Value-Relevance of the Outside Corporate Governance Information: a Canadian Study

Abstract

This study examines whether the corporate governance rankings published by *The Globe and Mail*, a reputed national Canadian newspaper, are reflected in the values that investors accord to firms. A sample of 796 observations on 289 Canadian companies from 2002-2005 inclusively was analyzed using a price model (Cazavan-Jeny and JeanJean, 2006). Results suggest that the corporate governance rankings published by this market information intermediary are related not only to firm value, but also to accounting results. Thus, the relationship between corporate governance scores and market capitalization can take two forms. First, there may be a direct relationship due to investor interest in good governance practices. Second, there may be an indirect relationship due to the impact of good governance practices on the firms' accounting results. The results of this study should be useful for accounting practitioners and the various organizations involved in the regulation of corporate governance practices and the standardization of relevant data elements.

Keywords – Corporate governance, Financial market, Corporate governance rankings, Information intermediary, Investors, Research paper.

1. Introduction

The need for corporate governance in order to limit conflicts of interest between shareholders and managers, and especially the costs generated by such conflicts, is not a new phenomenon. Berle and Means (1932) had argued that managers must be controlled in order to avoid losses. Financial scandals, as seen at Enron Corp., WoldCom and Nortel in North America and Parmalat in Europe, have reinforced this reasoning, as serious economic stakes were involved. As we have seen, such scandals can cause financial markets to drop sharply, jobs to be lost and pension plan values to plummet. For example, the largest American pension fund lost over 1 billion dollars through its investments in WoldCom (Reuter, 2002). The *Caisse de dépôt et placement du Québec*, the largest pension fund in Canada, saw the value of its Nortel investments drop by 5 billion dollars between August 2000 and the end of December 2004 (Girard, 2006).

Financial scandals in several countries have served as grounds for new legislation to regulate corporate governance practices. For instance, the United States passed the Sarbanes-Oxley Act (Beasley and Elder, 2005), and in the United Kingdom the Financial Reporting Council (FRC) updated the Turnbull Guidance on Internal Control in October 2005. The revised Guidance complies with the US requirements to report on internal controls over financial reporting, as set out in Section 404 of the Sarbanes-Oxley Act 2002 and the related SEC rules. New regulations were established in Canada as well (Barnes, Johnson and Yarmus, 2004), in particular by the Ontario Securities Commission (OSC), to address the responsibilities and composition of the Audit Committee (National instrument NI 52-110), the roles of both the chief executive officer and the chief financial officer to ensure the accuracy and quality of reported information, (NI 52-108), and auditor oversight (NI 52-108). In 2005, the OSC also set up new guidelines for corporate governance (NI 58-201) and the disclosure of corporate governance mechanisms (NI 58-101).

Parallel to these initiatives, some capital market participants, market information intermediaries and academics were focusing on corporate governance practices. Their interests were varied. Capital market participants needed to identify situations that were potentially favourable to earning management as well as potentially harmful opportunist behaviours. Some market information intermediaries, such as *Standard and Poor's, Governance Metrics International*, *Institutional Shareholder Services*, and *The Globe and Mail* newspaper in Canada, understood this issue and developed corporate governance ranking systems for capital market participants. These were potentially more useful and less expensive than collecting the information for oneself. The objective of this paper was to examine whether one such corporate governance practices ranking system, published by *The Globe and Mail,* is taken into account by investors.

A valorization model was used to examine this issue. A sample of 796 observations on 289 Canadian companies from 2002-2005 inclusively was analyzed. Results suggest that investors indeed take into account corporate governance rankings. They also suggest that the corporate governance rankings are at least partly reflected in the accounting results.

This paper contributes to the literature in several ways. First, it adds new empirical observations to past studies that addressed the relationships between firm value and corporate governance practices. Second, it triangulates the results of certain studies conducted in the Canadian context (Gupta, Kennedy and Weaver, 2006; Klein, Shapiro and Young, 2005) by using a price model rather than a return model, drawing on a relatively large number of

observations. This paper also has significant practical implications. It provides new empirical results that would be useful for various organizations involved in the regulation of corporate governance practices and the standardization governance-related data. For example, the results support several recommendations put forward by the Canadian Institute of Chartered Accountants on director independence (Lyndsay, 2005) and the need for a formal system to assess the performance of the board and individual directors (Leblanc, 2005) and the amount of stock options granted (Greville and Crawford, 2003).

The remainder of the paper is organized as follows: section 2 reviews the relevant literature, section 3 describes the empirical model and the sample, section 4 presents the main results, and section 5 reports the main conclusions of the study, its limitations and potential research avenues.

2. Literature Review

Shleifer and Vishny (1997) proposed a broad definition of corporate governance: corporate governance concerns the ways in which suppliers of funds and the corporations themselves ensure returns on investment. This definition is based on agency theory and the principal-agent relationship. The delegation of management by the principal to the agent involves problems of adverse selection and moral hazard that result in agency costs.

> "An entrepreneur, or a manager, raises funds from investors either to put them to productive use or to cash out his holding in the firm. The financiers need the manager's specialized human capital to generate returns on their funds. The manager needs the financiers' funds, since he either does not have enough capital of his own to invest or else wants to cash out his holding. But how can financiers be sure that, once they sink their funds, they get anything but worthless pieces of paper back from the manager? The agency problem in this context refers to the difficulties financiers have in assuring that their funds are not expropriated or wasted on unattractive projects." (Shleifer and Vishny; 1997, p. 740-741).

In order to minimize these agency costs, a good corporate governance system should combine large investors of some kind with legal protection of both their rights and those of small investors (Shleifer and Vishny, 1997). Using a similar approach, Picou and Rubach (2006) define corporate governance as the construction of rules, practices, and incentives to effectively align the interests of the agents (boards and managers) with those of the principals (capital suppliers). Kyerebaoh-Coleman and Biekpe (2006) view the set of legal protections (company laws, stock exchange listing rules, and accounting standards) as a way to both shape and be shaped by the system of corporate governance mechanisms in place.

Beyond these definitions of corporate governance, a consensus on the defining elements of a good governance framework has yet to be reached, and is even farther from being reached in the academic community (Gupta, Kennedy and Weaver, 2006). Up to now, most studies on corporate governance have used distinct methodologies to address particular elements of corporate governance. This makes previous results difficult to reconcile. Among the various elements studied, we can mention board composition (Hermalin and Weisbach, 1991; Barnhart, Marr and Rosenstein, 1994; Agrawal and Knoeber, 1996; Barnhart and Rosenstein, 1998; Bhagat and Black, 2002; Yermack, 1996; Bozec, 2005; Krivogorski, 2006; Gani and

Jermias, 2006; Kyereboah-Coleman and Biekpe, 2006), shareholding (Barnhart and Rosenstein, 1998; Lehmann and Weigand, 2000; Chen, 2001; Pederson and Thomsen, 2003; Bai and al., 2004; Clark and Wojcik, 2005; Krivogorski, 2006; Shen, Hsu and Chen, 2006), compensation issues (Cordeiro and Veliyath, 2003), and shareholder rights (Chi, 2005).

As mentioned above, despite the lack of consensus on the elements that would define a framework for good governance practices, some information intermediaries have developed corporate governance ranking systems that provide useful information to capital market participants. For example, *Standard and Poor's* developed the Standard & Poor's Corporate Governance Scores. These cover various components related to ownership structure and the influence of external stakeholders, investor rights and relations, transparency and disclosure, and board structure and processes. The Governance Metrics International (GMI) scores address board accountability, financial disclosures and internal controls, shareholder rights, remuneration, the market for control, and corporate behaviour. The Institutional Shareholder Services, for its part, assesses companies based on information related to the board of directors, audits, charter and bylaw provisions, anti-takeover provisions, executive and director compensation, progressive practices, ownership, and director education. The corporate governance scores developed by *The Globe and Mail*, a reputed national Canadian newspaper, take into account information on board composition, shareholding and compensation issues, shareholder rights issues, and disclosures issues.

These information intermediaries can play a valuable role in improving market efficiency (Healy and Palepu, 2001), as long as investors find the information useful. *The Globe and Mail*'s corporate governance scores were developed based on the "tough set of best practices culled from the corporate governance guidelines and recommendations of US and Canadian regulators, as well as major institutional investors and associations." (McFarland, 2002, Klein, Shapiro and Young, 2005). It is also important to point out that, unlike other corporate governance rankings, these scores are not very expensive. Moreover, they are available to all investors, not just specialists who can afford to buy costly data. Thus, *The Globe and Mail* corporate governance rankings do not favour certain investors over others, and we could argue that this avoids setting up a privileged investor class.

Using various corporate governance indexes, researchers have examined whether the corporate governance environment is related to the firm's financial performance (Gompers, Ishii and Metrick, 2003; Bebchuck, Cohen and Ferrell, 2006; Klein, Shapiro and Young, 2005; Gupta, Kennedy and Weaver, 2006; Brown and Caylor, 2006) Generally, their results tend to show that good corporate governance practices, as measured by different variables, are positively associated with financial performance, although the associations are not very strong. Among the elements that are significantly related to firm financial performance are the facts that: 1) all directors attend at least 75% of board meetings, 2) board members are elected annually, 3) board guidelines are in each proxy statement, 4) the firm has either no poison pill or else a shareholder-approved one, 5) re-pricing did not occur within the last three years, 6) average options granted in the last three years as a percentage of basic shares outstanding did not exceed 3%, 7) directors are subject to stock ownership guidelines (Bebchuck, Cohen and Ferrell, 2006; Brown and Caylor, 2006), and 8) the board is controlled by more than 50% independent outside directors (Black, Jang and Kim, 2006).

Besides being available at a very low cost, the *Globe and Mail* corporate governance rankings have the advantage of including several elements that have been previously studied. The ranking scores are calculated using a 100-mark scale comprising four components. The

first component, for 40 marks, addresses board composition. Marks are awarded for the number of fully independent directors on the board and the audit, compensation and nominating committees, split CEO and chairman roles, presence of a "cozy" or clubby relationship among directors, number of CEO's outside commitments, presence of a formal system to assess performances of the board and individual directors, occasional meetings by the directors without management present, and number of board and committee meetings. The second component, for 23 marks, addresses shareholding and compensation issues. Marks are awarded if directors and the CEO are required to own stock, if directors have a separate option plan, and if the firm gives loans to its directors and officers. The third component, for 22 marks, addresses shareholder rights issues, i.e. annual re-election of all directors, excessive dilution arising from employee stock options, and repricing options in the two last years. The last component, accounting for 15 marks, deals with disclosure issues. Marks are awarded for firm disclosures on their corporate governance practices, relationships between directors, auditors and fees, board member biographies, and director attendances at board and committee meetings. A detailed presentation of each element's weighting is provided in the Appendix.

Note that the majority of previous studies examining the relations between various corporate governance rankings and the financial performance of firms have used a portfolio approach, or else have examined the relationship between Tobin's q—or return—and corporate governance practices without taking into account either accounting results or potentially hidden correlations between corporate governance practices scores and accounting results (Gompers, Ishii and Metrick, 2003; Brown and Caylor, 2006; Klein, Shapiro and Young, 2005; Gupta, Kennedy and Weaver, 2006). This study adds to the knowledge by examining the relationships between corporate governance scores and financial performance while controlling for potential relationships between corporate governance scores and accounting results.

3. Research design and sample

a) Research design

In order to investigate the relationships between the corporate governance and sub-index scores published by *The Globe and Mail* and the financial performance of the firms, a model analogous to Cazavan-Jeny and JeanJean (2006) was used (Equation 1). We therefore propose the following regression model:

$$P_{jt+\tau} = \alpha_0 + \alpha_1 BVE_{jt} + \alpha_2 NI_{jt} + \alpha_{3-6} CGS_{jt} + \alpha_{7-9} YEAR_{jt} + \varepsilon_{jt} \quad (1)$$

where,

$P_{jt+\tau}$ = share price of firm j at time t+τ;

τ = time between the closing date of the last financial period and the publication date of the financial results;

BVE_{jt} = book value of equity of firm j at time t, standardized by the number of shares in circulation at time t.

NI$_{jt}$ = net income of firm j at time t, standardized by the number of shares in circulation at time t;

CGS$_{jt}$ = composite corporate governance scores and sub-scores published by *The Globe and Mail*;

YEAR$_{jt}$ = {A2003$_{jt}$, A2004$_{jt}$, A2005$_{jt}$);

A2003$_{jt}$ (A2004$_{jt}$, A2005$_{jt}$) = dummy variable representing each year covered by the observations (equal to 1 if the year covered by the observation is 2003 [2004, 2005] and 0 otherwise);

ε_{jt} = error term.

This model relates share price to book value of equity (BVE$_{jt}$) and current benefit (NI$_{jt}$). The inclusion of the *The Globe and Mail*'s corporate governance scores in the investor price or index is examined for level of significance of the regression coefficients α_{3-6}. These coefficients should be positive and significantly different from 0. We also included dummies to control for fixed year effect.

b) Sample

The sample used in this study is composed of all the Canadian companies covered by *The Globe and Mail* corporate governance rankings for years 2002 to 2005 for which 1) financial statements were available on the www.sedar.com database and 2) share price data was available from the TSX-CFMRC database. Accounting data was collected from the annual reports for 2002 to 2005 and share price data was collected from the TSX-CFMRC database. In all, 291 firms met these criteria, for a total of 804 observations. Of these, 8 observations presenting extreme values were removed from the sample. The final sample comprises the remaining 796 observations.

4. Results

a) Descriptive analyses

Table 1 presents descriptive statistics for the variables on which our analyses are based. The mean firm has a market capitalization of \$4,852,469,000 CAN, a book value of \$2,060,813,000 CAN and a net income of \$252,880,000 CAN. Results indicate that the sampled firms have relatively large shares in Canadian markets. Composite governance scores appear to be relatively well distributed. Mean composite corporate governance score [CGS(T)$_{jt}$] is 66.76/100. Average board composition sub-score [CGS(BC)$_{jt}$] is 27.14/40, average board and CEO compensation sub-score [CGS(C)$_{jt}$] is 12.46/23, average shareholder rights sub-score [CGS(SR)$_{jt}$] is 18.09/22 and average board governance disclosure sub-score [CGS(D)$_{jt}$] is 9.05/15.

Table 2 presents the Pearson correlations among test variables. The largest correlations are between the MV$_{t+4}$, BVE$_{jt}$ and NI$_{jt}$ variables. Correlations between composite governance and sub-index scores are also considerable. Finally, accounting and financial variables are slightly correlated with composite governance and sub-index scores, with correlations ranging between 0.14 and 0.39.

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Table 3 summarizes the statistics from Equation 1. Regarding overall explanatory power, the adjusted R^2 for Model 1 indicates that the independent variables book value of equity (BVE_{jt}) and net income (NI_{jt}) explain 62% of the stock price variation. When adding the composite governance score [$CGS(T)_{jt}$] published by the CGS (Model 2), the coefficient is positive, as predicted, and significantly different from zero. However, the overall explanatory power of the

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Table 1
Descriptive statistics[1]
(N=796)

Variables	Average	Standard deviation	Median	Minimum	Maximum
MV_{jt+4}	4,852,469	8,418,420	1,655,905	12,430	61,415,475
BVE_{jt}	2,060,813	3,333,172	715,100	9,765	23,443,000
NI_{jt}	252,880	561,324	60,172	- 717,000	3,513,000
$CGS(T)_{jt}$	66.76	14.85	67	28	97
$CGS(BC)_{jt}$	27.14	8.11	28	4	40
$CGS(C)_{jt}$	12.46	4.15	13	1	23
$CGS(SR)_{jt}$	18.09	5.28	20	1	28
$CGS(D)_{jt}$	9.05	3.45	9	1	15

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1   Countable data are presented in thousands of dollars.

MV_{jt+4} = market capitalization 4 months after the closing date of the financial statements; BVE_{jt} = book value of equity at the closing date of the financial statements; NI_{jt} = net income at the closing date of the financial statements; $CGS(T)_{jt}$ = total composite CGS for company j at year t; $CGS(BC)_{jt}$ = CGS sub-index score on board composition for company j at year t; $CGS(C)_T$ = sub-index score on board and CEO compensation for company j at year t; $CGS(SR)_{jt}$ = CGS sub-index score on shareholder rights for company j at year t; $CGS(D)_{jt}$ = CGS sub-index score on board governance disclosure for company j at year t.

stock price variation increases by only 1%. Instead of using the composite governance index, Model 3 uses its four distinct components. Results show that coefficients for the board and CEO compensation sub-index [$CGS(C)_{jt}$] and the shareholder rights sub-index [$CGS(SR)_{jt}$] are positive, as predicted, and significantly different from zero. However, neither the board composition sub-index [$CGS(BC)_{jt}$] nor the board governance disclosure sub-index [$CGS(D)_{jt}$ are positive, and are therefore not significantly related to share price.

None of the regressions for models 1, 2 or 3 present variance inflation factors higher than 2 (Neter, Wasserman and Kutner, 1985). Further, we noted that composite governance shows significant correlation with other independent variables (BVE_{jt} and NI_{jt}). We therefore re-ran the analysis by regressing the composite governance sub-index scores on the other independent variables (BVE_{jt} and NI_{jt}). The terms of error of these auxiliary regressions were used as independent variables to avoid the multicollinearity with the composite corporate governance index score and sub-score. Results are presented for models 4, 5, 6 and 7 in Table 3. Model 4 indicates that the independent variables equity book value (BVE_{jt}) and net income (NI_{jt}) explain 56% of the variation in stock prices compared to 62% for Model 1. However, when the composite corporate governance score variable is added (Model 5), the explanation power increases by 7% to reach 63%. Model 6 represents the addition of accounting variables without the multicollinearity problem arising from each of the sub-index scores. This model explains 52% of the variation in stock prices. Model 7 also uses the accounting variables without the multicollinearity problem but adds the four sub-index scores, and the overall explanatory power increases to 64%. Note also that in Model 7 the $CGS(C)_{jt}$, $CGS(SR)_{jt}$, and $CGS(D)_{jt}$ coefficients are significantly positive, as expected. However, the $CGS(BC)_{jt}$, (Board

Composition sub-index score) coefficient is negative. These results are consistent with those of Klein, Shapiro and Young (2005).

	BVE$_{jt}$	NI$_{jt}$	CGS(T)$_{jt}$	CGS(BC)$_{jt}$	CGS(C)$_{jt}$	CGS(SR)$_{jt}$	CGS(D)$_{jt}$
MV$_{t+4}$	0.92***	0.91***	0.38***	0.16***	0.36***	0.37***	0.28***
BVE$_{jt}$		0.86***	0.38***	0.17***	0.39***	0.34***	0.26***
NI$_{jt}$			0.36***	0.14***	0.36***	0.34***	0.25***
CGS(T)$_{jt}$				0.83***	0.62***	0.62***	0.66***
CGS(BC)$_{jt}$					0.33***	0.27***	0.43***
CGS(C)$_{jt}$						0.22***	0.37***
CGS(SR)$_{jt}$							0.25

Table 2
Correlations between variables
(N=796)

MV$_{jt+4}$ = share price of firm j at time t+τ; BVE$_{jt}$ = equity book value at the closing date of financial statements; NI$_{jt}$ = net income at the closing date of the financial statements; CGS(T)$_{jt}$ = total composite corporate governance score for company j at year t; CGS(BC)$_{jt}$ = CGS sub-index score on board composition for company j the year t; CGS (C)$_{T}$ = sub-index score on board and CEO compensation for company j at year t; CGS(SR)$_{jt}$ = CGS sub-index score on shareholder rights for company J at year t; CGS(D)$_{jt}$ = CGS sub-index score on board governance disclosure for company j at year t.

The significance level for White's (1980) specification test revealed homoscedasticity. We therefore employed White's (1980) generalized correction method for heteroscedasticity. Furthermore, the Durbin-Watson statistics suggest the presence of autocorrelation residues for all models. These were re-estimated using the Yule-Walker method. Results were similar in all aspects to those presented in Table 3.

To evaluate the robustness of results across years, Z1 and Z2 statistics were calculated (Barth and McNichols, 1994; Cormier and Magnan, 1997). These statistics test whether average t statistics observed across years are significantly different from zero. Z1 statistics assume independent parameter estimates, whereas Z2 statistics correct the transversal and chronological correlations[1] likely to exist between estimated parameters. Table 4 presents the statistics for the models incorporating the composite governance index [CGS(T)$_{jt}$] and the four sub-indexes [CGS(BC)$_{jt}$, CGS(C)$_{jt}$, CGS(SR)$_{jt}$, CGS(D)$_{jt}$]. Note that these statistics were performed prior to correcting for multicollinearity between independent variables (BVE$_{jt}$ and NI$_{jt}$) and CGS (Part A), then performed again with a correction for multicollinearity (Part B). Table 4 reveals that the Z1 and Z2 statistics are still significantly positive for the composite governance score [CGS(T)$_{jt}$], significantly negative for the board composition sub-index score [CGS(BC)$_{jt}$], and significantly positive for the board and CEO compensation sub-index score

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[1]   The Z1 Statistic is determined as follows: $1/\sqrt{N}\sum_{a=1}^{N} t_a/(\sqrt{k_a/(k_a-2)})$, where t_a represents the t statistics associated with the coefficient of interest, k_a equals the degrees of freedom for the regression year a, and N equals number of years. The Z2 statistic is determined as follows: $\bar{t}/(\text{stddev}(t)/\sqrt{(N-1)})$ where $\bar{t}$ equals the average of *t* statistics; stddev (t) equals the standard deviation of t statistics, and *N* equals number of years.

Table 3
Models for the relevance of data elements included in the CGS[1]
Dependent variable: P_{jt+4} (N=796)

	Pred. sign.	M 1	M 2	M 3	M 4	M 5	M 6	M 7
BVE_{jt}	α_1 (+)	0.89***	0.86***	0.86***	0.87***	0.87***	0.87***	0.87***
NI_{jt}	α_2 (+)	4.26***	4.18***	3.98***	4.18***	4.18***	3.98***	3.98***
$CGS(T)_{jt}$	α_3 (+)	-	0.11***	-	-	0.38***	-	-
$CGS(BC)_{jt}$	α_4 (+)	-	-	-0.10	-	-	-	-0.17***
$CGS(C)_{jt}$	α_5 (+)	-	-	0.48***	-	-	-	1.30***
$CGS(SR)_{jt}$	α_6 (+)	-	-	0.25***	-	-	-	0.50***
$CGS(D)_{jt}$	α_7 (+)	-	-	0.14	-	-	-	0.74***
$A2003_{jt}$	α_9 (?)	3.86***	3.44***	3.63***	5.64***	4.12***	5.64***	3.59***
$A2004_{jt}$	α_{10} (?)	5.31***	4.47***	5.11***	8.02***	5.05***	8.02***	5.95***
$A2005_{jt}$	α_{11} (?)	10.31***	9.21***	9.65***	11.96***	8.22***	11.95***	8.43***
Constant	α_0 (?)	5.42***	-1.10	-2.74	20.60***	-2.28	20.60***	-4.68***
Adj. R^2		0.62	0.63	0.64	0.56	0.63	0.52	0.64
F-Statistics		263.35	224.36	154.38	206.37	224.36	172.67	154.38

*** p ≤ 0.001; ** p ≤ 0.05; * p ≤ 0.1 (one-tailed test when the sign is predicted).

*** p ≤ 0.001; ** p ≤ 0.05; * p ≤ 0.1 (two-tailed test when the sign is not predicted).

1　　　Financial variables are measured in thousands of dollars.

P_{jt+4} = share price of firm j at time t+τ; BVE_{jt} = equity book value at closing date of financial statements; NI_{jt} = net income at closing date of financial statements; $CGS(T)_{jt}$ = total composite governance score for company j at year t; $CGS(BC)_{jt}$ = CGS sub-index score on board composition for company j at year t; $CGS(C)_T$ = sub-index score on board and CEO Compensation for company j at year t; $CGS(SR)_{jt}$ = CGS sub-index score on shareholder rights for company j at year t; $CGS(D)_{jt}$ = CGS sub-index score on board governance disclosure for company j at year t.

$[CGS(C)_{jt}]$. Concerning the shareholder rights sub-index score $[CGS(SR)_{jt}]$, average coefficients are positive and Z1 and Z2 statistics are significant in the models that account for multicollinearity. However, at 5%, the Z2 statistics are not significant in the models that do not account for multicollinearity. Note that these results are more ambiguous for the board governance disclosure sub-index score $[CGS(D)_{jt}]$. Average coefficients are positive and Z1 statistics are significant, but not the Z2 statistics. Results on this component therefore seem to be sensitive to the transversal and chronological correlations likely to exist between estimated parameters.

5. Conclusion

The objective of this paper was to analyze whether investors take into account the corporate governance rankings published by *The Globe and Mail*, a reputed Canadian newspaper, in their evaluation of stock price. Results suggest that not only do investors consider these corporate governance rankings in their stock price evaluations, but also that some components of the firms' corporate governance appear to be related to their accounting results. Indeed, the corporate governance scores published by *The Globe and Mail* seem to capture practices that could impact the firms' accounting results (net income and shareholder equity). The relationship between corporate governance scores and market capitalization can

Table 4
T-tests on statistical averages observed across years
Dependent variable: P_{jt+4}

Part A: Models not corrected for multicollinearity

Explanatory variable	Predict Sign	Model with CGS(T)$_{jt}$ Mean				Model with CGS(T)$_{jt}$ components Mean			
		Coef.	(t)	Z1	Z2	Coef.	(t)	Z1	Z2
BVE$_{jt}$	α_1 (+)	0.85	7.78	11.00	3.17	0.83	7.66	12.93	4.62
NI$_{jt}$	α_2 (+)	4.17	7.04	9.96	3.82	3.95	6.62	11.19	17.93
CGS(T)$_{jt}$	α_3 (+)	0.11	1.52	2.15	1.91	-	-	-	-
CGS(BC)$_{jt}$	α_4 (+)	-	-	-	-	-0.15	-1.40	-2.37	-1.80
CGS(C)$_{jt}$	α_5 (+)	-	-	-	-	0.71	2.49	4.21	5.02
CGS(SR)$_{jt}$	α_6 (+)	-	-	-	-	0.26	1.45	2.45	1.47
CGS(D)$_{jt}$	α_7 (+)	-	-	-	-	0.24	1.21	2.04	0.62
Constant		3.42	0.89	1.26	1.18	3.34	0.77	1.30	1.10
Adjusted R^2		0.62				0.63			
F Statistic		109.4				57.43			

Part B : Models corrected for multicollinearity

Explanatory variable	Predict Sign	Model with CGS(T)$_{jt}$ Mean				Model with CGS(T)$_{jt}$ components Mean			
		Coef.	(t)	Z1	Z2	Coef.	(t)	Z1	Z2
BVE$_{jt}$	α_1 (+)	0.85	7.78	11.00	3.17	0.83	7.66	12.94	4.62
NI$_{jt}$	α_2 (+)	4.17	7.04	9.96	3.82	3.95	6.62	11.19	17.93
CGS(T)$_{jt}$	α_3 (+)	0.37	5.44	7.70	3.07	-	-	-	-
CGS(BC)$_{jt}$	α_4 (+)	-	-	-	-	-0.18	-1.66	-2.80	-1.67
CGS(C)$_{jt}$	α_5 (+)	-	-	-	-	1.61	5.44	9.19	3.50
CGS(SR)$_{jt}$	α_6 (+)	-	-	-	-	0.46	2.49	4.20	3.89
CGS(D)$_{jt}$	α_7 (+)	-	-	-	-	0.31	1.42	2.41	0.76
Constant		1.97	0.93	1.32	0.58	2.27	0.78	1.32	0.66
Adjusted R^2		0.62				0.63			
F Statistic		109.4				57.43			

Z = 1.282 (p < 0.10) for one-tailed test; Z = 1.645 (p < 0.05) for one-tailed test; Z = 2.326 (p < 0.01) for one-tailed test.

take two forms. First, there may be a direct relationship, due to investor interest in good governance practices. Second, there may be an indirect relationship due to the impact of good governance practices on the firms' accounting results.

The results of this study should be useful for accounting practitioners and the various organizations involved in the regulation of corporate governance practices and the standardization of relevant data elements. The results suggest that *The Globe and Mail*'s corporate governance practices ranking system captures certain elements associated with better accounting results, which are taken into account by investors. This could contribute to identify the defining elements of a framework for good governance practices (Coffee, 2005; Maniam, Subramaniam, Johnson, 2006), at least in a Canadian context (Greville and Crawford, 2003; Leblanc, 2005, Lindsay, 2005). It would also be valuable to consider these

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elements in a disaggregated way in further studies in order to more precisely identify good governance practices that could wield a greater impact on accounting results.

We recognize certain limitations of this study. One is that potential interrelations between corporate governance practices and contextual variables were not taken into account. Recent studies have shown that certain corporate governance practices are interconnected, and may be more effective in certain contexts (Bozec, 2005; Gani and Jermias, 2006; Boujenoui and Zeghal, 2006). Future research should aim to address this issue.

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Appendix The Report on Business (ROB) rating system	
Category A: Board composition	**Rating (maximum of 40 points out of 100)**
1. What percentage of a company's directors are fully independent?	• 8 points for boards with at least two-thirds independent directors. • 4 points if more than 50 per cent are independent. • 0 points if there are a majority of related directors.
2. What percentage of the audit committee is fully independent?	• 6 points if the committee is fully independent. • 2 points if there are one or more related directors who are not management. • 0 points if a member of management is on the committee.
3. What percentage of the compensation committee – the committee that determines executive pay – is fully independent?	• 4 points if the committee is fully independent. • 2 points if there is one or more related directors who are not management. • 0 points if a member of management is on the committee. None if there is no compensation committee.
4. What percentage of the nominating committee – the committee responsible for recommending new directors – is fully independent?	• 3 points if the committee is fully independent. • 2 points if there is one or more related directors who are not management. • 0 points if a member of management is on the committee. No points if there is no nominating committee.
5. Is the role of chairman and CEO split? And if not, is there a lead director?	• 5 points if the jobs are split. • 2 points if the chairman is also a related director. • 3 points if the job is not split, but there is an independent lead director.
6. Are there cozy or clubby relationships among directors? Are directors stretched too thin?	Start with a maximum of 5 points. • Minus 3 points if the CEO (or executive chairman) of the company swaps boards with the CEO of another company. • Minus 2 points whenever 3 or more directors are together on the board of another public company. • Minus 2 points for any director who is on more than 8 other for-profit corporate boards (score can go below zero).
7. Is the company's CEO busy with outside commitments?	• Zero if the CEO sits on four or more other boards of publicly traded companies. • 2 points if the CEO sits on three or fewer other boards of publicly traded companies.
8. Does the company have a formal system to evaluate the performance of the board and individual directors?	• 2 points if yes, 0 if no.
9. Do directors sometimes meet without management present?	• 2 points if yes, 0 if no.

10. How often does the board meet? And how often do the key committees meet?	• 3 points if the information is disclosed, and the board meets at least four times a year and the audit committee meets at least four times. • 1 point if they meet less often, or if there is only partial information about the number of meetings. • 0 points if the company does not disclose how often its directors met last year.
Category B: Shareholding and compensation issues	**Rating (maximum of 23 points out of 100)**
1.a) Are directors required to own stock? (Stock options don't count.)	• 4 points if share ownership is mandatory and equals at least three times the annual retainer paid to directors. • 2 points if mandatory, but ownership requirement is lower. • Zero if ownership is not mandatory.
1.b) Do the directors own stock?	4 points maximum. • Minus a point for each director who has less than 1,000 shares after sitting on the board for at least a year (can go below zero).
2.a) Is the CEO required to own stock? (Stock options don't count.) **2.b)** Does the CEO own shares?	• 3 points if it is required, or if the CEO is the majority or controlling shareholder of the firm. • 3 points if the CEO owns more than 50,000 shares after two years on the job. • 2 points if more than 20,000 shares. • Zero if less than 20,000 shares. For CEOs on the job for under two years, the ROB lowered the ownership levels to qualify for full points.
3. Are directors in their own separate option plan?	• 3 points if yes, or if directors don't get stock options.
4. Does the company give loans to directors or officers?	• 6 points if there are no loans, or if the company is a bank and makes consumer loans with interest payable. • Zero points if loans are interest free. Part marks were given for companies that make loans with interest for share. purchases, or for other purposes. Marks decline depending on the size of the loans.
Category C : Shareholder rights issues	**Rating (maximum of 22 points out of 100)**
1. Do all directors stand for re-election annually? Or is the board elected on staggered terms to make it difficult to oust an unpopular group?	• 2 points for annual election of all directors. • Zero points for staggered boards.
2. Are employee stock options excessively dilutive for shareholders?	• 8 points if dilution is less than 5% of outstanding shares. • 6 points if dilution is between 5% and 10% because this is high but within acceptable levels. • No points if options are more than 10% dilutive to

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	shareholders.
3. Did the company reprice its options in 2001 or 2002? (Or extend their exercise date, or allow them to be exchanged for lower-priced options.)	• 4 points for no. • Zero for yes.
4. Are there non-voting or subordinate voting shares?	• 8 points if no. • No marks if the voting control is five times greater than the ownership stake.

Category D: Disclosure issues	**Rating (maximum of 15 points out of 100)**
1. Does the company have a full statement of corporate governance practices?	• 3 marks if the company fully addresses all topics required by the Ontario Securities Commission, including a discussion of whether it complies with each guideline, and, if not, why not. • 1 mark if the company gives partial answers or chooses to discuss some of the requirements. • Zero if there is no statement of governance practices
2. Does the company fully name and explain which of its directors are "related," and why?	• 4 points for full disclosure of relationships. • 2 points if information is missing. One point if the company lists the number of related and unrelated without identifying the individuals. • 1 point if the company lists as "unrelated" anyone the ROB considers related.
3. Does the company disclose how much it paid its auditor for consulting and other work?	• 4 marks for disclosure (minus 1 mark if the work exceeds the value of the audit and minus 2 marks if the work is more than double the value of the audit work).
4. Does the company disclose full biographies of its board members? Does it list the other boards its directors sit on?	• 1 point for each.
5. Does the company disclose attendance records of its directors at board and committee meetings?	• 2 points for disclosure, but minus 1 for poor attendance.