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VOLUNTARY ADOPTION OF CORPORATE GOVERNANCE MECHANISMS

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ABSTRACT

We model firms' incentives to voluntarily adopt corporate governance mechanisms and hypothesize that management's ability to extract private benefits, the need for external funds, and the ease with which a firm's assets may be monitored are important determinants of the level of governance. Using hand-collected data, we test these hypotheses and examine firms' propensity to adopt recommended but not required governance standards from their home and neighboring country's jurisdictions. We document that a significant level of voluntary adoption occurs and that this level has been both increasing over time and declining in variability across firms. Governance mechanisms are least likely to be voluntarily implemented when management controls a significant portion of common stock votes or a majority owner exists. In contrast, voluntary adoption increases when the firm faces significant investment opportunities and employs large levels of expenditures which are difficult to monitor such as research and development expenses.

I. INTRODUCTION

It is well-known that corporate governance practices vary significantly from country to country (Doidge, Karolyi and Stulz, 2004; Dyck and Zingales, 2004; La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998). While a country's guidelines and standards provide a general framework for these practices, significant variation also occurs domestically among individual firms (Klein, Shapiro, and Young, 2004; Gompers Ishii, and Metrick, 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 (see 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 or have not implemented and explain why.

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 a voluntary regime, specifically Canada. Canada serves as an ideal test case for two primary reasons. First, voluntary Canadian governance guidelines have been in place for a relatively long time (since 1995) and second, the proximity of the much larger US capital markets makes American legislation a binding concern for Canadian firms with securities currently listed in the US and a consideration for those who may list there in the future. The implementation of

the Sarbanes Oxley Act, which applies to non-U.S. firms cross-listed in the United States, heightens the relevance of US corporate governance law globally.

We examine the extent to which Canadian firms voluntarily adopt both Canadian and US governance standards and whether the level of adoption is dependent on firm-level factors. Durnev and Kim (2005) also examine 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 a country's legal environment. While we will examine the influence of some similar characteristics, 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 statutes 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, in our case the United States. As a result, 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).

Using a standard principal-agent model we show that incentives exist for management to voluntarily commit to governance practices. The model focuses on three factors: 1) the size of private benefit that management can extract from the firm, 2) the need for external funds, and 3) the cost or ease with which governance mechanisms can be implemented. Using hand-collected data from over 1200 information/proxy circulars disclosed in advance of firms' annual meetings, we develop empirical proxies for these factors. For example, management's ability to extract private benefits is assumed to be linked to their personal shareholdings in the firm.

Our empirical results establish that a significant level of voluntary adoption of the Canadian and US guidelines exists and that this level has been increasing over time. In Canada, where the guidelines have been in place for a relatively long period of time, we also document a

decrease in the variability among firms' choice of governance level. We show that firms are least likely to participate when management controls at least 10% of the common stock vote. Similarly, governance adoption is low when a majority owner exists. We believe that in these cases, the size of management's private benefit is so large that it exceeds any positive outcome they may occur as a result of employing additional governance mechanisms. In contrast, we find that firms with significant investment opportunities are more likely to voluntarily adopt both the domestic Canadian governance guidelines and those of the US. In addition, significant spending on research and development is associated with additional governance adoption. Since R&D expenditures are difficult to monitor and prone to manipulation we believe that firms choose to voluntarily adopt additional governance mechanisms to assure investors of the firm's credibility.

The remainder of the paper proceeds as follows. Section II outlines the relevant governance regimes for Canadian firms and the practices that they recommend. Section III uses a principal-agent model to illustrate incentives that may encourage good governance and develops our explicit hypotheses relating firm characteristics to these incentives. Section IV provides the empirical specifications for testing these hypotheses and Section V describes the data used in these tests. Empirical results are presented in Section VI and Section VII concludes.

II. CANADIAN CORPORATE GOVERNANCE REGIME

A significant part of the Canadian corporate governance regime is built on voluntary standards.[2] While the basic corporate statute contains both mandatory and voluntary provisions, a second layer of governance legislation is premised specifically on the notion of voluntary compliance. This second layer has been in place since 1995 when the Toronto Stock Exchange (TSX) issued a list of best practice guidelines that firms could adopt but they were under no legal

[2] For comparisons with other legal regimes see Anand (2006).

obligation to do so.[3] These guidelines primarily addressed issues related to the board of directors such as its independence and the composition of its committees.

Added to the best practice guidelines was a disclosure requirement. While firms were not obliged to adopt the voluntary standards, they were mandated to disclose the extent of their compliance with the best practices. This "Statement of Corporate Governance Practices" could be contained in the firm's proxy circular or annual report.[4] In particular, 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.[5]

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 many firms. Most notable among these requirements is of course the Sarbanes-Oxley Act, which departs from the traditional voluntary structure in place in several countries[6] and mandates firms cross-listed in the United States to implement the Act's provisions. Thus, Canadian firms listed on US exchanges are required to comply with SOX including the 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 not currently cross-listed in the US (and therefore not mandated to comply with SOX or US listing requirements) may feel

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[3] 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.

[4] See, for example,*Guidelines, in* Toronto Stock Exchange, TSX COMPANY MANUAL § 473 (2004) http://www.tse.com/en/pdf/CompanyManual.pdf [TSX Guidelines].

[5] The TSX Company Manual, *supra* note 23 at § 473. Section 474 lists the fourteen recommendations of the Dey Committee. Unlike annual reports, the proxy circular is a mandated document with specific items that must be disclosed including corporate governance activities. Firms tend to disclose their compliance with the best practice guidelines in this mandatory document and we restrict our analysis to this document.

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

pressure to do so if a significant portion of their peers have adopted the standards.[7] In essence, 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 between the Canadian and American governance regimes 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.

III. MODELING INCENTIVES FOR VOLUNTARY GOVERNANCE

Drawing on the work of Tirole (2006) we outline a model of voluntary governance to motivate our empirical hypotheses. In this model, the primary determinants for whether or not a firm voluntarily employs good governance practices are: 1) the ability of an inside management group to extract private benefits for their own gain; 2) the company's reliance on external funds; and 3) the ease with which the company's assets may be monitored. We hypothesize that firms will voluntarily commit to additional governance mechanisms if investors believe these

[7] 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.

mechanisms provide a credible commitment to reducing management's ability to extract private benefits. The need to assure investors that private benefits have been reduced should increase with the company's reliance on external funds. Conflicting predictions exist for the impact of the ease of monitoring. All else equal, firms will be more likely to adopt governance mechanisms that can be implemented at relatively low cost. However, investors may demand that companies with obscure assets or expenses that can be easily manipulated employ effective mechanisms regardless of the increased cost associated with monitoring these assets.

To illustrate how managerial benefits influence firms' propensity to implement governance mechanisms, we consider a standard principal-agent model with moral hazard where an inside management group can alter the probability of success of a random return on a project to make it less profitable.[8] This action allows management to receive a private benefit valued at *B*. Therefore management is tempted by the private return to alter their behaviour (to misbehave) and invest in a project with a low net present value. In turn, outside investors (at this stage we draw no distinction between equity and debt in this risk neutral world), understanding management's incentives, will be wary of investing in the firm. In some cases, the firm may not be able to secure outside capital (a case of capital rationing), even though the project has a positive net present value.

Since investors are sceptical of management's incentives, management is led to commit to credible control structures that will ensure that high, net present value projects will be chosen. An example of such a credible mechanism is a governance structure that incorporates monitoring systems to ensure that management will not be tempted to misbehave. The governance system chosen and implemented by the firm may be suggested (but not required) by the firm's home jurisdiction (as is the case of Canada, Australia, and the United Kingdom) or the firm may choose to comply with the guidelines of investor-friendly jurisdictions (for example, Canadian firms

[8] Our exposition here closely follows that presented in Tirole (2001) and in more detail Tirole (2006).

voluntarily complying with the standards of SOX) perhaps with the hopes of attracting foreign investors. [9]

Our formal model of voluntary adoption involves 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 $I\text{-}A \geq 0$ 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 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, $p_H R - I > 0$, and for simplicity that the risk-free interest rate is zero. Finally, at the third date, the investment pays a verifiable return R, or zero.

To ensure that risk-neutral investors are willing to finance the firm, we require incentive compatibility constraints that will guarantee that management will not misbehave with the outside 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:

$$p_H (R - [\, B / (p_H - p_L) \,]) \geq I - A, \text{ or}$$

$$p_H R - (I - A) \geq p_H [\, B / (p_H - p_L) \,].$$

[9] 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.

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.[10]

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 little ability to extract private benefits (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 lower level of managerial private benefits) improve the ability of the firm to raise capital and invest in the project.

So far we have assumed that management's ability to extract private benefits from the firm has been fixed at the level B. The model can be extended however to demonstrate how the firm can commit to additional governance mechanisms, thereby reducing management's ability to extract private benefits to a new level $b < B$. Within our current model framework, assume that governance costs and benefits are built into the returns R and private benefits B. Costly monitoring (for example, conforming to suggested Canadian governance guidelines or SOX) costs $C_A > 0$, and reduces the private benefit to b. Now management has a choice between the standard financing constraint with no active monitoring:

$$p_H (R - [\, B / (p_H - p_L) \,]) \geq (I - A)$$

and the constraint with costly monitoring resulting in reduced private benefit:

$$p_H (R - [\, b / (p_H - p_L) \,]) - C_A \geq (I - A)$$

[10] 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.

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. If the cost remains the same $C_A = 0$, but governance is more effective (*b* rather than *B*) then the firm finds it easier to raise outside funds. But in general with $C_A > 0$, the benefits from lowering *B* could be more than offset by the increased monitoring cost, so that the monitoring system is not used.[11]

Our model of voluntary governance adoption demonstrates the influence of private benefits, external funding requirements, and costly monitoring mechanisms that management must assess when establishing its governance structure. The model allows us to develop the following three hypotheses. First, if management can extract large private gains (in other words, if *B* is large), they will be less willing to commit to credible governance mechanisms since the benefit from choosing the better project is unlikely to exceed management's private benefits from misbehaving. Second, if the amount of funding required for investments, *I*, is large relative to the size of internal equity, *A*, management will be more likely to commit to additional governance mechanisms. And third, if the cost of implementing a governance structure is low so that a monitoring system can be easily established, firms will be more likely to voluntarily commit to it thereby lowering the level of private benefits from *B* to *b*. However, we caution that firms with the most difficult (and therefore costly) assets to monitor may continue to employ additional governance mechanisms since obscure assets are most prone to managerial manipulation. We turn to the next section to describe the empirical proxies that will be used to test these hypotheses.

IV. EMPIRICAL SPECIFICATION OF HYPOTHESES

We require proxies for a firm's level of voluntary governance adoption, its ability to extract private benefits, its need for external funding and the ease with which monitoring may be

[11] Tirole (2006) interprets changes in the likelihood ratio ((pH - pL)/ pH) as an indicator of monitoring effectiveness.

implemented. To begin, we develop two primary measures of voluntary governance, one referring to the suggested Canadian governance guidelines and another reflecting the practices mandated by SOX and the listing requirements of US exchanges.

A. Measures of Voluntary Adoption

The majority of the Canadian governance guidelines implemented by the TSX in 1995 relate to board composition. As a result, our first measure of the voluntary adoption of governance mechanisms is an assessment of board quality. In this assessment we focus on six characteristics of boards that were suggested to be good practice by the Canadian guidelines. These characteristics include: separation of the CEO and board chair; an independent chair, a fully independent audit committee; a fully independent compensation 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 6. We denote the index by *BQ*.

Our second measure of voluntary adoption referring to aspects of SOX and mandatory listing requirements on US exchanges consists of eight components. A firm receives 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. We create this measure only for Canadian firms that are not cross-listed on a US exchange to ensure that the adoption of these standards is truly voluntary. In this way, we can establish whether firms are motivated to voluntarily adopt governance guidelines that extend beyond their country's borders.

There is some overlap between the US standards and the suggested Canadian best practices regime. For this reason we create a variant of the second index that includes only US standards that are not also recommended in the Canadian guidelines. The reduced US governance index ranges from zero to five (rather than eight as in the full index). Elements that

are excluded from this smaller index are the existence of independent audit and compensation committees and a majority of independent directors. The five remaining factors are identical to those included in the full US index. To distinguish between the two US indices we denote the full index by SX_{Full} and the reduced index, excluding overlap with Canadian guidelines by SX_{Ex}.

B. Extracting Private Benefits

We have hypothesized that if management can extract large private gains (in other words, if *B* is large), they will be less likely to commit to credible governance mechanisms. We measure the ability to extract private benefits by the shareholding characteristics of the firm, particularly the existence of block holdings controlling a significant portion of the common stock vote. Intuitively a management group with a large voting share will be able to extract more private benefits than managers in a widely-held firm that need to appeal to minority investors for their voting support. Since we have hypothesized that managers have less incentive to voluntarily implement governance guidelines when *B* is large, then the existence of certain kinds of block holdings may be associated with lower voluntary adoption.

Firms must disclose in their proxy circulars 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 categories; families, executives, and other investors. Typically, family block holdings are possessed by the original founding family of the firm (Morck, Percy, Tan, and Yeung, 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 consists of 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 (Black, 1990).

In addition to identifying the presence of a block holder and whether they represent executive, family or other interests, we record the proportion of the common stock votes that the block holder controls. In the extreme, a block holder may maintain the majority of the firm's votes, enabling them to control the direction of the firm with little need to secure the votes of minority investors. As a result, we hypothesize that firms with block holders controlling more than 50% of voting shares are less likely to voluntarily adopt recommended governance guidelines.

Two additional shareholding characteristics are suggested to proxy for the ability to extract private benefits. The first of these is whether the firm maintains multiple classes of shares with differential voting rights (dual class shares). These shares provide a significant amount of control to a small number of individuals at the expense of minority investors and we hypothesize that their presence is negatively related to voluntary adoption. The second is whether the firm cross-lists its shares in the US. Of course, this characteristic is relevant only for the voluntary adoption of Canadian governance practices reflected by our first governance index since US practices are not voluntary for firms listed on US exchanges. A large literature suggests that cross-listing in the US forces firms to be more transparent and improve the quality of their disclosures (see Lang, Lins and Miller (2003) and Lang, Raedy and Yetman (2003)). Since firms may choose to cross-list their stock to subject themselves to additional regulatory scrutiny and thereby signal their high quality, it is possible that these same firms also choose to voluntarily adopt additional governance mechanisms.

C. Need for External Funds

We have hypothesized that the greater the external funding requirement, the greater the desire to implement additional governance mechanisms. While our model has illustrated a firm's need for external funding to be the result of the difference in the size of the investment (I) and the

amount of internal equity (*A*), Tirole (2006) extends the theory to allow for other possibilities such as the existence of multiple and/or sequential projects. In all cases, the implications are similar such that a greater need for external funds (resulting either from a large number of projects or a discrepancy between investment opportunities and internal funds) is associated with a higher level of voluntary governance adoption.

In order to measure a firm's external funding needs, we adapt two variables from Durnev and Kim (2005). In both cases, we deal with the issue of endogeneity by separating the measurement of the variables and the level of firm governance over time. The first variable, investment opportunity, is measured by the annual percentage growth in sales in the year prior to the measurement of the governance indices. The second variable, which measures the need for external finance given a certain level of investment opportunities, is defined as the difference between the firm's sustainable growth rate and its actual growth rate.[12] Any amount of growth that the firm cannot support on its own must be funded by external sources. We hypothesize that both investment opportunities and need for external finance will be positively related to a firm's voluntary adoption of governance mechanisms.

D. Ease of Monitoring

Management must trade-off the benefit from reducing the size of its private benefit, *B*, with the cost of implementing a governance system (C_A) to achieve this reduction. The cost will vary significantly from firm to firm. For example, if the project is relatively transparent to understand, where there are tangible assets, etc., then we can think of this as implying straightforward and cheap monitoring mechanisms. Conversely, the use of elusive assets, such as obscure research and development expenditure will signal a more expensive monitoring mechanism since the assets are more difficult to observe and therefore more prone to managerial manipulation. To measure the conflicting incentives stemming from low-cost monitoring of

observable assets versus increased investor demand for monitoring when assets are obscure we employ two variables. First, we use the lagged value of R&D scaled by total assets[13] to proxy for the ability of management to manipulate assets and hypothesize that larger values of this variable will be associated with more voluntary governance adoption. Second, we use the proportion of assets represented by property, plant and equipment to reflect the tangibility of assets. Ex ante it is unclear if firms with less tangible assets are motivated to signal their good governance by the voluntary adoption of recommended practices or if the additional cost of monitoring these assets acts as a deterrent to voluntary adoption.

V. DATA

Our sample consists of companies listed on the Toronto Stock Exchange from 1999 up to and including 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.[14] We use 2003 as the upper limit of our period of study since by 2004, Canadian securities regulators had adopted two mandatory rules that mirrored the SOX provisions relating to audit committee composition and financial statement certification. As a result, 2003 marks the final year in which the adoption of suggested governance guidelines was voluntary.

The companies chosen for the sample are those included in the S&P/TSX index (formerly the TSE300) as of December 31 for each year of our sample period. For each sample firm we hand-collect relevant governance data from its proxy circular. We chose to use proxy circulars

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[12] Following Demirguc-Kunt and Maksimovic (1998) sustainable growth is measured as return on equity/(1-return on equity) and actual growth is measured as the annual growth rate in total assets. Again these values are taken from the year prior to the measurement of the governance variables.

[13] Research and development expenses are frequently missing for observations in Compustat. Rather than eliminate observations with missing data, we follow Durnev and Kim's (2005) practice of replacing missing R&D observations with a value of 0. The intuition is that firms that fail to report R&D may do so because they do not have R&D expenditures. Eliminating these firms would then bias the sample towards industries where R&D spending is significant.

[14] 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 authors).

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 law. Proxy circulars, for instance, must provide a description of board members, their relation to the firm, and details of shareholders who hold 10% or more of the firm's voting shares. Scrutinizing these documents allows us to establish whether or not the firm has chosen to implement the suggested Canadian governance guidelines. In all, over 1200 proxy circulars were examined with 1048 providing sufficient information for the construction of our governance indices.

To test our hypotheses related to the incentives for voluntary adoption we require additional data from the Compustat database. Unfortunately, not all of our sample firms are covered in the Canadian version of Compustat and as a result the sample size declines when we move to tests incorporating additional control variables or examining the influence of ease of monitoring and the need for external funds on governance.

VI. EMPIRICAL RESULTS

A. Evidence of Voluntary Adoption

Prior to examining whether certain firm characteristics are associated with increased incentives to employ additional governance mechanisms, we provide evidence that voluntary adoption occurs for a non-trivial number of firms. We also document that the level of this adoption has been greater in the later years of our sample which is intuitive given the recent increased focus on corporate governance in both Canada and the United States in recent years.

Recall that the index related to the adoption of Canadian guidelines has a maximum value of six and is denoted by *BQ*. Panel A of Table 1 provides values for the average level of the *BQ* index across all firm-year observations and for each year of the sample. The overall average across all years is 4.08 whereas the average value in 1999 was lower at 3.72. This average has increased monotonically over the years ending with a value of 4.58 in 2003. Univariate tests show that the average *BQ* value has always been statistically greater than zero, implying that a

significant number of firms have voluntarily adopted at least some of the recommended guidelines.

The proportion of firms implementing each of the individual practices that form the index is plotted in Figure 1. Similar to the results for the overall index, voluntary adoption has increased for all of the individual standards with the most dramatic improvements being the proportion of firms providing training for new board members and maintaining fully independent audit committees.

The increase in the average value of the *BQ* index could be due to either a change in the composition of the S&P/TSX index (which forms the basis of our sample) or a change in the behaviour of individual firms. It is possible, for instance, that firms with better governance mechanisms have entered the index in more recent years, thereby giving the appearance of an overall increasing trend in the adoption of governance mechanisms rather than individual firms increasing their level of voluntary adoption. To get a sense of the stability of firms' governance structures Table 2 provides a transition matrix for the level of the *BQ* index from one year to the next. Numbers down the vertical axis represent the index value for a particular firm in year T while numbers across the horizontal axis represent the level of the index for the same firm in the following year, year $T+1$. Values within the cells of the matrix represent the number of firms with the corresponding levels of the *BQ* index in two subsequent years. If a firm lies on the diagonal, it has maintained the same level of governance mechanisms from one year to the next. An observation above the diagonal represents an increase in governance mechanisms over time.

The transition matrix shows that the bulk of the observations rests on or above the diagonal. In other words, firms have been either maintaining or improving the level of governance standards that they have adopted from one year to the next. When an improvement takes place, it is most commonly an increase of a single point. For example 33 firms increased

their *BQ* measure from 3 to 4 over a given year while only 4 increased the measure by two points from 3 to 5. This pattern is typical across all index levels.[15]

Panel A of Table 1 shows a second interesting phenomenon regarding the voluntary adoption of the Canadian governance guidelines over time. At the same time that the general level of adoption has increased in recent years, the standard deviation of the *BQ* index across firm observations has declined. In other words, the extent to which firms adopt the Canadian governance guidelines is converging so that there is less variability in governance mechanisms from one firm to the next. Formal tests confirm that the standard deviation of the index in 1999 is significantly larger than its standard deviation in 2003.

A second setting in which voluntary adoption may occur is the implementation of standards contained in the Sarbanes-Oxley Act and the listing rules of US stock exchanges. Panel B of Table 1 reports the two indices reflecting voluntary adoption of US governance standards which we denote by SX_{Full} and SX_{Ex}. The number of observations in Panel B falls significantly from those reported in Panel A for several reasons. First, we focus only on Canadian firms that are not cross-listed in the US so that the adoption of American guidelines represents a truly voluntary act. Second, we confine our analysis of the US standards to the years 2002 and 2003 since the Sarbanes-Oxley Act did not exist prior to this time. Finally, since the reporting of governance guidelines that are consistent with US standards is not a requirement for Canadian firms, we are more likely to have missing data for the observations in our sample.

Despite the smaller sample size, Panel B of the table provides evidence that Canadian firms consider US standards when choosing which governance mechanisms to adopt. Average values for the full index (SX_{Full}) and the index excluding any Canadian governance elements

[15] We examined whether the adoption of a particular governance mechanism by a firm was associated with the adoption of others. The most striking results are that having the chair person be someone other than the CEO provides little indication of overall governance mechanisms whereas firms with *independent* chairs are much more likely to also have independent committees and provide training for members of the board.

(SX_{Ex}) are both significantly greater than 0 in 2002 and 2003. In addition, we witness the same pattern of increasing levels of adoption over time as was apparent for the Canadian indices.

B. Incentives for Voluntary Adoption of Canadian Guidelines

1. Ability to Extract Private Benefits

We have hypothesized that the ability to extract significant private benefits through shareholding characteristics such as large block holdings or dual class shares provides management with little incentive to voluntarily adopt mechanisms that ensure the selection of high NPV projects. Table 3 provides average values of the *BQ* index for firms with various shareholding characteristics and gives the results of univariate tests as to whether these characteristics result in significantly lower levels of voluntary adoption from the remaining sample. It is immediately apparent that firms with a majority shareholder have the worst average score for the index followed by those with executive block holdings. In both cases, these firms score significantly worse than the rest of the sample. Lower than average scores are also associated with the presence of dual class shares and family block holdings.

The univariate tests ignore the relationships among various shareholding characteristics. Panel B of Table 3 illustrates these relationships by providing a correlation matrix for the shareholding characteristics and documents that firms with majority shareholders are also likely to have dual classes of shares outstanding. This is unsurprising since it is usually through the ownership of shares with disproportionately high voting rights that an individual or group is able to control over 50% of a company's votes. Since the correlation between these two characteristics is in excess of 0.5, we refrain from including both variables in the same specification when moving to multivariate regressions.[16]

Table 4 provides the first of the multivariate regressions with the level of the *BQ* index being the dependent variable and indicators for dual classes of shares, cross-listed securities and

the presence of family, executive or institutional block holdings being the independent variables. In addition to the shareholding characteristics, we include three control variables for factors that may also influence governance. The first of these is the year of observation. We construct a variable called *Year Count* which is set equal to 0 in 1999, 1 in 2000 etc. until reaching a maximum of 4 in 2003. In addition, we control for a firm's size (as measured by the Ln of the lagged value of assets) and its industry. Since different industries may have different norms with respect to the appropriate level of governance, we create 13 industry dummies identified by 2-digit SIC codes as in Campbell (1996). Robust standard errors accounting for the presence of multiple observations from the same firm are used for all regressions reported in Tables 4 through 7.[17]

Results in the first column of Table 4 show that the presence of an executive block holding is the most significant determinant of voluntary governance adoption among our shareholding characteristics. When management controls at least 10% of common share votes they are significantly less likely to voluntarily implement the recommended Canadian governance standards. This is precisely what our model has predicted: if management is able to extract significant private benefits (*B* is large) there is little incentive for good governance.

There is weak evidence that the presence of a family block holding also reduces the propensity to adopt governance standards. The family block indicator shows a negative relationship to the *BQ* index at approximately the 10 percent level.[18] In contrast to executive and family blocks, our intuition suggested that the presence of an institutional investor may encourage rather than dissuade companies to improve their governance standards. Unfortunately, we do not find that having an independent block holder improves firm board quality. Similarly, there is no

[16] Dual class shares are also correlated with family block holdings. While the correlation is not as severe as in the case of a majority owner, we conduct additional robustness tests to ensure that multicollinearity is not biasing our results.
[17] A Hausman test rejects the use of a random effects model rather than robust standard errors.

evidence to suggest that having shares cross-listed in the US improves the *BQ* index. In terms of the control variables, *Year Count* is positively related to governance adoption confirming the trend of increasing levels adoption observed in Figure 1 while firm size has no bearing on voluntary governance. [19]

The second regression specification presented in Table 4 adds the majority voter variable and removes the dual class share indicator due to the strong correlation between the two. As the univariate statistics suggested, having a controlling shareholder is negatively associated with the voluntary adoption of governance standards. This implies that majority owners have little incentive to appeal to minority investors by instituting good governance practices. Other results remain similar to the first specification. Recent years are again associated with better governance as is the absence of an executive block. Interestingly, the executive block variable remains significant even when it is defined to capture only those blocks representing a non-majority stake in the firm.[20] An executive block holding is always associated with worse scores on the *BQ* index regardless of whether this block represents a controlling position or not.

2. Need for External Funds and Ease of Monitoring

A greater need for external funds due to significant investment opportunities (proxied by historical sales growth) or a significant discrepancy between the amount of internal equity on hand and the magnitude of a company's investment opportunities (proxied by the difference between a company's sustainable and actual growth rates) are hypothesized to be associated with greater voluntary governance adoption. While it is plausible that more tangible assets are easier to observe and therefore less costly to monitor, this reduction in cost may not necessarily be

[18] The calculation of variance inflation factors shows that while multicollinearity exists among the variables within this specification, it is not severe. Nevertheless when the dual share variable is removed from the regression, the family block dummy increases in importance.

[19] Replacing the *Year Count* variable with dummy variables indicating the year provides similar evidence. Dummy variables are highly significant for more recent years. We do not report coefficients for the 13 industry dummies in order to conserve space.

[20] A third model specification was estimated in which the three block holding variables were redefined to refer to executive, family, and other block holdings with control over 10 to 49 percent of the votes. When

associated with more voluntary adoption. The management of firms with high levels of R&D expenses for example may employ additional governance mechanisms to ensure investors of their legitimacy.

Table 5 presents results for multivariate regressions relating our external funding and ease of monitoring variables to the *BQ* index. The first specification reports the coefficient estimates for the measures of investment opportunity, need for external finance, R&D, and property, plant and equipment in addition to the size, industry, and year controls. The second and third specifications add the shareholding characteristics analyzed in Table 4. The second specification ignores the proportion of votes maintained by block holders while the third includes the majority voter variable.

The results suggest that the need for external funds as measured by a company's investment opportunities is a significant factor in their choice of governance structure. As hypothesized, firms with significant investment opportunities choose to adopt more of the recommended Canadian guidelines. This is intuitive given that these firms may be seeking to attract investors to fund these opportunities. The inclusion of the external funds variables do little to alter the relationships documented in Table 4. In particular, the presence of an executive block holder or majority voter continues to be associated with lower levels of voluntary adoption and the *Year Count* variable maintains its significance.

Table 5 also provides evidence that the nature of the assets being funded is an important determinant of the adoption of governance mechanisms. Consistent with Durnev and Kim (2005), we find that firms with higher levels of research and development expenses are more likely to voluntarily adopt additional governance mechanisms. The tangibility of assets as measured by the proportion of property, plant and equipment is also positively associated with governance

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these variables were included in a regression with the majority voter variable, the estimated coefficient for executive block holdings was still negatively related to the BQ index value.

adoption. This relationship however is not statistically significant and we can draw no conclusion as to whether tangible assets that are cheaper to monitor encourage additional governance.

C. Incentives for Voluntary Adoption of US Guidelines

Tables 6 and 7 ask whether the same incentives encourage firms to voluntarily adopt the governance standards of a neighboring country, in this case the US, as the adoption of domestic standards. Panel A of each table relates the full US standards index (SX_{Full}) to the shareholding, external funds, and ease of monitoring characteristics whereas Panel B focuses on the reduced index excluding any overlap with Canadian guidelines (SX_{Ex}). Since the Sarbanes-Oxley Act is only relevant for observations in 2002 and 2003, the *Year Count* variable is replaced with a dummy that identifies observations from 2003. Unlike previous tables, the 13 industry classifications are excluded from the control variables due to the smaller sample size. Firm size continues to be accounted for by the inclusion of the Ln of lagged assets.

Table 6 illustrates that regardless of whether the independent variable is SX_{Full} or SX_{Ex}, shareholding characteristics have little impact on a firm's propensity to voluntarily adopt US governance standards. While the presence of a majority voter and family and executive block holders are associated with lower levels of the SX_{Full} index in that the estimated coefficients are negative, none of the relations are statistically significant at conventional levels. Results are even weaker when focusing only on US standards that do not overlap with Canadian guidelines. The only variable that appears to be of any consequence in influencing the level of adoption of US standards is whether the observation is from the year 2003. Again, we find evidence of an increasing level of voluntary adoption of governance in more recent years.

Including additional explanatory variables related to the need for external funds and ease of monitoring provides more encouraging results. While the shareholding characteristics remain unimportant, the investment opportunity variable becomes significant in all specifications. Consistent with the Canadian evidence, we find that firms with greater levels of investment

opportunities are more likely to voluntarily adopt the US standards. This is the case regardless of whether these standards are measured by the SX_{Full} or SX_{Ex} index.

One interesting difference arises between Panels A and B of Table 7. While firm size is not a consistently significant factor in determining the level of adoption of Canadian guidelines or US standards that overlap with the Canadian recommendations, it becomes an important variable when examining SX_{Ex}. When the adoption of US standards is examined in isolation, we find that larger Canadian firms are more likely to voluntarily implement these mechanisms. This result is intuitive in light of the observation that the average size of cross-listed firms in our sample is over 2.5 times that of non cross-listed firms. It may therefore be the larger firms that are more likely to cross-list shares in upcoming years. As a result, they may begin implementing SOX standards in preparation for executing future US financings.

VII. CONCLUSION

We have illustrated that a standard principal-agent model can be used to demonstrate incentives that exist for firms to voluntarily implement governance mechanisms in the absence of any legal requirement to do so. The particular incentives that we explore are the ability of management to extract private benefits from the firm, the need for external funds, and the ease/cost associated with implementing a governance system.

Using hand-collected data from proxy circulars, we have examined the behavior of Canadian companies under the domestic best practices regime and the impact of US governance requirements on firms not listed on U.S. 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.

The extent to which voluntary governance guidelines are implemented has increased considerably in recent years. For the Canadian guidelines, which have been in place much longer,

we find evidence of convergence in the level of adoption of suggested practices. The standard deviation of our governance measure has decreased significantly over time.

Our empirical results are consistent with the hypothesis that management is less willing to implement governance mechanisms ensuring the adoption of positive NPV projects if they are able to extract significant private benefits. When management controls at least 10% of the common share vote, the voluntary adoption of practices designed to improve board quality is significantly reduced. Similarly, the presence of a majority owner results in less voluntary adoption of recommended guidelines.

The need for external funds due to the presence of significant investment opportunities serves as a significant motivator for firms to implement both the Canadian and US standards. Higher values for the *BQ* index, SX_{Full} and SX_{Ex} are all positively related to investment opportunities. The *BQ* index also improves for firms with high levels of research and development expenditures. These expenditures may be more susceptible to managerial manipulation and it appears that companies implement the recommended governance guidelines to assure investors that this manipulation has not occurred.

The relatively recent enactment of the Sarbanes Oxley Act and the corresponding change in the listing requirements for US stock exchanges limit historical data availability. Early indications however suggest that larger Canadian firms with significant investment opportunities are more likely to voluntarily implement US regulations. We can only speculate that these may be firms that are more likely to seek access to US capital markets in the future. Global competition for financing may motivate firms to voluntarily adopt the governance practices of foreign jurisdictions in the hopes of appealing to international investors. Our empirical results are consistent with competition for capital being a more important determinant of governance structure than mandatory legislation.

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Table 1: Summary Statistics and Univariate Tests for the BQ Index (range 0-6), Full US Standards Index (range 0-8) and US Standards Index Excluding Canadian Elements (range 0-5)

Panel A: BQ Index by Year

Fiscal Year	N	$\overline{BQ}$	Standard Deviation	T-Stat $\overline{BQ} > 0$
1999	204	3.72	1.57	33.83**
2000	208	3.87	1.53	36.52**
2001	244	3.98	1.45	42.79**
2002	188	4.32	1.39	42.78**
2003	204	4.58	1.26	51.94**
All Years	1048	4.08	1.47	89.66**

Panel B: US Standards Indices by Year

Fiscal Year	N	$\overline{SX_{Full}}$	Standard Deviation	T-Stat $\overline{SX} > 0$
Full US Index				
2002	62	4.37	1.37	25.12**
2003	66	5.31	1.24	34.78**
All Years	128	4.86	1.38	39.71**
Index Excluding Cdn. Elements	N	$\overline{SX_{Ex}}$	Standard Deviation	T-Stat $\overline{SX} > 0$
2002	65	2.15	0.96	18.17**
2003	66	2.83	1.02	22.64**
All Years	131	2.50	1.04	27.46**

* Indicates significance at the 5% level
** Indicates significance at the 1% level

Panel A of the table provides the mean value of the board quality index ($\overline{BQ}$) for each year in our sample. The index value ranges from 0 to 6 and represents the extent to which the sample firms voluntarily adopt 6 governance practices recommended by the Toronto Stock Exchange that are related to the composition of the board of directors. Panel B represents the extent to which non-crosslisted Canadian firms voluntarily adopt governance standards suggested by the Sarbanes-Oxley Act and the listing standards of American stock exchanges. The first portion of the panel reflects the mean value of an index ($\overline{SX_{Full}}$) ranging from 0-8 whereas the second portion of the panel refers to the mean value of an index ($\overline{SX_{Ex}}$) that excludes 3 governance characteristics that overlap with the Toronto Stock Exchange guidelines. The maximum value for this index is therefore 5.

Table 2: Voluntary Adoption of BQ Index Elements

Panel A: Transition Matrix for the BQ Index

	BQ Index at time T+1						
	0	**1**	**2**	**3**	**4**	**5**	**6**
BQ at time T							
0		2	1				
1	1	12	11	7	4		
2		6	34	19	12	5	3
3		1	7	55	33	4	8
4		1	6	15	94	24	20
5		2	2	2	10	62	22
6			1	3	5	13	104

The table provides a transition matrix for the BQ index values over time. Values within each cell represent the number of firms within the sample that maintained the corresponding values of the BQ index in years T and T+1. Firms falling in the diagonal cells did not change their governance standards (as measured by the BQ index) from one year to the next. Firms falling in cells above the diagonal voluntarily adopted additional BQ guidelines over the course of a year.

Table 3: Descriptive Statistics of BQ Index and Shareholding Characteristics

Panel A: BQ Index by Shareholding Characteristic

Characteristic	N	$\overline{BQ}$ with Characteristic	$\overline{BQ}$ without Characteristic	T-Stat $\overline{BQ}_{without} - \overline{BQ}_{with} = 0$
Cross-Listed	436	4.28	3.91	-3.90**
Dual Shares	302	3.66	4.25	6.19**
Family Block	144	3.69	4.16	3.86**
Executive Block	205	3.21	4.30	10.18**
Other Block	476	4.13	4.05	-0.87
Majority Voter	284	3.38	4.38	10.21**

Panel B: Correlation Matrix for Shareholding Characteristics

	Cross-Listed	Dual Shares	Family Block	Executive Block	Other Block	Majority Voter
Cross-Listed	1.00					
Dual Shares	-0.10**	1.00				
Family Block	-0.10**	0.37**	1.00			
Executive Block	-0.12**	0.16**	-0.18**	1.00		
Other Block	-0.07*	-0.01	-0.15**	-0.09**	1.00	
Majority Voter	-0.12**	0.54**	0.39**	0.17**	0.06*	1.00

* Indicates significance at the 5% level
** Indicates significance at the 1% level

Panel A of Table 3 provides the average value for the board quality index ($\overline{BQ}$) for firms with a particular shareholding characteristic and compares this to the average value for the remaining observations in the sample. The shareholding characteristics examined include whether the firm's stock is cross-listed on a US exchange, whether it has multiple classes of shares with differential voting rights (dual shares), whether family, executive or another group/individual owns a block of shares representing at least 10% of the common share votes and whether any group/individual controls over 50% of the votes (majority voter). Panel B of the table shows the correlation between these shareholding characteristics.

Table 4: Influence of Shareholding and Firm Characteristics on Voluntary Adoption of BQ Guidelines

Voluntary Adoption of BQ Index vs Shareholding Characteristics

	Coefficient	T-Stat	Coefficient	T-Stat
Constant	4.02**	9.52	3.74**	8.96
Shareholding				
Dual Shares	-0.07	-0.40		
Cross-List	-0.09	-0.53	-0.12	-0.74
Family Blk.	-0.43	-1.68	-0.14	-0.55
Exec. Blk	-1.20**	-6.27	-1.03**	-5.26
Other Blk.	-0.04	-0.30	0.04	0.27
Majority Voter			-0.75**	-3.50
Controls				
Year Count	0.23**	6.66	0.24**	7.09
Ln Assets	0.03	0.57	0.07	1.59
Industry	YES		YES	
N	758		748	
R^2	0.19		0.22	

* Indicates significance at the 5% level
** Indicates significance at the 1% level

Table 4 provides the coefficient estimates for a regression relating the level of the board quality (BQ) index to firm shareholding characteristics and control variables. Shareholding characteristics include whether the firm's stock is cross-listed on a US exchange, whether it has multiple classes of shares with differential voting rights (dual shares), whether family, executive or another group/individual owns a block of shares representing at least 10% of the common share votes and whether any group/individual controls over 50% of the votes (majority voter). Control variables include the year of the observation (*Year Count* = 0 in 1999, 1 in 2000 etc.), firm size (as measured by the ln of total assets) and the firms' industry classification based on 2-digit sic codes. Since firms with a majority voter frequently have dual classes of shares outstanding, these two variables are not included in the same specification of the model to avoid problems of multicollinearity. Robust standard errors account for the presence of multiple observations from the same firm over time.

Table 5: Influence of Shareholding and Firm Characteristics on Voluntary Adoption of BQ Guidelines

Voluntary Adoption of BQ Index Elements vs. Firm and Shareholding Characteristics

	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat
Constant	2.72**	5.41	3.31**	6.31	3.03**	5.82
Funding						
Invest. Opp.	0.02**	2.84	0.02*	2.28	0.02*	2.44
External Fin.	-0.03	-0.86	-0.02	-0.75	-0.02	-0.68
Ease of Monitoring						
R&D	3.70**	3.69	2.63*	2.47	2.71**	2.61
PPE	0.41	1.73	0.32	1.34	0.38	1.66
Shareholding						
Dual Shares			-0.07	-0.34		
Cross-List			-0.14	-0.82	-0.16	-0.94
Family Blk.			-0.39	-1.39	-0.12	-0.43
Exec. Blk			-1.00**	-4.75	-0.86**	-3.98
Other Blk.			-0.11	-0.69	-0.03	-0.21
Majority Voter					-0.70**	-3.17
Controls						
Year Count	0.27**	6.23	0.26**	5.61	0.26**	5.68
Ln Assets	0.08	1.66	0.07	1.30	0.11	2.23*
Industry	YES		YES		YES	
N	631		590		582	
R^2	0.12		0.19		0.23	

* Indicates significance at the 5% level
** Indicates significance at the 1% level

Table 5 provides the coefficient estimates for a regression relating the level of the board quality (BQ) index to firm funding, ease of monitoring, shareholding, and control characteristics. Shareholding and control characteristics are defined as in Table 4. Funding characteristics represent the firm's investment opportunities (measured by the previous year's sales growth) and its need for external financing (measured by the difference between actual growth and sustainable growth in the previous year). The cost/ease with which the firm can be monitored are represented by lagged research and development expenses scaled by total assets (R&D), and property, plant and equipment scaled by total assets (PPE). Low levels of R&D and high levels of PPE correspond to a high degree of observability, implying that the firm's assets are easier to monitor. Robust standard errors account for the presence of multiple observations from the same firm over time.

Table 6: Influence of Shareholding and Firm Characteristics on Voluntary Adoption of US Governance Standards

Panel A: Voluntary Adoption of the Full US Standards Index vs Shareholding Characteristics

	Coefficient	T-Stat	Coefficient	T-Stat
Constant	3.72**	5.33	3.68**	5.14
Shareholding				
Dual Shares	-0.23	-0.69		
Family Blk.	-0.69	-1.69	-0.68	-1.78
Exec. Blk	-0.30	-0.80	-0.31	-0.77
Other Blk.	0.23	0.91	0.25	0.95
Majority Voter			-0.28	-0.81
Controls				
2003 Dummy	0.87**	4.17	0.85**	4.16
Ln Assets	0.13	1.46	0.14	1.51
Industry	NO		NO	
N	102		99	
R^2	0.20		0.20	

Panel B: Voluntary Adoption of the US Standards Index Excluding Canadian Elements vs Shareholding Characteristics

	Coefficient	T-Stat	Coefficient	T-Stat
Constant	1.04	1.91	1.29*	2.47
Shareholding				
Dual Shares	-0.41	-1.46		
Family Blk.	0.13	0.45	-0.16	-0.49
Exec. Blk	0.12	0.43	0.10	0.34
Other Blk.	0.31	1.33	0.14	0.60
Majority Voter			0.28	1.08
Controls				
2003 Dummy	0.72**	4.17	0.73**	4.21
Ln Assets	0.15*	2.11	0.10	1.56
Industry	NO		NO	
N	104		101	
R^2	0.18		0.16	

* Indicates significance at the 5% level
**Indicates significance at the 1% level

Panel A of Table 6 provides coefficient estimates for a regression relating the voluntary adoption of governance standards proposed by the Sarbanes-Oxley Act (SOX) and US stock exchange listings to firm shareholding and control characteristics. The dependent variable in Panel A represents an index ranging in value from 0-8 to account for the voluntary adoption of up to 8 US standards. The dependent variable in Panel B is an index ranging from 0-5 that excludes 3 US

standards from the index in Panel A that overlap with the recommended guidelines from the Toronto Stock Exchange. The sample consists of observations from Canadian firms without listings on US stock exchanges in the years following the introduction of SOX (2002 and 2003). Due to the reduced sample size and scope, industry controls are not included in the regression and the *Year Count* variable is replaced with a dummy variable equal to 1 for observations from 2003 and 0 for observations from 2002. All other variables are as defined in Table 4. Robust standard errors account for the presence of multiple observations from the same firm over time.

Table 7: Influence of Shareholding and Firm Characteristics on Voluntary Adoption of US Governance Standards

Panel A: Voluntary Adoption of Full US Standards Index vs. Firm and Shareholding Characteristics

	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat
Constant	2.82**	2.72	2.72*	2.56	2.56*	2.34
Funding						
Invest. Opp.	0.02*	2.41	0.02**	2.70	0.02**	2.67
External Fin.	-0.00	-0.02	-0.08	-0.49	-0.10	-0.62
Ease of Monitoring						
R&D	-0.05	-0.01	-0.56	-0.15	-0.64	-0.17
PPE	0.57	1.45	0.72	1.81	0.86*	2.17
Shareholding						
Dual Shares			-0.18	-0.48		
Family Blk.			-0.78	-1.83	-0.74	-1.91
Exec. Blk			-0.26	-0.66	-0.25	-0.61
Other Blk.			0.22	0.83	0.23	0.84
Majority Voter					-0.38	-1.11
Controls						
2003 Dummy	0.78**	3.99	0.84**	4.06	0.83**	4.00
Ln Assets	0.17	1.44	0.20	1.68	0.22	1.82
Industry	NO		NO		NO	
N	100		98		95	
R^2	0.15		0.27		0.29	

*Indicates significance at the 5% level
**Indicates significance at the 1% level

Table 7 Continued

Panel B: Voluntary Adoption of US Standards Index Excluding Canadian Elements vs. Firm and Shareholding Characteristics

	Coefficient	T-Stat	Coefficient	T-Stat	Coefficient	T-Stat
Constant	0.76	1.17	0.40	0.53	0.52	0.68
Funding						
Invest. Opp.	0.01*	2.08	0.01*	2.55	0.01*	2.21
External Fin.	0.02	0.16	-0.04	-0.29	0.01	0.05
Ease of Monitoring						
R&D	-2.15	-0.73	-1.82	-0.60	-1.76	-0.54
PPE	0.59	1.90	0.65*	2.39	0.72*	2.45
Shareholding						
Dual Shares			-0.36	-1.22		
Family Blk.			0.02	0.05	-0.25	-0.75
Exec. Blk			0.09	0.36	0.09	0.33
Other Blk.			0.26	1.03	0.07	0.28
Majority Voter					0.21	0.78
Controls						
2003 Dummy	0.58**	3.89	0.65**	3.96	0.66**	3.85
Ln Assets	0.15*	2.02	0.19*	2.29	0.16*	1.97
Industry	NO		NO		NO	
N	102		100		97	
R^2	0.20		0.27		0.25	

*Indicates significance at the 5% level
**Indicates significance at the 1% level

Panel A of Table 7 provides coefficient estimates for a regression relating the voluntary adoption of governance standards proposed by the Sarbanes-Oxley Act (SOX) and US stock exchange listings to firm funding, shareholding and control characteristics. The dependent variable in Panel A represents an index ranging in value from 0-8 to account for the voluntary adoption of up to 8 US standards. The dependent variable in Panel B is an index ranging from 0-5 that excludes 3 US standards from the index in Panel A that overlap with the recommended guidelines from the Toronto Stock Exchange. The sample consists of observations from Canadian firms without listings on US stock exchanges in the years following the introduction of SOX (2002 and 2003). Due to the reduced sample size and scope, industry controls are not included in the regression and the *Year Count* variable is replaced with a dummy variable equal to 1 for observations from 2003 and 0 for observations from 2002. All other variables are as defined in Tables 4 and 5. Robust standard errors account for the presence of multiple observations from the same firm over time.

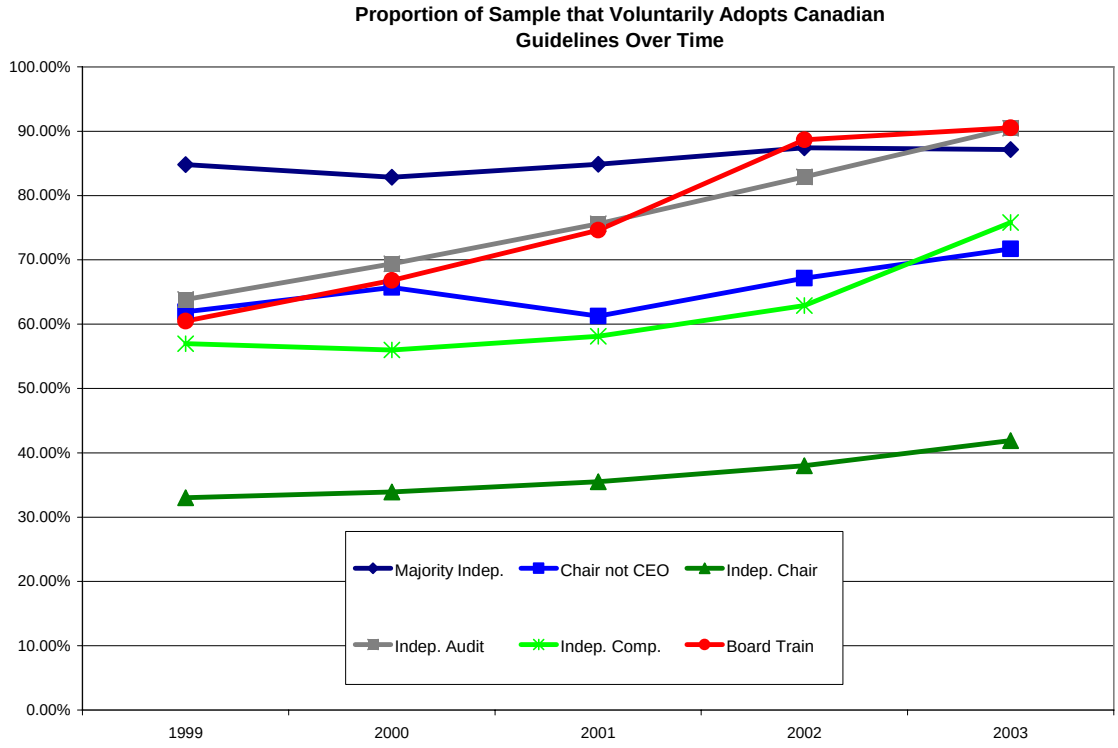

Figure 1: The figure represents the proportion of sample firms that voluntarily adopt each of the 6 governance guidelines incorporated in the BQ index. The index reflects recommended practices from the Toronto Stock Exchange that refer to the composition of the board of directors.