CEO Reputation and Earnings Quality

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We examine the association between CEO reputation (proxied by the extent of press coverage) and the quality of the firm's earnings (proxied by two accruals-based measures). We test three explanations for an association between these constructs: the efficient contracting hypothesis suggests that reputed CEOs are associated with good earnings quality, while the rent extraction and matching explanations argue that reputed CEOs are associated with poor earnings quality. Using a simultaneous equations system to capture the endogeneity of the constructs, we find (consistent with the rent extraction and matching arguments) that more reputed CEOs are associated with poorer earnings quality than are less-reputed CEOs. Further tests find little support for the rent extraction hypothesis. We conclude that the reason more reputed CEOs are associated with poor earnings quality firms is that such firms require more talented managers and, therefore, employ more reputed CEOs.

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1. Introduction

A substantial body of research is dedicated to understanding the determinants of firms' reporting and disclosure decisions (see Fields, Lys and Vincent [2001]; Healy and Palepu [2001] for surveys). This literature primarily analyzes the effects of firm characteristics such as size, market-to-book ratios and leverage on earnings management and disclosure choices. Two results that consistently emerge from this literature are that there is considerable heterogeneity in accounting choices and disclosure practices across firms, and that much of this heterogeneity is not explained by firm-level characteristics, even after controlling for industry effects (Bowen, Rajgopal and Venkatachalam [2004]). The contribution of our paper is to explicitly consider a managerial human capital dimension in explaining the quality of firms' reporting decisions.[1] In particular, we focus on the role of the chief executive officer's (CEO's) reputation on earnings quality. Our primary objective is to provide evidence on whether "reputed CEOs" (that is, CEOs with good reputations, by our measures) are associated with higher, or lower, quality earnings.

We probe three explanations for a link between CEO reputation and earnings quality. In understanding and testing these explanations (described shortly), it is important to distinguish between whether the explanation speaks primarily to the portion of earnings quality that is attributable to innate features of the firm's operating environment and production technology (we term this innate earnings quality) or the portion that can be influenced by actions taken in the short run (we term this discretionary earnings quality). Two of our three explanations (efficient contracting and rent extraction) speak more to discretionary earnings quality, while the third (matching) pertains more to innate earnings quality. We note this distinction to make clear to the reader that tests of each explanation depend on our ability to distinguish between the portion of earnings quality that can be influenced by the CEO in the short run and

[1] Graham, Harvey and Rajgopal [2004] report survey evidence indicating that managers' career concerns, especially those related to external reputation, exert a significant influence on the financial reporting decisions taken by these officers.

the portion that can not. Because these components of earnings quality are estimated not observed, our inferences are subject to caveats about the estimation procedures used to characterize the innate versus discretionary components of earnings quality.[2] In this regard, our proxies for discretionary earnings quality suffer from the same criticisms raised about earnings management proxies (see, for example, Guay, Kothari and Watts [1996]; Bernard and Skinner [1996]).

Turning to the first explanation for a link between CEO reputation and earnings quality, economic theory suggests that managers with significant reputations at stake will not indulge in opportunistic rent seeking behavior (e.g., Fama [1980]; Kreps, Milgrom, Roberts and Wilson [1982]; and Kreps [1990]). In a reputation context, this "efficient contracting" perspective predicts that reputed CEOs are less likely to take actions that result in poor *discretionary* quality reporting for two reasons. First, reputed CEOs have more to lose, in terms of their own human capital, if they make accounting and disclosure choices that result in poor discretionary quality. Second, given prior studies' evidence that firms with good quality earnings are associated with lower costs of capital,[3] we expect that reputed CEOs – to the extent they are more knowledgeable than CEOs without established reputations – avoid actions that result in higher costs of capital for their firms (unless such actions bring commensurate increases in returns). Hence, the efficient contracting hypothesis predicts that firms managed by reputed CEOs have better discretionary earnings quality.

In contrast, the "rent extraction" perspective argues that reputed CEOs overemphasize their personal career enhancement and, in so doing, take actions which may worsen *discretionary* earnings quality. For example, in striving to meet earnings targets, managers may reduce the quality of accruals. Research shows that failure to meet earnings targets is costly to managers. For example, Matsunaga and

[2] In addition to estimating its components, total earnings quality itself must be estimated. Our results, therefore, are also subject to the caveat that our proxy for earnings quality meaningfully captures this construct. On this point, we note that: (i) we follow prior studies' operationalizations of earnings quality; and (ii) we find similar results using two distinct measures of earnings quality.

[3] Analytical research supporting this association is provided by Easley and O'Hara [2004] and Leuz and Verrecchia [2004]. Empirical evidence of higher costs of capital for firms with poorer information quality is reported by Barth and Landsman [2003], Barone [2003], Bhattacharya, Daouk and Welker [2003], and Francis, LaFond, Olsson and Schipper [2004; 2005]. In contrast, Cohen [2004] examines whether exogenous variables explain *both* reporting quality and its economic consequences. He finds that reporting quality is associated with bid-ask spreads and analyst forecast dispersion, but not with his implied estimates of the cost of equity capital.

Park [2001] provide evidence that missing targets is linked to lower cash compensation, and Farrell and Whidbee [2003] show higher rates of job dismissal for managers who fail to meet analysts' earnings targets. Finally, Graham, Harvey and Rajgopal [2004] find that surveyed CFOs think that meeting or beating earnings benchmarks enhances the external reputation of their management team. Thus, the rent extraction hypothesis predicts the opposite relation to the efficient contracting hypothesis: firms managed by reputed CEOs have poorer discretionary earnings quality.

Our tests of the efficient contracting and rent extraction hypotheses are complicated by two issues. First, CEOs are not randomly assigned to firms; rather, firms likely select CEOs with specific attributes based on the needs of the firm (see, for example, Rosen [1990] who argues that larger firms require the skills of more talented managers). In our setting, we expect boards of directors of firms with poor earnings quality will seek out more reputed CEOs because the characteristics of these firms that give rise to poor earnings quality (e.g., more volatile operating environments) require the superior skills and talents of more reputed managers. The fact that firms select CEOs based on characteristics of both the CEO and the firm indicates that the relation between earnings quality (both the innate and discretionary components) and CEO reputation is endogenous, and should be modeled as a set of simultaneous equations. Specifically, we model total earnings quality as a function of CEO reputation and firm-specific variables which capture innate features of the firm's operating environment (such as size, cash flow and sales variability, length of operating cycle and incidence of losses), and we model CEO reputation as a function of total earnings quality and attributes of the CEO (his age, tenure, and prior position) and attributes of the firm (such as firm size and intangible-intensity) that are expected to influence the perception of higher reputation.

Second, and as noted earlier, it is not possible to devise a set of variables that perfectly disentangle the innate portion of earnings quality from the discretionary portion. In our case, the potential incompleteness of the set of innate factors does not likely affect inferences concerning the efficient contracting versus rent extraction explanations, since these explanations predict opposite relations between CEO reputation and discretionary earnings quality. However, the incompleteness of these

factors may affect our ability to distinguish between the rent extraction and matching explanations, since both of these explanations predict that CEO reputation is associated with poorer earnings quality – poorer discretionary quality in the case of rent extraction and poorer innate earnings quality in the case of matching. In particular, omitted innate factors would likely bias our tests toward observing rent extraction. To address this limitation of the simultaneous equations tests, we perform additional small-sample tests of which theory best explains the observed associations between CEO reputation and earnings quality.

Our main tests are performed on about 1,900 firm-year observations for S&P 500 firms over 1992-2001. We proxy for CEO reputation using the number of articles containing the CEO's name that appear in the major U.S. and global business newspapers and business wires services as identified through searches of the *Dow Jones Interactive* database. We follow Milbourn [2002] and argue that more reputed CEOs are likely to be cited by the business press more often than less reputed CEOs. Results of three validity tests for this proxy (described in section 3) generally support the use of press coverage as a measure of the CEO's reputation. We follow Francis et al. [2005] and measure (total) earnings quality in two ways: as the standard deviation of the firm-specific residuals obtained from Dechow and Dichev [2002] regressions of current accruals on lagged, current and future cash flows and, separately, as the firm's five-year average of the absolute value of performance-matched abnormal accruals. We view firms with larger standard deviations of residuals and larger absolute abnormal accruals as having poorer total earnings quality than firms with smaller values of these metrics.

Results from the simultaneous equations analysis indicate that reputed CEOs are associated with both poorer discretionary earnings quality and poorer total earnings quality; this finding is consistent with either the rent extraction hypothesis or the matching hypothesis. Additional tests are not consistent with the rent extraction explanation. In particular, if entrenched CEOs exploit their power to manipulate earnings numbers (as suggested by the rent extraction hypothesis), we expect the association between CEO reputation and poor discretionary earnings quality to be more pronounced for firms with weak governance (i.e., where the CEO has more power and influence over earnings quality). We do not find

this to be the case: firms where the board of directors is less independent (our proxy for CEO power) exhibit the same association between CEO reputation and discretionary earnings quality as firms where there is more board independence. Further, if matching explains the link between CEO reputation and poor total earnings quality, we expect that when poor earnings quality firms change their CEO, they will replace the prior CEO with a more-reputed CEO. Consistent with this conjecture, we find that poor quality firms are more likely to "trade-up" in the sense that they hire new CEOs who are more reputed than the prior CEOs. Finally, we find no evidence that earnings quality deteriorates after hiring CEOs who are more-reputed than the prior CEO; this evidence is also not consistent with a rent extraction explanation.

Aggregating results across our tests, we draw several conclusions. First, while our tests point to firm-specific factors as providing most of the explanatory power for earnings quality, we find that the human capital component of the top executive officer is also important. In particular, we find that the CEO's reputation (which is, in part, determined by characteristics of the CEO, such as his age, tenure with the firm, and prior position) is a significant (at the 0.001 level) factor explaining firms' earnings quality. Our second conclusion relates to how and why the CEO's human capital component affects earnings quality. The results indicate that the reason more reputed CEOs are associated with poorer earnings quality firms is not because these CEOs take discretionary actions to reduce earnings quality; rather, it is because poor earnings quality firms require the talents of more-reputed CEOs. That is, the factors that give rise to poor earnings quality (such as volatile operating environments) are the same factors that require the superior skills of more-reputed CEOs. Based on the combined evidence from our tests, we conclude that matching explains why firms with poor earnings quality have more-reputed CEOs: boards of directors hire specific managers due to the reputation and expertise these individuals bring to managing the more complex and volatile operating environments of these firms.

The remainder of the paper is organized as follows. Section 2 reviews prior research, develops the hypotheses, and details the research design. Section 3 describes the sample and data, and reports the results of validity tests of our proxy for CEO reputation. Section 4 reports the results of the simultaneous

equations, and section 5 augments these tests with two additional analyses aimed at distinguishing between the rent extraction and matching explanations. Section 6 summarizes the results and concludes.

2. Prior Research, Hypothesis Development, and Research Design

In this section, we begin by summarizing research on managerial reputation (section 2.1). We then describe theories as to why reputation is expected to influence the quality of the firm's financial reporting (section 2.2). We finish by describing the research design that we use to test the hypotheses generated by these theories (section 2.3).

2.1. Prior research

While accounting research rarely examines the effects of managerial traits on firms' reporting decisions, a small body of work in the finance and economics literatures has considered the effects of managerial characteristics on firms' investment and financing decisions.[4] Bertrand and Schoar [2002] find that managerial style affects firms' corporate policy decisions, with such differences also reflected in managers' compensation levels. Richardson, Tuna and Wysocki [2003] find that firms that share common directors also share governance, financial, disclosure, and strategic policy choices. In their investigation of the effect of mutual fund managers' age and schooling on fund performance, Chevalier and Ellison [1999] find that younger managers and managers who have attended better schools earn higher rates of return. Graham and Harvey [2001] provide survey-based evidence that CFOs with an MBA degree use more sophisticated valuation techniques compared to those without an MBA degree.

To our knowledge, Milbourn [2002] is the only paper that explicitly considers CEO reputation, measured as the number of press articles citing the CEO. He shows that compensation contracts given to reputed CEOs (i.e., those with more media-counts) exhibit greater pay-for-performance sensitivity. Because data on media-count proxies for CEO reputation are available for all firms (because all firms are

[4] The impact of managerial characteristics on organizational outcomes has also received attention in the strategy literature. For example, Hambrick and Mason [1984] and Waldman, Ramirez, House and Puranam [2001] investigate how managers' demographic characteristics affect their leadership style, communications process, or charisma. Fomburn and Shanley [1990] seek to explain determinants of corporate reputation and find that firms that receive greater media coverage demonstrate greater social concern and perform better.

potential candidates for press coverage), whereas data on other potential proxies are not,[5] we use press coverage-based proxies in our analyses.

2.2. Hypothesis Development

The directional association between earnings quality and CEO reputation depends on the economic perspective one takes. In this section, we consider three such perspectives based on theories of efficient contracting, rent extraction, and matching of managers with firms.

Under the efficient contracting perspective, more-reputed CEOs are more likely to be associated with better discretionary earnings quality than are less-reputed CEOs because the former have more to lose, in terms of both credibility and future wages, if they systematically exploit reporting discretion to portray their firm in a more favorable light than warranted by underlying economic circumstances. This hypothesis builds on Fama's [1980] model where observers use an agent's prior record and past history to infer some personal trait, such as credibility. Knowing this, the agent has incentives to act in ways that affect the market's beliefs. That is, an agency value of reputation arises because current behavior has a memory when the past is used to update current beliefs. Loss of reputation serves as a deterrent to reporting poor quality earnings when the capital value of the consequences of such an action is greater than the benefit of the malfeasance.[6] Recent evidence also suggests that the capital consequences of poor earnings quality are not trivial: firms with the worst earnings quality have significantly larger costs of capital relative to firms with the best earnings quality (e.g., Francis et al. [2005]).[7] To the extent a CEO creates poor earnings quality by opportunistically exploiting reporting discretion, we expect the labor market to compensate for the attendant increases in the firm's cost of capital by reducing the CEO's future wages.

[5] In particular, we collected data on where the CEO went to school and the maximum education level of the CEO (high school, undergraduate degree, masters degree, doctoral degree). Because education data were not available or were incomplete for most of the CEOs in our sample, we do not pursue these measures.

[6] Besides adverse financial consequences in the form of declines in wages, loss of reputation may result in decline in social prestige, disapproval from one's peers, and loss of self-esteem.

[7] Francis et al. [2005] find that while both the innate portion and the discretionary portion of earnings quality have significant cost of capital effects, the magnitude and significance of the innate effects are substantially larger than the discretionary effects.

The rent extraction perspective argues that reputed CEOs over-emphasize career enhancement and hence are keen to meet important earnings targets (such as analyst consensus estimates), even if achieving such targets reduces earnings quality. Evidence that CEOs have incentives to meet such targets because failure to meet them is costly, is provided by several studies: failure to attain earnings goals results in reduced CEO cash compensation (Matsunaga and Park [2001]) and increased likelihood of CEO turnover (Puffer and Weintrop [1991]; also Coughlan and Schmidt [1985]; Warner, Watts, and Wruck [1988]; Weisbach [1988]; Parrino [1997]). Bartov, Givoly and Hayn [2002] further argue that meeting or beating the analysts' consensus forecast may signal better future prospects. Based on this signaling explanation, Lev [2003] suggests that the labor market might perceive a modest degree of earnings management as a sign of competent executives. Consistent with this view, Graham et al. [2004] find that surveyed CFOs believe that meeting or beating earnings benchmarks enhances the external reputation of their management team. To the extent that actions taken to meet/beat targets reduce earnings quality, these arguments suggest that reputed CEOs are associated with poorer discretionary earnings quality.

The matching argument is predicated on the notion that CEOs are *selected* by boards of directors. The selection criteria used by boards encompass many factors, including the existing reputation of the CEO and firm-specific factors (see, for example, Bizjak, Brickley and Coles [1993], Hermalin and Weisbach [1998], Allgood and Farrell [2003], and Joos, Leone and Zimmerman [2003]). In terms of earnings quality, we expect firms with poor innate earnings quality hire reputed CEOs because they [reputed CEOs] are better able to manage these firms than are CEOs with little or no reputation. Selection, therefore, induces the same association as that of the rent extraction hypothesis (more reputed CEOs are associated with firms with lower earnings quality) but for a decidedly different reason.[8]

In summary, the three explanations lead to different predictions about the relation between CEO reputation and earnings quality:

[8] Note that the matching explanation does not argue that firms with good earnings quality are not motivated to hire reputable CEOs. The matching explanation only says that firms with poor earnings quality have a greater incentive to seek more reputed managers than do firms with good earnings quality.

H1: Under the efficient contracting hypothesis, more-reputed CEOs are associated with *better discretionary* earnings quality than are less-reputed CEOs.

H2: Under the rent extraction hypothesis, more-reputed CEOs are associated with *poorer discretionary* earnings quality than are less-reputed CEOs.

H3: Under the matching explanation, more-reputed CEOs are associated with *poorer innate* earnings quality than are less-reputed CEOs.

We note that while H1 and H2 are intended to be mutually exclusive (insofar as we investigate which effect dominates in a broad sample), H3 is not mutually exclusive of either H1 or H2. That is, matching (H3) may occur at the same time that CEOs engage in efficient contracting or rent extraction behavior.

2.3. Research design

To address the potential reverse causality induced by the selection of reputed CEOs by firms with poor earnings quality, we estimate the following system of simultaneous equations:

$$Earnings\,Quality = f(CEO\,Reputation,\ Control(k)) \quad (1)$$

$$CEO\ Reputation = f(Earnings\,Quality,\ Control(l)) \quad (2)$$

The first equation models *total* earnings quality as a function of CEO reputation and a set of *k* firm-specific factors which have been shown to affect *innate* earnings quality (e.g., firm size and variability of cash flows). By including these *k* firm-specific factors in the *EarningsQuality* regression, we can then interpret the coefficient on the proxy for *CEO Reputation* in equation (1) as capturing the influence of the CEO's reputation on the unexplained (or discretionary) portion of the firm's earnings quality.[9] Because our earnings quality proxies (described in section 4) are scaled such that larger (smaller) values represent worse (better) earnings quality, a finding of a negative coefficient relating *CEO Reputation* to *EarningsQuality* in equation (1) is consistent with reputed CEOs being associated with better discretionary earnings quality (the efficient contracting hypothesis, H1). In contrast, a positive

[9] Francis, Olsson and Schipper [2004] use a similar setup to examine the influence of call option instruments on the discretionary portion of earnings quality.

coefficient is consistent with reputed CEOs being associated with poorer discretionary earnings quality (the rent extraction hypothesis, H2).

The second equation in the system addresses the selection of CEOs. Specifically, expression (2) models CEO reputation as a function of total earnings quality (that is, both the innate and discretionary components) and a set of *l* control variables consisting of both CEO-specific instrumental variables (such as CEO age and prior position) and firm-specific variables (such as size, profitability, and intangible-intensity) hypothesized to influence CEO reputation. Both the matching explanation and the rent extraction explanation predict a positive coefficient relating total *EarningsQuality* to *CEO Reputation*.

We find qualitatively similar results (not reported) if we use a measure of innate (rather than total) earnings quality as the independent variable in equation (2); for this purpose, our measure of innate earnings quality equals the predicted value from a regression of total earnings quality on the innate factors. We believe using total earnings quality in equation (2) is more appropriate (than using a measure of innate earnings quality) for two reasons. First, using total earnings quality in equation (2) preserves the potential simultaneous relation modeled in equation (1), where the dependent variable is also total earnings quality. Second, because it is impossible to ensure the completeness of the set of innate factors, we believe that reporting results based on a measure of total earnings quality is more cautious insofar as it does not create the impression (in the reader's mind) that we have, in fact, isolated the uncontrollable-by-the-CEO portion of earnings quality.

As detailed in the Introduction, our ability to draw inferences from equations (1) and (2) to distinguish between rent extraction and matching as possible explanations for a positive association between CEO reputation and earnings quality depends on our ability to isolate the discretionary portion of earnings quality in equation (1). Because we operationalize the discretionary component as the portion that is not explained by the innate factors, *Control(k)* in equation (1), the critical issue is the completeness of the *k* control variables. In particular, to the extent that we have omitted one or more factors that explain innate earnings quality, the coefficient on *EarningsQuality* in equation (1) will reflect the effects of both rent extraction and matching. To address this issue, we report the results of two additional

analyses which explore the distinction between rent extraction and matching; these tests are detailed in section 5.

3. Sample, Data, and Validity Tests

Our sample consists of the top ranking officer of all S&P 500 companies over the ten-year period 1992-2001, as identified from the *ExecuComp* database. Our default assumption is that the chief executive officer (CEO) position is the top ranking position in the firm. Therefore, when a CEO is named, we exclude individuals holding the positions of president, chief operating officer and chairman of the board (unless one or more of those positions is also held by the CEO, in which case we continue to retain the named CEO in our sample). We further exclude CEOs of subsidiaries and divisions. When the position of CEO is held by more than one person in a given year, *ExecuComp* reports the name of the individual who held the position for most of the fiscal year. In total, our sample consists of 4,238 CEO-years, or an average of 424 observations per year. The range in sample observations is 232 in 1992, to 490 in 1999 (not reported).

For each CEO-year, we collect data on how parties external to the firm view the CEO, as reflected in the number of articles containing the CEO's name and company affiliation that appear in the major U.S. and global business newspapers and newswires in calendar year t.[10] The major U.S. newspapers we examine are: *Wall Street Journal* (both weekday and Sunday editions), *New York Times*, *Washington Post*, and *USA Today*. The major international newspapers we consider are the *Financial Times, Asian Wall Street Journal, Wall Street Journal Europe,* and *International Herald Tribune.* Finally, information on press releases is obtained from *PrNewswire* and *Business Wire*.[11] We identify the number of articles of each type, where type is U.S. newspaper articles (*USNews*), international newspaper

[10] We use calendar years rather than fiscal years to simplify the search. Since most of the S&P 500 firms have December year-ends (366, or 74%), differences between calendar and fiscal years should be small for our sample. Moreover, we see no reason non-December fiscal year ends should bias the results in either direction.

[11] We recognize that press releases are internally not externally motivated coverage. That is, the firm initiates the coverage, not a reporter. In unreported tests, we confirm that the inclusion of firm-initiated media coverage does not drive any results.

articles (*IntlNews*), and newswire press releases (*PressReleases*), by searching the full text of these articles on the *Dow Jones Interactive* database. Our text search uses both the CEO's full name and company name.[12] We include an article only once, irrespective of how many times the CEO's name appears in the article. Consistent with Milbourn's [2002] use of media counts as a proxy for reputation, we classify CEOs with larger values of *USNews*, *IntlNews*, *PressReleases*, and their sum, *AllArticles*, as more reputed than CEOs with smaller values of these variables.

Descriptive statistics on the press coverage variables are reported in Table 1, Panel A. In a given year, the average CEO received 24.3 mentions in the press (*AllArticles*). Of these, 12.8 mentions reflect press releases initiated by the firm. Excluding the effect of press releases (as captured by the variable *AllArticles2*, which excludes press releases from the calculation of *AllArticles*), the average CEO received 11.5 external mentions, consisting of 7.5 references in major U.S. newspapers and 4 mentions in major international newspapers. As is evident from these data, the sample distribution of press coverage is highly skewed: for example, the median CEO has only two mentions in U.S. newspapers and one mention in international newspapers. Panel B reports information on the pairwise correlations among these variables; we do not report p-values because all correlations are significant at the 0.001 level. Given the high pairwise correlations between the two aggregate measures, *AllArticles* and *AllArticles2* (the Pearson correlation is 0.95 and the Spearman rank correlation is 0.79), we conclude that the inclusion of *PressReleases* does not affect the identification of CEO reputation. We, therefore, restrict our attention to only one summary measure, *AllArticles*. Untabulated robustness tests show that the reported inferences are insensitive to this choice.

Because a CEO likely develops his or her reputation over several years, measures of CEO reputation based on data in any individual year may be noisy measures of their true reputations. We address this issue by examining the correlation between individual year measures of the press coverage

[12] As our starting point, we use the CEO's name as reported in *ExecuComp*. To avoid understating the press coverage variables, we also search for shortened names (e.g., Bill for William) and common nicknames (e.g., Jack for John). We require a concurrent reference to the company name to avoid overstated counts potentially associated with common names, such as Smith.

proxies and multi-year specifications of these same variables. Specifically, for each CEO where we have data for years t-3 to t, we sum the press coverage proxies over this four year interval; we denote the four-year summed measures of each disclosure variable with the prefix Σ, e.g., *ΣUSNews*. Panel C shows that the correlations between the single and multi-year measures are significantly positive (at the 0.001 level) and large in economic terms, with correlations ranging from 0.83 to 0.92. These results indicate that our yearly reputation measures do capture the CEO's accumulated stock of reputation.

We report three validity tests of our press coverage based proxy for CEO reputation. The first investigates the implicit assumption that the content of media coverage is favorable with respect to the CEO. We provide information about the extent to which press coverage reflects favorable information by reporting results of a coded analysis of a random selection of 500 press articles for our sample. Specifically, we randomly select five CEOs in each of our ten sample years, and for each CEO we read and code the tone of ten randomly-selected articles in that year. We classify the tone of the article as favorable, neutral, or unfavorable, with respect to comments made about the CEO, and separately, with respect to comments made about the firm; we also assess the overall (CEO and firm, combined) tone of the article. Results of this analysis, shown on Table 2, Panel A, indicate that media coverage is overwhelmingly neutral to positive with respect to the CEO (99%). In the same articles, the company is also mentioned in a neutral to favorable light over 94% of the time; the overall analysis shows that the firm and CEO are portrayed in a neutral to positive light about 95% of the time. F-tests (not reported) reject the equality of proportions of favorable, neutral, and unfavorable news for each subject category (CEO, firm, and overall) at the 0.001 level.

Our second validity check examines whether press coverage is positively associated with the likelihood that the CEO is explicitly recognized by a business publication as one of the "top" CEOs in calendar year t. Several business publications develop such annual lists, including *Worth*'s list of the "The Best CEOs" (available 1999-2001) the *Financial Times*' list of the "World's Most Respected Business Leaders" (available 1998-2001), *Fortune*'s list of the "The 50 Most Powerful Women in Business" (available 1998-2001), and *Time*'s list of "The Time/CNN 25 Most Influential" (available for

2001).[13] For each year of its existence, we identify the CEOs included on each list. We classify a CEO as being recognized by these listings if s/he is named on any list in year t, i.e., *Recognition* equals one in year t if the CEO is named on any of these lists, and zero otherwise. Our results are not sensitive to using the number of lists on which the CEO's name appears (e.g., *Recognition* = 3 if the CEO is included on three lists in year t) or to using specifications that incorporate the ranking of the CEO on a given list.[14]

Table 2, Panel B reports the coefficient estimates and t-statistics from logistic regressions of *Recognition* on the press coverage proxies. These regressions also include controls for the size of the firm (measured by the log of sales in year t) and its profitability (measured as return on assets in year t) because some of the business press listings explicitly rate CEOs on the size of the enterprise under their management and its performance. We estimate two specifications of the resulting regression: Model 1 includes *USNews, IntlNews, PressReleases* as independent variables, while Model 2 replaces these variables with *AllArticles*. We note first that, as expected, *Recognition* is associated with firms that are large (chi-square = 35.11, p <0.0001) and profitable (chi-square = 9.23, p=0.002). The results for Model 1 show that when the component measures are considered jointly, *Recognition* is weakly positively associated with media counts: *USNews* is significant at the 0.0968 level, *IntlNews* is significant at the 0.1822 level, and *PressReleases* is significant at the 0.0227 level. Results for Model 2 are stronger, where we observe a positive and highly significant association (chi-square = 45.57, p <0.0001) between *Recognition* and *AllArticles*.

Our third and final validity test examines the correlation between *AllArticles* and the tenure, age and prior position of the CEO. In terms of the first of these variables, we expect that reputed CEOs have longer tenure with their firms because boards of directors are more inclined to retain good executives.

[13] Three of the lists provide explicit guidance as to the criteria examined. *Worth*'s list is based on interviews with Wall Street analysts and fund managers, and identifies the top CEOs in terms of delivering long term shareholder value and high integrity. The *Financial Times* list is based on survey evidence from CEOs around the world, who were asked to identify the three business leaders they admire and respect most. *Fortune* evaluate women executives on four measures: revenues and profits she controls, the importance of her business in the global economy, the arc of her career, and her impact on culture and society. Beginning in 2002 (i.e., after our sample period), *Fortune* also began preparing a list of "Most Powerful Black Executives in America."

[14] We prefer the indicator (0-1) specification since it avoids concerns that not all executives are eligible for inclusion on all lists. Male CEOs are not, for example, eligible for inclusion on *Fortune's* list of powerful women executives.

We measure CEO tenure (*Tenure*) as the number of years the CEO has held the firm's top ranking position, as of year t. Because data on the appointment year of the CEO is reported on *ExecuComp* for only 1,819 of the sample firm-years, we augment the sample by hand-collecting information on appointment years from proxy statement filings; this process increases the sample with data on *Tenure* to 4,238 firm-year observations. Panel C, Table 2 shows that the mean (median) CEO has been in office for 7.84 (6) years. In contrast to our conjecture that reputed CEOs have longer tenure, we find no reliable association between *AllArticles* and *Tenure*: specifically, both the Pearson and Spearman correlations are indistinguishable from zero.

We also examine the association between CEO reputation and CEO age, based on Joos et al.'s [2003] arguments that age proxies for characteristics that are potentially attractive in the CEO hiring process. Although these arguments do not imply that older CEOs should have better (or worse) *reputations* than younger CEOs, we provide descriptive evidence on our sample's correlation between these variables. Data on the CEO's age (*Age*) in year t is hand-collected from proxy statement filings; these data are available for 2,568 firm-year observations. For this sample, Panel C shows that the average and median CEO age is 55, with an inter-quartile range of 51 (25^{th} percentile) and 59 (75^{th} percentile). The correlation between *Age* and *AllArticles* is negative based on Pearson tests (-0.046, significant at the 0.024 level) and zero for Spearman tests (0.014, p-value of 0.494). Additional tests (not reported) reveal that the significant negative association is driven entirely by the *PressRelease* component of *AllArticles* (indicating that younger CEOs issue more press releases than older CEOs).

Finally, we consider whether the CEO was appointed from inside or outside the firm. We expect that outside appointments are associated with more-reputed CEOs because the hurdle for hiring an outside CEO is higher than hiring an inside CEO, since we expect insiders have the advantage of possessing firm-specific knowledge.[15] We hand-collect data about the inside versus outside appointment of the CEO from

[15] Further evidence in support of the view that managers hired from other firms are more valued is provided by Hayes and Schaefer [1999]. They find that firms losing managers to other firms experience average abnormal returns of –1.5% at the announcement of their resignation; this compares to +3.82% average abnormal returns when the separation is due to an unexpected death of the CEO.

Dun and Bradstreet's (*D&B*) Million Dollar Database, which reports information that allows us to discern whether the CEO was appointed from a position outside of the firm. We set the variable *PriorPosition* equal to one if the CEO was appointed from outside the firm, and zero otherwise. Because *D&B* covers only current CEOs, data on *PriorPosition* is available for only a sub-set of the sample observations (2,760 firm-years). Panel C shows that about one-third of the sample CEOs were hired from outside the firm. Consistent with outside appointments being more reputed CEOs, Panel C shows that the Pearson and Spearman correlations between *AllArticles* and *PriorPosition* are significantly positive at better than the 0.01 level.

On the whole, we view the results in Table 2 as providing relatively strong evidence that our press coverage-based proxies for CEO reputation capture economically meaningful aspects of the CEO's reputation. Further, because we generally find high correlations between measures of press coverage that include and exclude firm-initiated press releases, and because we find that the aggregate measures show stronger associations with external measures of recognition, we focus all subsequent tests on the *AllArticles* proxy for CEO reputation.

4. Empirical work

We begin by estimating the following system of equations relating earnings quality to CEO reputation and firm-specific factors, and relating CEO reputation to earnings quality and CEO-specific factors:

$$EarningsQuality_{j,t} = \alpha_0 + \alpha_1 CEO\,Reputation_{j,t} + \sum_k \gamma_k Control(k)_{j,t} + \varepsilon_{j,t} \quad (3)$$

$$CEO\,Reputation_{j,t} = \beta_0 + \beta_1 EarningsQuality_{j,t} + \sum_l \lambda_l Control(l)_{j,t} + \varepsilon_{j,t} \quad (4)$$

where $EarningsQuality_{j,t} \in \left\{\sigma(v_{j,t}), \left|AA_{j,t}\right|\right\}$

$CEO\,Reputation_{j,t} = AllArticles_{j,t}$ described in section 3. (Results based on *AllArticles2* are similar and not reported.)

$Control(k)_{j,t} \in \{log(Assets), \sigma(CFO)_j, \sigma(Sales)_j, OperCycle_j, NegEarn_j, Industry\ and\ Year\ Dummy\ variables\}$

$Control(l)_{j,t} \in \{PriorPosition, Age, Tenure, log(Assets), ROA, RD/Sales, Adv/Sales, Industry\ and\ Year\ dummy\ variables\}$

We measure earnings quality (*EarningsQuality*) using attributes of the mapping of the firm's accruals into cash flows. Our first measure is based on Dechow and Dichev's [2002] model which regresses working capital accruals on cash from operations in the current period, prior period and future period. The unexplained portion of the variation in working capital accruals is an inverse measure of earnings quality; that is, a greater unexplained portion implies lower quality. We estimate equation (5) for each year t for each of the 48 Fama-French [1997] industry groups with at least 20 observations:[16]

$$\frac{TCA_{j,t}}{Assets_{j,t}} = \phi_0 + \phi_1 \frac{CFO_{j,t-1}}{Assets_{j,t}} + \phi_2 \frac{CFO_{j,t}}{Assets_{j,t}} + \phi_3 \frac{CFO_{j,t+1}}{Assets_{j,t}} + \nu_{j,t} \qquad (5)$$

where $TCA_{j,t}$ = firm j's total current accruals in year t, $= (\Delta CA_{j,t} - \Delta CL_{j,t} - \Delta Cash_{j,t} + \Delta STDEBT_{j,t})$; $Assets_{j,t}$ = firm j's average total assets in year t and t-1; and all other variables are as previously defined.

These estimations yield firm- and year-specific residuals, which form the basis for the earnings quality metric, $EarningsQuality_{j,t} = \sigma(\hat{\nu}_{j,t})$, equal to the rolling five-year standard deviation of firm j's estimated residuals over years t-4 to t.[17] Note that poorer quality earnings are characterized by larger values of $\sigma(\nu_{j,t})$.

Our second measure of earnings quality is based on the absolute value of performance-matched abnormal accruals, $|AA_{j,t}|$, where abnormal accruals are estimated from the Jones [1991] model (as modified by Dechow, Sloan and Sweeney [1995]) and the performance-matching is based on results in

[16] Consistent with the prior literature and throughout our analyses, we winsorize the extreme values of the distribution to the 1 and 99 percentiles. The results are not affected by whether and how we identify outliers.

[17] Note that this quality measure relies on t+1 cash flows to measure earnings quality in year t. To ensure that market participants have access to the same data we use to calculate earnings quality, we lag each quality measure by one year. Thus, for example, the earnings quality measure for 1999 is based on *CFO* from 1997 (year t-1), 1998 (year t), and 1999 (year t+1).

Kothari, Leone and Walsey [2004]. Specifically, for each of the 48 Fama and French [1997] industries, we estimate equation (6) for all industries with at least 20 firms in year t:

$$\frac{TA_{j,t}}{Asset_{j,t-1}} = \kappa_1 \frac{1}{Asset_{j,t-1}} + \kappa_2 \frac{\Delta Rev_{j,t}}{Asset_{j,t-1}} + \kappa_3 \frac{PPE_{j,t}}{Asset_{j,t-1}} + \varepsilon_{j,t} \quad (6)$$

where $Asset_{j,t-1}$ = firm j's total assets (Compustat #6) at the beginning of year t,
$\Delta Rev_{j,t}$ = firm j's change in revenues (Compustat #12) between year t-1 and year t,
$PPE_{j,t}$ = firm j's gross value of property plant and equipment (Compustat #7) in year t.

The industry- and year-specific parameter estimates obtained from equation (6) are used to estimate firm-specific normal accruals (as a percent of lagged total assets), $NA_{j,t} = \hat{\kappa}_1 \frac{1}{Asset_{j,t-1}} + \hat{\kappa}_2 \frac{(\Delta Rev_{j,t} - \Delta AR_{j,t})}{Asset_{j,t-1}} + \hat{\kappa}_3 \frac{PPE_{j,t}}{Asset_{j,t-1}}$, where $\Delta AR_{j,t}$ = firm j's change in accounts receivable (Compustat #2) between year t-1 and year t. Abnormal accruals ($AA_{j,t}$) in year t is the difference between total accruals and normal accruals, $\frac{TA_{j,t}}{Asset_{j,t-1}} - NA_{j,t}$. Performance-adjusted abnormal accruals are calculated as the difference between firm j's $AA_{j,t}$ and the median value of $AA_{j,t}$ for its industry return-on-assets decile, where the median calculation excludes firm j. Because both large negative values and large positive values of performance-adjusted abnormal accruals indicate a greater disparity between earnings and accounting fundamentals, we use the absolute value of this measure, $\left|AA_{j,t}\right|$ as our second measure of earnings quality. As with $EarningsQuality_{j,t} = \sigma(\hat{v}_{j,t})$, larger values of $\left|AA_{j,t}\right|$ indicate poorer earnings quality.

Descriptive data on both measures of earnings quality are reported in Panel A of Table 3. The mean (median) standard deviation of residuals from the Dechow-Dichev regressions is 0.0318 (0.0254) while those for the 5-year average absolute value of performance adjusted abnormal accruals is 0.0442 (0.0367). These values are roughly similar to values reported by Francis et al. [2005] for a broader

sample of firms over a longer time period, i.e., they report a mean (median) value of $\sigma(v_{j,t})$ of 0.0448 (0.0321) and a mean (median) value of $|AA_{j,t}|$ of 0.0626 (0.0420).

Equation (3) requires information about firm-specific characteristics that affect the innate portion of a firm's earnings quality, i.e., *Control(k)*. By innate we mean the portion of earnings quality that is not easily influenced by management in the short run; intuitively, we think of innate earnings quality as being driven by the firm's operating environment and business strategy. Following Dechow and Dichev [2002], we control for innate determinants of earnings quality using measures of firm size, cash flow variability, sales variability, length of operating cycle, and incidence of negative earnings realizations. All variables are measured over rolling five-year periods, consistent with the measures of earnings quality. Firm size, $Size_j$, equals the log of the firm's average total assets; we obtain similar results (not reported) using total sales revenues. Cash flow variability, $\sigma(CFO)_j$, is measured as the standard deviation of firm j's cash flow from operations scaled by total assets. Sales variability, $\sigma(Sales)_j$, is the standard deviation of firm j's sales scaled by total assets. The firm's operating cycle, $OperCycle_j$, equals the log of firm j's operating cycle, where operating cycle equals the sum of days accounts receivable and days inventory. Incidence of negative earnings realization, $NegEarn_j$, is the number of years (out of the past five) where firm j reported negative values of net income before extraordinary items. Our predictions for the relations between these variables and earnings quality follow those in Dechow and Dichev [2002]: we expect that smaller firms, and firms with greater cash flow or sales variability, longer operating cycles, and greater incidence of losses, have poorer earnings quality. Finally, we include industry dummies (based on 2-digit SIC code) and year dummies to control for omitted variables that covary with industry membership and time.

Equation (4) requires information on variables ("instruments") that help identify the set of simultaneous equations, i.e., *Control(l)*. Ideally, we would include in equation (4) only variables that affect CEO reputation but *not* earnings quality. As discussed by Ittner and Larcker [2001], identifying

such instruments is a non-trivial task in practice. Hence, we acknowledge that the set of instruments we use is likely incomplete. Subject to this caveat, we include CEO-specific characteristics, such as the CEO's age (*Age*), his prior position (*PriorPosition*), and his tenure with the firm (*Tenure*), with all variables defined as described in section 3. We expect that older CEOs, CEOs hired from outside the firm, and CEOs with longer tenure with the firm are more likely to have developed better reputations than younger, internally-promoted, and less-seasoned CEOs. Based on the previous argument, we predict positive coefficients relating CEO reputation to *Age*, *PriorPosition* and *Tenure*.[18]

In addition to these CEO-specific factors, we include several firm-specific factors that prior research shows influence reputation.[19] In particular, Himmelberg and Hubbard [2000] argue that the labor market is likely to sort highly talented CEOs into firms where their marginal value is the highest; according to these authors, firms where the marginal value of talent is high are large, profitable, and intangible-intensive. Hence, we expect a positive association between CEO reputation and each of the following variables: (i) firm size (as measured by the log of assets), (ii) performance (as measured by return on assets, *ROA*), and (iii) intangible-intensity, as measured by the ratio of R&D spending to sales (*R&D/Sales*), and by the ratio of advertising expenditures to sales (*Adv/Sales*). Given that many firms do not report R&D and/or advertising expenditures, we interact the continuous measures of intangible-intensity with a dummy variable that tracks missing observations. This procedure (called modified zero-order regression, Greene [1993]) addresses selection bias (in terms of which firms choose to separately disclose R&D and advertising) and maintains sample size. In particular, for each measure of intangible-intensity, we introduce two terms in the regression: *R&D_Dummy* and *R&D_Dummy* R&D/Sales*, where *R&D_Dummy* is set to one if a value for R&D is reported on Compustat, and set to zero otherwise. (Analogous terms are created for advertising expenditures, *Adv_Dummy* and *Adv_Dummy*Adv/Sales*.

[18] Prior research provides support for *Age* as a factor considered by boards of directors in selecting CEOs. See, for example, Joos, Leone and Zimmerman [2003] and Bizjak, Brickley and Coles [1993].
[19] As in equation (3), we also include industry and year dummy variables in equation (4) to control for omitted variables that covary with industry membership and time.

Summary statistics about all firm-level variables are reported in Table 3, Panel B. The sample firms are large (median market value of equity is $5.9 billion) and profitable (median *ROA* is 4.8%, and an average of about 65% of the firms having no losses in the past five years). For firms with non-missing observations on intangibles-intensity, the median firm spends 2.9% and 2.2% of its sales revenue on R&D and advertising respectively; the mean firm spends 6.0% and 3.6%, respectively. Panel C reports pairwise correlation statistics for all firm-specific control variables included in equations (3) and (4). In general, the pairwise correlations are relatively low except for those between *R&D/Sales* and *OperCycle*, *R&D/Sales* and $\sigma(CFO)$, and $\sigma(CFO)$ and $\sigma(Sales)$ where both Pearson and Spearman correlations range between 0.25 and 0.52.

The results of estimating the system of simultaneous equations are presented in Table 4. The sample for these tests consists of all firm-year observations with data on all variables for equations (3) and (4). Panel A reports the results of estimating equations (3) and (4) using $EarningsQuality = \sigma(v)$ (n=1,932 observations) and Panel B reports results for $EarningsQuality = |AA|$ (n=1,726 observations). To address outlier concerns, we winsorize the extreme (99^{th} percentile) observations. (In unreported tests, we verify that our results are not sensitive to other outlier identification methods, such as removing observations with studentized residuals greater than two in absolute value. Retaining all observations in the tests also does not have any qualitative effect on our inferences.) In both panels, we report the coefficient estimates and t-statistics obtained from pooled cross-sectional regressions. Both panels show that the adjusted R^2s from the first stage regression range from 33.6% to 57.4% indicating that the chosen instruments have substantial explanatory power. The Hausman tests of simultaneity (reported in the last row of each panel) indicate that both earnings quality and CEO reputation are endogenous variables.

We now turn to interpreting the results of each equation. Recall that for the *EarningsQuality* regression, given by equation (3), the efficient contracting hypothesis (H1) predicts that more reputed CEOs are associated with better discretionary earnings quality than are less-reputed CEO's; evidence in support of H1 would be indicated by a negative value of α_1. In contrast, evidence supporting the rent

extraction explanation (H2) would be indicated by a positive value of α_1. For both measures of *EarningsQuality*, the results show significant positive values of α_1: $\hat{\alpha}_1 = 0.0004$ (t-statistic = 4.52) in the regression using $EarningsQuality = \sigma(v)$ and $\hat{\alpha}_1 = 0.0004$ (t-statistic = 3.27) for the regression using $EarningsQuality = |AA|$). The positive values of α_1 indicate that more reputed CEOs are associated with poorer discretionary earnings quality, consistent with H2 and inconsistent with H1. With the exception of the negative coefficient on *OperCycle* in the regression using $EarningsQuality = |AA|$, all of the coefficient estimates on the firm-specific control variables used to proxy for the innate portion of earnings quality are significantly different from zero in the predicted directions. In particular, we find that firms with poorer earnings quality are smaller (t-statistics are –5.01 and –4.25 for the two *EarningsQuality* measures), have higher cash flows variability (t-statistics are 10.20 and 10.24) and higher sales variability (t-statistics are 3.09 and 5.47), and have more negative earnings realizations (t-statistics are 5.06 and 3.49) than do firms with better earnings quality. The effect of operating cycle on earnings quality is ambiguous, with the coefficient positive in the regression using $EarningsQuality = \sigma(v)$ (t-statistics is 3.79) and weakly negative in the regression using $EarningsQuality = |AA|$ (t-statistics is -1.62).

Next we turn to the *CEO Reputation* regression given by equation (4). Here our primary interest is in the coefficient estimate (β_1) relating total *EarningsQuality* to the CEO's reputation, as proxied by *AllArticles*. For both measures of *EarningsQuality*, we find that $\beta_1 > 0$, with t-statistics of 10.42 for $EarningsQuality = \sigma(v)$ and 10.33 for $EarningsQuality = |AA|$). The positive values of β_1 indicate that reputed CEOs are more likely to be employed by firms with poorer total earnings quality, consistent with either a matching explanation (H3) or a rent extraction explanation (H2).

In terms of the CEO-specific control variables in equation (4), we find that reputed CEOs are more likely to be hired from outside the firm (t-statistics on *PriorPosition* are 2.75 and 3.75 in Panels A and B, respectively). We do not observe meaningful relations between CEO reputation and their tenure

with the firm, and the results for the *Age* variables are inconsistent across regressions;[20] both results are generally consistent with the weak or insignificant pairwise correlations reported in Table 3 As a set, the CEO-specific variables explain a significant portion of the variation in CEO reputation, as evidenced by unreported tests which reveal F-statistics of 4.63 (p-value of 0.0031) and 6.13 (p-value of 0.0004) for Panels A and B, respectively. In terms of the firm-specific characteristics affecting CEO reputation, the results show that reputed CEOs are attracted to larger firms (t-statistics on *log(Assets)* are 18.25 and 17.93) and to firms which advertise (t-statistics on *Adv_Dummy* are 3.40 and 3.71). We do not find consistent evidence of a relation between R&D spending and CEO reputation.

In summary, the results in Table 4 show that both CEO-specific and firm-specific factors are important in explaining earnings quality and CEO reputation. Moreover, our tests show that these constructs (earnings quality and CEO reputation) jointly explain each other. Controlling for this endogoneity, our results show that more reputed CEOs are associated with firms with poorer discretionary earnings quality and poorer total earnings quality. This result is inconsistent with the efficient contracting hypothesis (H1), but is consistent with H2 (rent extraction) and H3 (matching).

As discussed in section 2, both rent extraction and matching may co-exist such that each explains a portion of the patterns observed between CEO reputation and earnings quality. That is, boards of directors may select more-reputed CEOs to manage firms with poorer innate earnings quality at the same time that these more-reputed CEOs engage in rent extraction behavior which leads to worse discretionary earnings quality. However, it is also possible that the results in Table 4 are due to the omission of one or more innate factors affecting earnings quality. Such an omission could create the appearance that more-reputed CEOs are associated with poor discretionary earnings quality, when, in fact, the association is really one of pure matching and no rent extraction. Because it is not possible to perfectly capture the

[20] Based on prior research which argues that reputation is likely to play a smaller role in contract enforcement as the agent gets older and there is less to lose (Rosen [1990]), we also examined the sensitivity of our results to imminent retirements. Specifically, we re-define the variable *AGE* to equal one if the CEO is 63 years of age or older, and zero otherwise. Results of these tests (not reported) show that the coefficient on *AllArticles*Age* is not significantly different from zero. We conclude from this result that the horizon problem is not a first-order driver of our results.

elements influencing innate earnings quality, we augment our simultaneous equations approach with two tests which are less susceptible to this concern. These tests are described in the next section.

5. Further Tests of the Rent Extraction and Matching Explanations

This section describes two additional analyses which assist in distinguishing between rent extraction and matching as explanations for the finding in Table 4 that reputed CEOs are associated with poorer earnings quality. The first test (detailed in section 5.1) is based on the argument that rent seeking behavior on the part of the CEO is more likely to occur in firms with poor governance structures because, in such firms, the CEO is likely to have more power and influence over financial reporting (see, for example, Bertrand and Mullainathan [2001]). The second test (discussed in section 5.2) focuses on the sub-sample of firms where the CEO changed during the sample period (the "CEO Change Sample"). For these firms, we examine the association between the difference between the prior CEO's reputation and the new CEO's reputation and the level of and change in the firm's earnings quality between the prior and new CEO regimes. If matching drives the choice of CEO, we expect that firms with poor earnings quality will replace prior CEO's with more-reputed new CEOs. Further, if rent extraction is the true explanation, then we should observe a deterioration in earnings quality following the hiring of more reputed CEOs.

5.1. CEO-power

If the documented association between CEO reputation and poor discretionary earnings quality in Table 4 is indicative of reputed managers exploiting their status to manipulate earnings numbers (i.e., rent extraction), we expect such behavior to be pronounced in firms where CEOs have more power. If we do not observe this pattern, it is more likely that this result [that more reputed CEOS are associated with poorer discretionary earnings quality] is due to incompleteness of the set of innate factors. In the latter case, the significant positive for α_1 is more likely to reflect matching of more-reputed CEOs with poorer innate earnings quality firms.

We identify four proxies for CEO-power. The first three are based on Hermalin and Weisbach's [2001] argument that the most important factor affecting the board of directors' effectiveness is its independence from the CEO. As proxies for board dependence (i.e., the inverse of board independence), we collect data on whether the CEO is also the chairman of the board (*CEO_Chair* = 1 if the CEO is the chairman, 0 otherwise), on the proportion of the top-5 managers on the board of directors (*OnBoard*), and on the proportion of executives with an interlocked relation (*Interlock*).[21] The fourth proxy is $\frac{1}{Meetings}$ where *Meetings* indicates the number of board meetings. The inclusion of the meeting variable is based on Adams [2000] and Vafeas [1999] who argue that the frequency of board meetings is a proxy for the monitoring effort expended by directors. Larger values of each of the four governance proxies indicate that the CEO has greater power.

Descriptive statistics related to the governance variables are reported in panel A of Table 5. Consistent with other research that uses governance data from the *ExecuComp* database (e.g., Hanlon, Rajgopal and Shevlin [2002]), we find that the CEO is the chairman of the board about 80% of the time. The mean of $\frac{1}{Meetings}$ is 0.1503 indicating that the average board of directors meets 6.65 times a year. An average of 2.46% of executives have interlock relationships, and approximately 35% of the top-five management team is on the board of directors.

We perform a factor analysis using these four proxies for CEO power and identify a common factor, which we label *CEO Power* . To test whether greater CEO power facilitates rent seeking behavior, we interact *CEO Power* with the measure of CEO reputation, *AllArticles*, and repeat the tests in Table 4. If the association between CEO reputation and poorer discretionary earnings quality is a manifestation of rent extraction behavior, we expect this behavior is more pronounced in the presence of

[21] *ExecuComp* codes an interlocking relationship as existing if a top-5 officer serves on the board committee that makes his compensation decisions, or if the top-5 officer serves on the board (and possibly compensation committee) of another company that has an executive officer serving on the compensation committee (and/or the board) of the current officer's company.

greater CEO power. Hence, we expect to observe positive coefficients on the interaction of *AllArticles* with $CEO\ Power$.[22] Results of these tests are reported in Panel B of Table 5, where we table results for $EarningsQuality = \sigma(v)$ (n=1,905 observations); results for $EarningsQuality = |AA|$ are similar and are not reported. These tests show that the coefficient on $AllArticles * CEO\ Power$ is not reliably different from zero (t-statistic = -0.56), indicating that the association between poor discretionary earnings quality and CEO reputation does not worsen with greater CEO power.

In unreported tests, we continue to find no association using other methods of combining the four proxies for CEO power. In particular, we repeated our tests: (i) using a measure of CEO power equal to the sum of the values of the four proxies (note that all of these variables range between zero and one); and (ii) by interacting each of the individual proxies with *AllArticles*. Regardless of how CEO power is operationalized, we find no evidence that the association between CEO reputation and earnings quality is more intense for firms where the CEO has more power. Taken as a whole, we do not view these results as supporting rent extraction as an explanation for the positive association between earnings quality and CEO reputation found in Table 4.

5.2. CEO turnover

Our second analysis focuses on CEO turnover. We begin by investigating whether firms with poorer total earnings quality hire more-reputed CEOs to replace less-reputed former CEOs. For this analysis, we compute the change in CEO reputation as the difference between (i) the three-year sum of the *AllArticles* measure for the *new* CEO (over years t to t+2 where t is the CEO change year); and (ii) the three-year sum of *AllArticles* measure for the *prior* CEO (over years t-3 to t-1). A positive (negative) difference, $\Delta AllArticles$, indicates that the new CEO is more (less) reputed CEO than the prior CEO. We regress $\Delta AllArticles$ on the level of earnings quality in years t-3, t-2 and t-1 (i.e., over the period of the prior CEO). A positive (negative) coefficient on earnings quality implies that the firms with poorer

[22] To keep the empirical modeling simple, we treat *CEO Power* as an exogenous variable for purposes of this test.

earnings quality seek to hire new CEOs who are more (less) reputed than prior CEOs; such a finding would be consistent with a matching explanation.

Our sample for this test is limited to observations with CEO changes and data on the earnings quality variables. In total, there are 110 CEO change events with data on $EarningsQuality = \sigma(v)$ and 114 events with data on $EarningsQuality = |AA|$. Results of estimating separate regressions of $\Delta AllArticles$ on each of the earnings quality metrics are reported in Table 6, Panel A. For both measures, we find a significant positive coefficient relating the earnings quality of the firm with the change in CEO reputation: the t-statistic is 3.55 for $EarningsQuality = \sigma(v)$ and 1.89 for $EarningsQuality = |AA|$.

A natural question that arises from examining CEO changes is whether firms with poor earnings quality that hire more-reputed CEOs experience improvements in earnings quality after the reputed CEOs are hired? The key feature of this test is that it holds constant the firm and, therefore, the firm's innate earnings quality. To the extent that innate earnings quality is viewed as firm-specific and slow to change, any change in total earnings quality between the prior-CEO and new-CEO regimes can be attributed to a change in discretionary earnings quality associated with the new CEO. In this setting, a worsening of earnings quality would be associated with rent extraction, while an improvement would be consistent with efficient contracting.

We compute the change in earnings quality after the CEO change as the difference between (i) the three-year average value of each *EarningsQuality* metric over years t, t+1 and t+2 (the new-CEO period), and (ii) the three-year average of the measure over years t-3, t-2, and t-1 (the prior-CEO period). Because the *EarningsQuality* metrics are scaled such that larger values indicate worse earnings quality, a negative (positive) value of $\Delta EarningsQuality$ means that earnings quality improved (deteriorated) after the CEO change. We regress $\Delta EarningsQuality$ on the change in CEO reputation, $\Delta AllArticles$. If new, more-reputed CEOs improve (worsen) earnings quality, we expect to observe a negative (positive) coefficient relating $\Delta EarningsQuality$ to $\Delta AllArticles$. The samples for these tests are small (n=87 for $EarningsQuality = \sigma(v)$ and n=69 for $EarningsQuality = |AA|$) so caution should be exercised in

drawing inferences from these results. Those results, reported in Panel B of Table 6, show a weakly negative coefficient on *AllArticles* for $EarningsQuality = \sigma(v)$ (t-statistic = -1.32), and no significant coefficient on *AllArticles* for $EarningsQuality = |AA|$ (t-statistic = -0.95). These weakly negative coefficients provide no evidence in support of rent extraction.

5.3. Summary of results of additional tests

On the whole, we believe the results in Tables 5 and 6 are more consistent with a matching explanation than with a rent extraction explanation for the finding that reputed CEOs are associated with firms with poorer earnings quality. Specifically, we find no evidence that the association between more-reputed CEOs and poorer discretionary earnings quality is concentrated in firms with weak governance. Further, we find that when CEO turnover occurs, there is a significant association between the firm's total earnings quality prior to the change and whether the firm replaces the prior CEO with a more, or a less, reputed current CEO: our results show that poor earnings quality firms "trade-up" in that they replace current CEOs with more-reputed CEOs. Finally, we find no evidence that hiring a more reputed CEO worsens the firm's discretionary earnings quality (as would be consistent with rent extraction); if anything, our tests show weak evidence that discretionary earnings quality improves in these cases.

Our conclusion that matching explains why more-reputed CEOs work for poorer earnings quality firms is broadly consistent with Joos, Leone and Zimmernan's [2003] evidence that matching explains their documented relation between CEO age and firm complexity. In particular, Joos et al. find that CEOs with greater human capital (as proxied by their age) work for more complex and larger firms. Our results complement these insofar as we find that CEOs with greater human capital (as proxied by their reputations) are hired by larger firms and, controlling for size, by firms that are characterized by more uncertain operating environments – which has been shown to be linked to poorer earnings quality.[23]

[23] In particular, Dechow and Dichev show that firms with longer operating cycles and with greater cash flow variability, sales variability, and earnings variability have poorer earnings quality.

6. Summary and Conclusion

We examine the relation between CEO reputation and measures of the firm's earnings quality. Using press coverage (media-counts) as our proxy for CEO reputation, we initially find that more reputed CEOs are associated with poorer earnings quality. This finding is inconsistent with an efficient contracting view which predicts that reputed CEOs take actions that result in good earnings quality. This seemingly-counterintuitive result is, however, consistent with two other theories: a rent extraction hypothesis (which predicts that reputed managers are more likely to use their discretion to manipulate earnings in order to manage labor and stock market perceptions) and a matching hypothesis (which predicts that selection on the part of firms gives rise to a demand for reputed CEOs for firms where earnings quality is inherently poor). Further analyses provide no support for the rent extraction explanation, and some support for the matching explanation.

Table 1
Descriptive Statistics on Proxy Variables for CEO Reputation

Panel A: Proxies for CEO Reputation[a]

	# obs.	mean	std. dev	10%	25%	median	75%	90%
USNews	4,238	7.50	17.44	0	1	2	7	18
IntlNews	4,238	3.97	11.20	0	0	1	3	10
PressReleases	4,238	12.85	12.82	1	5	10	17	27
AllArticles	4,238	24.33	35.98	2	7	15	27	51
AllArticles2	4,238	11.47	27.67	0	1	3	10	27

Panel B: Correlations among CEO reputation measures[b]

	USNews	*IntlNews*	*PressReleases*	*AllArticles*	*AllAricles2*
USNews	1.00	0.85	0.49	0.92	0.97
IntlNews	0.79	1.00	0.49	0.90	0.94
PressReleases	0.47	0.44	1.00	0.75	0.51
AllArticles	0.77	0.73	0.87	1.00	0.95
AllAricles2	0.98	0.88	0.48	0.79	1.00

Panel C: Correlations between multi-year and annual reputation measures[c]

	Spearman	Pearson
US News and ΣUSNews	0.91	0.87
Intl News and ΣIntlNews	0.88	0.83
Press Releases and ΣPressReleases	0.90	0.90
AllArticles and ΣAllArticles	0.92	0.91

Variable definitions: *USNews* = the number of articles appearing in major US newspapers which mention the CEO's name in calendar year t. *Intl News* = the number of articles appearing in major international newspapers which mention the CEO's name in calendar year t. *PressReleases* = the number of press releases that mention the CEO's name in calendar year t. *AllArticles = USNews + Intl News + PressReleases*. *AllArticles2 = USNews* + I*ntl News.*

[a] We report the mean value of each variable, where the mean is calculated across all firm-year observations.

[b] Panel B reports Pearson (above the diagonal) and Spearman (below) correlations. All correlations are statistically significant at the 0.01 level or better (p-values not reported).

[c] Panel C reports the correlations between the individual year and four-year aggregate measures of each measure of press coverage; aggregate measures are prefixed by *Σ*. All correlations are significant at the 0.01 level (p-values not reported).

Table 2
Validation Tests of CEO Reputation Proxy

Panel A: Descriptive information on tone of press coverage

Subject	# articles	% favorable	% neutral	% unfavorable	% Nonnegative
CEO	500	12.40%	86.60%	1.00%	99.00%
Company	500	29.20%	65.00%	5.80%	94.20%
Overall	500	27.00%	67.80%	5.20%	94.80%

Panel B: Logistic regressions of *Recognition* on CEO reputation proxies

	Model 1 (n=1,318)			Model 2 (n=1,318)		
Indep. Variable	coef. est.	Chi-Square	Pr>ChiSq	coef. est.	Chi-Square	Pr>ChiSq
USNews	0.013	2.757	0.0968			
IntlNews	0.015	1.780	0.1822			
PressReleases	0.013	5.190	0.0227			
AllArticles				0.014	45.573	<0.0001
Log(Sales)	0.850	34.048	<0.0001	0.656	35.105	<0.0001
ROA	3.248	9.162	0.0025	5.287	9.228	0.0024
Likelihood ratio		181.810	<0.0001		181.797	<0.0001

Panel C: Descriptive data and correlation of CEO *Tenure* and *Prior Position*

	# obs.	mean	std. dev	10%	25%	median	75%	90%
Tenure	4,238	7.84	6.72	2	3	6	11	17
PriorPosition	2,760	0.33	0.47	0	0	0	1	1
Age	2,568	55.20	6.84	47	51	55	59	63

		AllArticles	
	# obs.	Spearman	Pearson
Tenure	4,238	-0.016 (p=.311)	-0.006 (p=.659)
Age	2,568	0.135 (p=.494)	-0.045 (p=,024)
PriorPosition	2,760	0.050 (p=.008)	0.106 (p=.001)

Variable definitions: See Table 1. Also, *log(Sales)* = log of sales in year t; *ROA* = return on average assets in year t; *Recognition* = 1 (0) if the CEO is recognized (not recognized) in one or more lists of "top" CEO's in calendar year t. *Tenure* = the length of time the CEO has been in the position of CEO as of year t. *Age* = CEO's age in year t; *PriorPosition* = 1 if the CEO was appointed from outside the firm, and zero otherwise.

[a] Panel A reports the coded analysis of 500 randomly selected articles mentioning CEOs. Article tone is classified as favorable, neutral, or unfavorable, with respect to comments made about the CEO and, separately, about the firm.

[b] Panel B shows the results of logistic regressions of *Recognition* on the proxies for CEO reputation and two firm-characteristics (size and performance). Model 1 includes the three components of press coverage as separate variables; Model 2 includes the aggregate press coverage variable, *AllArticles*.

[c] Panel C reports descriptive data about CEO tenure and prior position; we also report the pairwise correlations between these measures and *AllArticles*.

Table 3

Descriptive Statistics About Earnings Quality and Selected Firm-Specific Variables

Panel A: Summary statistics on earnings quality, *EarningsQuality*

EarningsQuality measure	mean	std. dev	10%	25%	median	75%	90%
$\sigma(v_{j,t})$	0.0318	0.0247	0.0091	0.0150	0.0254	0.0405	0.0608
$\lvert AA_{j,t} \rvert$	0.0442	0.0320	0.0143	0.0225	0.0367	0.0564	0.0824

Panel B: Descriptive information about firm-level variables of sample firms

Control variables	# obs.	mean	std. dev	10%	25%	median	75%	90%
Log(Assets)	4,219	8.399	1.573	6.454	7.342	8.415	9.410	10.356
Log(Sales)	4,220	8.378	1.263	6.784	7.526	8.397	9.221	9.945
Log(Market value)	4,214	8.803	1.168	7.468	8.010	8.670	9.442	10.380
$\sigma(CFO)$	3,361	0.056	0.057	0.016	0.026	0.041	0.068	0.109
$\sigma(Sales)$	4,201	0.218	0.267	0.022	0.055	0.132	0.276	0.511
OperCycle	3,612	4.991	1.077	3.974	4.381	4.790	5.253	6.120
NegEarn	4,232	0.351	0.785	0.000	0.000	0.000	0.000	1.000
ROA	3,328	0.052	0.109	0.002	0.022	0.048	0.081	0.125
R&D/Sales	2,301	0.060	0.096	0.000	0.006	0.029	0.081	0.150
Adv/Sales	1,338	0.036	0.040	0.000	0.009	0.022	0.048	0.098

Panel C: Pearson (above diagonal) and Spearman (below diagonal) correlations among firm-specific variables

	Log(Assets)	$\sigma(CFO)$	$\sigma(Sales)$	*OperCycle*	*NegEarn*	*ROA*	*R&D/Sales*	*Adv/Sales*
Log(Assets)	1.00	-0.35	-0.43	0.32	-0.06	-0.17	-0.28	-0.01
$\sigma(CFO)$	-0.43	1.00	0.32	0.07	0.18	0.07	0.38	-0.07
$\sigma(Sales)$	-0.57	0.49	1.00	-0.24	-0.03	0.11	-0.03	-0.07
OperCycle	0.09	0.19	-0.21	1.00	-0.15	0.00	0.25	0.12
NegEarn	-0.02	0.19	0.02	-0.11	1.00	-0.21	0.28	-0.10
ROA	-0.42	0.24	0.37	0.07	-0.27	1.00	-0.23	0.18
R&D/Sales	-0.17	0.33	-0.04	0.52	0.20	0.14	1.00	-0.06
Adv/Sales	0.08	0.02	0.02	0.14	-0.11	0.26	-0.01	1.00

Variable definitions: See Tables 1 and 2. Also, $\sigma(v_{j,t})$ = the rolling five-year standard deviation of firm-specific residuals from regressions of total current accruals on past, current and future cash flows; $\lvert AA_{j,t} \rvert$ = the absolute value of the firm's performance-adjusted abnormal accruals in year t. *log(Assets)* = the log of the firm's average total assets over the past five years; $\sigma(CFO)$ = the standard deviation of the firm's cash flow from operations in the past five years, scaled by assets; $\sigma(Sales)$ = the standard deviation of the firm's sales revenues in the past five years, scaled by assets; *OperCycle* = the log of the firm's average operating cycle (over the past five years), where operating cycle equals the sum of days accounts receivable and days inventory; *NegEarn* = incidence of negative earnings realizations in the past five years; *ROA* = earnings before extra-ordinary items divided by average assets during year t; *R&D/Sales* = ratio of R&D expense to sales; *Adv/Sales* = ratio of advertising expense to sales.

Table 4
Simultaneous Estimation of CEO Reputation and Earnings Quality

Panel A: *EarningsQuality* = $\sigma(v_{j,t})$; *CEO Reputation = AllArticles*[a]

	EarningsQuality equation (n=1,932)			*CEO Reputation* equation (n=1,932)		
Indep. Variable	Pred.sign	coef. est.	t-stat	Pred.sign	coef. est.	t-stat
Intercept	?	0.047	3.79	?	-101.050	-9.06
Endogenous variables						
EarningsQuality				+	616.716	10.42
AllArticles	+/-	0.0004	4.52			
Other variables						
Log(Assets)	-	-0.006	-5.01	+	12.459	18.25
$\sigma(CFO)$	+	0.218	10.20			
$\sigma(Sales)$	+	0.011	3.09			
OperCycle	+	0.005	3.79			
NegEarn	+	0.003	5.06			
ROA				+	12.684	0.90
Tenure				+	-0.0005	-0.00
PriorPosition_Dummy				?	2.242	1.41
*PriorPosition_Dummy*PriorPosition*				+	5.156	2.75
Age_Dummy				?	16.076	2.02
*Age_Dummy*Age*				+	-0.341	-2.40
R&D_Dummy				?	2.333	1.06
*R&D_Dummy*R&D/Sales*				+	20.306	1.25
Adv_Dummy				?	6.694	3.40
*Adv_Dummy*Adv/Sales*				+	-9.776	-0.36
First-stage adjusted R^2 (%)		47.45			33.60	
Second-stage adjusted R^2 (%)		40.67			30.07	
p-value for Hausman statistic		0.001			0.001	

Table 4
Simultaneous Estimation of CEO Reputation and Earnings Quality (continued)

Panel B: $EarningsQuality = \left|AA_{j,t}\right|$; *CEO Reputation = AllArticles*[a]

	EarningsQuality equation (n=1,726)			*CEO Reputation* equation (n=1,726)		
Indep. Variable	Pred.sign	coef. est.	t-stat	Pred.sign	coef. est.	t-stat
Intercept	?	0.083	5.45	?	-95.556	-8.85
Endogenous variables						
EarningsQuality				+	461.142	10.33
AllArticles	+/-	0.0004	3.27			
Other variables						
Log(Assets)	-	-0.007	-4.25	+	12.296	17.93
$\sigma(CFO)$	+	0.273	10.24			
$\sigma(Sales)$	+	0.023	5.47			
OperCycle	+	-0.002	-1.62			
NegEarn	+	0.002	3.49			
ROA				+	4.635	0.33
Tenure				+	-0.173	-1.69
PriorPosition_Dummy				?	0.273	0.17
*PriorPosition_Dummy*PriorPosition*				+	6.963	3.75
Age_Dummy				?	5.577	0.67
*Age_Dummy*Age*				+	-0.153	-1.04
R&D_Dummy				?	2.013	0.92
*R&D_Dummy*R&D/Sales*				+	45.803	2.83
Adv_Dummy				?	7.269	3.71
*Adv_Dummy*Adv/Sales*				+	-8.765	-0.33
First-stage adjusted R^2 (%)		57.44			35.91	
Second-stage adjusted R^2 (%)		51.68			33.84	
p-value for Hausman statistic		0.008			0.001	

Variable definitions: See Tables 1-3.

[a] Panels A and B report the coefficient estimates and t-statistics from estimating equations (3) and (4) as a system of simultaneous equations. Panel A shows the results using $EarningsQuality = \sigma(v_{j,t})$ and Panel B shows results for $EarningsQuality = \left|AA_{j,t}\right|$. Both panels use *AllArticles* as the proxy for CEO reputation. For brevity, we do not report the coefficient estimates and t-statistics for the industry and year dummies included in each regression.

Table 5

Additional Tests of Rent Extraction versus Matching Explanations: CEO-Power

Panel A: Descriptive data on governance structure

	# obs.	mean	std. dev	10%	25%	median	75%	90%
CEO_Chair	4,238	0.7975	0.4019	0.0000	1.0000	1.0000	1.0000	1.0000
Interlock	4,238	0.0246	0.0894	0.0000	0.0000	0.0000	0.0000	0.0000
OnBoard	4,238	0.3508	0.1952	0.1429	0.2000	0.3333	0.4286	0.6000
1/Meetings	4,153	0.1503	0.0601	0.0833	0.1111	0.1429	0.1667	0.2500

Panel B: The interaction of CEO power, CEO reputation and earnings quality[a]

	EarningsQuality regression (n=1,905)			*CEO Reputation* regression (n=1,905)		
Independent Variables	Pred.sign	coef. est.	t-stat	Pred.sign	coef. est.	t-stat
Intercept	?	0.038	3.74	?	-101.842	-9.58
Endogenous variables						
$EarningsQuality = \sigma(v_{j,t})$				+	616.763	10.96
AllArticles	+/-	0.0003	4.61			
Interaction with CEO-power						
*AllArticles*CEO Power*	+	-0.00001	-0.56			
Other variables						
Log(Assets)	-	-0.005	-5.37	+	12.488	19.12
$\sigma(CFO)$	+	0.232	13.21			
$\sigma(Sales)$	+	0.013	4.71			
OperCycle	+	0.005	4.02			
NegEarn	+	0.003	5.75			
ROA				+	13.947	1.04
Tenure				+	0.001	0.01
PriorPosition_Dummy				?	2.492	1.63
*PriorPosition_Dummy*PriorPosition*				+	5.726	3.22
Age_Dummy				?	17.296	2.28
*Age_Dummy*Age*				+	-0.356	-2.63
R&D_Dummy				?	2.425	1.15
*R&D_Dummy*R&D/Sales*				+	19.334	1.25
Adv_Dummy				?	6.569	3.48
*Adv_Dummy*Adv/Sales*				+	-12.256	-0.47
First-stage adjusted R^2 (%)		46.94			31.44	
Second-stage adjusted R^2 (%)		46.64			32.55	
p-value for Hausman statistic		0.001			0.001	

Variable definitions: *CEO Power* is the common factor formed based on the common variation in four variables: (1) *CEO_Chair* = 1 if the CEO is also the chairman of the board, 0 otherwise; (2) *OnBoard* is the proportion of top-5 managers who are on the board of directors; (3) *Interlock* is the proportion of top-5 managers who are subject to an interlocked relationships; and (4) *1/Meetings* is the inverse of the number of board meetings. For other variable definitions see notes to earlier tables.

[a] We report the coefficient estimates and t-statistics from estimating equations (3) and (4) as a system of simultaneous equations, where we augment equation (3) with a variable interacting *AllArticles* with the common factor capturing CEO Power. For brevity, we do not report the coefficient estimates and t-statistics for the industry and year dummies included in the regressions.

Table 6

Additional Tests of Rent Extraction versus Matching Explanations: CEO Turnover

Panel A: Regression of $\Delta AllArticles$ on earnings quality prior to the CEO change[a]

Indep. Variable	Pred.sign	coef. est.	t-statistic	Adjusted R^2
$EarningsQuality = \sigma(v)$	+	324.846	3.55	0.096
$EarningsQuality = \lvert AA \rvert$	+	144.267	1.89	0.022

Panel B: Regression of $\Delta EarningsQuality$ on $\Delta AllArticles$ [b]

Indep. Variable	Pred.sign	coef. est.	t-statistic	Adjusted R^2
$\Delta EarningsQuality = \Delta\sigma(v)$	-	-0.0001	-1.32	0.0086
$\Delta EarningsQuality = \Delta\lvert AA \rvert$	-	-0.0042	-0.95	-0.0014

Variable definitions: $\Delta AllArticles$ = change in CEO reputation, measured as the difference between the sum of three-year *AllArticles* measure for the new CEO (in year s t, t+1, and t+2 where t is the CEO change year) and the sum of the three-year *AllArticles* measure of the old CEO (in year t-3, t-2 and t-1). $\Delta EarningsQuality$ = the change in earnings quality, calculated as the difference between the average earnings quality measure in years t-3, t-2, and t-1 (prior CEO period) and the current CEO period (years t, t+1, and t+2).

[a] Panel A reports the results of estimating regressions of the change in CEO reputation (proxied by $\Delta AllArticles$) on the firm's earnings quality prior to the change in CEO. The regressions are estimated separately for each measure of earnings quality. The sample consists of 110-114 firms with CEO changes and data on the quality metrics.

[b] Panel B reports the results of estimating regressions of the change in CEO reputation (proxied by $\Delta AllArticles$) on the change in the firm's earnings quality metric, measured before and after the change in CEO. The regressions are estimated separately for each measure of earnings quality. The $\Delta EarningsQuality = \Delta\lvert AA \rvert$ contains 69 observations; the $\Delta EarningsQuality = \Delta\sigma(v)$ sample contains 87 observations.

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