

SEARCHING FOR THE Governance Grail

Is there a link between the quality of corporate governance and a firm's performance or CEO compensation?

BY VIJAY JOG AND SHANTANU DUTTA

Concern about corporate governance has been a dominant theme in the North American financial media for the last three years, if not longer. This concern has resulted in many initiatives by regulatory agencies: the passing of the Sarbanes-Oxley act in the U.S.; adoption of new policies by stock exchanges to “fix and improve” governance by imposing rules on a board of directors’ composition and structure; and increasing disclosure and providing a voice for shareholders so they can hold management (in particular the CEO) accountable for company performance. This increased level of disclosure has also focused on CEO pay relative to corporate performance.

The reason for all this attention and concern is a belief that an improved governance structure leads to better performance. Many also believe that by improving disclosure and publishing governance rankings, capital market participants would take notice and put pressure on companies to improve their practices.

The purpose of this paper is threefold. Its first purpose is to provide the reader with some context for this intuitive notion that good governance automatically leads to good performance, and that well-governed corporations have properly compensated CEOs. The sec-

ond is to provide some sobering Canadian empirical evidence that such a linkage, if it exists, is so elusive that we would be better off searching for a unicorn. Third, and most important, is to provide some thoughts as to where we might want to focus our energy if we are serious about improving corporate performance and aligning CEO compensation.

Our empirical evidence is based on two sources. First, we use the governance ranking constructed and published by the *Globe and Mail* (G&M) on October 7, 2002. G&M ranked a total of 270 of the largest companies belonging to the S&P/TSX index and stated that the rankings are based on a tough set of “best practices” culled from the corporate governance guidelines and recommendations of U.S. and Canadian regulators, as well as major institutional investors and associations. In addition, we compiled an additional subset of variables on our own that have been linked to corporate governance for this set of companies, as well as measures of corporate performance and information about CEO pay. The main intent for the empirical analysis was to evaluate whether we can detect any relationship between the quality of the governance regime and the characteristics of the firm with its performance or CEO pay. We do not claim that the G&M ranking is perfect, or that

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the additional governance mechanisms we have added fully describe the corporate governance regime of the firm. We are simply interested in identifying correlation between and among these variables and the causality, if any, between them, so that we appreciate the importance of corporate governance to firm performance and CEO pay. Our results, as described later in the paper, will prove disappointing to those who believe that good corporate governance leads to good performance, or that there is some causality between the two.

The rest of the paper is organised as follows: the next section briefly reviews the existing literature on corporate governance, especially as it relates to performance and CEO pay. We then describe the data and methodology followed by the G&M in devising their ranking that we use to link governance and performance, and the additional variables that we have added to further describe the governance regime. We then describe our hypotheses and corresponding results. The paper finishes with a summary and conclusions.

Linking corporate governance to performance and CEO pay

It must be noted at the outset that no single all-encompassing definition of “good governance” exists. As a result, the description of a governance regime is proxied by a set of variables that make intuitive sense. These include the following: organizational monitoring mechanisms, including board size, composition and memberships of board committees (especially the compensation committee); board ownership of company equity; leadership structure (dual CEO/chairperson role) and the degree of board independence; capital market environment, including market for corporate control and the presence (or lack thereof) of defensive mechanisms like poison pills; degree of shareholder activism and institutional ownership; the ownership structure, including the percentage of company equity owned by the CEO and the senior management team; and, the nature of the CEO incentive structure and its alignment with shareholder value and

wealth. The variables used to link governance to firm performance include: accounting variables like earnings growth, ROA, ROE, and economic value/profit; market-based variables like stock market returns; or, mixed variables like Tobin’s Q (market value/book value) or the P/E ratio. The intent of most empirical research is to document any correlation or causality between the various governance variables, and corporate performance and CEO pay.

Given the possible choices in the selection of variables as well as differences in data sets, research methodologies and researcher bias, the conclusion from empirical evidence (mostly from the U.S.) about whether governance matters to corporate performance—and whether better governance leads to better alignment of CEO pay with shareholder wealth—can, at best, be described as mixed. For example, in an extensive survey paper on corporate governance, Shleifer and Vishny (1997, p. 774) note that “there are a variety of still-open questions” in the field of corporate governance, including the role of managerial or concentrated ownership of firm equity.

Subsequently, Coles et al (2000) find that what matters most in explaining individual firm performance is the industry performance rather than governance variables. Tosi et al (2000) conclude that firm size accounts for more than 40% of the variance in CEO pay, while performance accounts for less than 5% of the variance. Core et al (1999) find that firms with greater agency problems perform worse, but their CEOs earn higher compensation. Agrawal and Knoeber (1996) provide evidence that studies showing linkages between performance and single measures of governance mechanisms may also be misleading. However, when all mechanisms are included, what seems to matter is the percentage of outside directors: its effect (contrary to expectations) is in the wrong direction—the higher the fraction of outside investors, the worse the firm performance. Possibly exasperated by this confusing and sometimes contradictory evidence from the U.S. studies,

Barkema and Gomez-Meija (1998, p. 142) state that “conducting additional studies of the statistical relationship between CEO pay and firm performance is, in fact, a dead end.”

In summary, the existing (mostly U.S.) evidence indicates that there may not be an intuitively appealing causal relationship between corporate governance, firm performance and executive pay. Moreover, as claimed by some studies the relationship, if it exists, may be in the wrong direction. In the following section, we attempt to find whether similar conclusions also hold in the Canadian context.

Sample and sources of data

As mentioned earlier, our governance variables come

from two sources. The first source is the G&M 2002 ranking of Canada’s largest 270 firms by their governance practices. These results were based on analysis of individual corporate information in four major categories with relative weightings that totalled a maximum score of 100: board composition (out of 40), executive shareholding and compensation (out of 23), shareholder rights (out of 22), and disclosure (out of 15). Each category contains a series of criteria with corresponding weights for each criterion. The first category—board composition—includes criteria that relate to the degree of independence found in the board as a whole, and key board committees such as the audit committee, the compensation committee and the nominating committees, as well as the roles of the

VARIABLE DEFINITIONS		
Category	Variable Name	Definition
Globe & Mail Variables	Tot_rank	Overall governance score for a company (max. 100)
	Board	Score on the basis of board characteristics (max. 40)
	Compensation	Score on the basis of compensation policy (max. 23)
	Rights	Score on the basis of shareholders’ rights (max. 22)
	Disclosure	Score on the basis of disclosure policy (max. 15)
Governance Variables (As of 2002)	DIROWN	Concentration of ownership by directors
	BLKOWN	Concentration of ownership by individuals or institutions (more than 10% ownership)
	BDSIZE	Size of the board
	PINDIR	Percentage of inside directors in the board structure
	CEOPAY	Compensation to CEO; in the regression analysis we have used Ln(CEOPAY)
	OUTCHR	Dummy variable; if chairman of the board is an outsider = 1, otherwise = 0.
	DETRATIO	Average relative (to the industry average) debt-to-book value of the firm (1999-2001)
Firm Characteristics (Control)	SIZE (MV)	Size of the firm (market value); in the regression we have used Ln(MV).
	AVTRISK	Average total risk of the firm (1998-2001)
	AVSRISK	Average systematic risk of the firm (1998-2001)
	AVURISK	Average unsystematic risk (firm specific risk) of the firm (1998-2001)
	LISTAGE	Age of the firm (since listing on TSE)
	R&DSALES	Average R&D-to-sales ratio (1999-2001)
	RR&DSALES	Average relative (to industry average) R&D-to-sales ratio (1999-2001)
	AVTASST	Average total asset of the firm (1998-2001); in the regression we have used Ln(AVTASST)
Performance Variables	AVRMVBV	Average relative (to industry average) market value-to-book value of the firm (1998-2001)
	AVRROE	Average relative (to industry average) return on equity of the firm (1998-2001)
	AVRROA	Average relative (to industry average) return on asset of the firm (1998-2001)
	RMKTRET(4Yr)	Relative (to the industry average) monthly return of the firm (over four years – 1998-2001)
	AVSHPRAT	Average Sharpe ratio of the firm (1998-2001)

TABLE 1

CEO and the chairman. The second category reflects the degree of commitment shown by the board and the CEO by investing their own funds in their companies. It also considers the awarding of options and interest-free loans to the directors and officers. The third category considers the longevity of the board and the characteristics of shareholder rights (dual class versus single class). The last category focuses on the disclosure policies of the firm with respect to its governance practices, director relationships with the firm and the attendance record at board meetings. Naturally, the criteria chosen by the G&M and the weightings were subjective.

The second set of data comes from various sources including the Canadian Financial Markets Research Centre (CFMRC) database, Stockguide publications, and annual reports. More specifically, we collected data on additional variables related to governance structure, firm characteristics, and stock market and accounting performance from the CFMRC database and Stockguide. From annual reports we extracted various board-specific information such as board size, percentage of insiders on the board, etc. Table I provides the description of the variables. Since the performance of the firm is shown to be driven mostly by the industry sector to which they belong, wherever possible we also calculate (and use) the performance of firms relative to all companies (not just the 270 in the sample companies) in their industry. As can be seen, most of these

variables have been used in papers dealing with firm performance and governance (Firth et al 2002; Agrawal and Knoeber 1996).

Hypothesis 1: Relationship between G&M ranking and firm performance and CEO pay

To study the patterns (as opposed to causality), we group the G&M sample into five quintiles based on the overall ranking. In Tables 2 and 3, we provide the average values of firm characteristic variables and performance variables across these five quintiles. Some conclusions that follow from these tables are as follows: first, the highest-ranked firms are typically much larger (as measured by sales and assets), are older, and are less risky (as measured by the monthly total, systematic and unsystematic variance). Thus, one could conclude that being larger allows these firms to afford to do what is required by the various regulatory bodies and stock exchanges. Second, the top quintile firms do not display better performance as measured by various performance measures. More specifically, second-quintile firms outperform the other four groups in performance-related measures (except AVRROA) relative to their industry counterparts. The second-quintile firms have a higher market value-to-book value ratio, a higher ROE, higher stock market returns, and higher risk-adjusted returns as denoted by the high value of the Sharpe ratio. However, since we do not see any systematic pattern

OVERALL RANKING AND FIRM CHARACTERISTICS - AVERAGE VALUES

	SIZE (MV)	AVTRISK	AVSRISK	AVURISK	LISTAGE	RR&DSALES	AVTASST
Quintile 1	6506099	0.0012	0.0001	0.0011	18.5304	2.00	33575705
Quintile 2	1904806	0.2105	0.0007	0.1738	12.9837	1.06	4297800
Quintile 3	1871829	0.0650	0.0002	0.0647	12.1814	0.47	1573525
Quintile 4	1617771	0.2258	0.0012	0.2244	11.4054	0.68	4380830
Quintile 5	1707470	0.4377	0.0015	0.1879	13.0833	0.71	3874755

TABLE 2

OVERALL RANKING AND PERFORMANCE VARIABLES (relative to the industry) - AVERAGE VALUES

	AVRMVBV	AVRROE	AVRROA	RMKTRET (4Yr)	AVSHPRAT
Quintile 1	0.19	0.22	1.20	0.1	13.9
Quintile 2	0.41	1.40	0.58	4.5	25.6
Quintile 3	0.17	0.99	1.43	1.2	10.6
Quintile 4	0.15	0.95	1.38	2.0	10.4
Quintile 5	0.19	1.73	1.38	1.6	13.3

TABLE 3

OVERALL RANKING AND GOVERNANCE STRUCTURE VARIABLES

	BDSIZE	PINDIR	OUTCHR*	DIROWN	BLKOWN	CEOPAY	DETRATIO
Quintile 1	12.0	0.14	42.0	3.4	7.9	1333541.7	0.99
Quintile 2	9.9	0.17	39.0	10.6	7.9	991928.5	0.83
Quintile 3	8.5	0.22	28.0	16.2	11.5	773050.8	0.98
Quintile 4	9.4	0.29	27.0	13.7	8.7	972348.0	0.99
Quintile 5	10.2	0.25	30.0	16.4	11.8	970666.6	0.97

* Number of firms in each quintile with an outsider as a board chairman; each quintile has 52 firms

across these quintiles, our conclusion is that corporate governance rankings do not seem to have any correlation with how the firm performed relative to its industry counterparts over the 1998-2001 period. Although not shown here, we also performed multivariate analysis (OLS regressions) and found that, after allowing for size and risk, overall governance score and board score have significant relation with AVROA (but not with AVRMBV nor RMKTRET). The results were puzzling, however, as the sign of the coefficients is negative, meaning the higher the ranking is, the lower the relative return on assets. Thus, we do not find any systematic relationship between corporate governance score (either overall or by individual components) and various performance variables—high governance scores seem to tell us almost nothing about a firm's relative performance.

Hypothesis 2: Interdependence between governance mechanism variables

Table 4 shows the average values of the governance structure variables as well as CEO pay across the G&M-ranked quintiles. More specifically, we observe that the average board size is between eight and 12, percentage of insider members in the board increases from the first quintile to the fifth, the percentage of firms with an outsider as a chairperson decreases from the first quintile to the fifth, director and block ownership increases from the first quintile to the fifth, CEO pay is highest in first-quintile firms, and there is no difference between the debt ratio of these firms relative to their industry counterparts. Most of these results can be intuitively explained by noting the fact that the firms in the first quintile are typically larger than the firms in the bottom quintile, and that these relatively small fifth-quintile firms have more concen-

trated ownership by insiders and institutional investors, since it does not require large capital to take large positions. It can also be seen that the CEO pay is related more to the size of the firm than its performance since there is no relationship between ranking and performance.

Although not shown here, we found there are significant individual correlations amongst these governance mechanism variables, meaning that many of these characteristics go hand-in-hand. For example, higher block and director ownership is related to a higher number of insiders on the board and there is a higher chance that the insider is the chairman of the board. With respect to the CEOPAY, we find a highly positive and significant relationship (no causality is implied) between board size and CEOPAY, meaning firms with larger boards also have highly paid CEOs; however, larger boards are also associated with larger firms.

The results described ignore the fact that firms have a choice of more than one governance mechanism. Therefore, to account for this endogeneity among various governance-related variables we construct a system of linear simultaneous equations. Using 2 Stage Least Squares (2SLS) method to account for this endogeneity, we do not find any significant relationship between these variables. Only PINDIR is significantly correlated to DIROWN—a relationship that can be explained intuitively by noting that the directors are representing their ownership position by being on the board, or vice versa. Thus, we may infer that in contrast to the U.S. results, once the endogenous nature of these mechanisms is considered, there is no significant interdependence among various governance mechanism-related variables.

COEFFICIENT ESTIMATES FROM OLS AND 2SLS REGRESSIONS OF FIRM PERFORMANCE

Variable	AVRROA		AVRMVBV		RMKTRET(4Yr)	
	Model 1 OLS	Model 2 2SLS	Model 3 OLS	Model 4 2SLS	Model 5 OLS	Model 6 2SLS
DIROWN	-.0103 (.764)	.483 (.566)	.0018 (.700)	-.011 (-.070)	-.0168 (-.631)	(-.144) (-.162)
BLKOWN	.027** (2.46)	.295 (.669)	.0021 (.970)	.074 (.895)	.00709 (.313)	-.058 (-.120)
PINDIR	.516 (.304)	-35.546 (-.766)	-.216 (-.644)	-1.629 (-.187)	-.630 (-.191)	-21.082 (-.373)
LnCEOPAY	-.171 (-.540)	2.299 (.110)	-.0756 (-1.206)	.518 (.132)	-.629 (-1.001)	-13.747 (-.599)
DERATIO	-.514*** (-1.708)	-2.188 (-.169)	-.083 (-1.39)	-.853 (-.351)	-1.054*** (-1.794)	1.647 (.119)
Ln(MV)	.632* (3.74)	.256 (.072)	0.054 (1.63)	-.096 (-.144)	0.764** (2.325)	3.557 (.880)
BDSIZE	-.150** (-2.066)	-.581 (-.473)	-0.0211 (-1.467)	-.097 (-.424)	-0.273*** (-1.933)	.253 (.192)
OUTCHR	-.960** (-2.133)	.623 (.072)	-.121 (-1.354)	-.441 (-.272)	-1.322 (-1.499)	-4.963 (-.518)
R-square	0.111	0.018	0.04	0.023	0.052	0.030

*Significance at 0.01 level **Significance at 0.05 level ***Significance at 0.10 level.

Hypothesis 3: Relationship between ownership, governance structure, and performance

Here we investigate the relationship between the governance mechanisms and firm performance. We have done it in two steps—one with simple OLS regression and the other with 2SLS regression to account for the endogeneity of corporate governance mechanisms. Results are presented in Table 5. Only the results for three performance variables—AVRROA, AVRMVBV and RMKTRET (4Yr) are shown since results for AVROE and AVSHPRAT are similar to those for AVRMVBV.

In OLS regression (Model I, Table 5), we see that BLKOWN, DERATIO, BDSIZE and OUTCHR are significantly associated with good performance, and the most interesting results are found with respect to AVRROA (similar to Firth et al 2002 study). However, the result for OUTCHR is contrary to our expectations. There could be two possible explanations. First, in our sample of 260 firms, 166 (or 64%) have an outsider as board chairman, hence this

aspect has lost its significant in the analysis. Second, due to external pressure, firms are compelled to appoint an outsider as the board chairman, but this has no implication for a firm's performance.

Moving to the 2SLS regression that considers the endogeneity of corporate governance mechanisms, we find that no association has been observed. This lack of relationship is evident in all models where we used the 2SLS. These results are similar to other studies (Agrawal and Knoeber, 1996, and Firth et al, 2002) which also find no such relationship after accounting for endogeneity. However, they explained the lack of relationship as arising from the trade-off between various corporate governance mechanisms and their optimal use by the management, since they found interdependence among various governance mechanisms (as per Hypothesis 2). This is not the case in our study, as we do not find interdependence among various corporate governance mechanisms. Hence, our result cast further doubt on the existence of any relationship between corporate governance mechanisms and firm performance.

Summary and conclusions

Corporate governance continues to be a fascinating area for both academics and practitioners, especially in the wake of news items such as Richard Grasso and the NYSE's board of directors and compensation committee. New governance awards are being planned and nominations are being sought in Canada. There are commercial Web sites and companies who are providing advice on corporate governance and optimal board design. New software products are arriving in the marketplace to ensure compliance with the Sarbanes-Oxley act. We may soon expect an ISO certification for the governance process.

However, our results and those of many other studies in the U.S. cast a significant doubt on this assumed causality between governance and performance and, subsequently, performance and CEO pay. Good governance seems to have little, if any, relation with firm performance and CEO pay seems to be determined more by size than performance.

We applaud the efforts related to creation and publication of governance rankings and instituting best practices: they are good "checks and balances" mechanisms. However, we suggest that in addition to recognizing companies for their good governance practices, we need to reward companies and CEOs for superior performance relative to their industry counterparts. We should also recognize companies whose executives have an incentive system that is long-term in nature and is based on corporate performance relative to their industry. These incentive systems should be driven by the complexity of the job and relative performance and not by the size of assets or sales (just because a company is large does not necessarily mean that the CEO's job is more complex, since the CEO now has a bigger team to help manage the business). If we focus only on governance rules and rankings, we may not necessarily get what we intuitively want—improved corporate performance.

This brings us back to the search for the unicorn. We do not believe that we have found it, nor that we will ever find it. We may wish to focus our attention directly on finding top-performing firms with well-motivated CEOs, whose interests are aligned with the long-term interests of the shareholders and who are

being guided by an enlightened, well-structured board. We hope that finding these firms would not be similar to searching for another member of the unicorn species.

References

- Agrawal, A. and C. R. Knoeber (1996). "Firm Performance and Mechanisms to Control Agency Problems between Managers and Shareholders." *Journal of Financial and Quantitative Analysis*, 31 (3), 377-397.
- Barkema, H. G. and L. R. Gomez-Mejia (1998). "Managerial Compensation and Firm Performance: A General Research Framework." *Academy of Management Journal*, 41 (2), 135-145.
- Berle A.A., Jr. and G.C. Means (1932). *The Modern Corporation and Private Property*. (McMillan, New York)
- Cho, Myeong-Hyeon (1998). "Ownership structure, investment and the corporate value: an empirical analysis." *Journal of Financial Economics*, 47, 103-121.
- Coles, J.W. and W. S. Hesterly (2000). "Independence of the Chairman and Board Composition: Firm Choices and Shareholder Value." *Journal of Management*, 26 (2), 195-214.
- Coles, J.W., V. B. McWilliams and N. Sen (2000). "An examination of the relationship of governance mechanisms to performance." *Journal of Management*, 27, 23-50.
- Core, J. E., R. W. Holthausen and D. F. Larcker (1999). "Corporate governance, chief executive officer compensation, and firm performance." *Journal of Financial Economics*, 51, 371-406.
- Dalton, D. R., S. T. Certo and R. Roengpitya (2003). "Meta-Analyses of Financial Performance and Equity: Fusion or Confusion." *Academy of Management Journal*, 46 (1), 13-26.
- Dalton, D. R., J. L. Johnson and A. E. Ellstrand (1999). "Number of Directors and Financial Performance: A Meta-Analysis." *Academy of Management Journal*, 42 (6), 674-686.
- Demsetz, H. and B. Villalonga (2001). "Ownership structure and corporate performance." *Journal of Corporate Finance*, 7, 209-233.
- Firth, M. P. M. Y. Fung and O. M. Rui (2002). "Simultaneous Relationships among Ownership, Corporate Governance, and Financial Performance." working paper, 1-40.
- Jensen, M. C. and W. H. Meckling (1976). "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." *Journal of Financial Economics*, 3, 305-360.
- Johnson, J. L., C. M. Daily, and A. E. Ellstrand (1996). "Boards of Directors: A Review and Research Agenda." *Journal of Management*, 22 (3), 409-438.
- Ma, Y. T. and Y. Li (2001). "Determinants of corporate ownership and board structure: evidence from Singapore." *Journal of Corporate Finance*, 7, 235-256.
- Nickell, S. D. Nicolitsas and N. Dryden (1997). "What makes firms perform well?" *European Economic Review*, 41, 783-796.
- Shleifer, A. and R. W. Vishny (1997). "A Survey of Corporate Governance." *Journal of Finance*, LII (2), 737-783.
- Tosi, H. L., S. Werner, J. P. Katz and L. R. Gomez-Mejia (2000). "How Much Does Performance Matter? A Meta-Analysis of CEO Pay Studies." *Journal of Management*, 26 (2), 301-339.
- Yermack, D. (1996). "Higher market valuation of companies with a small board of directors." *Journal of Financial Economics*, 40, 185-211.