

Rock Center for Corporate Governance
Stanford University
Working Paper Series No. 1

Stanford University
Law and Economics
Olin Working Paper No. 360

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Robert Daines
Stanford Law School

Ian Gow
Stanford Graduate School of Business

David Larcker
Stanford University

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Robert Daines
Law School and Graduate School of Business
Rock Center for Corporate Governance
Stanford University
daines@stanford.edu

Ian Gow
Graduate School of Business
Stanford University
igow@stanford.edu

David Larcker
Graduate School of Business
Rock Center for Corporate Governance
Stanford University
Larcker_David@gsb.stanford.edu

Working Paper: June 26, 2008

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We would like to acknowledge the extensive help provided by John Johnson, Ravi Pillai, Michelle Gutman and Justin Hansen on this project. The comments of Abe Friedman are also gratefully acknowledged. The financial support of the Arthur and Toni Rembe Rock Center for Corporate Governance and Corporate Governance Research Program are also gratefully acknowledged.

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Abstract

Proxy advisory and corporate governance rating firms play an increasingly important role in U.S. public markets. Proxy advisory firms provide voting recommendations to shareholders on proxy proposals and sometimes take an active role persuading management to change governance arrangements. Corporate governance rating firms provide indices to evaluate the effectiveness of a firm's governance and claim to be able to predict future performance, risk, and undesirable outcomes such as accounting restatements and shareholder litigation. We examine these claims for the commercial corporate governance ratings produced for 2005 by Audit Integrity, RiskMetrics (previously Institutional Shareholder Services), GovernanceMetrics International, and The Corporate Library. Our results indicate that the level of predictive validity for these ratings are well below the threshold necessary to support the bold claims made for them by these commercial firms. Moreover, we find no relation between the governance ratings provided by RiskMetrics with either their voting recommendations or the actual votes by shareholders on proxy proposals.

Rating the Ratings: How Good Are Commercial Governance Ratings?

1. Introduction

Spurred in part by the spectacular collapse of Enron and the revelations of financial fraud at Adelphia and WorldCom, corporate governance advisory firms have grown rapidly in recent years and now play an increasingly important role in public markets. Governance advisory firms, such as RiskMetrics' Institutional Shareholder Services (ISS), GovernanceMetrics International (GMI), and The Corporate Library (TCL) provide shareholders and companies with advice and data on a wide range of governance issues. These firms offer different services and business models, but each evaluates the governance quality of public firms for use by investors, regulators, the financial press and other interested parties. ISS claims that its ratings "measure the strengths, deficiencies and overall quality of a company's corporate governance practices and board of directors." TCL says its ratings "measure the true impact of a particular board's effectiveness on sustainable shareholder value."

The largest commercial governance advisor and rater, Institutional Shareholder Services (ISS), claims over 1,700 institutional clients managing \$26 trillion in assets, including 24 of the top 25 mutual funds, 25 of the top 25 asset managers and 17 of the top 25 public pension funds. Sold for \$40 million in 2002, ISS was sold again only 5 years later for an estimated \$550 million to RiskMetrics, a firm that has since gone public. Governance Metrics International (GMI) advises clients managing \$15 trillion. These governance ratings also serve as the basis for tradable indices created by ISS/FTSE and S&P/Glass Lewis.

If these ratings identify good corporate governance characteristics that lead to desirable outcomes, shareholders may earn superior risk-adjusted returns and make better decisions about monitoring managers. Governance firms sometimes make this claim explicit. ISS claims that its

ratings “identify the worst corporate offenders”¹ and that “[t]here is no doubt that [its] ratings could have helped some investment managers avoid the gigantic losses experienced during the corporate scandal era defined by meltdowns at Enron, Global Crossing and WorldCom.”² Similarly, TCL says its approach “led to our successfully identifying the Enron, WorldCom, Global Crossing, HealthSouth, Kmart, Warnaco and DPL boards as likely to encounter problems well BEFORE those firms imploded, even while most other ratings systems awarded those boards generally high marks.”³ GMI’s “premise is simple: companies that focus on corporate governance and transparency will, over time, generate superior returns and economic performance and lower their cost of capital. The opposite is also true: companies weak in corporate governance and transparency represent increased investment risks and result in a higher cost of capital.”⁴

If (somewhat bold) claims of the rating firms can be supported by rigorous empirical analysis, these governance rating organizations are providing valuable information to the stakeholders of the firms. However, if the predictive validity of these ratings cannot be established, it is not clear whether boards of directors and shareholders should be concerned about the reports of commercial corporate governance rating firms. Evidence about how these ratings perform in predicting future accounting problems or firm performance has been scarce and usually, when available, sponsored by the commercial companies themselves. The purpose of this paper is to examine the ratings produced by four leading corporate governance rating firms and present some of the first independent evidence on the association between these ratings and future firm performance and undesirable outcomes such as accounting restatements and shareholder litigation.

¹ Institutional Shareholder Services, Solutions Overview. www.issproxy.com/pdf/cgq.pdf

² ISS website: www.riskmetrics.com/issgovernance/esg/cgq.html

³ TCL website: <http://www.thecorporatelibrary.com/Products-and-Services/board-effectiveness-ratings.html>.

⁴ TCL website.

We find surprisingly little cross-sectional correlation among the ratings we examine: *AGR* (Audit Integrity), *CGQ* (RiskMetrics/ISS), *GMI*, and *TCL_RATING* (TCL). These results suggest that either the ratings are measuring very different corporate governance constructs and/or there is a high degree of measurement error (i.e., the scores are not reliable) in the rating processes across firms. With respect to future corporate outcomes, *AGR*, *GMI*, and *TCL_RATING* have a very modest ability to predict accounting restatements and *AGR*, and *GMI* have a very modest ability to predict class-action lawsuits. In terms of future performance, *AGR* (and to a lesser extent *TCL_RATING*) has a positive relation with future operating performance, *TCL_RATING* has a positive relation with future Tobin's Q, and *AGR* (and to a lesser extent *TCL_RATING*) has a positive relation to future alpha (excess stock price return). One especially interesting result is that *CGQ* (perhaps the most visible governance rating) exhibits virtually no predictive validity. However, the level of predictive validity even for the best ratings is well below the threshold necessary to support the bold claims by the corporate governance rating firms.

Finally, in our interviews with boards of directors, we find that board members believe that these ratings are an influential and important input into the recommendations made to shareholders concerning proxy statement proposals. By some accounts, ISS and other recommendations can “sway” up to 20% of the shareholder vote (Bethel and Gillan, 2002). However, we find virtually no evidence that ISS ratings affect either their proxy proposal recommendations made by ISS or the actual shareholder voting results. Anecdotal evidence suggests that managers, under pressure from the ratings firms or on their own initiative, change firm practices in order to increase their ratings. In a recent survey, public firm directors asked what groups influenced their board the most, listed ISS third, behind institutional investors and analysts, and ahead of activist hedge funds or shareholder plaintiffs. These same directors also listed a low governance rating as a red flag that they use to step up their monitoring efforts, falling just behind the firm missing analysts' estimates in importance (Corporate Board

Member, 2007). Thus, there seems to be a serious disconnect between the actual predictive validity of the ratings, what board members believe about the ratings, whether the ratings are used internally by ISS to develop voting recommendations, and the impact of the rating on actual voting outcomes.

The remainder of the paper is as follows. Section 2 reviews prior research on corporate governance ratings and commercial corporate governance advisory firms. Section 3 reviews the commercial governance ratings examined in this paper. Section 4 provides descriptive statistics for our ratings data. Section 5 examines whether the ratings are useful in predicting future firm performance or outcomes of interest to shareholders. Section 6 examines the relation between the CGQ index and proxy recommendations by ISS and actual shareholder voting on proxy proposals. A summary of the study and concluding remarks are presented in Section 7.

2. Prior Research

There is a vast empirical literature examining the relation between selected corporate governance choices and firm decisions and performance. For example, Morck et al. (1988) consider managerial ownership, Daines and Klausner (2001) examine takeover defenses, Fich and Shivdasani (2006) analyze the consequences of busy boards, Coles et al. (2008) consider board size, and Larcker et al. (2007) examine a variety of board and ownership variables and various firm outcomes. The results of this literature are very mixed in terms of statistical significance and the sign of the relation between corporate governance and firm performance.

More recently, academic researchers have attempted to combine these complex individual elements into a single governance metric or rating that presumably reflects the overall quality of a firm's governance. La Porta et al. (1998) create an index of shareholder protections around the world and find that it correlates with economic growth and market capitalization. Gompers et al. (2003) create the G-score composed of mostly anti-takeover items and find that better governed firms exhibit

superior future shareholder returns. Although these academic indices have generated considerable research on the relationship between overall governance and firm performance, the validity of these indices is still an open question. For example, Core, Guay and Rusticus (2006) report evidence that suggests that G-score is not related to superior firm performance. Bhagat, Bolton and Romano (2007) provide an excellent review of the theoretical and empirical issues associated with the academic indices.

Despite the extensive research on corporate governance indices, the governance ratings generated by commercial firms has received very little scrutiny. There are several reasons to suspect that commercial ratings provide reliable and valid measures for the construct of corporate governance. First, firms selling ratings appear to be a commercial and market success, which at least suggests the possibility that the ratings are useful to their customers. Second, academic governance indices are generally calculated by simply counting up and summing the number of “good” and/or “bad” governance mechanisms in each firm. This naive counting has the effect of equally weighting governance indicators that likely have differential levels of importance and ignoring the possibility that some provisions may be substitutes or complements (e.g., Larcker et al., 2007). In contrast, commercial rankings seem to use proprietary, quantitative algorithms that presumably weight governance mechanisms according to their relationship to special research knowledge about how the rating relates to firm performance. Third, academic indices are usually expressed as absolute measures of the quality of a firm’s governance, whereas commercial indices are typically expressed in relative terms with each firm rated relative to industry or size peers. Fourth, commercial rating algorithms also explicitly change each year to “take into account market trends,” whereas most academic ratings tend to be time-invariant computations. Finally, academic governance indices have generally relied on a single, relatively limited data source such as the IRRC data (which are heavily focused on takeover

defenses), whereas commercial firms seem to employ much larger, richer databases from multiple data sources.

A small number of prior studies have examined ISS ratings or their inputs. Brown and Caylor (2004) report univariate results for one year suggesting that high CGQ scores were associated with higher current stock returns, higher accounting returns, lower volatility, and higher dividends. However, this analysis is backward-looking and provides no evidence on the ability of CGQ to predict firm outcomes. Brown and Caylor (2005) examine the relationship between Tobin's Q and an index created from 51 governance variables collected by ISS (and identified as important elements of ISS's rating). Their index is simply the sum of a variety of indicator variables ISS considers consistent with good governance. They find that this index is significantly related to contemporaneous Tobin's Q for 2002, but do not report findings for the CGQ rating. Aggarwal and Williamson (2006) use ISS data to examine the relationship between firm value and 64 governance-related inputs to the ratings, but again do not examine the primary CGQ rating. Finally, Koehn and Ueng (2005) examine a sample of 106 large U.S. firms and find no statistically significant relationship between the CGQ scores and Audit Integrity's measure of earnings quality.

Ashbaugh-Skaife and Lafond (2006) examine whether GMI's governance ratings are related to cost of equity capital in research sponsored by GMI. In an executive summary of their findings, the authors report that higher GMI governance ratings were associated with lower cost of equity capital in 2004 and conclude that "GMI ratings are valid assessments of the strength (or weakness) of U.S and non-U.S. firms' governance." However, they do not report whether current ratings predict future cost of capital. Similarly, Derwall and Verwijmeren (2007) find that GMI governance ratings for 2005 have a contemporaneous negative association with cost of equity capital and firm-specific and systematic risk.

Finally, Bhagat, Bolton and Romano (2007) examine several ratings from TCL using multivariate analysis and simultaneous equations and report mixed evidence about its ability to predict future operating performance and share price appreciation. To our knowledge there is no third-party research on Audit Integrity's AGR.

There have been very few studies regarding the predictive validity of commercial corporate governance ratings. The available research studies are generally assess whether the ratings are correlated with past firm outcomes (i.e., they are backward-looking) and do not examine the predictability of the ratings. Moreover, to our knowledge, a common comparative analysis for the four commercial governance ratings has not been conducted.

3. Commercial Corporate Governance Ratings

In this study, we evaluate governance ratings from three primary corporate governance rating firms: ISS's Corporate Governance Quotient (CGQ), GovernanceMetrics International (GMI), and The Corporate Library's TCL Rating. As we describe below, these ratings differ in terms of focus, computational method, and sample coverage, but each attempts to evaluate the corporate governance of public firms. We also examine the rankings produced by Audit Integrity (AGR). These rankings are different in that they focus primarily on accounting and financial statement risk, but we include these rankings for comparison.

3.1 Institutional Shareholder Services CGQ ratings

The Corporate Governance Quotient (CGQ) is produced by Institutional Shareholder Services (ISS), a division of RiskMetrics. The rating "evaluates the strengths, deficiencies and overall quality of

a company's corporate governance practices and board of directors" and "is designed on the premise that good corporate governance ultimately results in increased shareholder value."⁵

ISS ratings are less reliant on financial ratios than Audit Integrity and focus more on more structural variables taken from public filings and company surveys. They gather data on eight categories: 1) board of directors (composition, independence), 2) audit, 3) charter and bylaw provisions, 4) anti-takeover provisions, 5) executive and director compensation, 6) progressive practices, 7) ownership, and 8) director education.

ISS states that they conduct "4,000+" statistical tests to examine the links between governance variables and 16 measures of risk and performance. The result of "this exhaustive study" is a single model of governance quality (CGQ) that includes some 64 variables weighted according to their correlation with firm risk and prior performance.⁶ The ratings are then back-tested and calculated for more than 9,000 companies. In addition, ISS states that it changes the ratings model and weights over time to "better reflect current market trends in corporate governance" and to align with ISS policies.⁷

ISS reports two main ratings for each firm. They report the firm's standing within its own industry group (as defined using the SIC codes). We refer to this rating as *CGQ* and focus on this score. They also report the firm's percentile within its index (e.g. S&P 500 for Microsoft), which we refer to as *CGQ_INDEX*. ISS also produces four sub-scores concentrating on specific areas: *CGQ_AUDIT* (ranking the quality of the audit review), *CGQ_BOARD* (ranking the firm's board of directors), *CGQ_COMP* (ranking the firm's director compensation and ownership), and *CGQ_TKOVER* (ranking the firm's level of takeover defense). These sub-scores are expressed as quintiles, where 5 indicate a company is in the top quintile relative to a relevant index and industry group.

⁵ Institutional Shareholder Services. 2003. ISS Corporate Governance: Best Practices User Guide & Glossary, Revision 2.4, Wednesday, October 8, 2003.

⁶ <http://www.isscgq.com/cgqratings.htm>

⁷ CGQ Corporate Governance Fact Sheet – November 3, 2006.

ISS's website claims its ratings are a "reliable tool for identifying portfolio risk related to governance and leveraging governance to drive increased shareholder value" and emphasizes claims of a "very strong relationship between governance and firm value, using CGQ data."

3.2 GovernanceMetrics International's GMI ratings⁸

GMI was "founded on the premise that the quality of corporate governance can add significantly to the risk-reward profile of credit and investment portfolios."⁹ GMI collects data on several hundred governance mechanisms (ranging from compensation to takeover defenses and board membership), as well as the firm's compliance with securities regulations, stock exchange listing requirements and various corporate governance codes and principles. In all, it collects "hundreds of metrics structured in a manner that can only produce yes, no or not disclosed answers." GMI develops a scoring model that examines each metric, weights it "according to investor interest" and then calculates a rating on a scale of 1.0 (lowest) to 10.0 (highest). The GMI scoring algorithm rewards (or penalizes) "outliers" and ranks each firm relative to the other companies in the GMI sample. The *GMI* ratings are calculated for over 4,100 companies.

GMI says its "scoring algorithm has also been tested and validated by outside statistical experts and is patent pending." Its materials tout the fact that "companies that emphasize corporate governance and transparency will, over time, generate superior returns and economic performance and lower their cost of capital" suggesting that firms with high *GMI* scores will "generate superior returns."

3.3 The Corporate Library's TCL ratings

Where the other ratings are the product of proprietary quantitative analysis, The Corporate Library ratings reflect subjective judgment and expertise. TCL analysts avoid data checklists and rely instead on their own experience and private assessment of a firm's governance quality. TCL analysts

⁸ This sub-section was adapted from material found at: <http://www.gmiratings.com/>, accessed February 9, 2008.

⁹ Sept. 2006, Governance and Performance: Recent Evidence GMI

review four specific areas (the company's board and succession planning, CEO compensation practices, takeover defenses, and board-level accounting concerns) and then assign each firm a "grade" (*TCL_RATING*) from A to F. A- and B-rated companies do not exhibit significant risk in any of the four basic categories; C-rated companies exhibit risk in no more than one category; D-rated companies in two or more categories; and F-rated companies were either bankrupt, delisted from an exchange, or described as companies "where management has achieved effective control over the company...and conducts its business with flagrant disregard for the interest of any minority public shareholders." The analysts focus on "'red flag' indicators of board ineffectiveness and corporate mismanagement, supported by in-depth analysis and commentary by our senior research associates and analysts."

According to their marketing material, TCL's ratings "have been proven to predict losses in shareholder value and the occurrence of securities class action lawsuits"¹⁰ and "have been tested against actual investment returns."¹¹

3.4 Audit Integrity's AGR ratings¹²

Audit Integrity examines 200 accounting and governance metrics and 3,500 variables designed to produce an *Accounting and Governance Risk* (AGR) rating that identifies "fraudulent patterns of behavior." The goal is to produce a ranking that provides "an assessment of financial statement risk – the risk that financial statements do not accurately reflect a company's true financial condition due to fraud or misrepresentation." In contrast to the three governance rankings described above, the AGR

¹⁰ [http://www.thecorporatelibrary.com/UserFiles/Board_Analyst0907\(1\).pdf](http://www.thecorporatelibrary.com/UserFiles/Board_Analyst0907(1).pdf), accessed February 2, 2008.

¹¹ <http://www.thecorporatelibrary.com/info.php?id=53>, accessed February 2, 2008.

¹² This section is a summary of the information provided by Audit Integrity consisting of: (http://www.auditintegrity.com/documents/Audit_Integrity_Summary_Corp.pdf); Audit Integrity white paper, The Audit Integrity AGR Model: Measuring Accounting and Governance Risks in Public Companies (June 27, 2005), available at http://www.auditintegrity.com/documents/Audit_Integrity_AGR_White_Paper.pdf; The Audit Integrity Multi-Factor Restatement Model: A Leading Indicator of Financial Restatement (April 11, 2006), available at http://www.auditintegrity.com/documents/Audit_Integrity_Restatement_White_Paper.pdf

ranking is primarily focused on accounting practices. However, we therefore examine this ranking as well, in part because the ranking also includes some governance measures.

AGR scores range from 0 to 100, corresponding to “Very Aggressive” (approximately 10% of all firms) to “Conservative” (approximately 15% of all firms). The ratings are objective and mechanical in that they are produced by statistical examination of financial data (such as changes and trends in revenue recognition variables) “without preconceived bias as to what defines fraud.” AGR scores are calculated for over 9,000 publicly traded companies.

Audit Integrity claims that its measure has been verified in “study after study” and that high-risk firms are more likely to be sued, to restate financials, to suffer large drops in share value, and earn lower returns.¹³ Its web site claims that its ratings offer users the ability to “achieve excess returns,” “avoid companies at a high risk of litigation” and “a great deal of predictive power concerning future corporate problems.”

4. Governance Ratings: Data and Descriptive Statistics

Corporate governance ratings were compiled for U.S. firms from each of the four commercial rating services from a variety of websites and research services. The time period of our sample covers the period from late 2005 through to early 2007. However, most of our analysis focuses on the ratings available on December 31, 2005. Our sample consists of 2005 AGR for 6,714 firms, CGQ for 5,059 firms, GMI for 1,565 firms, and TCL_RATING for 1,906 firms (Table 1, Panel A). These sample sizes are consistent with the reported coverage universe for U.S. firms for these rating firms. Our sample also spans many economic sectors and closely mimics the industry distribution in Compustat (Table 1, Panel C).

¹³ They are careful to note however that “behavior that matches past patterns of fraud is not a guarantee of current fraudulent or misleading behavior.”

As discussed in Section 2, the distribution of rating differs substantially for each commercial vendor (see Figure 1). Since *CGQ* is expressed as a percentile, it is not surprising that it is approximately uniform between 0 and 100. However, *AGR* and *TCL_RATING* have noticeable negative skewness, with many firms clustering at relatively high scores and a smaller number of firms forming a long tail to the left. The *GMI* scores are relatively symmetric. Clearly, *AGR*, *CGQ* and *TCL_RATING* are not directly comparable even though each takes values between 0 and 100.

The *CGQ* sub-scores are approximately quintiles. However, four of the five the *TCL* sub-scores are measured on a three-point scale (1 = “very high concern”, 2 = “high concern” and 3 = “low concern”). The descriptive statistics (Table 1, Panel A) reveal differences in the level of concern that *TCL* has with different aspects of corporate governance. For example, 13.5% of firms are rated as of very high concern with regard to takeover defenses, but only 4.3% when considering board composition. The final sub-score, *TCL_BP* is provided by *TCL* “to approximate the compliance-based ‘best practices’ checklist approach to evaluating governance practices... [and] is not factored into the *TCL* Rating, which is focused on board effectiveness, value, and risk rather than structural indicators.”¹⁴ Most *TCL* firms seem to cluster in the middle three scores on the A, B, C, D, F scale.¹⁵

If, as seems to be often posited, there is an agreed upon definition of “good governance” and each of these commercial measures seeks to measure it, then we would expect these measures to be highly correlated. However, as illustrated in Table 1 (Panel B), these four primary ratings are close to being uncorrelated, with the exception of *GMI* and *CGQ*, which have a Pearson (Spearman) correlation of .484 (.480). The Pearson (Spearman) correlations among the remaining five pairs range from -.009 to .076 (-.020 to .063). *AGR* in particular seems uncorrelated with most of the other ratings in our dataset. The primary *CGQ* and *TCL* ratings are significantly positively correlated with each of the sub-

¹⁴ Quote is taken from a sample report found on *TCL*’s website.

¹⁵ In our analysis, we code “A” as 5, “B” as 4, “C” as 3, “D” as 2, and “F” as 1; there is no “E” rating.

scores supplied by the respective rating firms (which would be expected if the sub-scores are combined into the overall score). *TCL_BP* is also highly correlated with *CGQ* and *GMI* (Spearman correlations of .446 and .322 respectively), consistent with these sharing common inputs.

As might be expected, the ratings are positively correlated over time. Prior studies (e.g. Gompers et al., 2003) have found that governance variables are quite stable over time. For the overall scores, the correlation between 2005 and 2006 ratings range from 0.558 for *AGR* to 0.847 for *CGQ*. However, the *CGQ* sub-scores exhibit lower correlations that range from 0.205 to 0.681 and the *TCL* sub-score correlation range from 0.423 to 0.937. Given the general persistence of takeover defenses, the correlation of 0.937 for *TCL_TKOVER* is an expected result. However, it is surprising to observe a correlation of only 0.247 for *CGQ_TKOVER*. If firm takeover defenses are in fact relatively stable, then the variation in the *CGQ* takeover sub-score may reflect large changes in the model that is used to calculate the score from year to year. ISS does change its model periodically to “reflect current market trends.” Changes could also reflect a policy of changing the model as needed to assure that the rating correlates with past performance.¹⁶

5. Predictive Ability of Governance Ratings

We evaluate the ratings by examining their ability to predict five important outcomes. These outcome variables are selected because either one or more of the rating firms claims that the ratings

¹⁶ One question that has not been examined in prior research concerns the selection of the variables and weightings used to develop the commercial scores. In order to gain preliminary insight into this issue, the overall scores were regressed on a wide variety of governance variables collected from Equilar Inc., FactSet/SharkRepellent, Corporate Board Member Magazine, and Audit Analytics. We focused on variables that the firms have identified as in their scoring model, of which ISS’s *CGQ* has been the most discussed (e.g., Aggrawal and Williamson, 2006). This allows us to identify the inputs with some precision. We also supplement the identified inputs with a small number of variables identified in prior research (e.g., variables related to “old” or “busy” directors). The R-squared values from OLS regressions of the ratings on more than 90 governance variables are 4.7% (*AGR*), 40.8% (*GMI*), 21.7% (*TCL_RATING*) and 48.8% (*CGQ*). Given differences in the structure of the ratings, we also examine regression via additivity and variance stabilization (AVAS). AVAS, developed by Tibshirani (1988), is a nonparametric regression method involving the estimation of transformation functions for the variables. Like the ACE procedure (Breiman and Friedman 1985), AVAS uses iterated smoothing to find the “best” transformation of the variables. These regressions provide very similar results.

will predict the outcome or because prior literature has suggested a relationship between the the outcome and quality of corporate governance. The first two outcomes, accounting restatements and class action lawsuits, are relatively rare “bad” outcomes that one or more of the ratings should be expected to predict. The remaining three outcomes are traditional measures of corporate performance, namely accounting operating performance, Tobin's Q and excess stock returns (or alpha).

Our analysis is conducted both with and without additional control variables (e.g., Larcker et al, 2007). In assessing the impact of governance quality on economic outcomes it may make sense to exclude the control variables to the extent that governance quality affects the outcomes through its effect on the controls. For example, governance quality may affect the likelihood of restatements both directly and indirectly through its effect on a firm’s book-to-market ratio. However, including the book-to-market ratio as a control will cause us to detect only the direct effect of governance quality on the likelihood of accounting restatements. Similarly, to the extent that governance quality is persistent over time, it may affect operating performance in any given period both directly and indirectly through impact on prior period’s operating performance that persists over time. Thus, it is unclear whether the analysis should incorporate these control variables (a “conditional” analysis) or exclude the controls (an “unconditional” analysis).

In addition, we aim not only to understand the relationships between governance quality (as measured by the ratings) and various economic outcomes, but also to assess the value of the ratings as predictive tools in their own right. For example, it is unclear whether the governance ratings already capture the effect of the control variables (in which case, “unconditional” analysis excluding these controls is appropriate) or the ratings are constructed from inputs distinct from the control variables (in which case, “conditional” analysis with the effects of the control variables included is appropriate). As such, we perform each of our analyses of the outcome variable both with and without control variables

to provide a more comprehensive analysis of the relationship between governance quality and economic outcomes.

In examining the predictive power of the governance ratings, we focus on ratings available as of December 31, 2005, as this is the earliest point at which we have a sizable cross-section of ratings across the four rating firms. Our basic approach is to estimate a regression for each outcome variable on the ratings and perhaps a set of controls. To facilitate the interpretation of the regression coefficients across ratings, we standardize each of the ratings to have zero mean and unit variance.

5.1 Accounting Restatements

It is often claimed in both the academic literature that accounting restatements are either evidence of, or caused by, weak governance. A number of papers predict that accounting restatements will be positively associated with poor governance and find support for this prediction (Farber, 2005; Beasley, 1996; Peng and Roell, 2006; Erickson et al., 2006). However, other papers find little evidence of a relationship between accounting restatements and governance (Larcker et al., 2007). We expect that if the ratings provide predictive power with regard to restatements, higher ratings will be associated with fewer restatements.¹⁷

We obtain data on accounting restatements from Glass-Lewis & Co., which maintains a comprehensive database on restatement information obtained from SEC filings, press releases, and other public data. We focus on the indicator variable *Earnings Restatement*, which takes the value of one for a firm Glass-Lewis & Co. identifies as making one or more accounting restatements that relate to either revenue or expense recognition and affected fiscal years 2004 to 2007. Glass-Lewis identifies 419 such restatements, representing just over 6% of our sample of 6,968 firms across the four ratings.

¹⁷ While the common assumption of a negative relationship between governance quality and accounting restatements seems intuitively plausible, it is important to note that accounting restatements imply a minimal level of governance in that the mechanisms to detect misstated financial statements must be in place for the restatements to be observed by the researcher.

For each governance rating, we estimate logistic regressions with *Earnings Restatement* as the dependent variable and either just the governance rating in question (unconditional analysis) or the rating and controls (conditional analysis). Based on the extensive research on restatements, we include the following controls: *Leverage* is calculated as the ratio of book value of debt (Compustat item #9+item #34) to market value of equity (item #25*item #199), *BM*, the book value of common equity (item #60) divided by the market value of common equity (item #25*item #199). *Free Cash Flow* is measured as the difference between operating cash flows (item #308) and average capital expenditures over the prior three years (item #128). *External Financing* is total net external financing from debtholders and shareholders during the fiscal period. *Acquisitions* is cash spent on acquisitions (item #129) divided by market value of common equity. *Log(Market Value)* is the log of market value of common equity. All control variables are measured in the latest fiscal year ending on or prior to September 30, 2005, allowing at least a three month lag prior to the period over which we capture restatements so as to be confident that the controls are observable prior to this period. All controls are winsorized at the 2nd and 98th percentiles by fiscal year.

Table 2 presents the results of our analysis of future restatements. We focus our discussion on the primary governance ratings, selectively highlighting results using the rating sub-scores that provide additional insight. Two of the four primary ratings (*CGQ* and *TCL_RATING*) are not associated with restatements either conditionally or unconditionally. However, *AGR* and *GMI* exhibit a statistically significant association with restatements with the expected negative sign: higher governance rating scores are associated with fewer future restatements. These results are robust to inclusion of controls (conditional analysis). For the sub-scores, *TCL_ACCTG*, a component of *TCL_RATING*, is statistically associated with restatements, consistent with notion that this accounting-focused sub-score is somewhat useful in predicting accounting problems. However, there are no statistically significant results for the

accounting-focused sub-score *CGQ_AUDIT*. We also find some predictability for *TCL_BP*, which measures the extent to which firms adopt “best practices.”

Assessing the economic (or substantive), rather than statistical, significance of the results in Table 2 is problematic in the absence of a structured decision problem and information about the loss function associated with errors in predicting restatements. In order to provide some insight, we examine the ability of the ratings to improve the actual classification of outcomes. We focus on *GMI*, as this rating appears to have the greatest predictive power for restatements in our sample. Of the 1,489 firms for which we have *GMI* ratings and data to calculate our controls, 108 experienced a restatement in our test period and 1,381 did not. We estimate the predicted probability of restatement using the controls alone. Setting a probability cutoff of 0.1, the estimated model classifies 98 firms into the “restate” category (but only 11 actually exhibit a restatement). On the other hand, 97 firms that do restate are incorrectly classified as “not restate”. When we include *GMI* as an additional explanatory variable, 28 firms are correctly classified as restating firms, an apparently significant improvement over the model with controls alone. However, much of this improvement comes at the cost of incorrectly classifying non-restating firms (the model with *GMI* misclassifies 212 such firms which is much higher than the 87 firms with controls alone). In fact, the percent correctly classified decreases from 87.64% to 80.39% with the inclusion of *GMI*. However, it is important to note that this statistic implies that investors are equally concerned about both kinds of classification errors, whereas they may care more about reducing false negatives (i.e. owning stock in a firm that later experienced a restatement) than the false positives (missing out on firms that were predicted to have a restatement, but didn’t). Note that an algorithm that simply classified all firms as “not restate” would correctly classify $1381/1489=92.68\%$ of firms).

We examine the sensitivity of our results to a number of variations. To allow for the possibility that governance only affects outcomes at the extremes (either very poor or very good governance), we

run our analysis with the standardized governance ratings replaced by two indicator variables representing membership of the top or bottom decile for each rating (if the rating does not allow for partitioning into deciles, we use the top and bottom category instead). We then evaluate the statistical significance of the difference between these indicators. Statistically significant differences from this analysis appear for precisely the same ratings as in our primary analysis and in the same direction in each case. Given the differences in the sample size and composition across the ratings, we also perform analysis using a common sample across the ratings (there are 1,523 firms with ratings from each of the four rating firms and 1,433 meet the data requirements for our conditional analysis). Our inferences are identical in this case with one exception: *CGQ* becomes statistically significant in the predicted direction in both the unconditional and conditional analyses. We also allow for the possibility that many of the restatements in our sample are “innocuous” by including only those restatements associated with a negative return of 3% or more over either a 3- or 5-day window around the announcement of the restatement. Our results for this subset of observations are very similar in to those reported in Table 2. Finally, the inclusion of industry fixed effects has virtually no impact on our inferences.

5.2 *Class-action Lawsuits*

The second outcome we consider is whether the firm was the subject of a class action lawsuit. Woodruff-Sawyer identifies 191 class action lawsuits over the two years after December 31, 2005, representing 3.54% of our sample.¹⁸ For the affected firms, we set the variable *Lawsuit* equal to one and set the value equal to zero for the remaining firms. We again perform logistic regressions with *Lawsuit* as the dependent variable and either the governance rating in question (unconditional analysis)

¹⁸ We do not find any statistical difference in the overall frequency of lawsuits between the overall sample and the *AGR* and *CGQ_INDUSTRY* samples, but we do find a higher rate of lawsuits in the *GMI* (5.46%) and *TCL_RATING* (5.25%) samples.

or the rating and controls (conditional analysis). We follow Rogers and Stocken (2005) in our list of controls: *Size* (log of market value of equity), *Turnover* (average daily turnover divided by average shares outstanding), *Beta* (the slope coefficient from a regression of daily returns on the CRSP value-weighted index), *Returns* (buy-and-hold returns), *Std Dev(Returns)* (standard deviation of daily returns), *Skewness(Returns)* (skewness of daily returns), and *Min(Returns)* (minimum value of daily returns). All controls are obtained from CRSP and measured over the year ending December 31, 2005.

Table 3 presents the results of our analysis. Higher *AGR* scores are statistically significantly associated with fewer future class-action lawsuits, both unconditionally and conditionally. Higher *CGQ* (*TCL_RATING*) scores are associated with *more* (fewer) lawsuits unconditionally, but this association disappears when the controls are included. *GMI* is not statistically associated with lawsuits unless the controls are included. The sub-scores suggest that *CGQ_BOARD* underlies the relationship between *CGQ* and lawsuits and provides weak evidence consistent with the compensation sub-scores (*CGQ_COMP* and *TCL_COMP*) being associated with future lawsuits.

To assess the economic significance of our findings, we use a similar approach to that used for restatements. In this case, we focus on *AGR*, as this seems to have the greatest power to predict lawsuits in our sample (restricted to a common sample, the pseudo R-squared is higher with *AGR* in place of *GMI*). Of the 5,368 firms with available data, 191 experience class-action lawsuits. With a probability cutoff of 0.1, including *AGR* raises the number of firms with lawsuits that are correctly classified from 34 to 43, but at the expense of misclassifying 237 (an increase from 209) firms that do not have lawsuits. The reduction in “percent correctly classified” is from 93.18% to 92.83%. But again, a naïve model that classified all firms as “no lawsuit” would correctly classify $5125/5463=95.47\%$. However, if the cost of misclassifying firms experiencing lawsuits is at least four times as great as that of misclassifying firms with no lawsuits, there is possibly economic benefit from including *AGR*, as $(43-34)*4-(237-209)>0$. But it should be recognized that this classification analysis

is within-sample used for estimation and thus likely represents an upper bound on the ability of *AGR* to predict “out-of-sample” observations.¹⁹

As with the restatement analysis, we examine the effect of using indicator variables for the top and bottom category. Our inferences are broadly the same as above. We find that *GMI* is only marginally significant at the 10% level in the conditional analysis and *TCL_BP* is no longer significant in the conditional analysis. Looking at a common sample, we find that *CGQ* is no longer significant in the unconditional analysis. In the conditional analysis with a common sample, the notable differences are that the statistical significance of *GMI* diminishes (to the 10% level) and *CGQ_AUDIT* appears significant at the 5% level with the predicted sign.

5.3 Future Operating Performance

Following prior research (e.g. Gompers et al., 2003) we assess the ability of governance ratings to predict future operating performance by examining return on assets (ROA), measured as operating income (Compustat item #178) divided by average total assets (item # 6). Larcker et al. (2007) use only *Log (Market Value)* and median industry ROA as controls reflecting a focus on measurement of corporate governance quality. While current ROA seems to be a natural control, Larcker et al. (2007) argue that “to the extent that governance structures are stable over time...the inclusion of current operating performance is likely to remove the impact of governance that we are trying to estimate.” We examine industry-adjusted *ROA*, the difference between ROA for a firm and the median ROA for its industry in that fiscal year, using two-digit SIC codes for industry classification. But, given our interest in the governance ratings as both measures of governance quality and as informative signals of future firm performance, we estimate regressions both with and without prior period's industry-adjusted

¹⁹ The absence of “out-of-sample” analysis is a general critique of most empirical studies linking corporate governance variables or indices to various outcomes. Since the model is both estimated and tested with the same set of data, the explanatory power and predictive validity reported in most studies is the upper bound because this model cannot fit better in another independent sample.

ROA as an additional control. We measure industry adjusted ROA at the end of the fiscal year ending between June 2006 and May 2007, the latest data available on Compustat at the time of this study.

Table 4 presents the results from our analysis. We find that *AGR* is associated with future operating performance. This result is robust to whether lagged ROA is included as a regressor. However, the strength of the relation is greater when lagged *ROA* is omitted, consistent with governance quality being relatively persistent and affecting ROA over multiple periods. For the remaining primary ratings, only *TCL_RATING* has a significant coefficient with the predicted sign and only when lagged *ROA* is excluded. Once lagged *ROA* is included, the coefficient becomes significantly negative.

To assess the economic significance of the coefficient on the ratings, we discuss the shift in predicted lagged *ROA* associated with a one standard deviation shift in the rating. However, we argue that caution should be taken with regard to interpreting these coefficients in a causal fashion, as it is quite plausible that governance quality and operating performance are jointly determined in a manner that confounds any causal interpretation of our regression coefficients. We first note that the 25th, 50th and 75th percentiles for *ROA* for a sample common to the four primary ratings are -1.1%, 1.6% and 7.9% respectively. Shifting up one standard deviation in terms of *AGR* is associated with a 2.6 percentage point increase in *ROA* (using the coefficients in the regression without lagged *ROA*), which while not enough to move a whole quartile, does seem economically significant. The coefficient on *AGR* when *ROA* is included in the regression is much smaller, but note that the inclusion of lagged *ROA* suggests that the appropriate benchmark is something like the one-year change in *ROA*. Given that the 25th, 50th and 75th percentiles for changes in *ROA* for a sample common to the four primary ratings are -2.9%, 0.4% and 1.0% respectively, so a shift of 0.53 percentage points associated with a one standard deviation shift in *AGR* is not insignificant.

We also conduct the robustness checks described above. Focusing on a common sample of 1,499 firms with controls data and ratings from each of the four firms, we retain the same inferences except that *GMI* and *TCL_BOARD* are no longer significant in the analysis without lagged *ROA* and the CGQ sub-scores are no longer significant in either analysis. Also, the significance of *AGR* decreases (to 10% level) while that of *TCL_RATING* increases (to the 1% level). Focusing on the top and bottom deciles, we find a few changes: *TCL_RATING* becomes insignificant and none of the CGQ sub-scores is significant in the predicted direction. In the analysis with lagged *ROA*, only *AGR* remains significant in the predicted direction, but with reduced significance (10% level).

5.4 Firm Value

Tobin's Q, typically measured using some variant of the market-to-book ratio, is commonly used as an indicator of firm value in accounting and finance research. However, since market-to-book ratios (or the inverse) are used as proxies for risk factors (Fama and French, 1993), accounting conservatism (Roychowdhury and Watts, 2007), and investment opportunity set or future growth opportunities (Adam and Goyal, 2006), it is unclear whether the market-to-book ratio captures the underlying theoretical construct of "firm value."²⁰ However, in light of its continued popularity in academic research and the fact that Tobin's Q is explicitly identified by at least one of the rating firms as an outcome variable of interest, we also examine Tobin's Q. We measure *Tobin's Q* as $(TA + MVE - BVE) / TA$, where *TA* is total assets (Compustat item #6), *MVE* is market value of equity (item #199 * item #25) and *BVE* is the book value of equity (item #60). To control for differences associated with industry rather than governance attributes of each firm, we include industry fixed effects in our regressions. As *Tobin's Q* is, like measures of operating performance, highly persistent, we follow the

²⁰ At best, the market-to-book ratio captures average Tobin's Q, whereas the variable of interest may be the marginal Tobin's Q. The Q results are reported in order to be consistent with prior literature, but we believe that the more interpretable results are future operating performance and excess stock price returns.

approach used with operating performance and estimate both regressions with industry fixed effects and the governance variables alone and regressions with these variables and lagged *Tobin's Q* as an additional control. We measure *Tobin's Q* at the end of the fiscal year ending between June 2006 and May 2007, the latest data available on Compustat at the time of this study.

While prior literature using *Tobin's Q* as a measure sometimes does not trim or winsorize outliers in *Tobin's Q* itself (e.g., Shin and Stulz, 2000, drop outliers only in the independent variables in regressions with *Q* as a dependent variable), to deal with outliers, we winsorize *Tobin's Q* and its lagged value at the 2nd and 98th percentiles. As shown in Table 5, without lagged *Tobin's Q*, we find that three of the four primary ratings have statistically significant coefficients, including *AGR* (negative), *CGQ* (unexpected negative) and *TCL_RATING* (positive). After including lagged *Tobin's Q*, *GMI* is statistically significantly positive and *CGQ* is marginally significant (10% level) and positive.²¹

To assess the economic significance of the coefficients, note that the 1,407 firms with ratings from each of the four firms, the mean value of *Tobin's Q* is 1.917 and the 25th, 50th and 75th percentiles are 1.219, 1.587, and 2.209 respectively. Thus, while the coefficients on *TCL_RATING* without lagged *Tobin's Q* (0.081) *GMI* with lagged *Tobin's Q* (0.040) are not sufficient for a one standard deviation shift in the ratings to be associated with a shift in *Tobin's Q* across a full quartile.

Our fairly inconclusive results with *Tobin's Q* are quite sensitive to model specification. Placing firms in top and bottom deciles by rating, we find that none of the ratings is significantly associated with *Tobin's Q* in the predicted direction. Using a common sample of 1,411 firms (or 1,410 with lagged *Tobin's Q*), only *TCL_RATING* and *TCL_ACCTG* remain significant with the predicted

²¹We examine the impact of winsorization of *Tobin's Q* on our results with the primary ratings by performing analyses without winsorization. Excluding lagged *Tobin's Q*, *CGQ_INDUSTY* and *TCL_RATING* remain the only significant variables, but *CGQ_INDUSTY* with an unexpected sign. With lagged *Tobin's Q*, again only *GMI* is significant with the predicted sign.

sign in the analysis without lagged *Tobin's Q* and *CGQ*, *GMI*, and *CGQ_BOARD*. Overall, we interpret our results as consistent with there being little systematic relationship between *Tobin's Q* and the governance ratings. However, it is unclear whether this result is due to the absence of an underlying relationship between governance and firm value or measurement error in the ratings and/or our measure of firm value.

5.5 Future Stock Returns

Our final outcome variable is excess stock returns, *Alpha*. Specifically, for each firm in our sample, we obtain monthly stock returns (*RET*) from the CRSP files for the months January 2006 through to September 2007, the latest data available at the time of this study. For each firm, we then estimate a regression of these returns on the standard Fama-French monthly factor returns (*Mkt-RF*, *SMB*, *HML*, and *Mom*) obtained from Ken French's website. The estimated intercepts from these regressions form our estimate of *Alpha*. Since this variable represents returns in excess of hypothesized risk factors, we do not include additional controls in our subsequent regressions. As pointed out in prior literature (Gompers et al., 2003; Larcker et al., 2007), if stock prices incorporate rational beliefs about the costs and benefits of alternative governance structures, we should expect no association between excess returns and the governance ratings. Any association is the result of either (i) inefficiency in the pricing of corporate governance, (ii) unexpected, systematic shocks in firm value either caused by or correlated with these measures of corporate governance or (iii) an omitted risk factor that is correlated with the measures of corporate governance. Notwithstanding these arguments, it is frequently argued by the rating firms that the governance ratings will be positively associated with future returns. An alternative argument, though one not made by the rating firms to our knowledge, is that governance quality is associated with lower expected returns (i.e., lower cost of capital), in which case we might expect a negative relationship between governance quality and realized returns.

Table 6 presents the results of our excess returns analysis. Two of the four primary ratings, *AGR* and *TCL_RATING*, have a statistically significant positive association with *Alpha*. The additional excess return associated with a one unit shift in *AGR* (*TCL_RATING*) is 0.29% (0.10%) per month. This is arguably economically significant, but we leave any assessment of the feasibility of implementing trading strategies to capture these apparent excess returns to future research. On the other hand, there is an unexpected statistically significant negative relationship between *CGQ_BOARD* and *Alpha*. Holding aside the issue of measuring statistical significance across multiple regressions, one possibility is that higher scores on *CGQ_BOARD* lead to a lower cost of capital through a mechanism not captured in the Fama-French four-factor model and this produces the negative association we see. However, this prediction seems contrary to any of the claims made by ISS with regard to the CGQ ratings discussed above.

We again examine the sensitivity of our results to the use of indicators for the top and bottom deciles in place of standardized ratings and the use of a common sample across the ratings. In the decile analysis, *TCL_RATING* is no longer statistically significant, but the coefficient on the *AGR* indicator remains both economically and statistically significant. The mean monthly alpha for the top (bottom) decile based on *AGR* is 0.213% (-0.856%), with the latter (and the difference) being statistically significant at the 1% level. The mean monthly alpha for the remaining 80% of observations is 0.115%, suggesting that the coefficient estimated above is primarily attributable to negative alpha in the lowest decile. With a common sample of 1,500 firms across all ratings, only *AGR* remains statistically significant with a coefficient of 0.22%, slightly below that estimated above and consistent with the results above not being driven by differences in samples across the ratings.²²

²² We also examine (in untabulated analysis) the relationship between changes in governance ratings and future outcomes. We measure the change in ratings over the period from December 31, 2005 to June 30, 2006 and examine outcomes over the period from June 30, 2006 through to the end of 2007 in the case of returns, restatements and class-action lawsuits and

6. CGQ, ISS Recommendations and Shareholder Voting

ISS has the unique position of both supplying a major corporate governance rating (CGQ) and being the dominant player in the market for advice on shareholder voting. In this section, we examine the relationship between CGQ, ISS recommendations, and shareholder voting outcomes. It is reasonable to expect ISS to consider their own recommendations when evaluating proxy proposals for consideration by shareholders and the merits of directors put up for annual election. Additionally, if CGQ provides useful information to shareholders, it seems plausible that CGQ would be associated with the outcome of shareholder votes, either directly or indirectly through its effect on the voting recommendations of ISS.

Table 7 presents the results of our voting analysis for the subset of ratings produced by ISS. Panel A documents an association between CGQ and ISS recommendations, but one that is surprisingly weak. For example, the change in probability that ISS recommends a vote in favor of a proposal is approximately 0.0022, which loosely speaking, suggests that a one standard deviation increase in CGQ (28.50 points) implies a 6.3 percentage point increase in the probability of ISS favoring an proposal. Thus, there is little substantive relation between the CGQ rating and the ISS recommendation. This is a rather odd result given that CGQ is claimed to be a measure of governance quality, but ISS does not seem to use their own measure when developing voting recommendations for shareholders.

Panel B of Table 7 documents the relationship between CGQ and shareholder voting outcomes, where the outcome is defined as the percentage of votes cast “for” a proposal or candidate director. Excluding the ISS recommendation from the analysis, the coefficient on CGQ is actually negative, suggesting that the higher the CGQ rating, the lower the percentage of votes cast in favor of a proposal.

operating performance for fiscal years ending between June 2006 and May 2007. These results suggest even weaker ability for the ratings to predict future outcomes than that suggested by our primary analysis.

This result also holds when ISS recommendations are included in the analysis.²³ Focusing on votes concerning compensation plans, including stock and option plans, CGQ alone has no statistically significant relation with voting outcomes when ISS recommendations are excluded from the regression, but conditional on ISS recommendations, our results suggest a negative relationship between CGQ ratings and shareholder voting outcomes.

7. Summary and Concluding Remarks

Shareholders, regulators, hedge fund managers, press commentators, board members and policy makers increasingly stress the importance of good governance, arguing that it improves firm performance, shareholder welfare and the health of the public markets. However, defining good governance and distinguishing good governance from bad governance has proved more elusive, especially given the great variety of corporate governance mechanisms (and combinations) employed by firms.

Several commercial firms now offer corporate governance ratings that promise to accurately assess the strength of a company's governance. The providers of the ratings make strong claims regarding the ratings' value in predicting future bad outcomes (such as accounting restatements or shareholder suits) and firm performance. These ratings, often provided by proxy advisors, are also used in formulating recommendations that can be influential in shareholder voting.

We provide the first independent assessment of prominent commercial corporate governance ratings. Prior evidence on individual ratings has generally been backward-looking, raising the distinct possibility that the ratings reflect past firm performance but are unable to predict accounting restatements, litigation, and future performance. We examine the ability of ratings produced by

²³ Note that the coefficients on the ISS recommendation indicator variable are consistent with prior work, such as Bethel and Gillan (2002). Taken literally, these suggest that an ISS recommendation in favor of a proposal can “sway” more than 22% of the vote.

RiskMetrics (previously Institutional Shareholder Services), GovernanceMetrics International, and The Corporate Library to predict future performance. We find that these governance ratings have either limited or no success in predicting firm performance or other outcomes of interest to shareholders. See Table 8 for a brief summary. Moreover, even when there is a statistical association with future outcomes, the economic or substantive effect seems small. Audit Intergrity's ranking of financial statement risk is a possible exception.

Assuming that our analysis is appropriate, these findings raise several questions. First, should boards of directors go out of their way to raise their company's governance scores? It appears that a simple mechanical exercise in increasing one's governance ranking may well have no economic impact. This is not to say, however, that governance does not matter or that particular mechanisms would not affect firm value. It may be that firms should make governance changes, but the ratings we examine would not be a reliable guide in doing so.

Second, these results raise the question why institutional investors, shareholders, and other parties buy them. Several options seem plausible. First, customers may be wrong about the ratings or mislead by the suggestion that ratings can produce higher returns or "avoid the next Enron." To the degree that this occurs, one possible "consumer protection" policy response would be to require ratings firms to provide additional disclosures about the predictive power of their ratings. Rather than disclosing their ranking's correlation with past performance, they could disclose their success at predicting future outcomes. Although we do not have any direct evidence, it is obviously possible for commercial firms to "adjust" their model and weights such that the resulting scores "explain" past performance, but this type of over-fitting has little hope in predicting future firm outcomes.

A second explanation is that investors buy the ratings simply to obtain the underlying data. The data on firm takeover defenses, CEO compensation, or board membership can be costly to collect for a large sample of firms and the commercial rating firms might be a cost-effective source for these data.

A third possibility offered for their growing popularity is that institutional shareholders purchase the ratings as protection against future claims that they have invested or voted unwisely and thereby breached their fiduciary duties to their clients.

A final possibility is that we do not have the right model for estimating the impact of firm governance or the right measure of firm performance. Ratings firms may object that, given the right model specification, their ratings are significant and informative. We are open to this possibility and suggest that, to the degree this is true, ratings firms could disclose the “right” model and periodically disclose how well their ratings predict future performance using this “right” model. This type of transparent disclosure would enable investors to evaluate the net benefits produced by their purchase of the ratings. Moreover, this policy would be consistent with the rating companies’ public stance about the virtue of transparency that they urge on the firms they rate. As stated on the RiskMetrics/ISS website,

‘[a]s more and more investors, insurers and credit rating agencies recognize the link between corporate governance performance and risk, the more important it is for companies to understand how their corporate governance practices are measured. . . . We believe profoundly that transparency instills trust and, with trust comes confidence and more intelligent decisions.

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Table 1: Summary of Governance Ratings**Panel A: Descriptive Statistics**

Latest ratings as of December 31, 2005.

Variable	N	Mean	SD	Min	P25	Median	P75	Max
Primary Ratings								
AGR	6714	63.67	15.18	4.0	54.0	67.0	75.0	88.0
CGQ_INDUSTRY	5059	51.61	28.50	0.4	27.1	52.0	76.2	100.0
GMI	1565	7.08	1.22	2.5	6.5	7.0	8.0	10.0
TCL_RATING	1906	3.22	0.90	1.0	3.0	3.0	4.0	5.0
CGQ Sub-scores								
CGQ_AUDIT	4861	3.46	1.45	1.0	2.0	4.0	5.0	5.0
CGQ_BOARD	4859	3.07	1.36	1.0	2.0	3.0	4.0	5.0
CGQ_COMP	4859	3.13	1.36	1.0	2.0	3.0	4.0	5.0
CGQ_TKOVER	4859	3.17	1.36	1.0	2.0	3.0	4.0	5.0
TCL Sub-scores								
TCL_BP	1890	83.83	8.45	45.0	78.0	85.0	90.0	100.0
TCL_ACCTG	1899	2.66	0.66	1.0	3.0	3.0	3.0	3.0
TCL_BOARD	1897	2.73	0.53	1.0	3.0	3.0	3.0	3.0
TCL_COMP	1894	2.76	0.54	1.0	3.0	3.0	3.0	3.0
TCL_TKOVER	1891	2.62	0.71	1.0	3.0	3.0	3.0	3.0

AGR, *CGQ_INDUSTRY*, *GMI* and *TCL_RATING* are the primary governance ratings of Audit Integrity, ISS, GovernanceMetrics International, and The Corporate Library respectively. *AGR*, *CGQ* and *GMI* ratings are on a 0-100 scale. *TCL_RATING* is converted from an “A” to “F” grade to numerical values 1-5, where “A” equals 5 and “F” equals 1 (no “E”). *CGQ* sub-scores cover “Audit Review” (*CGQ_AUDIT*), “Board of Directors” (*CGQ_BOARD*), “Executive and Director Compensation and Ownership” (*CGQ_COMP*), and “Takeover Defenses” (*CGQ_TKOVER*). *CGQ* sub-scores take values 1-5, where 5 is higher quality governance. *TCL_BP* denotes the percentage of certain “best practices” adopted by a company. *TCL_RATING* sub-scores cover “financial compliance” (*TCL_ACCTG*), “board composition” (*TCL_BOARD*), “CEO compensation” (*TCL_COMP*), and “board effectiveness and shareholder friendliness in the area of takeover defenses” (*TCL_TKOVER*). *TCL_RATING* sub-scores take values of “very high concern,” “high concern,” and “low concern,” which are re-coded as 1, 2, and 3 respectively.

Table 1: Summary of Primary Governance Ratings**Panel B: Correlation Matrix, Governance Ratings and Sub-scores**

Pearson (Spearman) Correlations are Presented Above (Below) the Diagonal. Numbers in bold represent correlation between 2005 and 2006 ratings for firms in our sample.

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
AGR	(1)	0.558*	0.005	0.031	0.063*	0.002	0.001	-0.027	-0.018	0.016	0.125*	-0.010	0.056*	-0.019
CGQ	(2)	0.029*	0.847*	0.480*	0.005	0.360*	0.717*	0.205*	0.135*	0.446*	-0.024	0.061*	-0.076*	0.256*
GMI	(3)	0.048	0.484*	0.817*	-0.020	0.167*	0.286*	0.086*	0.075*	0.322*	0.032	-0.009	-0.084*	0.254*
TCL_RATING	(4)	0.076*	0.016	-0.009	0.613*	-0.024	0.021	0.026	-0.002	0.397*	0.139*	0.442*	0.485*	0.174*
CGQ_AUDIT	(5)	0.014	0.388*	0.176*	-0.016	0.681*	0.199*	0.039*	0.477*	0.115*	0.009	0.023	-0.056*	0.096*
CGQ_BOARD	(6)	0.019	0.715*	0.284*	0.027	0.215*	0.397*	0.166*	0.012	0.301*	-0.033	0.100*	-0.047*	0.148*
CGQ_COMP	(7)	-0.025	0.205*	0.094*	0.026	0.040*	0.165*	0.205*	0.082*	0.166*	-0.015	-0.001	0.025	0.152*
CGQ_TKOVER	(8)	-0.015	0.138*	0.079*	0.003	0.482*	0.012	0.081*	0.247*	0.088*	0.024	0.016	-0.033	0.019
TCL_BP	(9)	0.024	0.481*	0.350*	0.399*	0.126*	0.323*	0.176*	0.091*	0.809*	-0.046*	0.263*	0.323*	0.344*
TCL_ACCTG	(10)	0.131*	-0.007	0.043	0.155*	0.003	-0.013	-0.011	0.019	-0.042	0.423*	-0.075*	-0.005	-0.014
TCL_BOARD	(11)	0.013	0.064*	0.002	0.450*	0.038	0.100*	-0.001	0.015	0.288*	-0.069*	0.659*	0.071*	0.124*
TCL_COMP	(12)	0.068*	-0.076*	-0.074*	0.499*	-0.051*	-0.052*	0.017	-0.023	0.296*	-0.024	0.072*	0.568*	0.057*
TCL_TKOVER	(13)	-0.015	0.247*	0.267*	0.190*	0.085*	0.128*	0.168*	0.033	0.376*	-0.010	0.125*	0.058*	0.937*

* Indicates statistically significant correlation at the 5% level. *AGR*, *CGQ*, *GMI* and *TCL_RATING* are the primary governance ratings of Audit Integrity, ISS, GovernanceMetrics International, and The Corporate Library respectively. *AGR*, *CGQ* and *GMI* ratings are on a 0-100 scale. *TCL_RATING* is converted from an “A” to “F” grade to numerical values 1-5, where “A” equals 5 and “F” equals 1 (no “E”). *CGQ* sub-scores cover “Audit Review” (*CGQ_AUDIT*), “Board of Directors” (*CGQ_BOARD*), “Executive and Director Compensation and Ownership” (*CGQ_COMP*), and “Takeover Defenses” (*CGQ_TKOVER*). *CGQ* sub-scores take values 1-5, where 5 is higher quality governance. *TCL_BP* denotes the percentage of certain “best practices” adopted by a company. *TCL_RATING* sub-scores cover “financial compliance” (*TCL_ACCTG*), “board composition” (*TCL_BOARD*), “CEO compensation” (*TCL_COMP*), and “board effectiveness and shareholder friendliness in the area of takeover defenses” (*TCL_TKOVER*). *TCL_RATING* sub-scores take values of “very high concern,” “high concern,” and “low concern,” which are re-coded as 1, 2, and 3 respectively.

Table 1: Summary of Primary Governance Ratings

Panel C: Industry Composition

(% of each rating sample in each of 24 GICS Industry Groups)

	AGR	CGQ	GMI	TCL	Compustat
Energy	4.42	4.40	4.81	4.52	6.06
Materials	4.72	4.71	6.36	6.34	6.31
Capital Goods	7.65	7.65	8.18	7.99	6.87
Commercial & Professional Services	3.33	3.25	3.25	3.25	3.37
Transportation	1.95	1.94	2.14	2.48	1.99
Automobiles & Components	1.48	1.52	1.62	1.87	1.43
Consumer Durables & Apparel	4.29	4.40	4.61	4.80	3.78
Consumer Services	3.56	3.63	4.03	4.08	3.40
Media	3.07	3.05	3.18	3.36	3.13
Retailing	5.21	4.98	6.04	6.39	3.77
Food & Staples Retailing	0.92	0.93	1.17	1.27	0.79
Food, Beverage & Tobacco	2.34	2.42	2.99	3.03	2.27
Household & Personal Products	0.76	0.80	0.84	0.99	0.91
Health Care Equipment & Services	7.62	7.62	7.40	6.84	6.82
Pharma, Biotech & Life Sciences	7.42	7.20	3.44	3.09	6.17
Banks	7.52	7.75	5.52	5.62	9.28
Diversified Financials	2.57	2.53	3.18	3.03	2.84
Insurance	2.87	2.80	3.64	3.36	2.59
Real Estate	4.16	4.29	3.64	3.53	3.21
Software & Services	8.31	8.34	6.30	7.06	9.19
Technology Hardware & Equipment	6.99	6.99	7.34	7.00	7.24
Semiconductors (inc. Equipment)	3.99	3.95	4.16	4.08	2.67
Telecommunication Services	1.72	1.63	1.17	1.32	2.66
Utilities	3.13	3.22	5.00	4.69	3.26

GICS refers to the Global Industrial Classification System, as used by CGQ. Compustat sample is restricted to those firms with GICS on file.

Table 2: Governance Ratings and Future Restatements

Panel A: Primary governance ratings, unconditional analysis

	AGR	CGQ_ INDUSTRY	GMI	TCL_ RATING
Rating	-0.318***	-0.0327	-0.417***	0.0241
	(0.053)	(0.081)	(0.11)	(0.098)
Observations	6846	5148	1584	1938
Pseudo R ²	0.014	0.0001	0.021	<0.0001

Panel B: Primary governance ratings, conditional analysis

	AGR	CGQ_ INDUSTRY	GMI	TCL_ RATING
Rating	-0.309***	-0.0879	-0.404***	-0.0359
	(0.051)	(0.079)	(0.12)	(0.094)
Observations	5696	4398	1489	1810
Pseudo R ²	0.019	0.007	0.026	0.017

Panel C: Governance rating sub-scores, unconditional analysis

	CGQ_ AUDIT	CGQ_ BOARD	CGQ_ COMP	CGQ_ TKOVER	TCL_ ACCTG	TCL_ BP	TCL_ BOARD	TCL_ COMP	TCL_ TKOVER
Rating	-0.0248	-0.0324	0.0128	-0.0199	-0.261***	-0.154**	0.0647	0.107	-0.0672
	(0.079)	(0.070)	(0.069)	(0.080)	(0.069)	(0.074)	(0.13)	(0.11)	(0.084)
Observations	4950	4948	4948	4948	1928	1919	1926	1923	1920
Pseudo R ²	<0.001	<0.001	<0.001	<0.001	0.011	<0.003	<0.001	0.001	<0.001

Panel D: Governance rating sub-scores, conditional analysis

	CGQ_ AUDIT	CGQ_ BOARD	CGQ_ COMP	CGQ_ TKOVER	TCL_ ACCTG	TCL_ BP	TCL_ BOARD	TCL_ COMP	TCL_ TKOVER
Rating	-0.0819	-0.108*	-0.0238	-0.0437	-0.249***	-0.143*	-0.0595	0.0665	-0.0577
	(0.083)	(0.065)	(0.064)	(0.082)	(0.069)	(0.085)	(0.12)	(0.11)	(0.085)
Observations	4224	4223	4223	4223	1801	1793	1799	1796	1794
Pseudo R ²	0.007	0.007	0.006	0.006	0.0264	0.020	0.017	0.017	0.018

*, **, *** Indicates significance at the 10 percent, 5 percent, and 1 percent levels, respectively. Numbers in parentheses are standard errors clustered by two-digit SIC code.

Results are for logit regressions where the dependent variable equals 1 if the firm files a restatement of financial statements for years between 2004 and 2007 involving revenues or expenses in the two years after December 31, 2005 (per Glass,

Lewis database), 0 otherwise, and independent variables are the indicated governance rating as of December 31, 2005 and either a constant (unconditional analysis) or controls (conditional analysis). Following Larcker, Richardson and Tuna (2007), the controls used are debt-to-market (*Leverage*), book-to-market (*BM*), *External Financing*, log of market capitalization, *Log(MarketValue)*, cash spent on acquisitions (*Acquisitions*) and *Free Cash Flow*. All controls are measured for the latest fiscal year ending on or before September 30, 2005. Each governance rating is standardized to have a mean of zero and standard deviation of one. Only coefficients on the ratings are reported for reasons of space. To be included in the sample, firm must have data for controls on Compustat. See Panel A of Table 1 for definitions of rating variables.

Table 3: Governance Ratings and Future Class-Action Lawsuits

Panel A: Primary governance ratings, unconditional analysis

	AGR	CGQ_ INDUSTRY	GMI	TCL_ RATING
Rating	-0.392*** (0.068)	0.379*** (0.090)	-0.123 (0.11)	-0.198** (0.10)
Observations	5368	4376	1557	1874
Pseudo R ²	0.019	0.013	0.002	0.005

Panel B: Primary governance ratings, conditional analysis

	AGR	CGQ_ INDUSTRY	GMI	TCL_ RATING
Rating	-0.395*** (0.074)	0.00912 (0.10)	-0.317*** (0.12)	-0.154 (0.11)
Observations	5368	4376	1557	1874
Pseudo R ²	0.092	0.093	0.099	0.073

Panel C: Governance rating sub-scores, unconditional analysis

	CGQ_ AUDIT	CGQ_ BOARD	CGQ_ COMP	CGQ_ TKOVER	TCL_ ACCTG	TCL_ BP	TCL_ BOARD	TCL_ COMP	TCL_ TKOVER
Rating	0.0917 (0.088)	0.386*** (0.089)	-0.113 (0.082)	-0.0202 (0.083)	0.0456 (0.11)	-0.115 (0.10)	-0.0967 (0.096)	-0.234*** (0.085)	-0.0483 (0.10)
Observations	4221	4219	4219	4219	1869	1860	1867	1864	1861
Pseudo R ²	0.0011	0.015	0.001	0.000	0.000	0.001	0.001	0.008	0.000

Panel D: Governance rating sub-scores, conditional analysis

	CGQ_ AUDIT	CGQ_ BOARD	CGQ_ COMP	CGQ_ TKOVER	TCL_ ACCTG	TCL_ BP	TCL_ BOARD	TCL_ COMP	TCL_ TKOVER
Rating	-0.0990 (0.091)	0.0814 (0.097)	-0.202** (0.084)	-0.0336 (0.084)	0.0267 (0.11)	-0.183* (0.11)	-0.115 (0.10)	-0.137 (0.093)	-0.110 (0.10)
Observations	4221	4219	4219	4219	1869	1860	1867	1864	1861
Pseudo R ²	0.095	0.095	0.096	0.094	0.071	0.074	0.071	0.073	0.072

*, **, *** Indicates significance at the 10 percent, 5 percent, and 1 percent levels, respectively. Numbers in parentheses are standard errors. Results are for logit regressions where the dependent variable (*Lawsuit*) equals 1 if a class-action lawsuit is filed against the firm in the two years after December 31, 2005 (per the Woodruff Sawyer database), 0 otherwise, and the independent variables are the indicated governance rating as of December 31, 2005 and either a constant (unconditional analysis) or controls (conditional analysis). Following Rogers and Stocken (2005), we use the following controls: the natural log of the average market value of equity (*Size*), average daily turnover divided by average shares outstanding (*Turnover*), the slope coefficient from a regression of daily returns on the CRSP value-weighted index (*Beta*), buy-and-hold returns (*Returns*), the standard deviation, skewness and minimum value of daily returns (*Std Dev(Returns)*, *Skewness(Returns)*, *Min(Returns)* respectively) and indicators for membership of the following industry groups: Biotechnology, Computer Hardware, Electronic, Retailing, and Computer Software (see Rogers and Stocken, 2005 for SIC codes). All controls are measured over the year ending December 31, 2005. Each governance rating is standardized to have a mean of zero and standard deviation of one. To be included in the sample, firm must have data for controls on CRSP. Only coefficients on the ratings are reported for reasons of space. See Panel A of Table 1 for definitions of rating variables.

Table 4: Governance Ratings and Future Operating Performance

Panel A: Primary governance ratings, without lagged ROA

	AGR	CGQ_ INDUSTRY	GMI	TCL_ RATING
Rating	0.0255*** (0.0036)	0.00149 (0.0038)	-0.00668* (0.0034)	0.00785** (0.0031)
<i>ln(MV)</i>	0.0490*** (0.0016)	0.0411*** (0.0017)	0.0208*** (0.0026)	0.0239*** (0.0021)
Constant	-0.346*** (0.010)	-0.274*** (0.011)	-0.111*** (0.021)	-0.138*** (0.017)
Observations	5271	4163	1466	1753
R-squared	0.16	0.17	0.04	0.07

Panel B: Primary governance ratings, with lagged ROA

	AGR	CGQ_ INDUSTRY	GMI	TCL_ RATING
Rating	0.00528*** (0.0018)	-0.00220 (0.0021)	-0.000833 (0.0014)	-0.00232 (0.0015)
<i>Ind.Adj. ROA_{t-1}</i>	0.878*** (0.0067)	0.855*** (0.0086)	0.948*** (0.011)	0.903*** (0.012)
<i>ln(MV)</i>	0.00787*** (0.00083)	0.00819*** (0.00098)	0.00489*** (0.0010)	0.00383*** (0.0011)
Constant	-0.0598*** (0.0054)	-0.0602*** (0.0063)	-0.0425*** (0.0084)	-0.0301*** (0.0082)
Observations	5271	4163	1466	1753
R-squared	0.80	0.75	0.85	0.78

Table 4: Governance Ratings and Future Operating Performance

Panel C: Governance rating sub-scores, without lagged ROA

	CGQ_ AUDIT	CGQ_ BOARD	CGQ_ COMP	CGQ_ TKOVER	TCL_ ACCTG	TCL_ BP	TCL_ BOARD	TCL_ COMP	TCL_ TKOVER
Rating	-0.0114*** (0.0033)	-0.0101*** (0.0035)	-0.00522 (0.0032)	-0.00366 (0.0032)	0.00593* (0.0031)	-0.00226 (0.0031)	0.0103*** (0.0031)	0.00420 (0.0031)	-0.000298 (0.0030)
<i>ln(MV)</i>	0.0440*** (0.0015)	0.0448*** (0.0017)	0.0431*** (0.0015)	0.0428*** (0.0015)	0.0225*** (0.0021)	0.0234*** (0.0021)	0.0243*** (0.0021)	0.0238*** (0.0021)	0.0233*** (0.0021)
Constant	-0.290*** (0.0099)	-0.295*** (0.011)	-0.285*** (0.0097)	-0.283*** (0.0097)	-0.127*** (0.017)	-0.135*** (0.017)	-0.141*** (0.017)	-0.138*** (0.017)	-0.134*** (0.016)
Observations	4057	4055	4055	4055	1746	1738	1744	1742	1739
R-squared	0.17	0.17	0.17	0.17	0.07	0.07	0.07	0.07	0.07

Panel D: Governance rating sub-scores, with lagged ROA

	CGQ_ AUDIT	CGQ_ BOARD	CGQ_ COMP	CGQ_ TKOVER	TCL_ ACCTG	TCL_ BP	TCL_ BOARD	TCL_ COMP	TCL_ TKOVER
Rating	-0.00588*** (0.0018)	-0.00585*** (0.0019)	-0.00130 (0.0017)	-0.00203 (0.0018)	-0.00215 (0.0015)	0.000135 (0.0015)	0.000240 (0.0015)	0.000892 (0.0015)	-0.000398 (0.0015)
<i>Ind.Adj. ROA_{t-1}</i>	0.853*** (0.0088)	0.853*** (0.0088)	0.854*** (0.0088)	0.854*** (0.0088)	0.902*** (0.012)	0.901*** (0.012)	0.903*** (0.012)	0.900*** (0.012)	0.901*** (0.012)
<i>ln(MV)</i>	0.00845*** (0.00092)	0.00900*** (0.00098)	0.00787*** (0.00090)	0.00780*** (0.00090)	0.00441*** (0.0010)	0.00430*** (0.0010)	0.00419*** (0.0011)	0.00452*** (0.0011)	0.00433*** (0.0010)
Constant	-0.0617*** (0.0059)	-0.0649*** (0.0062)	-0.0584*** (0.0058)	-0.0580*** (0.0058)	-0.0349*** (0.0081)	-0.0340*** (0.0081)	-0.0330*** (0.0083)	-0.0357*** (0.0083)	-0.0342*** (0.0081)
Observations	4057	4055	4055	4055	1746	1738	1744	1742	1739
R-squared	0.75	0.75	0.75	0.75	0.78	0.78	0.78	0.78	0.78

*, **, *** Indicates significance at the 10 percent, 5 percent, and 1 percent levels, respectively. Numbers in parentheses are standard errors.

Results are for OLS regressions where the dependent variable is industry-median adjusted ROA (*Adj. ROA*) and the independent variables are the indicated governance rating as of December 31, 2005 and, following Larcker, Richardson and Tuna (2007), the logarithm of market value, $\ln(MV)$. Industries are defined using two-digit SIC codes. ROA is defined as using income from operations (data #178) divided by average total assets (average of Compustat data #6 for current and prior fiscal year) for the fiscal year ending between June 2006 and May 2007. ROA is winsorized to have an absolute value not greater than one. To be included in the sample, firm must have data for ROA on Compustat and be in an industry with at least 5 observations on ROA. In Panels B and D, we also include industry-adjusted ROA for the prior fiscal year (*Adj. ROA_{t-1}*). Each governance rating is standardized to have zero mean unit variance. Only coefficients on the ratings are reported for reasons of space. See Panel A of Table 1 for definitions of rating variables.

Table 5: Governance Ratings and Tobin's Q**Panel A: Primary governance ratings, without lagged Tobin's Q**

	AGR	CGQ_ INDUSTRY	GMI	TCL_ RATING
Rating	-0.0800***	-0.177***	0.00282	0.0812***
	(0.031)	(0.026)	(0.028)	(0.026)
Ind. fixed effects	Yes	Yes	Yes	Yes
Observations	5188	4159	1466	1752
R-squared	0.13	0.16	0.19	0.18

Panel B: Primary governance ratings, with lagged Tobin's Q

	AGR	CGQ_ INDUSTRY	GMI	TCL_ RATING
Rating	0.0239	-0.0146	0.0401***	0.00680
	(0.018)	(0.017)	(0.013)	(0.013)
<i>Tobin's Q_{t-1}</i>	0.542***	0.551***	0.758***	0.761***
	(0.0056)	(0.0070)	(0.010)	(0.010)
Ind. fixed effects	Yes	Yes	Yes	Yes
Observations	5114	4150	1464	1749
R-squared	0.70	0.67	0.84	0.81

Table 5: Governance Ratings and Tobin's Q

Panel C: Governance rating sub-scores, without lagged Tobin's Q

	CGQ_ AUDIT	CGQ_ BOARD	CGQ_ COMP	CGQ_ TKOVER	TCL_ ACCTG	TCL_ BP	TCL_ BOARD	TCL_ COMP	TCL_ TKOVER
Rating	-0.0459*	-0.0870***	0.0867***	0.0432	0.122***	0.0260	0.0292	0.0250	0.00303
	(0.027)	(0.027)	(0.026)	(0.027)	(0.026)	(0.027)	(0.026)	(0.026)	(0.026)
Ind. fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4054	4052	4052	4052	1745	1737	1743	1741	1738
R-squared	0.15	0.15	0.15	0.15	0.19	0.18	0.18	0.18	0.18

Panel D: Governance rating sub-scores, with lagged Tobin's Q

	CGQ_ AUDIT	CGQ_ BOARD	CGQ_ COMP	CGQ_ TKOVER	TCL_ ACCTG	TCL_ BP	TCL_ BOARD	TCL_ COMP	TCL_ TKOVER
Rating	0.0307*	-0.0195	0.0283*	0.0129	-0.00349	0.00810	0.00679	0.00827	0.00259
	(0.017)	(0.017)	(0.017)	(0.017)	(0.013)	(0.012)	(0.013)	(0.012)	(0.012)
<i>Tobin's Q_{t-1}</i>	0.552***	0.550***	0.550***	0.551***	0.766***	0.769***	0.761***	0.758***	0.769***
	(0.0070)	(0.0070)	(0.0070)	(0.0070)	(0.010)	(0.0099)	(0.010)	(0.0099)	(0.0099)
Ind. fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4045	4043	4043	4043	1742	1734	1740	1738	1735
R-squared	0.67	0.67	0.67	0.67	0.81	0.82	0.81	0.82	0.82

*, **, *** Indicates significance at the 10 percent, 5 percent, and 1 percent levels, respectively. Numbers in parentheses are standard errors.

Results are for OLS regressions where the dependent variable is *Tobin's Q*, defined as the ratio $(TA + MVE - BVE)/TA$, where *TA* is total assets (Compustat item #6), *MVE* is market capitalization (item #199 * item #25) and *BVE* is the book value of equity (item #60), each for the fiscal year ending between June 2006 and May 2007. Each governance rating is standardized to have a mean of zero and standard deviation of one. To be included in the sample, firm must have data for *Tobin's Q* on Compustat and be in an industry with at least 5 observations. Industry fixed effects are not reported for reasons of space. See Panel A of Table 1 for definitions of rating variables.

Table 6: Governance Ratings and Future Stock Performance

Panel A: Primary governance ratings

	AGR	CGQ_ INDUSTRY	GMI	TCL_ RATING
Rating	0.00292*** (0.00046)	-0.000347 (0.00050)	0.000742 (0.00055)	0.000974* (0.00058)
Constant	0.000355 (0.00044)	-0.000450 (0.00048)	-0.000535 (0.00055)	-0.000101 (0.00058)
Observations	5263	4220	1560	1851
R-squared	0.01	0.00	0.00	0.00

Panel D: Governance rating sub-scores

	CGQ_ AUDIT	CGQ_ BOARD	CGQ_ COMP	CGQ_ TKOVER	TCL_ ACCTG	TCL_ BP	TCL_ BOARD	TCL_ COMP	TCL_ TKOVER
Rating	-0.000180 (0.00051)	-0.00123** (0.00050)	0.000598 (0.00049)	-0.000640 (0.00049)	-0.000280 (0.00058)	0.000311 (0.00059)	0.000458 (0.00058)	0.000869 (0.00057)	0.000377 (0.00058)
Constant	-0.000812* (0.00049)	-0.000686 (0.00049)	-0.000830* (0.00049)	-0.000820* (0.00049)	-0.0000724 (0.00058)	-0.0000420 (0.00058)	-0.0000398 (0.00058)	-0.0000329 (0.00058)	-0.0000377 (0.00058)
Observations	4070	4069	4069	4069	1845	1837	1843	1840	1837
R-squared	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*, **, *** Indicates significance at the 10 percent, 5 percent, and 1 percent levels, respectively. Numbers in parentheses are standard errors.

Results are for OLS regressions where the dependent variable is alpha estimated as the residual from a four-factor Fama-French model with a momentum factor (*Alpha*) estimated over the 21 months after December 31, 2005 (a minimum of 12 months of return data are required for inclusion), See Panel A of Table 1 for definitions of rating variables. Factor data obtained from Ken French's website.

Table 7: CGQ, ISS Recommendations, and Shareholder Voting

Panel A: Primary governance ratings, unconditional analysis

	All votes	Compensation plans
Constant	0.5558*** (0.0015)	-0.1127 (0.2082)
CGQ_INDUSTRY	0.0250*** (0.0864)	0.0281*** (0.0035)
Marginal effect of changes in CGQ_INDUSTRY on probability that ISS recommends a vote “for” the proposal (evaluated at the mean value for CGQ_INDUSTRY)	0.0022	0.0037
Observations	17,352	899

Panel B: CGQ and shareholder voting outcomes

	All votes		Compensation plans	
Constant	0.9542*** (0.0001)	0.7900 (0.0096)	0.8320*** (0.0134)	0.7378*** (0.0166)
CGQ_INDUSTRY	-0.0004*** (0.0001)	-0.0009 (0.0001)	-0.0001 (0.0002)	-0.0008*** (0.0002)
ISS recommendation		0.2284*** (0.0112)		0.1690*** (0.0145)
Observations	17,139	17,139	894	894

*, **, *** Indicates significance at the 10 percent, 5 percent, and 1 percent levels, respectively. Numbers in parentheses are standard errors clustered by firm. Results in Panel A are for logit regressions where the dependent variable equals 1 if the ISS recommends a vote “for” a proposal. Results in Panel B are for Tobit regressions (with bounds at 0 and 1) where the dependent variable *percent_for* is calculated as the numbers of votes for a proposal divided by the sum of votes for, votes against plus abstentions. Shareholder voting data are for initiatives voted on at meetings in 2005 and 2006 for which we have prior CGQ ratings. Votes on compensation plans include votes on compensation, stock and option plans, excluding non-employee plans. See Panel A of Table 1 for definitions of rating variables.

Table 8: Summary of Primary Results

Dependent variable		Primary Ratings				CGQ Sub-scores				TCL Sub-scores				
		AGR	CGQ	GMI	TCL_	CGQ_	CGQ_	CGQ_	CGQ_	TCL_	TCL_	TCL_	TCL_	TCL_
					RATING	AUDIT	BOARD	COMP	TKOVER	ACCTG	BP	BOARD	COMP	TKOVER
Restatements	No controls	***		***						***	**			
	Controls	***		***			*			***	*			
Class-action Lawsuits	No controls	***	xxx		**		xxx						***	
	Controls	***		***				**			*			
Operating performance	No lag	***		x	**	xxx	xxx			*		***		
	Lagged ROA	***				xxx	xxx							
Tobin's Q	No lag	xxx	xxx		***	x	xxx	***		***				
	Lagged Q			***		*		*						
Stock performance		***			*		xx							

*, **, *** Indicates significance with the expected sign at the 10 percent, 5 percent, and 1 percent levels, respectively.

x, xx, xxx Indicates significance but with the unexpected sign at the 10 percent, 5 percent, and 1 percent levels, respectively.

Figure 1: Distribution of Ratings

