *Economic Theory* (forthcoming).
- Kelsey, D. and F. Milne (2005b), "Market Distortions and Corporate governance", Mimeo, Queen's University (submitted *International Economic Review*).
- Klein, P., D. Shapiro and J. Young (2004), "Corporate Governance, Family Ownership and Firm Value: the Canadian Evidence", *Corporate Governance: An International Review* (forthcoming).
- La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny (1998), "Law and Finance" *Journal of Political Economy* 106, 1113-1155.
- Macey, J. "Measuring the Effectiveness of Different Corporate Governance Systems: Toward a More Scientific Approach" 63 *Bank of America J. App. Corp. Fin.* (1998).
- Milne, F. (1981), "The Firm's Objective Function as a Collective Choice Problem", *Public Choice* 37: 473-486.
- Morck, R., A. Shleifer and R.W. Vishny (1998), "Management Ownership and Market Valuation", *Journal of Financial Economics* 20:293-315.
- Morck, R., M. Percy, G. Tan and B.Y. Yeung (2004), "The Rise and Fall of the Widely Held Firm - A History of Corporate Ownership in Canada" NBER Working Paper No. W10635.
- Ribstein, L. (2005), "Sarbanes-Oxley After Three Years" *University of Illinois Law and Economics Research Paper* No. LE05-016.
<http://ssrn.com/abstract=746884>.
- Romano, R. (1989), "Answering the Wrong Question: The Tenuous Case for Mandatory Corporate Laws" *Columbia Law Review* 89: 1599-1617.
- Romano, R. (1998), "Empowering Investors: A Market Approach to Securities Regulation", *Yale Law Journal* 107: 2359-2430.
- Romano, R. (2005), "Sarbanes Oxley and the Making of Quack Corporate Governance", 114 *YALE L.J.* 1521.
- Ross, S. A. (1979), "Disclosure Regulation in Financial Markets: Implications of Modern Finance Theory and Signaling Theory", in Edwards, F.R. *Issues*

in Financial Regulation: Regulation of American Business and Industry Pinpoint (New York: McGraw-Hill).

Tirole, J. (2001). Corporate Governance. *Econometrica* 69: 1-35.

Verrecchia, R. (1983), "Discretionary Disclosure." *Journal of Accounting and Economics* 5: 179-194.

Table 1: Summary of Board Quality Index (BQ)

Table 1 provides descriptive statistics and univariate tests on the level of the index of board quality (BQ) which is designed to reflect the extent to which recommended Canadian governance practices are adopted. This index may range from 0 to 4 with a point added for each of the following board qualities: separation of the CEO and board chair, fully independent audit committee, majority of independent directors, and a provision for training new members. T-statistics and (p-values) are provided to indicate whether the level of BQ is equal to zero and whether its level varies significantly across firms with various characteristics, specifically whether the firm is cross-listed or not, whether it has dual classes of shares, family block holdings, executive block holdings, or an alternative block holder.

Panel A: Mean Values of BQ Index by Year		
	Mean Value of BQ	Univariate T-test Results
Fiscal Year		Test BQ = 0
1999	2.78	38.04 (0.00)
2000	2.80	37.28 (0.00)
2001	2.96	43.84 (0.00)
2002	3.26	54.16 (0.00)
2003	3.43	55.74 (0.00)
Average Across all Years	3.04	96.43 (0.00)
Panel B: Mean Values of BQ Index by Characteristic		
	Mean Value of BQ	Test BQ _{non-cross} = BQ _{cross}
Non Cross-Listed Firms	2.98	-2.32
Cross-Listed Firms	3.12	(0.02)
		Test BQ _{non-dual} = BQ _{dual}
Non-Dual Class Shares	3.09	2.90
Dual Class Shares	2.89	(0.00)
		Test BQ _{non-family} = BQ _{family}
Non- Family Block Firms	3.04	-0.86
Family Block	3.11	(0.39)
		Test BQ _{non-exec} = BQ _{exec}
Non-Executive Block Firms	3.15	6.52

Executive Block	2.60	(0.00)
		Test $BQ_{\text{non-block}} = BQ_{\text{block}}$
Non-Other Block Firms	3.02	-0.66
Other Block Firms	3.04	(0.51)

Table 2: Summary of Hypothesize Coefficients

Table 2 identifies the firm characteristics which are hypothesized to influence the voluntary adoption of corporate governance practices. Characteristics reflect the firm's need for and access to capital, its shareholdings, and its profitability. The hypothesized relation between each factor and the level of voluntary adoption is provided. A negative relation implies that the firm characteristic is less likely to be associated with a high level of voluntary adoption.

Firm Characteristic	Hypothesized Relation to Voluntary Adoption
<i>Need for and Access to Capital</i>	
Capital Expenditures	Positive
Retained Earnings	Negative
Total Leverage	Negative
Tangibility	Negative
Market to Book Ratio	Uncertain
Total Assets	Uncertain
<i>Shareholdings</i>	
Family Block	Negative
Executive Block	Negative
Other Block	Positive
Dual Class Shares	Negative
Cross-listed in the US	Uncertain
<i>Profitability</i>	
Return on Equity	Negative

Table 3: Characteristics Influencing Board Quality

Table 3 provides regression results where the level of the board quality index is the dependent variable. This index may range from 0 to 4 with a point added for each of the following board qualities: separation of the CEO and board chair, fully independent audit committee, majority of independent directors, and a provision for training new members. Model 1 controls only for the year of observation with the YR variable equal to 0 in 1999, 1 in 2000 etc. Model 2 adds dummy variables identifying stock and block holding characteristics, and Model 3 includes variables measuring the need for and access to capital. Regressions are run with robust standard errors to account for the presence of multiple firm-year observations from the same firm.

	Model 1		Model 2		Model 3	
	Coeff.	T-Stat	Coeff.	T-Stat	Coeff.	T-Stat
Constant	2.69	37.49**	2.84	27.83**	2.69	10.40**
YR	0.17	8.28**	0.17	8.11*	0.16	4.92**
Cross-listed			0.05	0.51	-0.09	-0.82
Dual Class			-0.15	-1.35	-0.23	-1.63
Family Block			0.01	0.11	0.01	0.06
Exec. Block			-0.52	-4.33**	-0.44	-3.18**
Other Block			0.24e-2	0.03	0.03	0.29
Leverage					-0.04	-0.12
Mkt to Book					0.11e-2	2.26*
Tangibility					0.30	2.19*
Ln Assets					0.80e-2	0.28
Capex					-0.09	-0.11
Retain. Earn.					-0.10	-2.39*
Observations	894		863		547	
R squared	0.06		0.13		0.15	

* Indicates significance at the 5% level

** Indicates significance at the 1% level

Table 4: Competitive Pressures and Board Quality

Panel A of Table 4 provides univariate tests for differences in the level of the board quality index for firms from particular industries versus the remaining sample. This index may range from 0 to 4 with a point added for each of the following board qualities: separation of the CEO and board chair, fully independent audit committee, majority of independent directors, and a provision for training new members. A positive T-statistic indicates that the remaining sample maintains a higher level of the BQ index than firms from a particular industry. Panel B of the table (see next page) provides the results of a regression in which the level of the index is the dependent variable. Controls for the year, shareholding characteristics, variables measuring access to capital, and industry characteristics act as independent variables. Robust standard errors are used to account for the presence of multiple observations from the same firm.

Panel A: Univariate Tests		
	Mean BQ Index	T-test that $BQ_{Other} = BQ_{Ind}$
Mineral	3.14	-1.44
Manufacturing	3.07	-0.84
Transportation	3.13	-1.00
Retail	3.13	-0.86
Finance	2.80	2.40*
Service	3.04	-0.03
All Firms	3.04	

Table 4 Continued: Competitive Pressures and Board Quality

Panel B: Multivariate Regression		
	Coefficient	T-Stat
Constant	2.47	8.04**
Year	0.16	4.86**
Dual Class Shares	-0.21	-1.52
Family Block	-0.08	-0.43
Exec Block	-0.45	-3.19**
Other Block	0.01	0.13
Leverage	-0.09	-0.22
Mkt to Book	0.02	1.76
Tangibility	0.26	1.51
Ln Assets	0.03	1.03
Capex	-0.07	-0.08
Retained Earnings	-0.11	-2.69**
ROE	0.02	1.70
Manufacturing	0.09	0.50
Transportation	0.02	0.08
Retail	0.16	0.68
Financial	-0.26	-1.00
Service	0.01	0.05
Observations	547	
R squared	0.16	

Table 5: Characteristics Influencing Adoption of SOX and US Listing Standards

Table 5 reports the results of a regression with an index identifying the voluntary adoption of SOX and US listing standards being the dependent variable. The index ranges from 0 to 8 with firms receiving a point for each of the following terms they adopt: a financial expert on the audit committee, the ability of the board to hire advisors, an independent audit committee, an independent compensation committee, a code of ethics, financial certification, the elimination of internal loans to managers, and a majority of independent directors. Independent variables include the year, stockholding characteristics, variables proxying for need for and access to capital, and industry. Robust standard errors are used to control for the presence of multiple observations from the same firm.

	Model 1	Model 2	Model 3	Model 4
Constant	3.69**	3.84**	2.19**	1.63*
YR	0.34**	0.35**	0.43**	0.43**
Dual Class		-0.03	-0.05	0.05
Family Block		-0.42	-0.42	-0.61
Exec. Block		-0.56*	-0.49	-0.54
Other Block		0.14	0.52*	0.31
Leverage			-0.81	-0.31
Mkt to Book			-0.12e-2	0.03
Tangibility			-0.98	-0.12
Ln Assets			0.24*	0.24*
Capex			2.59	3.28*
Retain. Earn.			-0.67**	-0.66**
ROE				0.03
Manufacturing				0.34
Transportation				-0.61
Retail				0.52
Financial				0.11
Services				0.95
Observations	322	316	186	186
R squared	0.10	0.15	0.29	0.35

Figure 1: The Four Components of the Index of Board Quality

Figure 1 plots the proportion of firms adopting a particular recommendation of the TSX standards related to board quality in each year of the sample.

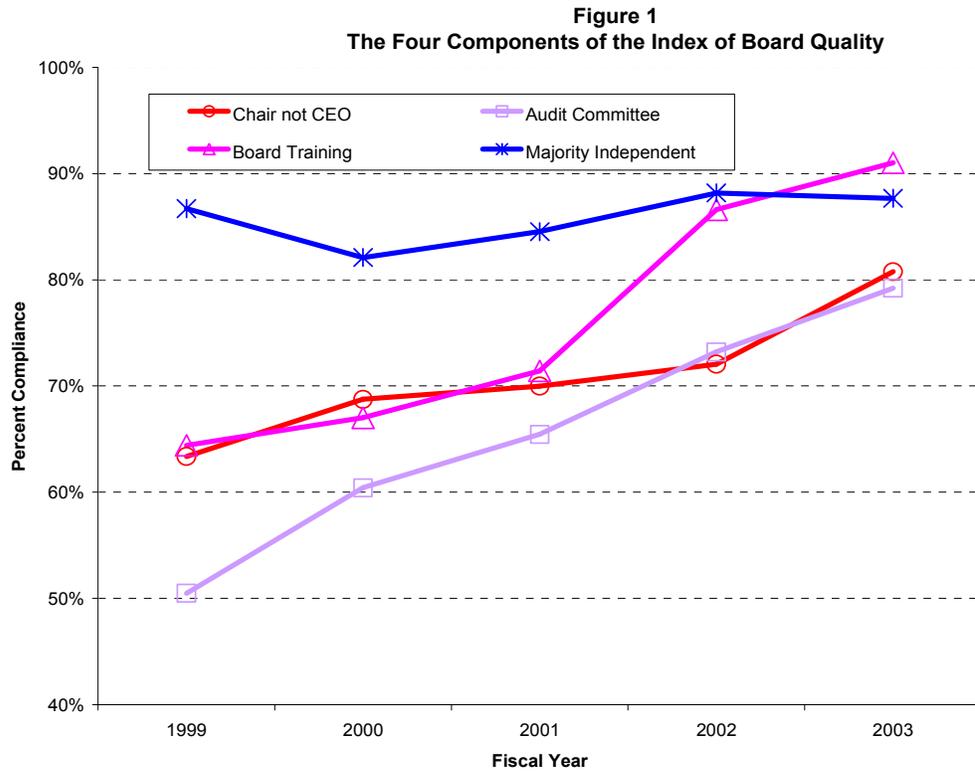


Figure 2: Index of SOX Adoption

Figure 2 plots the number of firm-year observations corresponding to various levels of the index of SOX adoption. The index ranges from 0 to 8 with a firm receiving a point for each of the following terms they adopt: a financial expert on the audit committee, the ability of the board to hire advisors, an independent audit committee, an independent compensation committee, a code of ethics, financial certification, the elimination of internal loans to managers, and a majority of independent directors. Results are provided for the sample as a whole and only those firms that are not cross-listed in the US.

