

**“DO CORPORATE GOVERNANCE STANDARDS IMPACT
FIRM PERFORMANCE?
EVIDENCE FROM CANADIAN BUSINESSES”**

by

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ABSTRACT

This study analyzes the relationship between firm performance, as measured by Tobin's q , and the Corporate Governance Index published by the Globe and Mail Report on Business for a sample of Canadian firms over the three year period 2002-2004. Both annual and pooled data are analyzed. The results suggest that few measured governance variables are important, and the effects depend to some degree on firm ownership. In general, there is no evidence that a comprehensive measure of governance affects performance.

DEDICATION

To my wife, whose support makes everything else possible. To my family, for their continued support throughout my life.

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LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|-----------|----------------------------------------------------------|
| CEO | Chief Executive Officer |
| CGI | Corporate Governance Index created by The Globe and Mail |
| EPS | Earnings per Share |
| GMI | Governance Metrics International |
| IRRC | Investor Responsibility Research Center |
| LN | Natural Logarithmic |
| NYSE | New York Stock Exchange |
| OLS | Ordinary least squares |
| P/E | Price to Earnings ratio |
| RBC | Royal Bank of Canada |
| ROA | Measure the Return on Assets |
| ROB | The Globe and Mail's Report on Business |
| ROE | Measure the Return on Equity |
| ROS | Measure the Return on Sales |
| S&P | Standard and Poor's |
| S&P/TSX | Standard and Poor's Toronto Stock Exchange |
| SHARE | Shareholders Association for Research and Education |
| Tobin's q | A commonly used measure of firm value |
| T&D | Transparency and Disclosure |

ONE: INTRODUCTION

Corporate scandals have led to a broad range of policy discussions and initiatives in the area of corporate governance. As an example, the United States has taken a clear approach with respect to certain aspects of corporate governance with the adoption of the Sarbanes-Oxley Act of 2002. At the same time, Canadian securities administrators introduced a series of new rules that set out new standards regarding certification of financial statements, audit committee independence and auditor oversight.

Institutions like Standard and Poor's (S&P) and Governance Metrics International (GMI) have begun to collect more comprehensive measures of corporate governance, such as board accountability, financial disclosure and internal controls, shareholders rights, remuneration, market control and corporate behavior, providing investors with a broader indicator that standardizes corporate governance measurement. In Canada, The Corporate Governance Index (CGI) was created by The Globe and Mail Report on Business. It was first published in October, 2002, and then refined and conducted again in September, 2003 and October, 2004. The report scores and ranks the governance structures and policies of the companies that make up the S&P/TSX Composite, the largest stock index in Canada. The governance index provides investors with a comprehensive, single source, assessment of the governance practices of large Canadian companies. The specific metrics measured in the index described board composition and effectiveness, compensation policies, shareholder rights, and disclosure practices.

Evidence in previous academic literature does not suggest that firm performance is in general enhanced by better governance practices. Indeed, only few academic studies

for developed markets imply some indication of a relationship between governance and performance. For instance, Black (2001), concluded that inter-company differences in corporate governance have no economically significant effect on market value or performance of U.S. companies. Furthermore, the study suggests that “the minimum quality of corporate governance, set by securities law, corporate law, stock exchange rules, and behavioral norms” is so widely accepted that there is little variance in governance practices among public firms. However, other surveys (Larcker, Richardson and Tuna, 2004; Leblanc and Gillies, 2003; Daily et. al. 2003) suggest that there is mixed evidence supporting the hypothesis that better corporate governance results in better performance. Meanwhile, market participants continue debating the merits of the regulatory framework for securities and equity markets and its impact on good corporate governance standards.

In Canada Klein, Shapiro and Young (2004), investigate the relationship between firm value, as measured by Tobin’s q, and the CGI index of effective corporate governance for a sample of 263 Canadian firms for the year 2002. Their results indicate that corporate governance does matter in Canada, however, “not all elements of measured governance are important, and the effects of governance do differ by ownership category” (Page 2). Overall, “sub- indices measuring effective compensation, disclosure and shareholder rights practices enhance performance and this is true for most ownership types” (Page 2).

This paper extends the work by Klein, Shapiro and Young (2004) and analyzes the relationship between firm performance, as measured by Tobin’s q, and the CGI index for a sample of 188 Canadian firms over a three-year period (2002-2004). In addition, the three-year data is pooled to improve the robustness of the results. This study

contributes to the growing literature relating corporate governance indices and its relationship with firm performance. The results are relevant to financial analysts and investors who use corporate governance measures as a criterion for selecting stocks. The Corporate Governance Index (CGI) created by The Globe and Mail Report on Business (ROB) will be the main source for establishing a relationship between governance and performance. Furthermore, since ownership concentration in Canada tends to be higher in part because families effectively control many of the largest firms (Roe and Lee-Sing, 1996; La Porta et. al. 1998; Morck et. al. 2000), the paper also elaborates on the characteristics of family-owned firms over the same period.

The results suggest that few measured governance variables are important, and the effects depend to some degree on firm ownership. In general, there is no evidence that a comprehensive measure of governance affects performance.

The paper begins with a literature review followed by Section 3, where the methodology and the empirical model to be estimated are explained. The results are presented in Section 4, followed by discussion and conclusions in Section 5.

TWO: LITERATURE REVIEW

The Value of Corporate Governance & Performance

As stated by Blair (2003), “throughout the last two decades, economists, finance theorists, corporate legal scholars, and policymakers around the globe have been devotedly interested in how corporations are governed, and how they should be governed (Page 54).”¹ At the same time, the question of how corporate executives should balance pressures from financial markets for high stock returns against the need for long-term investments in innovation, customer and supplier relations, human resources, sustainable environmental performance, and good relations with their communities, has been raised.

While prior academic research has provided some insight into the role of corporate governance, the results of comparable studies are commonly contradictory and a consistent argument needs to come forward to explain the importance of corporate governance and its relation with firm performance (Larcker, David F., Richardson, Scott A., Tuna, Irem, 2004).

In an attempted to do so, authors such as Dalton, Daily, Certo and Roengpitya (2003), developed a meta-analysis of the relationship between performance and corporate governance measures. In their study, the authors analyzed 229 empirical studies using software comprehensive meta-analysis employing Hunter and Schmidt's (1990) artifact distribution formulas. They found that there is very little evidence of

¹ Blair, Margaret M. 2003. Shareholder Value, Corporate Governance, and Corporate Performance. In *Corporate Governance and Capital Flows in a Global Economy*, edited by P. K. Cornelius and B. Kogut. Page 54. New York: Oxford University Press.

systematic relationship between governance indicators, which are related to ownership structures, and firm performance. Thus, ownership should be an important component of measured corporate governance; hence, it should be included in the regression model. Finally, the authors found that Earnings per Share (EPS) provided the best correlation and they theorized that this is because it is the measure that is most subject to manipulation by managers.

Another relevant study to understand the impact of the ownership in firm performance is one by Fuerst and Kang (2000). Here the paper looks at corporate governance, expected operating performance and pricing. The methodology considered 947 US firms, and the study uses Ohlson's (1995) residual income valuation framework to measure operating performance.

The authors finally came to the following conclusions²:

- (1) Higher share ownership of the CEO, corporate insiders, and outside directors has a strong positive impact on both firm performance and market value consistent with Morck, Shleifer and Vishny (1988) and Stulz (1988).
- (2) Large ownership of outside shareholders has a negative impact on the firm's operating performance.
- (3) Presence of a controlling shareholder has an adverse distributive effect for other shareholders.
- (4) After controlling for ownership, there is no improvement in operating performance or share value from having greater representation of outside directors, or having a larger board.
- (5) Variables representing the CEO's stature - tenure and board chairmanship - have a negative impact on the firm.

² Fuerst, O., and S.H. Kang. 2000. "Corporate Governance, Expected Operating Performance and Pricing." *Draft*. Page 6.

Moreover, Shliefer and Vishny (1986) stated that, all else being equal, the presence of a large block-holder will have a positive effect on the market value of the firm. The potential takeover threat that large shareholders can exercise works as an effective device for monitoring management. Others academics argue that because of higher level of ownership stake, block-holders are likely to take active part in monitoring and hence make positive contribution in firm performance (Bhagat and Jefferis, 2002). However, the relationship between institutional ownership and firm performance is not very clear as pointed out by several researchers and academics (McConnell and Servaes, 1990; Bhagat and Jefferis, 2002; Black and Coffee, 1994). Strategic alignment between institutional investors and firm management and the conflicting interest of institutional investors may reduced the beneficial effects on the firm performance³. Accordingly, it makes sense to extend the analysis to draw conclusive results between ownership structures and firm performance.

Standards for Measuring Corporate Governance

As mentioned in Larcker, Richardson and Tuna (2004), usually, research literature examine whether different corporate governance structures impact or limit executive behavior and/or have an impact on firm performance. In other words, previous studies have used partial measures. Examples of these types of studies are Morck, Shleifer, and Vishny (1988), Byrd and Hickman (1992), Brickley, Coles and Terry (1994), Yermack (1996), Core, Holthausen, and Larcker (1999), Klein (2002).

A major difficulty in many of these studies relates to the issue of selecting sample indicators that reflect the governance practices of a firm. Overall, authors endeavored

³ Jog, Vijay. 2004. "Searching for Unicorn - Corporate Governance, Performance and CEO Pay". Sprott School of Business. Working Paper.

to use governance indicators that are recognized by the investment and academic communities as having some relationship to firm performance.

Yermack (1986) found a negative relationship between board size and firm value for large firms. Moreover, he concluded a significant negative correlation between the proportion of independent directors and contemporaneous Tobin's q, but no significant correlation for several other performance variables (sales/assets, operating income/assets, operating income/sales).

Recently, a growing number of studies have begun to use more comprehensive indices. Consequently there are reports of positive governance effects in recent academic studies that have employed more general indices of governance (Larcker, Richardson and Tuna, 2004; Klein, Shapiro and Young, 2004; Foerster and Huen, 2003; Gompers, Ishii and Metrick, 2003; Manry and Strangeland, 2003; Drobetz, Schillhofer and Zimmerman, 2003; Durnev and Kim, 2003).

Gompers, Ishi, and Metrick (2003)⁴ created their own shareholders rights index. They ranked and combined firms into high and low protection portfolios and came up with a detailed study in which they develop their own measure by combining a large set of governance provisions into an index which proxies for the strength of shareholder rights, and then study the empirical relationship between this index and corporate performance. The methodology applied uses information on 1500 companies from the Investor Responsibility Research Center (IRRC) database and performed a regression on the Governance Index score, including 24 factors mostly related to management's

⁴ Gompers, P., Ishii, J., and Metrick, A., 2003. Corporate governance and equity prices. *The Quarterly Journal of Economics* 118(1).

options to resist hostile takeovers. They found that anti-takeover provisions reduce shareholder rights. Companies with more anti-takeover rights are more likely to be inversely related to performance and a portfolio buying the top rated governance companies (most rights) and selling short the bottom rated governance companies (fewest rights) should provide positive abnormal returns. Overall, long-short corporate governance portfolio produced significant abnormal returns. Firms with the strongest shareholder rights outperform a portfolio with the weakest shareholder rights by 8.5% per year during the 1990s.

Likewise, Drobetz, Schillhofer and Zimmerman (2003) created a more broadly based corporate governance rating based on voluntary responses from 91 publicly listed German firms. Here the authors found that firms with higher governance scores also tended to have higher firm performance, as measured by Tobin's q.

Zhang (2003) investigates the impact of corporate control on firm performance of companies with dual class stock. It finds that dual class firms that have both classes traded publicly have a lower Tobin's q than single class firms, while dual class firms that have one class of stock traded publicly do not have a lower q. Dual class firms underperform single class peers on certain performance measures such as the P/E ratio while do not underperform on some other performance measures such as ROA.

Klein, Shapiro and Young (2004), concluded that corporate governance is reflected in firm values; however, some aspects of governance appear more important to investors than others. Shareholder rights, compensation factors and disclosure were found to have a significant relationship with firm value, whereas board composition and independence were not.

Further studies such as Larcker, Richardson and Tuna (2004) examine the relation between a broad set of corporate governance factors and various measures of managerial behavior and organizational performance. Using a sample of 2,126 firms authors extract 38 structural measures of corporate governance to 13 governance factors using principal components analysis. For a wide set of dependent variables, they found that the 13 governance factors on average explain only 1% to 5.5% of the cross-sectional variation using standard OLS multiple regression techniques and 1.4% to 9.1% of the variation using exploratory recursive partitioning techniques. Overall, their results suggest that the typical structural indicators of corporate governance used in academic research and institutional rating services have very limited ability to explain managerial behavior and organizational performance⁵.

These findings certainly raise challenges among academics for conducting future research since overall results across studies are not conclusive. Particularly, those findings set leads about possible outcomes of this research project.

Measuring Corporate Governance and Firm performance

As stated before, some of the challenge faced by practitioners and academics is to measure relevant corporate governance practices and their impact on firm performance and stock returns. Recently studies have enriched the literature by having as a proxy of performance measurement Tobin's q or ROE. Some of the following studies provide insight as to why these two indicators can be selected as proxies for firm performance.

⁵ Larcker, David F., Richardson, Scott A., Tuna, Irem, 2004. Does Corporate Governance Really Matter? The Wharton School, University of Pennsylvania. Research Project.

For instance, Faccio and Lasfer (1999)⁶ attempt to estimate the relationship between firm value and managerial ownership, and control for the combined effect of different monitoring devices on firm value. The conclusions reveal that managerial ownership has no significant impact on firm value. In contrast to previous UK or US findings, the relationship between firm value and managerial ownership is weak or non-existent. The cubic relationship between firm value and managerial ownership holds only for high growth companies where the inflexion points is higher than those found in the US when using Tobin's q, industry-adjusted q or ROE as a measure of performance. However, these results are not strong to other alternative measures of performance, such as ROA, ROS, and market-to-book or market-to-sales.

Cho (1998) in "Ownership Structure, Investment and the Corporate Value: An Empirical Analysis", examines the relation among ownership structure, investment, and corporate value, focusing on whether ownership structure affects investment. Ordinary least squares regression results suggest that ownership structure affects investment and, therefore, corporate value. However, simultaneous regression results indicate that the endogeneity of ownership may affect these inferences, suggesting that investment affects corporate value which, in turn, affects ownership structure⁷. The evidence shows that corporate value affects ownership structure, but not vice versa. These findings raise questions regarding the assumption that ownership structure is exogenously determined, and bring into question the results in studies that treat ownership structure as exogenous.

⁶ Faccio, M., and Amezaine M. Lasfer. 1999. "Managerial Ownership, Board Structure and Firm Value: The Uk Evidence". *Draft*. Page 5.

⁷ Cho, Myeong-Hyeon. 1998. "Ownership Structure, Investment and the Corporate Value: An Empirical Analysis". *Journal of Financial Economics* 47, Page 107.

One recent study by Cheng, Collins, and Huang (2003) takes into account direct observations on a corporate governance index and market beta, abnormal returns and firm performance. The study looks at the Transparency and Disclosure survey conducted by the S&P. This survey looks at 98 measures for 400 companies. The conclusions suggest that board structure and process had a significant negative correlation to market beta (and therefore higher risk). Overall and as basic consequence, the governance survey had a significant positive relationship with abnormal returns during the 4-day event study. When the S&P T&D rankings were released, market participants may have perceived the rankings as an indicator of the strength of corporate governance even though Patel and Dallas cautioned readers not to do so. The strong results for the event period are due to this perception. Taking all the results together, they found that the release of the S&P T&D rankings brought new information to the market and that the rankings affect shareholder wealth in a manner that is consistent with the rankings measuring the strength of corporate governance. While they certainly do not suggest that these rankings can substitute for a more detailed analysis of the quality of a particular firm's corporate governance mechanisms, they do suggest that the rankings capture value-relevant information.

When looking at the Canadian evidence, Foerster and Huen (2003) evaluate the perception of Canadian investors towards corporate governance. The authors' hypothesize that "corporate governance indicators as measured by the Globe and Mail's Corporate Governance Index are positively correlated to firm performance"⁸. The method employed in their study used the Globe and Mail Canadian governance index (ranks 270 of Canada's largest firms, those listed on the S&P/TSX as of Sept. 1,

⁸ Foerster, S., and B. Huen. 2003. "Does Corporate Governance Matter to Canadian Investors?" *Canadian Investment Review*. Toronto: Fall 2004. Vol. 17, Issue No. 3; Page 19.

2002). They then evaluated performance over 3 month and 5 year periods, as well as on an event study using release date of the Globe and Mail index. The Fama and French (1993)⁹ factors were used to control for risk in regression analysis. Their findings are that the market does appear to care about the governance practices of Canadian firms and investors in firms with stronger governance practices are rewarded over the long-term. Overall, larger firms tend to have stronger governance practices. Both five-year and one-year return are positively and significantly related to measures of the market-to-book ratio suggesting that "value" stocks performed better over those time periods. Finally, the event study results suggest a positive and significant relationship between stock performance and the governance index, although the R² was quite small.

Finally, Bebchuk, Cohen, Ferrell (2004) investigate which provisions, among a set of twenty-four governance provisions followed by the IRRC, are correlated with firm value and stockholder returns. They found that increases in the level of this index are monotonically associated with economically significant reductions in firm valuation, as measured by Tobin's Q. They also found that firms with higher level of the entrenchment index were associated with large negative abnormal returns during the 1990-2003 period. Overall, they found no evidence that the other eighteen IRRC provisions were negatively correlated with either firm value or stock returns during the 1990-2003 period¹⁰.

⁹ Daily, Dalton, Cannella, 2003. Page 16.

¹⁰ Bebchuk, Lucian, Cohen, Alma, and Ferrell, Allen, 2004. What matters in Corporate Governance? Harvard Law School. Discussion Paper No. 491. Cambridge, MA.

THREE: DATA AND METHODOLOGY

The Report on Business from the Globe and Mail rates Canada's corporate governance against a demanding set of criteria designed to go far beyond the minimum mandatory requirements imposed by regulators. "Based on the recommendations of major institutional investors, academics and industry associations, these best practices are revised each year to ensure they keep pace with shifting standards of excellence as governance improves and matures" (McFarland, 2004, Page 2).

The CGI scores governance practices of the companies that make up the S&P/TSX Composite Index consisting of four sub-categories: Board Composition accounts for 40 % of the total score, Shareholding and Compensation 19% (21% in 2003 and 23% in 2002), Shareholder Rights 28% (24% in 2003 and 22% in 2002) and Disclosure 13% (15% in 2003). Summary statistics for the continuous measures are found in Table 1 and 3. The criteria for rating each category follow:

- Board Composition: rates firms highly for having a large number of independent directors and fully independent audit, compensation and nominating committees. Separation between the chairperson and CEO roles, presence of women on the board, meetings independent of management and arms length relationships between directors are also rewarded. Finally, points are given to boards that evaluate their own performance and those that have directors that sit on fewer than eight corporate boards.
- Shareholding and Compensation: the core of this sub-index is the CEO and directors owning shares, based on the theory that share ownership by the CEO and other board members is more closely aligned to their interests as of those of other minority shareholders. Moreover, the report looked for good

disclosure around CEO compensation and penalized firms that gave below market rate loans to its directors or officers.

- Shareholder rights: companies are rated on director election, stock option, and subordinated voting issues. Companies with annual director elections, conservative stock option plans and voting rights that reflect equity ownership levels scored well in this category.
- Disclosure: measures the completeness and transparency of a firm's governance policies and practices as well as that surrounding board composition and activities.

The criteria for 2004 are broadly similar to the marking system used in 2003, with some differences in the number of marks awarded in some sub-categories. Overall, three out of the four sub-categories have somehow changed since ROB's CGI inception in 2002. Although Board Composition has remained steady overtime, Shareholding and Compensation, Shareholder Rights and Disclosure experienced some modifications on their criteria. For example, in the Disclosure sub-index, new categories relating to executive compensation disclosure and the presence of women on boards were included in the 2003 study. Regarding the Shareholder rights sub-index, the addition of a new category in 2004 was a major change, assessing whether companies allow shareholders to vote for each director nominee individually, or for the entire board as a slate (McFarland, 2004).

In addition, two questions were dropped in 2004 that were included in past years. One was whether a company had annual elections for each director or had staggered director terms. The second looked at whether companies included full statements of corporate governance practices in their shareholder proxy circulars. For other questions, ROB increased or decreased the maximum possible marks available. For example, more marks in 2004 were awarded to companies that do not have dual-class

shares to recognize the growing emphasis that major investors are putting on equal voting rights for all shareholders.

In 2003, fewer companies (207 down from 270 in 2002) were included in the study due to changes in the composition of the S&P/TSX Composite index. For 2004, the data is based on information published in the most recent annual shareholder proxy circulars of 218 companies as of June 15. Some companies did not receive marks in 2003 or 2002, because they were not members of the S&P/TSX index group at that time. As a result, for reasons related to data availability, the three-year period sample contains 188 firms. Data used in this paper were taken from company balance sheet and income statements, obtained from *Globeinvestor.com*, an online investment website affiliated with the Globe and Mail newspaper.

Because of the changes to the marking system over the three-year period, marks are not precisely comparable with previous years' scores. Nonetheless, since most of the marks and most of the categories remain the same, ROB's CGI is a valuable source to provide a basis for Canadian firms' corporate governance comparison.

The primary interest of this study is the relationship between firm performance and the corporate governance indices for the three-year period. Following Klein, Shapiro and Young (2004), an estimation model was established in which firm performance, measured by Tobin's q and ROE were regressed on the corporate governance index for each year, as well as the ownership indicator variables, and other control variables. In addition, the three-year data was pooled in order to provide more robust estimates.

The control variables included (firm size (LN assets), leverage (Debt/Equity Ratio), average sales growth) followed the methodology by Black, Jang and Kim (2003), and Klein, Shapiro and Young (2004). Firm size and growth control for potential advantages from economies of scale and scope, market power, and market opportunities. The leverage controls for different risk characteristics of firms (Klein, Shapiro and Young, 2004). The same authors found no additional explanatory power using on the variance of ROA as measure of risk. This indicator was therefore not included in the model.

Tobin's q is the book value of liabilities plus market value of common equity, divided by the book value of assets. As noted in Klein, Shapiro and Young (2004), "unique government regulation in the utilities industry, the special relationship between book and market values in the financial industry and the difficulty of valuing reserves in the resource sector can affect the calculation of Tobin's q". For those reasons, dummy variables for companies in the utility, financial services and resource sectors were added in the model as well. In an effort to include another variable measuring firm performance, following Anderson and Reeb (2003), ROE was also used as a measure of performance. Summary statistics are found in Table 2 and 4. The results of the OLS regressions against ROE for the pooled sample are found in Table 12.

Ownership concentration according to agency theory suggests a more effective monitoring process within a firm. Ownership information for the 188 firms was compiled and following the methodology by Klein, Shapiro and Young (2004) companies were classified into four groups: widely-held, family, institutional/corporate and government. The final sample comprised 85 widely-held firms, 66 family-owned, 38 owned by other companies or institutions and 5 were

government-owned. The results of the OLS regressions for the three-year pooled period are found in Tables 5 and Table 8. Table 6 contains the OLS regressions results for the averages. Tables 9 to 11 contain the regressions results for each of the individual years 2002, 2003 and 2004 respectively.

Finally, to evaluate any possible negative or positive effect on performance against the corporate governance index for family-owned firms, an OLS regression estimation was established only for this ownership group. The results of the OLS regressions are found in Table 7.

FOUR: EMPIRICAL RESULTS

Total Sample Results

The results for the total sample using the pooled analysis are presented in Tables 5 and 8. The only difference between the two tables is the number of observations, 565 and 540 respectively. This is mainly because some companies were excluded from the index in 2003 and 2004. In Tables 5 and 8, Tobin's q is regressed first on the total corporate governance index (CGI), then adding each of the sub-indices one at a time. At the end, all the sub-indices are added into the model and regressed against Tobin's q. Following Young (2004), the impact of CGI on firm performance over longer timeframes was controlled for both ownership and size. At no time was the CGI score found to be statistically significant, at the 90% level. Thus, no evidence exists to establish whether corporate governance affects firm performance, when the former is measured in aggregate terms and there is no consideration of type of ownership consistent with Klein, Shapiro and Young (2004). The financial control variables are for the most part statistically significant. Firm size is consistently negatively related to performance, as is firm leverage; on the contrary, growth is positively related. There is no evidence that ownership type affects performance. This is also the case when looking at the average results in Table 6. Therefore, for the three-year period study ownership does not matter.

For 2002, the results are presented in Table 9. When running the sub-indices against Tobin's q only Board Composition and Disclosure were statistically significant at the 90% level. The first sub-index is negatively related and the second one positively. Klein, Shapiro and Young (2004) found for the same period similar results for the

same sub-indices, Board Composition (negatively related to firm performance) and Disclosure (positively related to performance).

Table 10 contains the results for 2003. Overall, the financial control variables are for the most part statistically significant, consistent with the total sample using the pooled analysis. No sub-index was found to be statistically significant.

For the 2004 sample, the results are presented in Table 11. In particular, Shareholder Rights is statistically significant at the 90% level when Tobin's q is regressed against all sub-indices. This suggests a considerable recognition from market aligned with stronger shareholder's protection procedures. Interesting however, is the fact that almost all ownership characteristics are statistically significant and positive, which can be interpreted as an overall market awareness of better corporate governance standard across companies.

Sub-Index Results

Across the regressions, for the Board Composition Sub-Index, a negative sign is consistently negative and statistically significant, even when entered with the other sub- indices. However, past evidence suggested no relationship on average. This result therefore, doesn't supports past empirical evidence that failed to find any significant relationship between board composition and firm performance as well as recent surveys of the literature that conclude poor evidence on this matter (Dalton et. al., 1998; Bahjat and Black, 1999; 2001; Hermalin and Weisbach, 2003). Compensation, Shareholder rights and Disclosure Sub-Indices were statistically insignificant in the overall sample.

Family-owned Firms Results

In Table 7, the results for family-owned firms are presented. The same methodology as previously described was applied for this ownership category. When the model is estimated for the sub-sample of family-owned firms, it can be seen that the total index remains statistically insignificant. Moreover, the Board Composition Sub-Index is still negative but statistically insignificant, even when entered alone or with the other sub-indices. These results indicate that in fact half of the governance sub-indices with the exception of the Board Composition and the Compensation Sub-Index are statistically significant and related to performance (Shareholders rights positively and Disclosure negatively) , even the Disclosure Sub-Index holds when all sub-indices are included in the same equation (in all cases significant at 90% levels). As a result, investors are prepared to pay a premium for companies that protect shareholder rights but they are not willing to recognize the disclosure of more information to shareholders.

FIVE: CONCLUSION

The purpose of this research project is to find more insight as to what type of measured governance should financial analysts and investors take into account when selecting stocks considering Canadian evidence. This paper extended the work by Klein, Shapiro and Young (2004) and analyzed the relationship between firm performance and the CGI index for a sample of Canadian firms over a three-year period (2002-2004). In addition, the concept of analyzing a three-year period using the pooled data established a stronger basis for more robust results.

Overall, board independence, the most heavily-weighted sub- index, has a negative effect on firm performance. This finding supports the claim that a high level of board independence, does not automatically lead to better performance. This is consistent with Klein, Shapiro and Young (2004). Furthermore, the impact of governance practices on firm performance varies by ownership category, and also by which governance practice is being measured.

The importance of governance does appear to differ for family-owned firms. Besides, for this ownership group, performance tends to be positively related with shareholders rights and negatively with disclosure procedures. Consequently, the market accounts for a premium when it comes to companies protecting shareholder rights but no recognition is accountable for firms with better disclosure practices. It is not ambiguous to say that the exact impact of the sub-indices in both total sample and family-owned firms is not conclusive, because results vary over the years and at the same time, they are not the same as in Klein, Shapiro and Young (2004).

Results suggest that few measured governance variables are important, and the effects depend to some degree on firm ownership. In general, there is no evidence that a comprehensive measure of governance affects performance.

In line with Larcker, Richardson and Tuna (2004) findings, results also suggest that typical structural indicators of corporate governance used in institutional rating services, such as the CGI Index reported by ROB, have very limited ability to explain managerial behavior and organizational performance. Therefore, financial analysts and investors should carefully interpret the meaning of those indices and maybe focus more on the commonly used fundamental analysis for selecting stocks. This in addition is a significant finding given the different ownership structures across countries. It also implies that a global standard for measuring corporate governance may not be an appropriate indicator.

Moreover, aligned with Black (2001) results suggest that “the minimum quality of corporate governance, set by securities law, corporate law, stock exchange rules, and behavioral norms” is so widely accepted that there is little variance in governance practices among public firms¹¹.

As concerns, the non-standardized CGI scheme developed by the ROB, should hint caution when interpreting the results for a comparison of the three-year period. As previously discussed, changes in both index constitution and methodology between

¹¹ Black, B. 2001. Does corporate governance matter? A crude test using Russian data. University of Pennsylvania Law Review.

the three years' results might disguise empirical analysis. Further analysis about the role of the sub-indices stands as an example of the challenges for future research.

Clearly, there is a need for financial analysts to examine carefully the specific construction of corporate governance measures when trying to draw a link with firm performance.

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Table 1 – Means, variance and standard deviation, CGI

This table details the means, variances and standard deviations of corporate Governance scores from the ROB CGI for the period 2002 through 2004.

| | Total Index | | | Board Composition | | | Compensation | | | Shareholder rights | | | Disclosure | | |
|------|-------------|--------|-------|-------------------|-------|------|--------------|-------|------|--------------------|-------|------|------------|------|------|
| | Mean | Var | Std | Mean | Var | Std | Mean | Var | Std | Mean | Var | Std | Mean | Var | Std |
| 2002 | 61.54 | 214.72 | 14.65 | 24.80 | 81.72 | 9.04 | 12.64 | 19.46 | 4.41 | 17.38 | 18.54 | 4.31 | 6.72 | 9.15 | 3.02 |
| 2003 | 67.16 | 189.22 | 13.76 | 26.72 | 64.76 | 8.05 | 13.33 | 16.95 | 4.12 | 16.98 | 20.77 | 4.56 | 10.13 | 9.64 | 3.10 |
| 2004 | 71.67 | 188.60 | 13.73 | 29.47 | 49.63 | 7.04 | 12.47 | 15.55 | 3.94 | 19.35 | 34.02 | 5.83 | 10.38 | 7.63 | 2.76 |

| | Total Index | | | Board Composition | | | Compensation | | | Shareholder rights | | | Disclosure | | |
|------------------|-------------|--------|-------|-------------------|-------|------|--------------|-------|------|--------------------|-------|------|------------|-------|------|
| | Mean | Var | Std | Mean | Var | Std | Mean | Var | Std | Mean | Var | Std | Mean | Var | Std |
| CGI Change 02/03 | 5.62 | 82.72 | 9.09 | 1.92 | 32.67 | 5.72 | 0.69 | 14.52 | 3.81 | -0.41 | 8.48 | 2.91 | 3.41 | 12.51 | 3.54 |
| CGI Change 03/04 | 4.51 | 59.51 | 7.71 | 2.75 | 21.19 | 4.60 | -0.85 | 11.97 | 3.46 | 2.37 | 13.85 | 3.72 | 0.24 | 7.79 | 2.79 |
| CGI Change 02/04 | 10.13 | 124.07 | 11.14 | 4.67 | 42.33 | 6.51 | -0.17 | 20.39 | 4.52 | 1.97 | 18.58 | 4.31 | 3.66 | 14.12 | 3.76 |

Table 2 – Means, variance and standard deviation, other variables

This table details the means, variances and standard deviations of the additional variables considered in the study as indicated below for the period 2001 through 2003.

| | Mean | Var | Std |
|----------------|------|------|------|
| Tobin's q 2001 | 2.30 | 2.27 | 1.51 |
| Tobin's q 2002 | 1.61 | 1.27 | 1.13 |
| Tobin's q 2003 | 1.76 | 1.05 | 1.03 |

| | Mean | Var | Std |
|----------|------|------|------|
| ROE 2001 | 0.12 | 0.30 | 0.55 |
| ROE 2002 | 0.10 | 0.08 | 0.29 |
| ROE 2003 | 0.11 | 0.08 | 0.29 |

| | Mean | Var | Std |
|-----------|-------|------|------|
| SIZE 2001 | 21.56 | 3.38 | 1.84 |
| SIZE 2002 | 21.65 | 3.02 | 1.74 |
| SIZE 2003 | 21.77 | 2.77 | 1.66 |

| | Mean | Var | Std |
|-----------|------|-------|------|
| DEBT 2001 | 2.06 | 14.27 | 3.78 |
| DEBT 2002 | 2.06 | 14.27 | 3.78 |
| DEBT 2003 | 2.35 | 86.61 | 9.31 |

| | Mean | Var | Std |
|-------------|------|------|------|
| GROWTH 2001 | 0.26 | 0.14 | 0.37 |
| GROWTH 2002 | 0.19 | 0.06 | 0.25 |
| GROWTH 2003 | 0.18 | 0.05 | 0.22 |

Table 3 – Correlation matrix, CGI

This table details the correlations between the corporate Governance scores from the ROB CGI for the period 2002 through 2004.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| (1) Total Index 2002 | 1.00 | | | | | | | | | | | | | | |
| (2) Total Index 2003 | 0.80 | 1.00 | | | | | | | | | | | | | |
| (3) Total Index 2004 | 0.69 | 0.84 | 1.00 | | | | | | | | | | | | |
| (4) Board Composition 2002 | 0.87 | 0.75 | 0.67 | 1.00 | | | | | | | | | | | |
| (5) Board Composition 2003 | 0.66 | 0.83 | 0.73 | 0.78 | 1.00 | | | | | | | | | | |
| (6) Board Composition 2004 | 0.56 | 0.69 | 0.79 | 0.70 | 0.82 | 1.00 | | | | | | | | | |
| (7) Compensation 2002 | 0.57 | 0.39 | 0.33 | 0.24 | 0.19 | 0.15 | 1.00 | | | | | | | | |
| (8) Compensation 2003 | 0.52 | 0.65 | 0.50 | 0.34 | 0.33 | 0.31 | 0.60 | 1.00 | | | | | | | |
| (9) Compensation 2004 | 0.44 | 0.57 | 0.66 | 0.38 | 0.38 | 0.36 | 0.42 | 0.63 | 1.00 | | | | | | |
| (10) Shareholder rights 2002 | 0.52 | 0.39 | 0.34 | 0.23 | 0.12 | 0.04 | 0.18 | 0.18 | 0.10 | 1.00 | | | | | |
| (11) Shareholder rights 2003 | 0.58 | 0.57 | 0.51 | 0.37 | 0.23 | 0.14 | 0.22 | 0.24 | 0.23 | 0.79 | 1.00 | | | | |
| (12) Shareholder rights 2004 | 0.55 | 0.54 | 0.66 | 0.35 | 0.31 | 0.24 | 0.25 | 0.25 | 0.24 | 0.68 | 0.77 | 1.00 | | | |
| (13) Disclosure 2002 | 0.68 | 0.49 | 0.41 | 0.55 | 0.39 | 0.36 | 0.33 | 0.35 | 0.26 | 0.13 | 0.23 | 0.27 | 1.00 | | |
| (14) Disclosure 2003 | 0.30 | 0.57 | 0.43 | 0.31 | 0.31 | 0.31 | 0.13 | 0.36 | 0.37 | 0.01 | 0.16 | 0.13 | 0.33 | 1.00 | |
| (15) Disclosure 2004 | 0.23 | 0.47 | 0.60 | 0.25 | 0.36 | 0.37 | 0.12 | 0.23 | 0.42 | 0.03 | 0.19 | 0.22 | 0.16 | 0.55 | 1.00 |

Table 4 – Correlation matrix, other variables

This table details the correlations between the additional variables considered in the study as indicated below for the period 2001 through 2003.

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| (1) Tobin's q 2001 | 1.00 | | | | | | | | | | | | | | |
| (2) Tobin's q 2002 | 0.60 | 1.00 | | | | | | | | | | | | | |
| (3) Tobin's q 2003 | 0.70 | 0.64 | 1.00 | | | | | | | | | | | | |
| (4) ROE 2001 | -0.06 | -0.01 | 0.01 | 1.00 | | | | | | | | | | | |
| (5) ROE 2002 | -0.09 | -0.04 | -0.09 | 0.59 | 1.00 | | | | | | | | | | |
| (6) ROE 2003 | -0.09 | -0.06 | -0.02 | 0.54 | 0.90 | 1.00 | | | | | | | | | |
| (7) SIZE 2001 | -0.51 | -0.45 | -0.52 | -0.01 | 0.03 | 0.01 | 1.00 | | | | | | | | |
| (8) SIZE 2002 | -0.49 | -0.39 | -0.51 | -0.03 | 0.03 | 0.02 | 0.99 | 1.00 | | | | | | | |
| (9) SIZE 2003 | -0.47 | -0.36 | -0.46 | -0.03 | 0.02 | 0.02 | 0.98 | 0.99 | 1.00 | | | | | | |
| (10) DEBT 2001 | -0.33 | -0.27 | -0.30 | 0.02 | 0.02 | 0.07 | 0.56 | 0.56 | 0.56 | 1.00 | | | | | |
| (11) DEBT 2002 | -0.33 | -0.27 | -0.30 | 0.02 | 0.02 | 0.07 | 0.56 | 0.56 | 0.56 | 0.99 | 1.00 | | | | |
| (12) DEBT 2003 | -0.18 | -0.04 | -0.23 | -0.09 | -0.15 | -0.29 | 0.36 | 0.36 | 0.35 | 0.24 | 0.24 | 1.00 | | | |
| (13) GROWTH 2001 | 0.28 | 0.30 | 0.26 | -0.08 | -0.14 | -0.19 | -0.24 | -0.24 | -0.22 | -0.11 | -0.11 | 0.30 | 1.00 | | |
| (14) GROWTH 2002 | 0.32 | 0.32 | 0.17 | -0.12 | -0.17 | -0.27 | -0.22 | -0.20 | -0.18 | -0.14 | -0.14 | 0.45 | 0.80 | 1.00 | |
| (15) GROWTH 2003 | 0.32 | 0.39 | 0.28 | -0.13 | -0.17 | -0.21 | -0.34 | -0.30 | -0.27 | -0.22 | -0.22 | 0.30 | 0.71 | 0.84 | 1.00 |

Table 5 – (Total Sample*, three year period pooled) – Tobin's q

Values in parentheses are t-statistics. Results significant at the 10% level are presented in bold. Dependent variable is Tobin's q. N = 565. Time dummy variables were included in the regression equation. Total sample contains all companies reported in the three-year period.

| | Tobin's q | | | | | |
|------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Total CGI Index | -0.0037 (0.8886) | | | | | |
| Board Composition | | -0.0145 (2.2030) | | | | -0.0169 (2.3846) |
| Compensation | | | -0.0050 (0.4117) | | | -0.0030 (0.2399) |
| Shareholder Rights | | | | 0.0152 (1.4168) | | 0.0152 (1.4153) |
| Disclosure | | | | | 0.0050 (0.3071) | 0.0191 (1.0937) |
| Size | -0.2376 (6.9035) | -0.2399 (7.3112) | -0.2426 (7.0483) | -0.2587 (7.6575) | -0.2490 (7.4308) | -0.2560 (7.2483) |
| Leverage | -0.0263 (3.0957) | -0.0251 (2.9652) | -0.0261 (3.0698) | -0.0250 (2.9485) | -0.0255 (2.9863) | -0.0229 (2.6665) |
| Revenue Growth | 0.8195 (4.8798) | 0.7916 (4.7738) | 0.8404 (5.0556) | 0.8718 (5.2926) | 0.8555 (5.1822) | 0.8154 (4.8694) |
| Family | -0.0421 (0.1676) | -0.0961 (0.3864) | -0.0068 (0.0277) | 0.0453 (0.1838) | 0.0109 (0.0442) | -0.0636 (0.2536) |
| Institutional Business | 0.2438 (0.9956) | 0.2445 (1.0025) | 0.2300 (0.9365) | 0.2104 (0.8576) | 0.2329 (0.9487) | 0.1957 (0.7946) |
| Widely Held | 0.4159 (1.6105) | 0.4359 (1.6932) | 0.4027 (1.5576) | 0.3934 (1.5246) | 0.4061 (1.5720) | 0.4162 (1.6122) |
| Government | -0.1799 (0.5212) | -0.1206 (0.3495) | -0.2063 (0.5992) | -0.2390 (0.6934) | -0.1997 (0.5793) | -0.1238 (0.3566) |
| Utility | -0.3442 (1.4038) | -0.3314 (1.3565) | -0.3583 (1.4604) | -0.3820 (1.5559) | -0.3545 (1.4464) | -0.3610 (1.4708) |
| Energy | 0.0229 (0.2265) | 0.0062 (0.0608) | 0.0220 (0.2160) | -0.0050 (0.0482) | 0.0297 (0.2914) | -0.0173 (0.1662) |
| Financial | 0.1570 (0.8666) | 0.1329 (0.7350) | 0.1565 (0.8625) | 0.1347 (0.7408) | 0.1607 (0.8870) | 0.0993 (0.5454) |
| Intercept | 7.2250 (9.3665) | 7.4371 (9.5878) | 7.1601 (9.2894) | 7.1692 (9.3282) | 7.1850 (9.3258) | 7.4987 (9.6028) |
| Adjusted R Square | 0.3039 | 0.3090 | 0.3031 | 0.3054 | 0.3030 | 0.3131 |

Table 6 – (Final Sample, Average) – Index and Sub-indices

Values in parentheses are t-statistics. Results significant at the 10% level are presented in bold. Dependent variable is Tobin's q, N = 174.

| | Tobin's q | | | | | |
|------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Total CGI Index | 0.1204 (0.1689) | | | | | |
| Board Composition | | -0.7171 (0.6361) | | | | -1.4578 (1.1202) |
| Compensation | | | 0.1280 (0.0546) | | | (0.1588 (0.0634) |
| Shareholder Rights | | | | 1.8501 (1.0071) | | 1.8362 (0.9922) |
| Disclosure | | | | | 2.6325 (0.7823) | 4.6414 (1.1910) |
| Size | -0.2198 (3.7154) | -0.2144 (3.8574) | -0.2178 (3.5554) | -0.2350 (4.0246) | -0.2287 (3.9669) | -0.2508 (3.8831) |
| Leverage | -0.0597 (2.8068) | -0.0580 (2.7058) | -0.0597 (2.7866) | -0.0574 (2.6865) | -0.0575 (2.6846) | -0.0499 (2.2387) |
| Revenue Growth | 1.2809 (4.2646) | 1.2236 (4.1238) | 1.2704 (4.3001) | 1.2887 (4.4591) | 1.3093 (4.4600) | 1.2705 (4.2182) |
| Family | -0.0690 (0.1767) | -0.1458 (0.3774) | -0.0830 (0.2167) | -0.0309 (0.0817) | -0.0714 (0.1903) | -0.1282 (0.3246) |
| Institutional Business | 0.0814 (0.2151) | 0.0839 (0.2219) | 0.0850 (0.2231) | 0.0583 (0.1541) | 0.0462 (0.1214) | -0.0061 (0.0158) |
| Widely Held | 0.4087 (1.0369) | 0.4118 (1.0460) | 0.4109 (1.0390) | 0.3982 (1.0129) | 0.3904 (0.9905) | 0.3686 (0.9277) |
| Government | -0.0359 (0.0625) | 0.0039 (0.0067) | -0.0297 (0.0516) | -0.0538 (0.0938) | -0.0028 (0.0048) | 0.0673 (0.1151) |
| Utility | -0.3943 (1.1927) | -0.3782 (1.1452) | -0.3898 (1.1783) | -0.4244 (1.2832) | -0.3944 (1.1972) | -0.4057 (1.2149) |
| Energy | -0.0440 (0.2918) | -0.0552 (0.3655) | -0.0439 (0.2876) | -0.0834 (0.5392) | -0.0264 (0.1736) | -0.0715 (0.4498) |
| Financial | 0.2860 (1.0504) | 0.2608 (0.9545) | 0.2843 (1.0385) | 0.2514 (0.9230) | 0.2877 (1.0613) | 0.2147 (0.7737) |
| Intercept | 6.2636 (4.8840) | 6.607 (4.9367) | 6.2893 (4.8720) | 6.3494 (4.9726) | 6.2963 (4.9314) | 6.7340 (5.0061) |
| Adjusted R Square | 0.3987 | 0.4001 | 0.3986 | 0.4024 | 0.4009 | 0.4094 |

Table 7 – (Family Firms, three year period pooled) – Index and Sub-indices

Values in parentheses are t-statistics. Results significant at the 10% level are presented in bold. Dependent variable is Tobin's q, N = 200. Time dummy variables were included in the regression equation.

| | Tobin's q | | | | | |
|--------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Total CGI Index | -0.3198 (0.6208) | | | | | |
| Board Composition | | -0.0108 (1.4661) | | | | -0.0044 (0.5722) |
| Compensation | | | 0.0074 (0.5117) | | | 0.0157 (1.0764) |
| Shareholder Rights | | | | 0.0217 (2.0223) | | 0.0170 (1.5686) |
| Disclosure | | | | | -0.0460 (2.6156) | -0.0436 (2.3358) |
| Size | -0.1239 (2.6220) | -0.1332 (2.8780) | -0.1344 (2.8304) | -0.1564 (3.2655) | -0.1232 (2.6945) | -0.1571 (3.2464) |
| Leverage | -0.0548 (2.7364) | -0.0542 (2.7503) | -0.0532 (2.6898) | -0.0455 (2.2855) | -0.0625 (3.1599) | -0.0577 (2.8546) |
| Revenue Growth | 1.2650 (5.2421) | 1.2123 (4.9828) | 1.2744 (5.3042) | 1.2868 (5.4214) | 1.2877 (5.4638) | 1.2446 (5.1587) |
| Utility | -0.2546 (0.8307) | -0.2710 (0.9028) | -0.1934 (0.6420) | -0.1500 (0.5039) | -0.3166 (1.0675) | -0.2453 (0.8159) |
| Energy | 0.0243 (0.2003) | 0.0110 (0.0915) | 0.0253 (0.2070) | -0.0761 (0.5934) | 0.0042 (0.0356) | -0.0528 (0.4113) |
| Financial | 0.0096 (0.0527) | -0.0337 (0.1829) | 0.0416 (0.2282) | -0.0250 (0.1386) | 0.0068 (0.0381) | -0.0288 (0.1567) |
| Intercept | 4.5907 (4.5111) | 4.8542 (4.7027) | 4.5508 (4.4873) | 4.7908 (4.7363) | 4.6881 (4.6973) | 5.0592 (4.9508) |
| Adjusted R Square | 0.3506 | 0.3566 | 0.3502 | 0.3631 | 0.3721 | 0.3866 |

Table 8 – (Final Sample*, three year period pooled) – Index and Sub-indices

Values in parentheses are t-statistics. Results significant at the 10% level are presented in bold. Dependent variable is Tobin's q. N = 540. Time dummy variables were included in the regression equation. * The final sample contains all companies included in the CGI Index for all the three periods.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | Tobin's q | | | | | |
| Total CGI Index | -0.0033 (0.7734) | | | | | |
| Board Composition | | -0.0136 (1.9958) | | | | -0.0183 (2.5032) |
| Compensation | | | -0.0031 (0.2524) | | | -0.0034 (0.2642) |
| Shareholder Rights | | | | 0.0119 (1.0958) | | 0.0117 (1.0731) |
| Disclosure | | | | | 0.0123 (0.7499) | 0.0285 (1.5857) |
| Size | -0.2447 (6.9698) | -0.2465 (7.3667) | -0.2503 (7.1097) | -0.2623 (7.6313) | -0.2581 (7.5882) | -0.2610 (7.2530) |
| Leverage | -0.0246 (2.8833) | -0.0234 (2.7530) | -0.0244 (2.8586) | -0.0237 (2.7782) | -0.0235 (2.7388) | -0.0210 (2.4451) |
| Revenue Growth | 0.8445 (4.9763) | 0.8158 (4.8662) | 0.8664 (5.1615) | 0.8886 (5.3483) | 0.8864 (5.3208) | 0.8342 (4.9310) |
| Family | -0.2314 (0.8853) | -0.2912 (1.1229) | -0.1945 (0.7565) | -0.1508 (0.5880) | -0.1801 (0.7069) | -0.2907 (1.1080) |
| Institutional Business | 0.0018 (0.0070) | -0.0013 (0.0049) | -0.0083 (0.0324) | -0.0189 (0.0743) | -0.0208 (0.0814) | -0.0563 (0.2199) |
| Widely Held | 0.2224 (0.8348) | 0.2308 (0.8689) | 0.2149 (0.8051) | 0.2130 (0.7999) | 0.2097 (0.7863) | 0.2085 (0.7832) |
| Government | -0.2557 (0.7416) | -0.2058 (0.5973) | -0.2767 (0.8043) | -0.3003 (0.8720) | -0.2653 (0.7711) | -0.1841 (0.5320) |
| Utility | -0.3418 (1.3946) | -0.3320 (1.3589) | -0.3530 (1.4390) | -0.3724 (1.5165) | -0.3517 (1.4360) | -0.3539 (1.4419) |
| Energy | 0.0157 (0.1526) | -0.0048 (0.0469) | 0.0168 (0.1623) | -0.0045 (0.0434) | 0.0283 (0.2750) | -0.0187 (0.1766) |
| Financial | 0.1522 (0.8219) | 0.1228 (0.6631) | 0.1549 (0.8336) | 0.1375 (0.7398) | 0.1600 (0.8648) | 0.0909 (0.4872) |
| Intercept | 7.5599 (9.6479) | 7.7778 (9.8639) | 7.5046 (9.5800) | 7.5050 (9.6073) | 7.5383 (9.6382) | 7.8712 (9.9186) |
| Adjusted R Square | 0.3118 | 0.3172 | 0.3111 | 0.3126 | 0.3118 | 0.3218 |

Table 9 – (Total Sample, 2002) – Index and Sub-indices

Values in parentheses are t-statistics. Results significant at the 10% level are presented in bold. Dependent variable is Tobin's q, N = 198.

| | Tobin's q | | | | | |
|------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Total CGI Index | -0.1763 (0.2299) | | | | | |
| Board Composition | | -0.0126 (1.0532) | | | | -0.0317 (2.4340) |
| Compensation | | | -0.0007 (0.0346) | | | -0.0107 (0.5027) |
| Shareholder Rights | | | | -0.0116 (0.4956) | | -0.0049 (0.2156) |
| Disclosure | | | | | 0.0833 (2.6360) | 0.1243 (3.4986) |
| Size | -0.3129 (5.1409) | -0.3077 (5.2149) | -0.3162 (5.2568) | -0.3117 (5.2484) | -0.3472 (5.9220) | -0.3304 (5.5198) |
| Leverage | -0.0507 (1.5428) | -0.0459 (1.3850) | -0.0510 (1.5506) | -0.0532 (1.6048) | -0.0445 (1.3763) | -0.0295 (0.8914) |
| Revenue Growth | 0.6576 (2.6052) | 0.6325 (2.5277) | 0.6667 (2.6663) | 0.6537 (2.6134) | 0.7051 (2.8822) | 0.6167 (2.5068) |
| Family | -0.6912 (1.4110) | -0.7645 (1.5611) | -0.6744 (1.3893) | -0.6987 (1.4381) | -0.7723 (1.6222) | -1.0858 (2.2227) |
| Institutional Business | -0.3644 (0.7549) | -0.3536 (0.7362) | -0.3738 (0.7753) | -0.3591 (0.7451) | -0.6468 (1.3365) | -0.7405 (1.5291) |
| Widely Held | -0.1769 (0.3484) | -0.1492 (0.2950) | -0.1876 (0.3707) | -0.1850 (0.3659) | -0.4497 (0.8877) | -0.4881 (0.9699) |
| Government | -0.6334 (1.0352) | -0.5489 (0.8963) | -0.6527 (1.0767) | -0.6300 (1.0370) | -0.7228 (1.2131) | -0.4876 (0.8138) |
| Utility | -0.6553 (1.3557) | -0.6351 (1.3174) | -0.6621 (1.3664) | -0.6358 (1.3104) | -0.7275 (1.5322) | -0.7057 (1.4827) |
| Energy | -0.3116 (1.5976) | -0.3261 (1.6726) | -0.3121 (1.5976) | -0.2873 (1.4286) | -0.2763 (1.4389) | -0.2899 (1.4727) |
| Financial | 0.1454 (0.3673) | 0.0917 (0.2304) | 0.1465 (0.3700) | 0.1779 (0.4438) | 0.0858 (0.2203) | -0.0634 (0.1596) |
| Intercept | 6.9574 (9.5669) | 9.6808 (7.0553) | 9.5382 (6.9648) | 9.6321 (6.9712) | 9.8251 (7.2833) | 10.3707 (7.6170) |
| Adjusted R Square | 0.3248 | 0.3286 | 0.3246 | 0.3255 | 0.3490 | 0.3715 |

Table 10 – (Total Sample, 2003) – Index and Sub-indices

Values in parentheses are t-statistics. Results significant at the 10% level are presented in bold. Dependent variable is Tobin's q, N = 186.

| | Tobin's q | | | | | |
|------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Total CGI Index | -0.5267 (0.7389) | | | | | |
| Board Composition | | -0.0123 (1.1090) | | | | -0.0107 (0.9172) |
| Compensation | | | -0.0045 (0.2062) | | | 0.0027 (0.1174) |
| Shareholder Rights | | | | 0.0166 (0.8607) | | 0.0178 (0.9153) |
| Disclosure | | | | | -0.0251 (0.9928) | -0.0211 (0.7915) |
| Size | -0.1471 (2.4983) | -0.1570 (2.8227) | -0.1570 (2.6403) | -0.1767 (3.0285) | -0.1497 (2.6373) | -0.1668 (2.6825) |
| Leverage | -0.0540 (1.9229) | -0.0520 (1.8633) | -0.0523 (1.8659) | -0.0487 (1.7219) | -0.0554 (1.9699) | -0.0509 (1.7818) |
| Revenue Growth | 1.0948 (3.3613) | 1.0950 (3.4383) | 1.1458 (3.5687) | 1.1909 (3.7723) | 1.1072 (3.4847) | 1.1015 (3.3644) |
| Family | -0.4081 (0.9707) | -0.4306 (1.0352) | -0.3456 (0.8326) | -0.3021 (0.7414) | -0.3644 (0.8940) | -0.4085 (0.9653) |
| Institutional Business | -0.0631 (0.1552) | -0.0729 (0.1797) | -0.0694 (0.1693) | -0.0962 (0.2357) | -0.0490 (0.1208) | -0.0959 (0.2319) |
| Widely Held | -0.0227 (0.0530) | -0.0113 (0.0265) | -0.0300 (0.0696) | -0.0422 (0.0983) | -0.0312 (0.0728) | -0.0380 (0.0877) |
| Government | -0.2622 (0.4604) | -0.2388 (0.4197) | -0.2946 (0.5180) | -0.3414 (0.5989) | -0.3257 (0.5734) | -0.3221 (0.5592) |
| Utility | -0.0235 (0.0576) | -0.0208 (0.0511) | -0.0503 (0.1237) | -0.0800 (0.1963) | -0.0300 (0.0739) | -0.0381 (0.0929) |
| Energy | 0.2537 (1.5053) | 0.2457 (1.4586) | 0.2568 (1.5066) | 0.2326 (1.3563) | 0.2411 (1.4245) | 0.2017 (1.1493) |
| Financial | 0.4716 (1.3934) | 0.4578 (1.3547) | 0.4603 (1.3466) | 0.4241 (1.2387) | 0.4863 (1.4368) | 0.4305 (1.2376) |
| Intercept | 5.0989 (3.8876) | 5.2939 (3.9849) | 4.9909 (3.8089) | 5.0691 (3.8784) | 5.0468 (3.8681) | 5.3646 (3.9915) |
| Adjusted R Square | 0.2397 | 0.2427 | 0.2375 | 0.2406 | 0.2416 | 0.2489 |

Table 11 – (Total Sample, 2004) – Index and Sub-indices

Values in parentheses are t-statistics. Results significant at the 10% level are presented in bold. Dependent variable is Tobin's q, N = 180.

| | Tobin's q | | | | | |
|------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Total CGI Index | -0.1869 (0.2916) | | | | | |
| Board Composition | | -0.0147 (1.3365) | | | | -0.0125 (1.0380) |
| Compensation | | | -0.0086 (0.4362) | | | 0.0017 (0.0787) |
| Shareholder Rights | | | | 0.0280 (1.9429) | | 0.0291 (2.0067) |
| Disclosure | | | | | -0.0251 (0.9407) | -0.0205 (0.7111) |
| Size | -0.2025 (3.4132) | -0.2074 (3.6731) | -0.1992 (3.3271) | -0.2424 (4.1122) | -0.1956 (3.3712) | -0.2356 (3.7657) |
| Leverage | -0.0234 (2.6401) | -0.0223 (2.5231) | -0.0235 (2.6540) | -0.0220 (2.5105) | -0.0247 (2.7596) | -0.0223 (2.4717) |
| Revenue Growth | 1.0498 (2.8226) | 0.9841 (2.6996) | 1.0432 (2.8351) | 1.1483 (3.2117) | 1.0279 (2.8350) | 1.0378 (2.8091) |
| Family | 1.1883 (3.1030) | 1.1196 (2.9955) | 1.1965 (3.2195) | 1.3281 (3.6044) | 1.1391 (3.0217) | 1.1869 (3.1140) |
| Institutional Business | 1.3518 (3.6565) | 1.3505 (3.6725) | 1.3399 (3.6118) | 1.2996 (3.5443) | 1.3181 (3.5553) | 1.2670 (3.4171) |
| Widely Held | 1.6202 (4.1639) | 1.6320 (4.2155) | 1.6122 (4.1377) | 1.5778 (4.0927) | 1.5654 (3.9847) | 1.5392 (3.9205) |
| Government | 0.5824 (0.9784) | 0.6303 (1.0625) | 0.5692 (0.9550) | 0.5440 (0.9233) | 0.4842 (0.8026) | 0.5017 (0.8293) |
| Utility | -0.3302 (0.9170) | -0.3231 (0.9019) | -0.3383 (0.9381) | -0.3607 (1.0116) | -0.3641 (1.0081) | -0.3852 (1.0693) |
| Energy | 0.1355 (0.8820) | 0.1161 (0.7566) | 0.1302 (0.8437) | 0.0791 (0.5109) | 0.1166 (0.7537) | 0.0431 (0.2734) |
| Financial | 0.1513 (0.5552) | 0.1285 (0.4745) | 0.1439 (0.5268) | 0.1341 (0.4994) | 0.1297 (0.4764) | 0.0863 (0.3171) |
| Intercept | 4.6996 (3.5137) | 5.1447 (3.7498) | 4.6090 (3.4584) | 4.8733 (3.6938) | 4.7450 (3.5699) | 5.3803 (3.8631) |
| Adjusted R Square | 0.3427 | 0.3492 | 0.3431 | 0.3568 | 0.3458 | 0.3659 |

Table 12 – (Total Sample, three year period pooled) – ROE

Values in parentheses are t-statistics. Results significant at the 10% level are presented in bold. Dependent variable is ROE. N = 540.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|------------------------|---------------------|----------------------------|---------------------|---------------------|---------------------|---------------------------|
| Total CGI Index | -0.008 (0.5112) | | | | | |
| Board Composition | | -0.0002 (0.0700) | | | | -0.0031 (1.1602) |
| Compensation | | | 0.0074 (1.6243) | | | 0.0093 (1.9512) |
| Shareholder Rights | | | | -0.0043 (1.0725) | | -0.0048 (1.2062) |
| Disclosure | | | | | -0.0013 (0.2174) | -0.0016 (0.2404) |
| Size | 0.0027 (0.2091) | 0.0209 (1.6981) | -0.0060 (0.4667) | 0.0039 (0.3110) | 0.0012 (0.0939) | -0.0018 (0.1346) |
| Leverage | 0.0000 (0.0031) | 0.0055 (1.7635) | 0.0003 (0.0993) | -0.0001 (0.0475) | 0.0000 (0.0065) | 0.0002 (0.0650) |
| Revenue Growth | -0.0844 (1.3512) | -0.0621 (1.0087) | -0.0615 (0.9991) | -0.0830 (1.3581) | -0.0789 (1.2860) | -0.0787 (1.2611) |
| Family | 0.0056 (0.0581) | 0.2000 (2.1004) | 0.0374 (0.3968) | 0.0041 (0.0436) | 0.0161 (0.1716) | 0.0035 (0.0364) |
| Institutional Business | 0.0204 (0.2179) | 0.1707 (1.8328) | 0.0307 (0.3278) | 0.0247 (0.2641) | 0.0210 (0.2234) | 0.0436 (0.4616) |
| Widely Held | 0.0788 (0.8038) | 0.1691 (1.7328) | 0.0870 (0.8879) | 0.0800 (0.8165) | 0.0789 (0.8037) | 0.0964 (0.9815) |
| Government | -0.0501 (0.3949) | 0.1325 (1.0469) | -0.0512 (0.4051) | -0.0458 (0.3614) | -0.0559 (0.4413) | -0.0251 (0.1968) |
| Utility | 0.0593 (0.6576) | -0.1186 (1.3220) | 0.0651 (0.7230) | 0.0655 (0.7254) | 0.0576 (0.6388) | 0.0810 (0.8952) |
| Energy | -0.0599 (1.5871) | -0.0129 (0.3426) | -0.0513 (1.3549) | -0.0500 (1.2983) | -0.0597 (1.5758) | -0.0457 (1.1714) |
| Financial | -0.0769 (1.1287) | -0.0729 (1.0723) | -0.0658 (0.9645) | -0.0676 (0.9884) | -0.0754 (1.1075) | -0.0625 (0.9074) |
| Intercept | 0.1278 (0.4431) | -0.4783 (1.6519) | 0.1451 (0.5047) | 0.1213 (0.4220) | 0.1149 (0.3990) | 0.2102 (0.7182) |
| Adjusted R Square | 0.0207 | 0.0330 | 0.0251 | 0.0223 | 0.0203 | 0.0311 |