

CORPORATE GOVERNANCE, ANALYST FOLLOWING AND FIRM VALUE

Sulaiman Mouselli
Damascus University, Damascus, Syria

and

Khaled Hussainey*
Stirling University, Stirling, UK

This paper is accepted for publication at:

Corporate Governance: The International Journal of Business in Society

* Correspondence should be addressed to Dr. Khaled Hussainey, Accounting & Finance Division, Stirling Management School, University of Stirling, Stirling FK9 4LA, UK. Email: Khaled.Hussainey@stir.ac.uk.

Abstract

Purpose: We examine the impact of a firm's corporate governance mechanisms on the number of financial analysts following UK firms. We also examine the potential effect of the number of analyst following firms in the United Kingdom (UK) on the association between corporate governance mechanisms and firm value.

Methodology: We use multiple regression models to examine the association between corporate governance, analyst coverage and firm value for a large sample of UK firms listed in London Stock Exchange with financial year-ends between January 2003 and December 2008.

Findings: We find that the aggregate level of corporate governance quality is positively associated with the number of analysts following UK firms. We also find that compensation score is the main component that affects the number of analysts following UK firms. Our results suggest that financial analysts are particularly concerned with how much compensation that executives and directors receive. This is consistent with Jensen and Meckling (1976) who argue that CEO compensation can be used as effective mechanisms for mitigating agency costs. Hence higher levels of CEO compensation attract attracts more financial analysts to follow the firm. Surprisingly, when we examine the joint effect of both corporate governance quality and the number of analysts following on firm value, we find no significant effect for both variables on firm value.

Originality: We contribute to prior research by providing the first empirical evidence on the impact of disaggregated levels of corporate governance on analysts following and firm value for a large sample of UK firms.

Keywords: corporate governance; analyst following, firm value, United Kingdom.

Classification: Research paper.

1. Introduction

The present paper aims to examine the effect of a firm's corporate governance (CG) mechanisms on the number of analysts following UK firms. It also examines the potential impact of analysts following UK firms on the association between CG mechanisms and firm value. The study uses the agency theory to examine these associations.

Based on the agency theory, the existence of high quality CG mechanisms should mitigate the agency costs in the relation between the principal (shareholders) and their agents (managers) (Jensen and Meckling, 1976). High quality CG mechanisms are highly valued by the stock market. For example, prior research finds that CG is a key determinant for firm valuation (Lang et al, 2003), cost of equity (Bowen et al, 2006), market liquidity (Roulstone, 2003) and firms 'credit ratings (Ashbaugh-Skaife et al (2006).

Another stream of literature studies on the usefulness of CG mechanisms to the stock market tend to focus on financial analysts. This is because financial analysts are widely considered to be a very influential user group in stock markets. They represent and influence investors' beliefs and activities (e.g., Schipper, 1991; Hirst et al., 1995; and Lang and Lundholm, 1996). This line of research finds that CG affects the accuracy of analyst forecasts (Bhat et al, 2006 and Byard et al, 2006); the number of analysts following firms and firm value (Lang et al., 2004; Haw et al., 2004; Yu, 2007 & 2010 and Boubaker and Labegorre, 2008). On the current study, we extend this line of literature by examining the association between corporate governance, analyst following and firm value in the UK.

The first version of the UK Corporate Governance Code was introduced by the Cadbury Committee In 1992; its paragraph 2.5 is still the classic definition of the context of the Code (FRC, 2010):

“Corporate governance is the system by which companies are directed and controlled. Boards of directors are responsible for the governance of their companies. The shareholders' role in governance is to appoint the directors and the auditors and to satisfy themselves that an appropriate governance structure is in place. The responsibilities of the board include setting the company's strategic aims, providing the leadership to put them into effect, supervising the management of the business and reporting to shareholders on their stewardship. The board's actions are subject to laws, regulations and the shareholders in general meeting”.

The present paper utilizes the unique UK regulatory framework in which it combines high standards of corporate governance with relatively low associated costs (FRC, 2006). In

addition, it is argued that the UK outperforms other countries in terms of governance standards, while compliance costs are estimated to be lower in the UK compared to other countries with comparable standard (FRC, 2006). This context enables the present study to contribute to existing corporate governance research by examining whether corporate governance mechanisms affect analyst following and firm value.

This research is important for its potential policy implications. It helps to inform regulators (and managers) about the benefits of improving the quality of corporate governance mechanisms to firms. In this way it provides part of the information needed for a more cost-benefit analysis of the use of different corporate governance mechanisms by UK firms. We test to see if levels of corporate asymmetric information (measured by the number of analysts following UK firms) can be reduced through corporate governance mechanisms. We also test the joint effect of both corporate governance mechanisms and the number of analysts following on UK firm value.

Analyst following is considered as one of the most important determinants of corporate valuation (i.e., Claessens et al, 2002; Lang et al, 2003), the cost of equity capital (i.e., Bowen et al., 2008), market liquidity (i.e., Attig, et al. 2006), and dividend payment decision (i.e., Basiddiq and Hussainey, 2010). In addition, prior research finds that firms with high quality corporate governance mechanisms are more likely to be followed by a large number of financial analysts and that higher analyst following is associated with higher valuation for firms facing governance problems (Lang et al, 2004). Lang et al (2004) is the first to study the association between corporate governance, analyst following and firm value in the UK. Their analysis was focus on a sample of 638 firms with financial year ends on 1996. However, they did not examine a full set of corporate governance mechanisms.

Another stream of research in the UK examines the association between corporate governance and corporate voluntary disclosure (i.e. Hussainey and Al-Najjar, 2010; Hussainey and Wang, 2010; Li, et al, 2008). However, these studies use the level of corporate disclosure as a proxy for the number of financial analysts following UK firms. In addition, they limit their analysis to a subset of corporate governance mechanisms.

In the present paper, we respond to a recent call for research that explains the impact of corporate governance mechanisms on analyst following for a longer time period and larger sample size (Yu, 2010). In particular, we investigate whether firms that possess strong

internal and external corporate governance mechanisms have better capital market performance as a result of more analysts' following and better firm value relative to firms with weak corporate governance mechanisms. We contribute to corporate governance research by offering new evidence on the association between corporate governance, analyst following and firm value for a large sample of UK firms. An important feature of this paper is that it uses data of the largest corporate governance data provider to institutional investors, Corporate Governance Quotient (CGQ) offered by RiskMetrics Group. This database contains 55 CGQ governance factors which span eight categories of corporate governance including board, compensation, takeover and audit. We use an overall measure of corporate governance quality score as well as individual sub-scores to examine which CGQ governance factors are significantly associated with analyst following and firm value for UK firms.

Using a sample of 1514 UK listed firms; we find that there is a positive association between the quality of overall corporate governance mechanisms and the number of financial analysts covering UK firms. This suggests that financial analysts have greater incentives to follow better-governed UK firms. However, we find that not all corporate governance mechanisms affect analyst following. In particular, we find that compensation mechanism is the only significant variable in all regression models. In addition, following Lang et al. (2004) we use a regression model that takes into account the endogeneity between analyst following and firm value. However, we find no valuation effect when financial analysts cover UK firms with good corporate governance mechanisms. This suggests that financial analysts serve as a monitoring device and act as substitute mechanism for corporate governance when valuing firms.

The rest of the paper is organised as follows. Section 2 reviews relevant literature and develops our research hypotheses. Section 3 describes data and the sample selection. Section 4 describes the research design. Section 5 presents the empirical results. Section 6 concludes and suggests lines for further research.

2. Relevant Literature and Hypotheses

2.1 Analyst following and corporate governance

There are three reasons why quality of corporate governance may affect the number of analysts following the company. First of all, Fan and Wong (2002) and Willekens et al.

(2005) argue that firms tend to disclose a better quality information if they implement effective corporate governance mechanisms. This will consequently reduce the cost for an analyst to follow such firms. Second, firms with effective corporate governance mechanisms are more able to directly monitor their managers, which in turn, align the managers' interests with the shareholders' interests and reduce the agency problem arising from the separation of ownership.

Third, McNichols and O'Brien (1997) argue that analysts allocate their efforts on the basis of their expectations of the firm's future performance and they are inclined to add firms they view favourably. Klapper and Love (2004) and Durnev and Kim (2005) suggest that analysts prefer to follow better-governed firms because they are associated with better management, and hence better future economic viability. For the above three reasons, we expect a positive association between the number of analyst following and the quality of corporate governance. Our first hypothesis is stated as follows:

H₁: Analyst following is positively associated with the quality of corporate governance.

2.2 Analyst following, corporate governance and firm value

There is an important role for financial analysts in conveying firms' performance to the market. Analysts substitute for corporate governance and play a governance role in the market. This substitution effect has been documented by two recent studies. Lang et al. (2004) provided evidence that the negative effect of lower investor protection on valuation is mitigated when analyst following is greater. Knyazeva (2007) finds that analysts substitute corporate governance in their impact on firm performance.

If the number of analyst following plays a disciplinary role on misbehaving managers and rewards value creation, the presence of internal governance mechanisms should lower the marginal benefit of more analyst following, and vice versa. Hence, we anticipate a negative joint impact of analyst following and corporate governance on valuation. Our second hypothesis is stated as follows:

H₂: The relation between the quality of corporate governance and valuation is less pronounced for firms with greater analyst following than for firms with lower analyst following.

3. Data and Sample

Our sample of companies comprises the FTSE All Share constituent firms. Corporate governance data is collected from the largest corporate governance data provider to institutional investors, Corporate Governance Quotient (CGQ) supplied by RiskMetrics Group. CGQ provides corporate governance ranking for more than 7,500 firms worldwide since 2003. Therefore, we our sample period starts with 2003. Year 2008 is the most recent year at the time of undertaking the analysis of the present paper. This database contains 55 CGQ governance factors which span eight categories of corporate governance including board, compensation, takeover and audit. Table 1 provides a summary of corporate governance ratings variables provided by RiskMetrics. .

Insert Table 1 here

Analyst following data is collected from FactSet, a unique dataset provided by FactSet Research Systems Inc., which provides analytics to investment professionals to download, combine, and manipulate financial data for insight into global market including UK stock market. We merge the analyst following data with corporate governance data using companies' Sedol numbers. We merge 2852 firm-year observations for the number of analyst following with 2514 firm-year observations from QCG using Sedol numbers. This leads to an initial sample of 1577 firm-year observations.

To test hypothesis H_1 , we use the natural logarithm of total assets as a proxy for firm size. We collect total assets from Worldscope (item no. WC02999). We remove firms with missing total assets data, this ends up with a sample of 1514 firm-year observations (see Panel A in Table 2).

To test hypothesis H_2 , we collect accounting data from Worldscope. In particular, we calculate Tobin's Q as total assets (Worldscope item WC02999) less the book value of equity (Worldscope item WC05476) multiplied by the number of shares outstanding plus the market value of equity (MV) divided by total assets. We use Total debt (Worldscope item WC03255) to compute total Debt/total Assets ratio (DA) and Capital expenditure (Worldscope item WC04601) to compute Capital expenditure/Total Assets ratio (CA). We remove firms with missing accounting data, this leads to a sample of 1505 firm-year observations (see Panel B in Table 2).

Insert Table 2 here

4. Research Design

4.1 Models employed to test H₁

To test H₁, we employ the following model:

$$\text{Following}_i = a_0 + a_1CG_i + a_2Size_i + \varepsilon_i \quad (1)$$

Where:

Following is defined as the number of analysts following UK firms collected from FactSet dataset.

CG is the aggregated CG ranking provided by CGQ.

Size is the natural logarithm of total assets

CGQ also provides sub-scores for each firm in four particular governance areas; board, takeover defences, executive and director compensation and ownership, and audit. These sub-scores are expressed in numbers from 1-5 (5 indicates firm in the top quintile in a governance area while 1 indicates firm is in the bottom quintile in a governance area).

In order to understand which of these components better explains the number of analyst following, we run model (1) by replacing the overall ranking of corporate governance with sub-scores pertaining to different aspects of corporate governance. We expect a positive sign with each individual corporate governance variable. That is we expect b₁ through b₄ to be positive in the following model:

$$\text{Following}_i = b_0 + b_1Board_i + b_2Compensation_i + b_3Takeover_i + b_4Audit_i + b_5Size_i + \varepsilon_i \quad (2)$$

Where:

Following is defined as the number of analysts following UK firms collected from FactSet dataset.

Board is the Board Composition sub-score

Composition is the Executive and Director Composition sub-score

Takeover is the Anti-Takeover Provisions sub-score

Audit is Audit committee/Audit fees/Audit Rotation/Auditor Ratification sub-score

Size is the natural logarithm of total assets

Moreover, we construct another aggregate measure of corporate governance (NCG) from the addition of the four sub-scores (Board+Compensation+Takeover+Audit) and re-run regression (1) as follows:

$$\text{Following}_i = c_0 + c_1NCG_i + c_2Size_i + \varepsilon_i \quad (3)$$

We control for firm size in the above three models using the natural logarithm of total assets (in £ millions). Based on prior literature (e.g., Lang et al. 2003, 2004), we expect a positive sign for Size.

4.2 Models employed to test H₂

With a slight modification to Lang et al. (2004) to accommodate corporate governance variables, we run the following regression model:

$$\text{Tobin's } Q_i = d_0 + d_1CG_i + d_2Following_i + d_3CGFollowing_i + d_4Size_i + d_5DA_i + d_6CA_i + \varepsilon_i \quad (4)$$

Tobin's Q is used to proxy for the market valuation of assets and is computed as total assets less the book value of equity plus the market value of equity divided by total assets. CG is measured by the corporate governance ranking published by QCG. Analyst following (Following) is defined as in equation (1).

In model 4, we use three control variables. Size is the natural logarithm of total assets. Size is expected to be positively related to Tobin's Q. To control for the possibility that creditors are able to lessen managerial agency problems or that debt provides valuable tax shields, we use the ratio of total debts to total assets (DA). We control for firm's potential investment opportunities using the ratio of capital expenditure to total assets (CA). We expect both DA and CA to have a positive sign (Lang et al., 2004).

We use another variable, (NCG), as a proxy for the quality of corporate governance which is the sum of the four dimensions (Board, Following, Compensation, and Audit), and we re-run the following new model:

$$\text{Tobin's } Q_i = h_0 + h_1NCG_i + h_2Following_i + h_3NCGFollowing_i + h_4Size_i + h_5DA_i + h_6TA_i + \varepsilon_i \quad (5)$$

We further partition NCG into its components and use each of this component one at a time instead of NCG in equation (5), to examine which of these components has more impact on firm value. The results are reported in columns (7-13) of Table 8. We expect these components to have a positive impact on firm value. Based on hypothesis H₂, we expect the coefficients of both d₃ and h₃ to be negative and significant.

5. Empirical Results

5.1 Analyst following and corporate governance

Table 3 provides summary statistics of the variables used in the regression models. The number of analyst following ranges from the minimum of 0 to the maximum of 43 with a median of 9 which indicates that 50% of firms have less than 9 analysts following. The Corporate governance ranking (CG) has a high average of 85.664 and a median of 87.8 which shows that majority of firms in the sample are of high corporate governance quality which is expected given that all firms in CGQ are included in MSCI EAFE index. The second measure of corporate governance (NCG) ranges from 6 to 20 with a median of 18 which again confirms the lower cross sectional variation in corporate governance quality due to sample bias to high quality corporate governance firms. The four sub-scores of corporate governance ranges from 1 to 5 with a median of 5 for Board, Takeover, and Audit and a median of 4 for compensation. This indicates a higher level of cross sectional variation in Compensation compared to the three remaining components of corporate governance.

Insert Table 3 here

Table 4 shows the correlation coefficients between the variables used in the regression models (1, 2 and 3). It can be noticed that there are significant relationship between all the variables in the regression models apart from the relationship between Compensation and both Takeover and Size.

Insert Table 4 here

Tables 5 & 6 show the empirical results related to hypothesis 1. Table 5 reports the results without using year dummies; while Table 6 shows the results after the inclusion of year dummies in the regression models. The results reported in columns (1-4) show that there is positive impact for the quality of corporate governance on analyst following with a coefficient of 0.701 on NCG which is significant at 1% level of significance. Adding size to the model in column (4) increases the explanatory power of the model as measured by adjusted R-squared from 3.34% to 33.75% but reduces the coefficient on NCG to 0.419 although it remains significant at 1% level of significance. Columns (5-8) show that corporate governance components have a significant impact on analyst following but only negative in the case of Takeover. When regress all corporate governance components on analysts following (model 10), we find that Board, compensation, and takeover are

significant while Audit is the only insignificant. When Adding Size to the model in column (11) only Board and compensation remain significant and the explanatory power of the model noticeably increased to 33.98%. Given the significant correlation between Board and Size, model 13 suggests Compensation and Size are the main factors that determine the number of analysts following. This finding implies that analysts are particularly concerned about how much compensation that executives and directors receive. The results in Table 5 are consistent with the correlation analysis in Table 4.

.The positive association between analyst following and corporate governance quality in the UK is consistent with Yu (2007, 2010) findings for common law countries which UK belongs to. This indicates that analysts play a more active role in countries with stronger investor protection and more effective legal systems (Chang et al. (2000); Barnive et al. (2005)).

Insert Tables 5 & 6 here

5.2 Analyst following, corporate governance and firm value

Table 7 shows descriptive statistics of the variables used to test hypothesis 2. The average number of analysts following a firm is 10.223. The firm with the largest analyst following is covered by 43 analysts and the firm with the smallest number of analyst following is covered by zero analysts. The mean of corporate governance ranking (CG) is 85.682 with a standard deviation of 11.754. These rankings range from 0 to 100, with a median of 87.9, the 25th percentile of 80, and the 75th percentile of 94.2 which indicates that the sample is dominated with high quality corporate governance. This is expected given that the sample is covered by MSCI EAFE index. The mean of Tobin's Q is 0.501, with a standard deviation of 2.123. It ranges from -45.808 to 3.491, with a median of 0.642, the 25th percentile of 0.450 and the 75th percentile of 0.775.

Insert Table 7 here

Table 8 provides the correlation coefficients among the variables. First, CG is positively associated with Tobin's Q while NCG is negatively associated with Tobin's Q and the same applies for its four components apart from Audit. Size and DA are the only variables with significant relation with Tobin's Q.

Insert Table 8 here

Column 2 in Table 9 shows that CG and Following come with the expected positive sign but insignificant coefficients. This positive relationship is consistent with Lang et al. (2003), Klapper and Love (2004), Lang et al. (2004). The results from corporate governance components in columns (11) and (13) are similar. In the models without interaction terms (in unreported results), Following has a significant impact on firm valuation but of the wrong sign (negative). Moreover, Size is the only variable that is persistently significant in all models.

Table 9 provides empirical test on the conjecture that the positive market valuation effect of corporate governance is conditional on the number of analyst following. The results in column (2) and (4) support H_2 . As expected, the interaction term CGFollowing and NCGFollowing has a negative coefficient but it is insignificant. This is inconsistent with Yu (2007) who find positive but still insignificant coefficient.

Insert Table 9 here

6. Conclusion

Our paper builds on literature that investigates the link between corporate governance, analysts following and firm value. We extend this work in four important ways. First, we investigate the association between corporate governance mechanisms and the number of analysts following UK firms. In particular, we examine the extent to which better corporate governance quality attracts more financial analysts for covering UK firms. Second, we try to identify which component of corporate governance is more likely to affect analysts following. Third, we test the joint effect of corporate governance mechanisms and analysts following on UK firm value. Finally, we study the effect of different corporate governance sub-categories on firm value in the presence of analysts following.

The paper uses a sample of 1514 UK firms listed in London Stock Exchange. It finds that the overall level of corporate governance quality is positively associated with the number of analysts following UK firms. Among the four individual components of corporate governance, we find that compensation score seems to be the main component that affects analyst following. Our paper also shows that both better corporate governance quality and greater analyst following have no significant effect in enhancing UK firm value. Our results

add to the understanding of the expected role of financial analysts as additional monitoring mechanism in the stock market.

An interesting issue for future work would be to examine the extent to which the quality of corporate governance mechanisms affect financial analysts' stock recommendations (i.e. buy, sell or hold) and their earnings forecasts accuracy. In addition, it is worth to investigate the extent to which financial analysts actually use corporate governance information in reports. Using a content analysis approach, researchers can identify which CG mechanisms are reported in analysts reports and the extent to which these mechanisms are important for the stock market participants (i.e. current and future investors).

References

- Attig, N., Fong, W., Gadhoum, Y. and Lang, L. (2006). 'Effects of large shareholding on information asymmetry and stock liquidity'. *Journal of Banking and Finance* 30, 2875-2892.
- Barniv, R., Myring, M., and Thomas. W. (2005). 'The association between the legal and financial reporting environments and forecast performance of individual analysts'. *Contemporary Accounting Research* 22 (December): 727-758.
- Basiddiq, H. and Hussainey, K. (2010). 'Is asymmetric information associated with UK dividend policy? *Journal of Applied Accounting Research*, forthcoming.
- Boubaker, S. and Labégorre, F. (2008). 'Ownership structure, corporate governance and analyst following: A study of French listed firms'. *Journal of Banking & Finance*, 32(6): 961-976.
- Bowen, R., Chen, X. and Qiang, C. (2008). 'Analyst following and the cost of raising equity capital: evidence from underpricing of seasoned equity offerings'. *Contemporary Accounting Research*, 25 (3): 641 – 946.
- Brown, L. and Caylor, M. L. (2004). 'Corporate governance and firm performance', Working paper, Georgia State University, United State of America. Available at SSRN: <http://ssrn.com/abstract=586423> or doi:10.2139/ssrn.586423.
- Chang, J., Khunna, T. and Palepu. K. (2000). 'Analyst activity around the world'. Working paper. Harvard Business School.
- Claessens, S., Djankov, S., Fan, J. P. H. and Lang, L. H. P. (2002). 'Disentangling the incentive and entrenchment effects of large shareholdings' *The Journal of Finance* 57 (6): 2741-2771.
- Durnev, A., and Kim, H. (2005). 'To steal or not to steal: firm attributes, legal environment, and valuation'. *The Journal of Finance* 60: 1461-1493.
- Fan, J., and Wong, T. (2002). 'Corporate ownership structure and the informativeness of accounting earnings in East Asia'. *Journal of Accounting and Economics* 33: 401-425.
- FRC (Financial Reporting Council), (2006). *The UK Corporate Governance Code*, June.
- FRC (Financial Reporting Council), (2010). *The UK Corporate Governance Code*, June.
- Haw, I., Hu, B and Hwang, L. and Wu, W. (2004). 'Ultimate ownership, income management, and legal and extra-legal institutions', *Journal of Accounting Research*, 42(2): 423 – 462.
- Hussainey, K. and Al-Najjar, B. (2010). 'Future-oriented information: determinants and use'. *Journal of Applied Accounting Research*, forthcoming.

Hussainey, K. and Wang, M. (2010). 'The impact of corporate governance on future-oriented disclosures: A large-scale UK study'. Working paper, Stirling University, UK.

Klapper, L., and Love, I. (2004). 'Corporate governance, investor protection, and performance in emerging markets'. *Journal of Corporate Finance* 10: 703-728.

Knyazeva, D. (2007). Corporate governance, analyst following and firm behavior. Working paper. New York University.

Lang, M. H., Lins, K. V. and Miller, D. P. (2003). 'ADRs, analysts, and accuracy: does cross listing in the United States improve a firm's information environment and increase market value?' *Journal of Accounting Research* 41(2): 317- 345.

Lang, M. H., Lins, K. V. and Miller, D. P. (2004). 'Concentrated control, analyst following and valuation: do analysts matter most when investors are protected least?' *Journal of Accounting Research* 42: 589-622.

Li, J., Pike, R. and Haniffa, R. (2008), 'Intellectual capital disclosure and corporate governance structure in UK firms', *Accounting and Business Research*, 38 (2): 137-159.

McNichols, M., and O'Brien, P. (1997). 'Self-selection and analyst following'. *Journal of Accounting Research* 35 (Supplement): 167-199.

Willekens, M, Bauwhede, H., Gaeremynck, A. and Gucht, L. (2005). 'The impact of internal and external governance mechanisms on the voluntary disclosure of financial and non-financial performance'. Working paper. Aston Business School (UK).

Yu, M. (2007). 'Analyst activity and corporate governance: a global perspective', PhD Dissertation, Kent State University, USA.

Yu, M. (2010). 'Analyst following and corporate governance: emerging-market evidence', *Accounting Research Journal*, 23 (1): 69-93.

Table 1: Ratings Variables Summary

Board		Anti-Takeover Provisions	
1	Board Composition	34	Anti-Takeover Provisions Applicable Under Country (local) Laws
2	Nominating Committee	Executive and Director Compensation	
3	Compensation Committee	35	Cost of Option Plans
4	Governance Committee	36-37	Option Re-pricing
5	Board Structure	38	Shareholder Approval of Option Plans
6	Board Size	39	Compensation Committee Interlocks
7	Changes In Board Size	40	Director Compensation
8	Cumulative Voting	41	Pension Plans For Non-Employee Directors
9	Boards Served On – CEO	42	Option Expensing
10	Boards Served On – Other Than CEO	43	Option Burn Rate
11	Former CEO's	44	Corporate Loans
12	Chairman/CEOs Separation	Progressive Practices	
13	Board Guidelines	45	Retirement Age for Directors
14	Response To Shareholder Proposals	46	Board Performance Reviews
15	Board Attendance	47	Meetings of Outside Directors
16	Board Vacancies	48	CEO Succession Plan
17	Related Party Transactions	49	Outside Advisors Available to Board
Audit		50	Directors resign upon job change
18	Audit Committee	Ownership	
19	Audit Fees	51	Director Ownership
20	Auditor Rotation	52	Executive Stock Ownership Guidelines
21	Auditor Ratification	53	Director Stock Ownership Guidelines
Charter/Bylaws		54	Officer and Director Stock Ownership
22-27	Features of Poison Pills	Director Education	
28-29	Vote Requirements	55	Director Education
30	Written Consent		
31	Special Meetings		
32	Board Amendments		
33	Capital Structure		

Source: RiskMetrics Group - Corporate Governance Quotient (20th December 2007)

Table 2: Sample selection

Panel A: Sample selection for H1

	No. of observations
Initial sample from FactSet	2852
Less: missing data on QCG	1275
Equals:	1577
Less: Missing data for accounting variables	63
Final Sample	1514

Panel B: Sample selection for H2

	No. of observations
Initial sample from FactSet	2852
Less: missing data on QCG	1275
Equals:	1577
Less: Missing data for accounting variables	72
Final Sample	1505

Table 3: Descriptive Statistics for H1

Variable	Mean	Std dev	Min	1st quartile	Median	3rd quartile	Max
Following	10.167	6.846	0	5	9	14	43
CG	85.664	11.747	0	80.8	87.8	94.2	100
NCG	17.767	1.801	6	17	18	19	20
Board	4.399	0.708	1	4	5	5	5
Compensation	4.099	0.999	1	4	4	5	5
Takeover	4.782	0.653	1	5	5	5	5
Audit	4.487	0.749	1	4	5	5	5
Size	14.082	1.938	10.146	12.693	13.832	15.073	21.596

Based on 1514 observations

Table 4: Correlation Matrix

	Following	CG	NCG	Board	Compensation	Takeover	Audit	Size
Following	1	0.210*	0.184*	0.259*	0.100*	-0.101*	0.152*	0.571*
CG		1	0.712*	0.608*	0.391*	0.156*	0.480*	0.189*
NCG			1	0.628*	0.655*	0.317*	0.660*	0.133*
Board				1	0.147*	-0.088*	0.446*	0.293*
Compensation					1	-0.022	0.123*	0.016
Takeover						1	0.001	-0.166*
Audit							1	0.166*
Size								1

*** = significant at the 1% level; ** = Significant at the 5% level; * = Significant at the 10% level

Table 5: The association between corporate governance and analyst following (H1)

Variable	Expected Sign	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Intercept	?	-0.303	-22.519*	-2.288	-24.971*	-0.865	7.349*	15.206*	3.939*	12.340*	1.116	-23.074*	-18.249*	-20.730*
CG	+	0.122*	0.061*											
NCG	+			0.701*	0.419*									
Board	+					2.508*					2.161*	0.792*		
Compensation	+						0.688*			0.673*	0.413**	0.530*		0.624*
Takeover	+							-1.054*		-1.031*	-0.835*	-0.017		
Audit	+								1.388*		0.412	0.145		
Size	+		1.948*		1.966*							1.919*	2.018*	2.013*
Adj-R ²		4.34%	33.63%	3.34%	33.75%	6.67%	0.94%	0.95%	2.25%	1.85%	7.65%	33.98%	32.60%	33.38%
N		1514	1514	1514	1514	1514	1514	1514	1514	1514	1514	1514	1514	1514

*Without year dummy control variables (NCG is the sum of board, compensation, takeover, and audit), dependent variable is Analyst following. *** = significant at the 1% level; ** = Significant at the 5% level; * = Significant at the 10% level

Table 6: The association between corporate governance and analyst following (H1)

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Intercept	1.245	-23.132*	-1.247	-25.286*	-0.034	8.582*	12.594*	5.145*	10.301*	-0.020	-24.343*	-19.027*	-21.339*
CG	0.112*	0.058*											
NCG			0.693*	0.397*									
Board					2.302*					2.105*	0.763*		
Compensation						0.564*			0.576*	0.361**	0.463*		0.544*
Takeover							-0.410		-0.455	-0.534***	0.079		
Audit								1.238*		0.322	0.123		
Size		1.942*		1.951*							1.923*	2.002*	2.001*
Year04	2.647*	2.852*	3.054*	3.058*	3.071*	3.083*	3.100*	3.077*	3.088*	3.068*	3.061*	3.081*	3.070*
Year05	-0.539	1.667**	-0.734	1.582**	0.217	-0.617	-0.355	-0.297	-0.130	0.937	1.956*	1.611**	1.776*
Year06	-1.237	0.815	-1.495***	0.691	-0.517	-1.486**	-1.076	-0.824	-1.074	0.026	0.953	0.774	0.735
Year07	-1.808**	-0.033	-1.673**	0.065	-0.894	-1.569**	-1.559	-1.626**	-1.073	-0.047	0.521	-0.072	0.339
Year08	-0.451	1.322**	-1.190	0.920	0.201	-0.684	-0.216	-0.6689	-0.206	0.654	1.367***	1.280**	1.243***
Adj-R ²	6.47%	34.80%	5.96%	34.87%	8.26%	3.42%	2.92%	4.50%	3.49%	8.58%	34.95%	33.90%	34.42%
N	1514	1514	1514	1514	1514	1514	1514	1514	1514	1514	1514	1514	1514

With year dummy control variables. *** = significant at the 1% level; ** = Significant at the 5% level; * = Significant at the 10% level

Table 7: Descriptive statistics for H2

Variable	Mean	Std dev	Min	1 st quartile	Median	3 rd quartile	Max
following	10.223	6.829	0	5	9	14	43
CG	85.682	11.754	0	80	87.9	94.2	100
NCG	17.768	1.802	6	17	18	19	20
Board	4.398	0.708	1	4	5	5	5
Compensation	4.103	0.996	1	4	4	5	5
Takeover	4.781	0.655	1	5	5	5	5
Audit	4.486	0.750	1	5	5	5	5
size	14.082	1.940	10.146	12.693	13.830	15.067	21.597
DA	0.237	0.190	0	0.083	0.219	0.349	1.672
CA	0.050	0.056	0	0.015	0.037	0.065	0.860
Q	0.501	2.123	-45.808	0.450	0.642	0.775	3.491

Based on 1505 observations

Table 8: Correlation Matrix

	Following	CG	NCG	Board	Compensation	Takeover	Audit	Size	DA	CA	Q
Following	1	0.209*	0.185*	0.263*	0.097*	-0.098*	0.154*	0.575*	0.065**	-0.063**	-0.015
CG		1	0.711*	0.608*	0.390*	0.157*	0.480*	0.191*	0.094*	-0.012	0.001
NCG			1	0.628*	0.656*	0.318*	0.660*	0.135*	0.074*	-0.049***	-0.013
Board				1	0.149*	-0.0883*	0.444*	0.293*	0.111*	-0.075*	-0.004
Compensation					1	-0.020	0.126*	0.021	0.040	0.007	-0.017
Takeover						1	0.001	-0.166*	-0.049***	0.002	-0.013
Audit							1	0.165*	0.062**	-0.058**	0.007
Size								1	0.195*	-0.105*	0.055**
DA									1	0.154*	0.056**
CA										1	0.009
Q											1

*** = significant at the 1% level; ** = Significant at the 5% level; * = Significant at the 10% level

Table 9: The association between corporate governance, analyst following and firm value

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Intercept	-0.664	-0.939	-0.440	-1.003	-0.462	-0.572	-0.779	-0.619	-0.552	-0.687	-1.084	-0.750	-1.123
CG	-0.001	0.002	-0.018										
Following	-0.021**	0.011	-0.020**	0.040	-0.020**	-0.020**	0.005	-0.020**	-0.027	-0.021**	0.011	-0.021**	0.022
CGFollowing		-0.001											
NCG				0.014									
NCGFollowing				-0.003									
Board					-0.062	-0.053	-0.006						
Boardfollowing							-0.006						
Compensation					-0.026			-0.029	-0.045				
compfollowing									0.002				
Takeover					-0.015					-0.010	0.070		
Takefollowing											-0.009		
Audit					0.029							0.002	0.086
Auditfollowing													-0.009
Size	0.095*	0.095*	0.095*	0.095*	0.096*	0.098*	0.098*	0.094*	0.093*	0.094*	0.094*	0.094*	0.094*
DA	0.480	0.481	0.487	0.482	0.492	0.490	0.485	0.482	0.482	0.475	0.484	0.475	0.459
CA	0.290	0.282	0.264	0.289	0.265	0.252	0.270	0.292	0.290	0.289	0.292	0.292	0.308
Adj-R ²	0.5%	0.45%	0.52%	0.48%	0.35%	0.52%	0.47%	0.51%	0.45%	0.50%	0.46%	0.49%	0.48%
N	1505	1505	1505	1505	1505	1505	1505	1505	1505	1505	1505	1505	1505

*** = significant at the 1% level; ** = Significant at the 5% level; * = Significant at the 10% level