Internal CEO Approval and External Reporting Quality

Minjie Huang
University of Louisville
minjie.huang@louisville.edu

Adi Masli
University of Kansas
adi@ku.edu

Felix Meschke
University of Kansas
meschke@ku.edu

James P. Guthrie
University of Kansas
jguthrie@ku.edu

August 30, 2016

Abstract

Rebuilding the trust lost during the Global Financial Crisis is essential for CEOs, yet studying the effects of CEO leadership and trustworthiness is challenging. We tackle this challenge with novel data on CEO approval by their employees, which we link to financial reporting quality. Specifically, we document that higher internal CEO approval ratings are associated with less earnings management, lower pricing of audit services, less modified going concern opinions and lower likelihood of subsequent litigation related to accounting malpractices. While external, media-generated CEO recognition can result in more earnings management, internal, employee-generated CEO approval seems to signal higher financial statement quality.

We thank Michael Ettredge, Rachel Gordon, Ying Huang, Xi Liu, Florian El Mouaaouy, Louis Nguyen, and conference and seminar participants at the 2015 Financial Management Association Annual Meeting, the 2015 Southern Finance Association Annual Meeting, the 2016 Midwest Finance Association Annual Meeting, the 2016 Eastern Finance Association Annual Meeting, and Marquette University for helpful comments. We thank Paola Sapienza and Luigi Zingales for making available the components that comprise their financial trust index. All errors remain our own.

Internal CEO Approval and External Reporting Quality

Abstract

Rebuilding the trust lost during the Global Financial Crisis is essential for CEOs, yet studying the effects of CEO leadership and trustworthiness is challenging. We tackle this challenge with novel data on CEO approval by their employees, which we link to financial reporting quality. Specifically, we document that higher internal CEO approval ratings are associated with less earnings management, lower pricing of audit services, less modified going concern opinions and lower likelihood of subsequent litigation related to accounting malpractices. While external, media-generated CEO recognition can result in more earnings management, internal, employee-generated CEO approval seems to signal higher financial statement quality.

Keywords: CEO Approval; CEO Reputation; Financial Statement Quality; Earnings Management; Accounting Accruals; Audit Fee; Going Concern Opinion; Accounting Litigation.

JEL classification: G3, G32, J28, L2, M14

1. Introduction

"Virtually every commercial transaction has within itself an element of trust […]. [M]uch of the economic backwardness in the world can be explained by the lack of mutual confidence."

- *Kenneth Arrow, 1972, 357.*

Trust in large companies and in their stock valuations has reached historic lows. Ninety percent of Americans surveyed in March of 2009 for the Chicago Booth/Kellogg School Financial Trust Index do not trust large corporations, 87% do not trust the stock market, and those numbers remain low in subsequent survey waves (see Figure 1). Rebuilding trust is essential: it matters for investors, corporations, the proper functioning of capital markets, and economic growth. While companies build trust by releasing financial statements that accurately reflect their economic performance, it has long been understood that Chief Executives have significant discretion in their reporting choices. The Treadway Commission identified the tone set by top management, the corporate culture in which financial reporting occurs, as the most important factor contributing to the integrity of the financial reporting process (COSO, 1987, 32), and the Sarbanes-Oxley Act of 2002 requires that corporate leaders personally certify financial statements.

While CEO character and leadership matter for financial statement quality, they are difficult to observe. Previous studies that investigate the link between CEO reputation and earnings management rely on *external assessments* and find that CEOs who receive national media awards or greater press coverage engage in *more* earnings management (Malmendier and Tate, 2009; Francis, Huang, Rajgopal, and Zang, 2008). CEOs capitalize on their external reputation by increasing activities outside their core responsibilities: they join additional boards, write books or play golf, even though their company stock underperform. Meanwhile, competitors of award-winning CEOs take more risks, become more innovative, and their stocks subsequently outperform (Ammann, Horsch, and Oesch, 2016). When the media tout CEOs the ensuing popularity affects

CEO incentives and behavior. In contrast, we do not know whether CEO reputation *among insiders* has different effects than media popularity.

To pursue that question we use novel data on internal CEO approval and link them to financial reporting quality. Our CEO approval ratings are from Glassdoor, a prominent career website with an extensive database of company reviews, CEO approval ratings, and salary reports. Since 2008, Glassdoor has collected employee survey responses to the question: *Do you approve of the way your CEO is leading your company?* We argue that the level of CEO approval can signal financial reporting quality to stakeholders. First of all, high employee approval might reflect a CEO's high ethical standard. Psychological research finds that individuals evaluate their leaders based on perceived character traits (Nelson and Kinder, 1996; Rahn, 1993; Sullivan, Aldrich, Borgida, and Rahn, 1990), and presidential approval ratings are partly driven by the president's morality, honesty, integrity and competence (Kinder and Fiske, 1986; Greene, 2001; Newman, 2003; 2004).

CEO approval ratings can also reveal the corporate *tone at the top*. The CEO is chiefly responsible for setting the right tone by promoting high ethical standards and sound leadership (Berson, Oreg, and Dvir, 2008; Deloitte, 2015). The CEO's tone affects the control environment and corporate culture within which financial reporting occurs. It is an important factor contributing to the reliability of the financial reporting process (National Commission on Fraudulent Financial Reporting, 1987; Castellano and Lightle, 2005; IFAC, 2007; Deloitte, 2014; 2015). Certain patterns emerge in accounting frauds and irregularities, including the presence of a tough and powerful CEO who frightens and bullies subordinates (Regan, 2000).

CEOs are to a varying degree concerned about meeting short-term market expectations. Employees might think more highly of less myopic CEOs, who are also less likely to sacrifice financial statement quality to "make the numbers." Compared to typical employees, CEOs have

immense human capital and many outside opportunities. CEOs who take the long-term view might garner greater approval and may establish higher reporting quality.

Our CEO approval measure has three distinct advantages: First, it is based on employee perceptions, not on corporate communications like codes of conduct or CEO letters to shareholders (Patelli and Pedrini, 2015). While corporate communications capture how executives *portray* their management style, our measure reflects how employees within the organization *perceive* their CEO's leadership. Guiso, Sapienza, and Zingales (2014) find that employee perceptions of top management matter for firm performance, while proclaimed values appear irrelevant. Second, our measure aggregates over one hundred thousand employee assessments to create a panel dataset that covers about one thousand S&P 1500 firms and allows for a comprehensive exploration of CEO approvals in large, public companies. And finally, the CEO approval ratings are publicly available to researchers, regulators and auditors through Glassdoor's website.

We first examine the association between the CEO approval ratings and earnings management. When we take our research question to the data, which encompass over 100,000 employee approval ratings of their CEO for about 1,000 large publicly-traded U.S. companies from 2008 through 2012, we find that higher CEO approval ratings are associated with lower discretionary accounting accruals. To control for selection bias due to the non-random availability of CEO approval ratings we employ two-stage Heckman correction models and compare firms with higher-rated CEOs to propensity score matched groups of firms with similar observable characteristics yet lower-rated CEOs. All our tests suggest a negative association between CEO approvals and discretionary accruals.

We next examine the relation between CEO approval ratings and the pricing of external audit services. If low CEO approvals are indicative of a less effective control environment, we expect auditors to exert more effort to reduce audit risk and to charge a fee premium to compensate

for expected future losses due to their association with the client; both channels increase audit fees charged to the client (Simunic, 1980; Hay, Knechel, and Wong, 2006; Causholli, De Martinis, Hay, and Knechel, 2010). We find that higher CEO approval ratings are indeed associated with lower audit fees. We compare firms with higher-rated CEOs to a propensity score matched group of firms with similar observable characteristics yet lower-rated CEOs and continue to find a negative association between CEO approval ratings and audit fees.

Among companies that are financially distressed, we test for the association between CEO approval ratings and auditor issuances of modified going concern opinions. Auditors are required to issue a modified going concern opinion if they substantially doubt the entity's ability to continue as a going concern in the near future (PCAOB AU 341). CEOs with high employee approvals might be more likely to successfully implement effective measures to mitigate the effects of poor economic conditions. For instance, lenders and investors may have more confidence in providing capital to CEOs with a supportive employee base. Consistent with this supposition, we find that firms with higher CEO approval ratings are less likely to receive modified going concern opinions.

We also investigate the association between CEO approval ratings and instances of litigation linked to financial reporting issues. In our sample, we find 101 occurrences of such litigation events (3.6% of the litigation sample). Higher CEO approval scores are associated with lower likelihood of subsequent litigation related to financial accounting malpractices.

We conduct a battery of robustness tests and verify that our results are not driven by alternative matching specifications in matching samples and additional controls of employee relations, corporate layoffs, debt or equity issuance, CEO tenure, CEO founder status, excess CEO compensation, future firm performance or CEO external awards.

Our study advances an emerging literature that, so far, relies on experimental methods, case studies, and computational linguistics to examine CEO leadership and trustworthiness.

Kaplan, Samuels, and Cohen (2015) provide experimental evidence that employees' perceptions of CEO reputation are impacted by social ties with the compensation committee and quality of financial reporting disclosures. Gao, Greenberg, and Wong-On-Wing (2015) illustrate the importance of an externally administered reporting channel for encouraging whistle-blowing intentions. In two case studies, Bozzolan, Cho, and Michelon (2015) report how the Fiat Group uses tone at the top to address stakeholder interactions and concerns, and Shapiro and Naughton (2015) demonstrate the linkages between a company's culture, organizational practices, and financial management. Patelli and Pedrini (2015) examine thematic indicators and diction in CEO letters to shareholders to capture management characteristics.

Several studies examine CEOs who receive external recognition through awards and media coverage (Malmendier and Tate, 2009; Francis et al., 2008; Ammann et al., 2016). We investigate CEOs that are evaluated internally by employees. While external CEO recognition is associated with higher earnings management, we document that CEOs with high internal employee approval lead companies with lower discretionary accounting accruals and lower audit fees. They receive fewer modified going concern opinions during financial distress, and are less frequently sued for accounting malpractice.

The Financial Crisis Inquiry Commission placed "special responsibility with the public leaders charged with protecting our financial system, those entrusted to run our regulatory agencies, and the chief executives of companies whose failures drove us to crisis. These individuals sought and accepted positions of significant responsibility and obligation." (Financial Crisis Inquiry Commission, 2011, xxiii). Our results corroborate the conclusion that CEO leadership matters and suggest that corporate stakeholders can use Glassdoor's CEO ratings to complement their assessment of corporate reporting quality.

2. Data

2.1. Sample construction

The prominent jobs and recruiting website Glassdoor surveys whether employees approve, disapprove or have no opinion of the way their CEO is leading the company. Our sample results from intersecting CEO approval data from Glassdoor with AuditAnalytics, CRSP, Compustat, and Execucomp for the years 2008 through 2012. We only include current employees' reviews to measure approval ratings of the CEO, require at least three reviews for a firm in a year to reduce the impact of extreme reviews, and then calculate average annual ratings to measure how employees assess their CEO. The final sample contains 2,681 annual observations of CEO approval, discretional accruals, audit fees, and firm characteristics for 875 large public firms in the U.S. from 2008 to 2012.

We face several sample selection concerns when using survey data that are provided voluntarily. Employees who assess their CEO publicly may not be representative of the company's workforce. Glassdoor applies a "give-to-get" model to encourage employees to provide reviews. Users are required to sign up for an account using Facebook, Google, or email to get ten-day access. For unlimited access, Glassdoor requires users to anonymously provide a salary report, company review, or interview experience of their own. Through this model Glassdoor grows its content and reduces the impact of having unrepresentative employee reviews. Glassdoor's CEO approval ratings could be biased because it sells services to employers. This concern is alleviated by Glassdoor's policy to never edit or delete posts because of their content or rating. In particular, Glassdoor claims to apply the same standard of review for all content, whether or not the content concerns an employer client of Glassdoor. It therefore does not remove negative reviews for its clients, although it uses algorithms to detect fraud.

2.2. Summary statistics

Our summary statistics in Table 1 show that average and median of CEO approval are both higher than the mid-point of the 3-point scale, which indicates that employees tend to approve of the way their CEO is leading their company. The quantile statistics of CEO approval suggest that the distribution is quite symmetric, yet exhibits considerable variation. We use *discretionary accruals* and *audit fees* as the main outcome variables in our analyses. To measure discretionary accruals, we estimate the residual term from the performance-adjusted cross-sectional variation of the modified Jones model (Dechow, Sloan, and Sweeney, 1995; Kothari, Leone, and Wasley, 2005). Table 1 shows that discretionary accruals have a mean value of 0.001, which is similar to the mean value of 0.00 reported by Kothari et al. (2005). The average firm in our sample pays $5.67 million in audit fees; the median value of $3 million indicates that the distribution is skewed to the right. We therefore use the natural logarithm of audit fees as the dependent variable in our audit fee regressions to reduce the influence of outliers.

Table 1 shows that the average firm in our sample has $20 billion in total assets, 97% of the firms are audited by a Big N audit company, only 1% of them exhibit material weaknesses, and only 4% of the financially distressed firms receive going concern opinions from their auditors, which constitutes less than 1% of our sample. Compared to small- and mid-sized companies, these large public firms have relatively stable financials and thus might be less exposed to idiosyncratic shocks to both CEO approval and accounting outcomes. To reduce the impact of extreme values, we scale firm characteristics by assets and winsorize their distributions at the 1st and 99th percentiles. We include relevant firm characteristics (Hay et al., 2006) as control variables in the regressions. We later augment the sample with additional control variables (Dechow, Ge, and Schrand, 2010; Carson et al., 2013) to examine how CEO approval affects going concern opinions and accounting litigation. Tables A4 and A5 of the Appendix report descriptive sample statistics.

3. Results

3.1. Univariate analysis and sample selection

Throughout our paper we provide results for the full sample along with results for a propensity-score matched sample because firms with high CEO approval might systemically differ from firms with low CEO approval. Differences in discretionary accruals, audit fees, going concern opinions, or accounting litigation in our full sample can be biased if we do not sufficiently control for the covariates that predict employees' assessments of their CEO. Since average CEO approval ratings by employees constitute a continuous measure, we split our sample at the median of the *CEO approval* variable. Specifically, we construct an indicator variable, *High approval*, which equals one if *CEO approval* exceeds its median value, and equals zero otherwise. We then apply propensity score matching, matching on the control variables used in the discretionary accruals regression model and the audit fee regression model, respectively, with caliper of 1%, the nearest neighbor, and no replacements to determine the treatment group (*High approval = 1*) and the control group (*High approval = 0*). In Table A3 of Appendix, we find that both propensity score models have likelihood-ratio test statistics significant at the 1% level and an area under the Receiver Operating Characteristic curve (AUC), which exceeds the threshold of 0.70 suggested by Hosmer and Lemeshow (2000).

Table 2 compares average values of control variables for the high and low CEO approval groups. For the discretionary accruals model and the audit fee model, both groups exhibit very similar mean values, with insignificant t-statistics ranging from -0.35 to 0.90. Since we require very strict criteria to ensure high-quality matches, our matched samples contain between 1,860 and 1,868 annual observations, which is about 30% smaller than the full sample.

Table 3 provides Pearson correlation coefficients for variables in the full sample. CEO approval is positively correlated with firm size, market-to-book ratio, return on assets, sales

growth, and the *big N* and *merger* indicators, and is negatively correlated with the *going concern*, *loss*, and *restructuring* indicators. The positive correlation coefficient between CEO approval and audit fees is probably due to the fact that large firms tend to have higher CEO approvals and pay higher audit fees. It is therefore necessary to examine the effect of CEO approval on discretionary accruals and on audit fees in a multivariate framework.

Propensity score matching cannot overcome the fact that companies with sufficient CEO approval ratings constitute a non-random sample. To mitigate concerns about possible selection bias, we estimate a two-stage Heckman correction model and report the first stage probit regression results in Table A2 of the Appendix. This model shows several significant determinants: R&D intensive firms, growth firms, firms that are included in the S&P 500 index, and firms with larger sales, more employees, shorter history and younger CEOs are more likely to have sufficient employee assessments to be included in the sample. We use the Area under the Receiver Operating Characteristic curve (AUC) to measure how accurately the probit regression model discriminates between firms that have at least three current employee reviews in a year and firms that do not. Our probit model has an AUC of 0.88, which is comfortably above the 0.70 threshold (Hosmer and Lemeshow, 2000).

Since Lennox, Francis, and Wang (2011) find that industry averages can be useful in addressing selection bias, we include the industry average of available employee reviews as the exclusion restriction in our first stage probit selection equation, and include the inverse Mills ratio in our second stage audit fee regressions (Huang, Li, Meschke, and Guthrie, 2015). While the number of reviews within the firm is correlated with the average number of employee reviews within the industry, we have no good reason to expect that the industry average of available employee reviews will directly impact the firm-level association between CEO approval and financial reporting quality. The inverse Mills ratio is statistically insignificant in the discretionary

accrual, going concern opinion, and accounting litigation regressions; it is, however, statistically significant in our audit fee regression. In untabulated tests we find that excluding the insignificant inverse Mills ratios from our regressions does not affect our inferences.

3.2. Discretionary accruals

We first examine the association between CEO approval ratings and discretionary accruals, measured as the error term, ε_{it}, from the performance-adjusted cross-sectional variation of the modified Jones model:

$$\frac{Total\ accruals_{it}}{AT_{it-1}} = \alpha + \beta_1\left(\frac{1}{AT_{it-1}}\right) + \beta_2\left(\frac{\Delta SALE_{it} - \Delta RECT_{it}}{AT_{it-1}}\right) + \beta_3\left(\frac{PPEGT_{it}}{AT_{it-1}}\right) + \beta_4\left(\frac{NI_{it}}{AT_{it}}\right) + e_{it}.$$

Following Dechow et al. (1995), Kothari et al. (2005) and Prawitt, Smith, and Wood (2009), we control for two-digit SIC industry codes, exclude observations if the ratio of total accruals to total assets is smaller than negative one or larger than one, and exclude observations if there are fewer than ten observations in a two-digit SIC industry for a given year. We use the signed value of discretionary accruals to test for earnings management. Positive discretionary accruals measure earnings-enhancing accruals, while negative values measure earnings-reducing accruals. See Hribar and Nichols (2007) for discussion of the implications of using signed value and absolute value of discretionary accruals.

We also split discretionary accruals into positive and negative accruals to investigate whether CEO approval is associated with earnings-enhancing accruals. Specifically, we test the relation between discretionary accruals and CEO approval by using the following model:

$$
\begin{aligned}
&Discretionary\ accruals_{ijt} \\
&\quad = \alpha + \beta_1 CEO\ approval_{ijt} + \beta_2 \ln(Assets)_{ijt} + \beta_3 Leverage\ ratio_{ijt} \\
&\quad + \beta_4 Sales\ growth_{ijt} + \beta_5 Receivable\ and\ inv.ratio_{ijt} \\
&\quad + \beta_6 Special\ item\ ratio_{ijt} + \beta_7 \ln(Firm\ age)_{ijt} + \beta_8 Market\ to\ book_{ijt} \\
&\quad + \beta_9 Return\ on\ assets_{ijt} + \beta_{10} SD(Sales\ growth)_{ijt} \\
&\quad + \beta_{11} SD(Cash\ flow)_{ijt} + \beta_{12} Loss\ indicator_{ijt} + \beta_{13} Merger\ indicator_{ijt} \\
&\quad + \beta_{14} Restructuring\ indicator_{ijt} + \beta_{15} Going\ concern\ indicator_{ijt} \\
&\quad + \beta_{16} Material\ weakness\ indicator_{ijt} + \beta_{17} Inverse\ Mills\ Ratio_{ijt} \\
&\quad + \delta' Industry\ dummies + \varphi' Year\ dummies + \varepsilon_{ijt},
\end{aligned}
$$

where *i* indicates firms, *j* indicates industries, and *t* indicates years.

The results in Table 4 suggest that earnings-enhancing accruals are less common among firms with higher CEO approval. The coefficients on *CEO approval* are negative and statistically significant at the 1% level for discretionary accruals as well as for positive accruals in the full sample and in the matched sample. A one standard deviation increase in *CEO approval* for the matched sample is associated with a reduction in discretionary accruals equivalent to 6.5% of one standard deviation.[1] In contrast, the relation between *CEO approval* and negative accruals is only marginally significant in both samples.

The control variables in Table 4 are defined in the appendix and have signs consistent with Kothari et al. (2005). Discretionary accruals are higher in firms that have higher financial risk (*Leverage ratio*), greater complexity (*Receivables and inventories ratio*, *Special item ratio*, and *Restructuring indicator*), higher return on assets, lower market-to-book, and less volatile cash flows. To control for selection bias due to self-reported employee assessments we include the inverse Mills ratio from a first-stage Heckman correction in regressions. The coefficients on the

[1] $[0.40\times(-0.00925)]\div 0.057 = -0.0649$, where 0.40 is the sample *standard deviation* of the CEO approval variable from Table 1, -0.00925 is the *coefficient* on CEO approval in Column (1) of Panel B, Table 4, and 0.057 is the sample *standard deviation* of Discretionary accruals from Table 1.

inverse Mills ratio are insignificant, which alleviates the concern that our discretionary accruals tests are affected by selection bias. The multivariate results in Table 4 for the full sample and the propensity-score matched sample suggest that higher CEO approval corresponds to less earnings management, especially in earnings-enhancing accruals.

3.3. Audit fees

Next, we examine the relation between CEO approval ratings and the pricing of external audit services. If low CEO approvals are indicative of a suboptimal control environment, we expect auditors to exert more effort to reduce audit risk and to possibly charge a fee premium to compensate for any expected future losses. To test the relation between audit fees and CEO approval, we use the following model:

$$\begin{aligned}\ln(Audit\ fees)_{ijt} &= \alpha + \beta_1 CEO\ approval_{ijt} + \beta_2 \ln(Assets)_{ijt} + \beta_3 Leverage\ ratio_{ijt} \\ &+ \beta_4 Intangible\ ratio_{ijt} + \beta_5 Receivable\ and\ inv.ratio_{ijt} \\ &+ \beta_6 Special\ item\ ratio_{ijt} + \beta_7 Return\ on\ assets_{ijt} \\ &+ \beta_8 Extraordinary\ indicator_{ijt} + \beta_9 Loss\ indicator_{ijt} \\ &+ \beta_{10} Foreign\ indicator_{ijt} + \beta_{11} Merger\ indicator_{ijt} \\ &+ \beta_{12} Restructuring\ indicator_{ijt} + \beta_{13} Big\ N\ indicator_{ijt} \\ &+ \beta_{14} Busy\ indicator_{ijt} + \beta_{15} Going\ concern\ indicator_{ijt} \\ &+ \beta_{16} Material\ weakness\ indicator_{ijt} + \beta_{17} NoSOX404issue\ indicator_{ijt} \\ &+ \beta_{18} Inverse\ Mills\ Ratio_{ijt} + \delta' Industry\ dummies + \varphi' Year\ dummies \\ &+ \varepsilon_{ijt},\end{aligned}$$

where *i* indicates firms, *j* indicates industries, and *t* indicates years. See the Appendix Table A1 for variable definitions.

Table 5 reports multivariate results for audit fee tests in the full sample and the propensity-score matched sample. As predicted, the coefficients on *CEO approval* are negative and

statistically significant at the 1% level for both samples. In terms of economic significance, a one standard deviation increase in *CEO approval* for the matched sample is associated with a 4.34% decrease of audit fees, which amounts to a reduction in audit fees of around $232,000.[2]

Most of the control variables in Table 5 have signs consistent with Hay et al. (2006). Audit fees are higher in larger firms with higher financial risk (*Leverage ratio* and *Loss indicator*), and greater complexity (*Intangible ratio*, *Receivables and inventories ratio*, *Extraordinary indicator*, *Restructuring indicator*, and *Foreign indicator*), that engage in mergers and acquisitions (*Merger indicator*), and received a material weakness issuance. To control for selection bias due to self-reported employee assessments we include the inverse Mills ratio from a first-stage Heckman correction in both regression models. The coefficients on the inverse Mills ratio are significantly negative, implying that firms included in our sample pay lower audit fees than firms not included in our sample.

Consistent with the univariate results, the multivariate results in Table 5 show that firms with higher CEO approval pay lower audit fees. This result holds for both the full sample and the propensity-score matched sample.

3.4. Going concern opinions

In this section we investigate whether CEOs with higher approval ratings are less likely to receive a modified going concern opinion. Following Carson et al. (2013), we restrict our sample to distressed firms with negative net income or operating cash flow; we provide the corresponding summary statistics in Table A4 of the Appendix. A positive tone at the top, which might be

[2] $\{\exp[0.40\times(-0.111)]-1\}\times\$5{,}350{,}129 = -\$232{,}349$, where 0.40 is the sample *standard deviation* of the CEO approval variable from Table 1, -0.111 is the *coefficient* on CEO approval in Column (2) of Table 5, and $5,350,129 is the sample *mean* of Audit fees from Table 1.

reflected in higher CEO approval, is often associated with higher employee productivity and operating performance (e.g., Harter, Schmidt, and Hayes, 2002; Whitman, Van Rooy, and Viswesvaran, 2010), and workplace quality correlates with firm performance (Edmans, 2011; Huang et al., 2015). Auditors of clients with higher CEO approval might therefore be more optimistic about their clients' ability to continue as a going concern. To test this assertion, we estimate the following model:

$$
\begin{aligned}
&Going\ concern\ indicator_{ijt} \\
&\quad = \alpha + \beta_1 CEO\ approval_{ijt} + \beta_2 \ln(Assets)_{ijt} + \beta_3 Altman\ Z\ score_{ijt} \\
&\quad + \beta_4 Leverage\ ratio_{ijt} + \beta_5 \Delta(Leverage\ ratio)_{ijt} + \beta_6 Cash\ ratio_{ijt} \\
&\quad + \beta_7 Operating\ cash\ flow\ ratio_{ijt} + \beta_8 Stock\ return_{ijt} \\
&\quad + \beta_9 Restructuring\ indicator_{ijt} + \beta_{10} Debt\ issuance\ indicator_{ijt} \\
&\quad + \beta_{11} Equity\ issuance\ indicator_{ijt} + \beta_{12} Inverse\ Mills\ Ratio_{ijt} \\
&\quad + \delta' Industry\ dummies + \varphi' Year\ dummies + \varepsilon_{ijt},
\end{aligned}
$$

where *i* indicates firms, *j* indicates industries, and *t* indicates years. See the Appendix Table A1 for variable definitions.

Panel A of Table 6 reports probit regression results for the full sample. The negative coefficient on CEO approval in Column (1) is significant at the 1% level and indicates that firms with higher CEO approval are indeed less likely to receive going concern opinions. Consistent with Carson et al. (2013), we find that the probability of receiving a going concern opinion is lower for firms with larger assets, higher Altman Z-scores, lower leverage, more cash, better performance, debt or equity issuance, and for firms without restructuring activities.

In order to mitigate the concern that firms that are designated as going concerns are systematically different from those that are not, we again use propensity scores to construct a matched sample. Since CEO approval ratings provide us with a continuous measure, we split our sample at the median of the *CEO approval* variable. As before, we create an indicator variable,

High approval, that equals one if *CEO approval* is greater than its median, and zero otherwise. We use all the control variables in the going concern model as independent variables in the first stage model and apply propensity score matching with caliper = 1%, the nearest neighbor, and no replacements to identify the treatment group (*High approval* = 1) and the control group (*High approval* = 0). Since the small size of the matched sample does not allow us to perform multivariate regressions with fixed effects, we compare the means and medians of variables between treatment firms and control firms.

After propensity score matching, determinants of going concern issuance suggested by Carson et al. (2013) do not differ between treatment group and control group. The results in Panel B of Table 6 show that none of the firms in the treatment group (*High rating* = 1) received a going concern report, while 5% of firms in the control group (*High rating* = 0) are given going concern opinions from their auditors. The differences in mean and median are statistically significant at the 3% level. Taken together, the results from the full sample and the matched sample suggest that distressed firms with higher CEO approval are less likely to receive going concern opinions from their auditors.

3.5. Accounting litigation

Finally, we investigate whether CEOs with lower approval ratings are sued more often for financial accounting malpractice. In our analysis we consider litigation related to accounting and auditing enforcement releases, accounting malpractice, or financial reporting as classified by Audit Analytics. Lagged CEO approval is measured for year t-1, and related to litigation in year t. Because employee approval ratings are available from 2008 through 2012, our accounting litigation regressions cover the years 2009 through 2013. We provide descriptive statistics of the

accounting litigation sample in Table A5 of Appendix. To test the relation between accounting litigation and CEO approval, we estimate the following regression model:

$$\begin{aligned} &Accounting\ litigation\ indicator_{ijt} \\ &\quad = \alpha + \beta_1 CEO\ approval_{ijt-1} + \beta_2 \ln(Assets)_{ijt} + \beta_3 Leverage\ ratio_{ijt} \\ &\quad + \beta_4 Sales\ growth_{ijt} + \beta_5 Intangible\ ratio_{ijt} + \beta_6 Special\ item\ ratio_{ijt} \\ &\quad + \beta_7 Return\ on\ assets_{ijt} + \beta_8 Loss\ indicator_{ijt} + \beta_9 Foreign\ indicator_{ijt} \\ &\quad + \beta_{10} Big\ N\ indicator_{ijt} + \beta_{11} Going\ concern\ indicator_{ijt} \\ &\quad + \beta_{12} Material\ weakness\ indicator_{ijt} + \beta_{13} Inverse\ Mills\ Ratio_{ijt-1} \\ &\quad + \delta' Industry\ dummies + \varphi' Year\ dummies + \varepsilon_{ijt}, \end{aligned}$$

where *i* indicates firms, *j* indicates industries, and *t* indicates years. See the Appendix Table A1 for variable definitions.

Table 7 displays the effect of CEO approval on subsequent accounting litigation in the full sample and the matched sample. Columns (1) and (2) show that the coefficient on lagged *CEO approval* is negative and significant at the 5% level. This indicates that firms with lower CEO approval face an increased likelihood of subsequent accounting litigation. We include a *Going concern indicator* as an independent variable to mitigate the concern that this result is driven by firms that receive going concern opinions. Untabulated results show a low correlation coefficient of 0.06 between the accounting litigation and the going concern indicators, and only 2% of the firms sued for accounting malpractice receive going concern opinions. To control for potential nonlinearities between CEO approval and control variables, we again examine a matched sample by constructing an indicator variable, *High approval*, which equals one if CEO approval exceeds its median value and equals zero otherwise. We match on control variables used in the accounting litigation regression model, with caliper = 1%, the nearest neighbor, and no replacements, to determine the treatment group and the control group.

Using the matched sample, we confirm in Columns (3) and (4) that firms with higher CEO approval are significantly less likely to be sued for accounting malpractice. Probit regressions in Table 7 have an Area under the Receiver Operating Characteristic curve (AUC) between 0.83 and 0.84, which suggests that the accounting litigation model discriminates well between firms that are sued for accounting fraud and firms that are not. In terms of economic significance, one standard deviation increase from the mean of *Company rating* is associated with a 16.29% decrease in the probability of accounting litigation.[3]

Two issues might affect the inference we can draw from our accounting litigation results. First, only about 4% of the firm-year observations during the sample period from 2009 through 2013 are associated with accounting litigation. Using accounting *litigation* may therefore underestimate the probability for firms to commit accounting fraud since not all perpetrating firms are detected and sued. Second, our first-stage accounting litigation model yields an AUC of 0.66, which is slightly below the suggested threshold of 0.70 suggested by Hosmer and Lemeshow (2000). In our first-stage model we control for firm performance, debt, firm growth, firm size, firm complexity and other characteristics following Dechow et al. (2010). It is possible to obtain an AUC of 0.70 by using three-digit SIC codes to identify industries at the first stage propensity score matching, and the regression results in the ensuing matched sample are quantitatively similar to those in Table 7. Yet to maintain consistency across specifications, we only report results based on two-digit SIC industry identification codes throughout the paper. With these two caveats, the results in this section indicate that higher CEO approval predicts a lower probability of subsequent accounting litigation.

[3] $0.51 \times (-0.0115) \div 0.036 = -0.1629$, where 0.51 is the sample *standard deviation* of CEO approval (Table A5, Appendix), -0.0115 is the *marginal effect* from the coefficient on CEO approval (Column (3) of Table 7), and 0.036 is the sample *mean* of the accounting litigation indicator (Table A4, Appendix).

3.6. Robustness tests

To examine the robustness of our results in the audit fees model and the discretional accruals model, we report in Table 8 regression results with additional control variables and alternative matching specifications in matching samples. The baseline results from Panel B of Table 4 and Table 5 are provided as scenario (1) for comparison. In scenarios (2) – (11), we again construct an indicator variable, *High approval*, that equals one if *CEO approval* exceeds its median value and equals zero otherwise. We apply propensity score matching on control variables used in the discretionary accruals or the audit fee regression model with caliper = 1%, the nearest neighbor, and no replacements, to determine the treatment group and the control group in each scenario. In scenario (12), we use propensity score matching with replacements, and in scenario (13), we construct a single matching sample for the audit fee and the discretionary accruals model by including their determinants in the same probit model.

To jointly investigate the effect of external recognition and internal approval we construct an indicator variable equal to one for CEOs who receive a CEO of the Year award from Morningstar or from Chief Executive Magazine. We find that firms with CEOs that receive external awards increase their discretionary accruals, which is consistent with Malmendier and Tate (2009). Importantly, we show in scenario (2) that the negative association between CEO approval and audit fees or discretionary accruals remains when we include external CEO awards in our specifications.

CEO approval may be driven by other CEO characteristics. Employees may view their CEO positively if the CEO is a founder or has a long tenure at the company (Ali and Zhang, 2015; Huang et al., 2015). If founder CEOs or CEOs with long tenure are less likely to engage in earnings management and hence impose lower audit risk, the findings so far might be driven by founder status and CEO tenure. Yet the results in scenario (3) show that the coefficients on *CEO approval*

remain significantly negative at the 5% level of significance after control for founder status and CEO tenure. Alternatively, firms with CEO turnovers or CEOs from external hires may experience changes in employee assessments of their new leader, and in scenarios (4) and (5) we find that the effect of CEO approval on audit fees and discretionary accruals are robust after control for CEO turnover and CEO status as external hires. In addition, CEO approval ratings may reflect the CEO's compensation, especially if the pay packages are deemed excessive. We therefore estimate excess CEO pay as in Core, Guay, and Larcker (2008) and include their measure as an additional control variable. Scenario (6) shows that the coefficients on *CEO approval* remain significantly negative at the 5% level of significance after control for excess CEO pay.

We use average annual CEO approval ratings to measure how employees assess their CEO. Since available CEO approval ratings vary across firms and years we construct a measure of relative ratings availability by scaling each firm's number of CEO ratings by the firm's number of employees. The coefficients on *CEO approval* remain significantly negative after control for relative availability of CEO approval ratings in scenario (7). In untabulated tests, we relax the requirement for a firm to have at least three reviews in a year, and instead calculate average annual CEO approval ratings for every firm with employee assessments. The coefficients on *CEO approval* remain significantly negative at the 5% level of significance.

Corporate layoffs can simultaneously lower employee morale and increase audit risk. To investigate whether layoffs drive our results we follow Datta, Guthrie, Basuil, and Pandey (2010) and construct a downsizing indicator equal to one if a company reduces its labor force by 5% or more from one year to another. Scenario (8) reports that the coefficients on *CEO approval* remain significantly negative after control for employee downsizing events.

Our measure of CEO approval might be correlated with companies' employee relation policies, which are captured by MSCI (formerly KLD Research and Analytics). MSCI assesses a

firm's strengths and concerns in employee relations through a set of indicator variables. Strengths include cash profit sharing, employee involvement, and human capital management, while concerns include union relations, employee health and safety, and child labor. To investigate whether the effects of CEO approval from Glassdoor are subsumed by MSCI ratings, we follow Guo, Huang, Zhang, and Zhou (2016) and include MSCI's total number of strengths and total number of concerns in employee relations as additional control variables. The number of concerns in employee relations is indeed associated with higher audit fees, while the number of strengths is associated with lower discretionary accruals. Yet the coefficients on *CEO approval* in scenario (9) remain significantly negative after we control for MSCI employee strengths and concerns.

The negative relation between CEO approval and discretionary accruals or audit fees could be driven by firms that seek external financing from capital markets. If these firms have to raise capital, they may be more likely to manage their earnings, pay higher audit fees, and may also experience worsening CEO approval due to economic uncertainty. To investigate this possibility, we construct one indicator variable to control for *debt issuance*, and a second one to control for *equity issuance*. Scenario (10) shows that the coefficients on *CEO approval* remain significantly negative at the five-percent level of significance after control for external financing.

Expectations about future firm performance may simultaneously affect employee assessments of their CEO and financial reporting quality. While we control for current corporate performance in baseline regressions, we further include the two-year average forward ROA and the market-to-book ratio. This specification assumes that employees have perfect foresight about future firm performance when assessing their CEO. Yet the coefficients on *CEO approval* in scenario (11) remain significantly negative, which suggests that employee approval of their CEO signals additional information about financial reporting quality even after controlling for future performance.

So far, we have constructed matched samples by using propensity score matching *without replacements*. We match only the nearest control firm to each treatment firm and require a narrow caliper difference of 1% to alleviate potential bias in our estimates of treatment effect. Because DeFond et al. (2014) document that propensity score matching can be sensitive to its design choices we also use propensity score matching *with replacement* in scenario (12) and confirm that the coefficients on *CEO approval* remain significantly negative.

The accounting literature identifies different sets of determinants for discretionary accruals and for audit fees. Based on these different determinants we estimate separate probit models, which we use to construct separate matching samples. We estimate a firm's propensity of having a highly-approved CEO by controlling for observable differences that are documented to impact discretional accruals; separately, we estimate the propensity of high CEO approval based on observables that have been shown to affect audit fees. In scenario (13) we include both sets of determinants in a single probit model, and construct a single matched sample in which we control for observable differences that are documented to affect discretional accruals and audit fees. We continue to find that CEO approval is negatively and significantly associated with audit fees and discretional accruals. In untabulated tests, we include discretionary accruals as an additional independent variable in the audit fees regressions and find that the coefficient on CEO approval remains negative and significant. We find similar results when we include audit fees as an additional independent variable in the accruals regressions. CEO approval seems to affect earnings management even after we control for the pricing of audit service, and vice versa.

The battery of robustness tests in Table 8 show that additional controls and alternative matching specifications in matching samples do not alter our findings. We still find that firms with higher CEO approval are less likely to manage earnings, and that these firms pay significantly lower audit fees. Finance and accounting researchers face many challenges in addressing

endogeneity issues (Coles, Lemmon, and Meschke, 2012), and we do not claim to fully address all conceivable concerns. Yet taken together, the tests in this section increase our confidence that internal CEO approval can help predict earnings management, audit outcomes, and fraud.

4. Conclusion

This study links internal CEO approval ratings to financial reporting quality. It finds that companies with higher CEO approval ratings have lower discretionary accounting accruals, are less likely to receive modified going concern opinions if they are financially distressed, and face fewer lawsuits related to financial accounting malpractice. Auditors charge higher prices for audit services if their clients' CEO approval ratings are lower. Our CEO approval measure aggregates more than one hundred thousand employee assessments to create a panel dataset that provides considerable cross-sectional and time-series variations for about one thousand S&P 1500 firms.

To address endogeneity concerns we estimate two-stage Heckman correction models, construct propensity score matched control groups, and verify that our results are not driven by alternative matching specifications in matching samples and additional controls of employee relations, corporate layoffs, debt or equity issuance, CEO tenure, CEO founder status, excess CEO compensation, future firm performance or CEO external awards.

Previous research documents that external, media-generated CEO recognition is followed by more earnings management. We complement those studies by providing evidence that internal, employee-generated CEO approval is associated with less earnings management, and with higher financial statement quality in general. Since the measure we introduce in this study is available via Glassdoor's website, practicing auditors can use it as external evidence to complement their own client assessments, investment professionals might use internal CEO approval as part of their analysis, and academic researchers can incorporate the measure in subsequent studies.

Appendix

Table A1: Variable Definitions

Accounting litigation indicator: Equal to one if a firm during a year is sued for accounting malpractice and financial reporting issues; zero otherwise. We define accounting litigations as litigations that are determined to be related to Accounting and Auditing Enforcement Release, Accounting Malpractice, or Financial Reporting by Audit Analytics.

Altman Z-score: 3.3×ROA + 0.999× (Sales / Assets) + 0.6× (Market value of equities / Total debts) + 1.2× (Working capital / Assets) + 1.4× (Retained earnings / Assets).

Assets: Firm's total assets.

ln(Assets): Natural logarithm of assets.

Audit fees: A firm's annual audit fees.

ln(Audit fees): Natural logarithm of audit fees.

Big N indicator: Equals one if the auditor of a firm belongs to the Top 5 auditors; zero otherwise.

Busy indicator: Equal to one if a firm's fiscal year ends in December and zero otherwise.

Cash ratio: Cash and short-term investments / Assets.

CEO approval: Annual average ratings by employees on whether they approve of the way the CEO is leading the firm in a 3-point scale: *disapprove*, *no opinion*, and *approve*.

CEO external hire: Equals one if the CEO is hired from outside and zero otherwise.

CEO tenure: the tenure of the CEO in a firm.

CEO turnover: Equals one if the CEO in year t is not the CEO in year t-1 and zero otherwise.

Debt issuance: Equal to one if a firm has long-term debt issuance and zero otherwise.

Discretionary accruals: We measure discretionary accruals as the error term, e_{it}, from the annual cross-sectional industry (two-digit SIC code) regressions in the following model:

$$\frac{Total\ accruals_{it}}{AT_{it-1}} = \alpha + \beta_1\left(\frac{1}{AT_{it-1}}\right) + \beta_2\left(\frac{\Delta SALE_{it} - \Delta RECT_{it}}{AT_{it-1}}\right) + \beta_3\left(\frac{PPEGT_{it}}{AT_{it-1}}\right) + \beta_4\left(\frac{NI_{it}}{AT_{it}}\right) + e_{it},$$

where $Total\ accruals_{it} = IB_{it} - OANCF_{it}$, IB = Income before extraordinary items, OANCF = Operating cash flow, AT = Total assets, SALE = Sales, RECT = Accounts Receivables, PPEGT = Property, Plant and Equipment, and NI = Net income. Following Kothari et al. (2005) and Prawitt et al. (2009), we exclude observations if the ratio of total accruals to total assets is smaller than negative one or larger than one, and we exclude observations if there are fewer than ten observations in an industry (two-digit SIC code) for a given year.

Downsizing indicator: Equals one if a firm's annual percentage change in number of employees is equal to or smaller than -5% and zero otherwise.

Equity issuance: Equals one if a firm has sale of common and preferred stock; zero otherwise.

Excess(CEO Pay): CEO's total compensation residual as in Core et al. (2008, Eq. 4).

Extraordinary indicator: Equal to one if a firm reports extraordinary items and zero otherwise.

Firm age: The number of years since a firm's first appearance in CRSP.

ln(Firm age): Natural logarithm of firm age.

Foreign indicator: Equal to one if a firm has foreign exchange income and zero otherwise.

Founder CEO: Equal to one if the CEO is the founder of the firm and zero otherwise.

Going concern indicator: Equals one if the auditor issues a going concern report; zero otherwise.

Intangible ratio: Intangible assets/ Assets.

Inverse Mills ratio: Estimated to control for the possible selection bias in the availability of CEO approval ratings. See Table A2 of the Appendix for Heckman correction for sample selection.

Leverage ratio: Total debts / Assets.

Δ(Leverage ratio): Leverage ratio $_{t}$ / Leverage ratio $_{t-1}$.

Loss indicator: Equal to one if net income is negative and zero otherwise.

Market-to-book: The ratio of market value of equities to book value of equities.

Material weakness indicator: Equals one if the auditor reports material weakness; zero otherwise.

Merger indicator: Equal to one if a firm has mergers and acquisitions and zero otherwise.

MSCI employee relations: Total number of strengths in employee relations (*EMP_str_num*) − Total number of concerns in employee relations (*EMP_con_num*).

Negative accruals: Discretionary accruals × Negative accruals indicator.

Negative accruals indicator: Equals one if the discretionary accruals is negative; zero otherwise.

NoSOX404issue indicator: Equals one if auditor's opinion of internal control is missing; zero otherwise.

Operating cash flow ratio: Operating activities net cash flow / Assets.

Positive accruals: Discretionary accruals × Positive accruals indicator.

Positive accruals indicator: Equal to one if the discretionary accruals is positive and zero otherwise.

Ratings-to-employees: Number of CEO approval ratings / Total number of employees.

Receivables and inventories ratio: (Receivables + Inventories) / Assets.

Restructuring indicator: Equal to one if a firm reports restructuring costs and zero otherwise.

Return on assets: Net income / Assets.

Sales growth: (Sales $_{t}$ − Sales $_{t-1}$) / Sales $_{t-1}$.

SD(Cash flow): Standard deviation of the ratio of cash flow to total assets in recent five years.

SD(Sales growth): Standard deviation of sales growth in recent five years.

Special item ratio: Special items / Assets.

Stock return: Industry adjusted annual stock return, where the median industry stock return is subtracted from annual stock return of a firm.

Table A2

Heckman Correction for Sample Selection

Table A2 reports the first stage probit regression result of Heckman correction for sample selection. The sample period is from 2008 through 2012. Panel A provides descriptive statistics of the sample used at the first stage probit regression. Panel B reports the first stage probit regression result. Dependent variable is *CEO approval indicator*. Industry and year fixed effects are included, and robust z-statistics adjusted for clustering by firm are presented. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Descriptive statistics of Heckman Correction model

Variable	Definition	Mean	S.D.	Median
Advertising ratio	Advertising expenses / Assets.	0.01	0.05	0
CEO age	Age of the CEO.	55.30	6.97	55
ln(CEO age)	Natural logarithm of CEO age.	4.00	0.13	4.01
CEO approval indicator	= 1 if a firm has >= 3 CEO approval ratings in a year.	0.35	0.48	0
Ind. (CEO approval indicator)	Industry average of CEO approval indicator.	0.35	0.18	0.33
Firm age	The number of years since a firm's first appearance in CRSP.	25.31	19.01	19
ln(Firm age)	Natural logarithm of firm age.	2.93	0.85	2.94
Leverage ratio	Total debts / Assets.	0.21	0.18	0.18
M/B ratio	Market value of assets / Book value of assets.	1.72	1.00	1.38
Number of employees	Number of a firm's employees at the end of a year.	19,609	67,990	4,698
ln(Number of employees)	Natural logarithm of number of employees.	8.46	1.69	8.45
R&D ratio	R&D expenses / Assets.	0.03	0.06	0
ROA	Net income / Assets.	0.04	0.11	0.04
S&P 500	= 1 if a firm is included in S&P 500 index.	0.28	0.45	0
Sales ($ millions)	A firm's sales in a year.	6,709	21,082	1,501
ln(Sales)	Natural logarithm of firm's sales.	7.38	1.64	7.31
Stock return (%)	Average monthly stock returns for a firm in a year.	0.68	4.10	0.76
Stock return volatility	Standard deviation of monthly stock returns.	0.12	0.069	0.10

Table A2 (Continued)

Panel B: Probit regression of Heckman Correction model

	CEO approval indicator	
	(1)	(2)
Variable	β	z-stat
S&P 500 $_{t-1}$	0.366***	4.35
ln(Firm age) $_{t-1}$	-0.132***	-3.45
ln(CEO age) $_{t-1}$	-0.550**	-2.57
ln(Sales) $_{t-1}$	0.316***	5.98
ln(Number of employees) $_{t-1}$	0.240***	5.27
Leverage ratio $_{t-1}$	-0.249	-1.29
R&D ratio $_{t-1}$	4.140***	6.51
Advertising ratio $_{t-1}$	-0.037	-0.05
Stock return $_{t-1}$	-0.744	-1.42
Stock return volatility $_{t-1}$	-0.480	-1.20
M/B ratio $_{t-1}$	0.114***	3.60
ROA $_{t-1}$	-0.084	-0.36
Ind. (CEO approval indicator)	3.203***	12.98
Constant	-6.933***	-5.09
Industry fixed effects	Included	
Year fixed effects	Included	
Wald chi^2	1074.34***	
Observations	8,403	
Pseudo R^2	0.348	
Area under ROC curve	0.877	

Table A3

Probit Regression for Propensity Score Matching

Table A3 reports the first stage probit regression results of propensity score matching to determine matched samples used in the discretionary accruals model and the audit fees model. The sample period is from 2008 through 2012. The dependent variable is *High approval*. *High approval* is an indicator variable equal to one if *CEO approval* is greater than the median of the full sample. Variable definitions are described in Table A1. Industry and year fixed effects are included, and robust z-statistics adjusted for clustering by firm are presented. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Probit regression of the discretionary accruals model

	High approval	
	(1)	(2)
Variable	β	t-stat
ln(Assets)	0.186***	5.11
Leverage ratio	-0.945***	-4.57
Sales growth	0.521***	3.07
Receivable and inv. ratio	0.444*	1.95
Special item ratio	1.465*	1.65
ln(Firm age)	-0.009	-0.22
Market-to-book	0.066***	5.22
Return on assets	-0.354	-0.65
SD(Sales growth)	-0.043	-0.23
SD(Cash flow)	0.672	0.78
Loss indicator	-0.273**	-2.52
Merger indicator	0.076	1.33
Restructuring indicator	-0.241***	-4.09
Going concern indicator	0.185	0.26
Material weakness indicator	0.212	0.88
Inverse Mills Ratio	0.222**	2.03
Constant	-3.173***	-2.98
Industry fixed effects	Included	
Year fixed effects	Included	
LR chi^2	411.30***	
Observations	2,681	
Pseudo R^2	0.111	
Area under ROC curve	0.714	

Table A3 (Continued)

Panel B: Probit regression of the audit fees model

	High approval	
	(1)	(2)
Variable	β	t-stat
ln(Assets)	0.131***	4.01
Leverage ratio	-0.481***	-2.74
Intangible ratio	-0.842***	-4.99
Receivables and inv. ratio	-0.199	-0.86
Special item ratio	0.833	0.96
Return on assets	0.575	1.14
Extraordinary indicator	-0.072	-0.15
Loss indicator	-0.288***	-2.68
Foreign indicator	0.049	0.82
Merger indicator	0.141**	2.39
Restructuring indicator	-0.283***	-4.83
Big N indicator	0.533***	3.09
Busy indicator	-0.049	-0.76
Going concern indicator	-0.117	-0.17
Material weakness indicator	0.105	0.44
NoSOX404issue indicator	-0.256	-0.52
Inverse Mills Ratio	0.164	1.55
Constant	-2.055**	-2.05
Industry fixed effects	Included	
Year fixed effects	Included	
LR chi^2	405.95***	
Observations	2,681	
Pseudo R^2	0.109	
Area under ROC curve	0.712	

Table A4

Descriptive Statistics of the Sample for Going Concern Opinion

Table A4 provides descriptive statistics of the sample for going concern analysis used in Table 6. The sample period is from 2008 through 2012. Variables are defined in Table A1.

Variable	N	Mean	S.D.	25th %	Median	75th %
Altman Z-score	315	0.78	5.55	0.37	1.51	2.46
Assets ($ millions)	315	8,367	15,529	964	2,883	8,355
ln(Assets)	315	7.97	1.52	6.87	7.97	9.03
Big N indicator	315	1	0	1	1	1
Cash ratio	315	0.16	0.14	0.05	0.11	0.22
CEO approval	315	2.06	0.44	1.76	2.07	2.33
Debt issuance indicator	315	0.62	0.49	0	1	1
Equity issuance indicator	315	0.77	0.42	1	1	1
Going concern indicator	315	0.04	0.18	0	0	0
Leverage ratio	315	0.65	0.27	0.47	0.62	0.83
Δ(Leverage ratio)	315	1.13	0.21	1.00	1.07	1.19
Loss indicator	315	1	0	1	1	1
Operating cash flow ratio	315	0.05	0.08	0.02	0.05	0.09
Restructuring indicator	315	0.73	0.44	0	1	1
Stock return	315	0.09	1.04	-0.32	-0.10	0.17

Table A5

Descriptive Statistics of the Sample for Accounting Litigation

Table A5 provides the descriptive statistics of the sample for accounting litigation used in Table 7. The sample period is from 2009 through 2013. The variable *CEO approval* is measured in year t-1. Variables are defined in Table A1.

Variable	N	Mean	S.D.	25th %	Median	75th %
Accounting litigation indicator	2,786	0.04	0.19	0	0	0
Assets ($ millions)	2,786	19,284	44,671	1,284	3,684	14,206
ln(Assets)	2,786	8.38	1.80	7.16	8.21	9.56
Big N indicator	2,786	0.96	0.19	1	1	1
CEO approval	2,786	2.27	0.51	2	2.33	2.64
Foreign indicator	2,786	0.40	0.49	0	0	1
Going concern indicator (%)	2,786	0.29	5.35	0	0	0
Intangible ratio	2,786	0.24	0.21	0.05	0.19	0.39
Leverage ratio	2,786	0.56	0.24	0.39	0.55	0.72
Loss indicator	2,786	0.15	0.35	0	0	0
Material weakness indicator	2,786	0.01	0.11	0	0	0
Return on assets	2,786	0.05	0.09	0.01	0.05	0.09
Sales growth	2,786	0.06	0.17	-0.03	0.05	0.13
Special item ratio (%)	2,786	-1.24	3.36	-1.21	-0.31	0

References

Ali, A., and W. Zhang. 2015. CEO tenure and earnings management. *Journal of Accounting and Economics* 59 (1): 60-79.

Ammann, M., P. Horsch, and D. Oesch. 2016. Competing with superstars. *Management Science*.

Arrow, K. J. 1972. Gifts and exchanges. *Philosophy and Public Affairs* 1 (4): 343-362.

Berson, Y., S. Oreg, and T. Dvir. 2008. CEO values, organizational culture and firm outcomes. *Journal of Organizational Behavior* 29 (5): 615-633.

Bozzolan, S., C. H. Cho, and G. Michelon. 2015. Impression management and organizational audiences: The Fiat group case. *Journal of Business Ethics* 126 (1): 143-165.

Carson, E., N. L. Fargher, M. A. Geiger, C. S. Lennox, K. Raghunandan, and M. Willekens. 2013. Audit reporting for going-concern uncertainty: A research synthesis. *Auditing: A Journal of Practice & Theory* 32 (1): 353-384.

Castellano, J. F., S. S. Lightle. 2005. Using cultural audits to assess tone at the top. *The CPA Journal* 75 (2): 6-11.

Causholli, M., M. De Martinis, D. Hay, and W. R. Knechel. 2010. Audit markets, fees and production: Towards an integrated view of empirical audit research. *Journal of Accounting Literature* 29: 167-215.

Coles, J. L., M. L. Lemmon, and J. F. Meschke. 2012. Structural models and endogeneity in corporate finance: The link between managerial ownership and corporate performance. *Journal of Financial Economics* 103 (1): 149-168.

Core, J. E., W. Guay, and D. F. Larcker. 2008. The power of the pen and executive compensation. Journal of Financial Economics 88 (1): 1-25.

Committee of Sponsoring Organizations (COSO). 1987. *Report of the National Commission on Fraudulent Financial Reporting*. New York, NY: COSO. Available at http://www.coso.org.

Datta, D. K., J. P. Guthrie, D. Basuil, and A. Pandey. 2010. Causes and effects of employee downsizing: A review and synthesis. *Journal of Management* 36 (1): 281-348.

Dechow, P. M., R. G. Sloan, and A. P. Sweeney. 1995. Detecting earnings management. *The Accounting Review* 70 (2): 193-225.

Dechow, P. M., W. Ge, and C. Schrand. 2010. Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics* 50 (2): 344-401.

DeFond, M., D. H. Erkens, and J. Zhang. 2014. Do client characteristics really drive the big N effect? Evidence from matching methods. Available at http://ssrn.com/abstract=2472092.

Deloitte, 2015. Building Tone at the Top: The Role of the CEO, Board and COO Available at: http://deloitte.wsj.com/riskandcompliance/2015/03/11/building-tone-at-the-top-the-role-of-the-ceo-board-and-coo-2/

Edmans, A. 2011. Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics* 101 (3): 621-640.

Financial Crisis Inquiry Commission, 2011. *The financial crisis inquiry report: final report of the National Commission on the Causes of the Financial and Economic Crisis in the United States* (revised corrected copy). Government Printing Office, New York, N.Y

Francis, J., A. H. Huang, S. Rajgopal, and A. Y. Zang. 2008. CEO reputation and earnings quality. *Contemporary Accounting Research* 25 (1): 109-147.

Gao, J., R. Greenberg, R., and B. Wong-On-Wing. 2015. Whistleblowing intentions of lower-level employees: The effect of reporting channel, bystanders, and wrongdoer power status. *Journal of Business Ethics* 126 (1): 85-99.

Greene, S. 2001. The role of character assessments in presidential approval. *American Politics Research* 29 (2): 196-210.

Guiso, L., P. Sapienza, and L. Zingales. 2014. The value of corporate culture. *Journal of Financial Economics* 117 (1): 60-76.

Guo, J., P. Huang, Y. Zhang, and N. Zhou. 2016. The effect of employee treatment policies on internal control weaknesses and financial restatements. *The Accounting Review* 91 (4): 1167-1194.

Harter, J. K., F. L. Schmidt, and T. L. Hayes. 2002. Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology* 87: 268-279.

Hay, D. C., W. R. Knechel, and N. Wong. 2006. Audit fees: A meta-analysis of the effect of supply and demand attributes. *Contemporary Accounting Research* 23 (1): 141-191.

Hosmer, D. W., and S. Lemeshow. 2000. *Applied Logistic Regression*. 2nd Ed. Hoboken, NJ: John Wiley and Sons, Inc.

Hribar, P., and D. C. Nichols. 2007. The use of unsigned earnings quality measures in tests of earnings management. *Journal of Accounting Research* 45 (5): 1017-1053.

Huang, M., P. Li, F. Meschke, and J. P. Guthrie. 2015. Family firms, employee satisfaction, and corporate performance. *Journal of Corporate Finance* 34: 108-127.

IFAC. 2007. Tone at the top and audit quality. Available at www.ifac.org/system/files/publications/files/tone-at-the-top-and-audit-q.pdf.

Kaplan, S. E., J. A. Samuels, and J. Cohen. 2015. An examination of the effect of CEO social ties and CEO reputation on nonprofessional investors' say-on-pay judgments. *Journal of Business Ethics* 126 (1): 103-117.

Kinder, D. R., and S. T. Fiske. 1986. Presidents in the public mind. *Political psychology*: 193-218.

Kothari, S. P., A. J. Leone, and C. E. Wasley. 2005. Performance matched discretionary accrual measures. *Journal of Accounting and Economics* 39 (1): 163-197.

Lennox, C. S., J. R. Francis, and Z. Wang. 2011. Selection models in accounting research. *The Accounting Review* 87 (2): 589-616.

Malmendier, U., and G. Tate. 2009. Superstar CEOs. *The Quarterly Journal of Economics* 124 (4): 1593-1638.

Nelson, T. E., and D. R. Kinder. 1996. Issue frames and group-centrism in American public opinion. *The Journal of Politics* 58 (4): 1055-1078.

Newman, B. 2003. Integrity and presidential approval, 1980–2000. *Public Opinion Quarterly* 67 (3): 335-367.

Newman, B. 2004. The polls: Presidential traits and job approval: Some aggregate-level evidence. *Presidential Studies Quarterly* 34 (2): 437-448.

Patelli, L., and M. Pedrini. 2015. Is tone at the top associated with financial reporting aggressiveness? *Journal of Business Ethics* 126 (1): 3-19.

Prawitt, D. F., J. L. Smith, and D. A. Wood. 2009. Internal audit quality and earnings management. *The Accounting Review* 84 (4): 1255-1280.

Rahn, Wendy M. 1993. The role of partisan stereotypes in information processing about political candidates. *American Journal of Political Science*: 472-496.

Regan, Paul, a forensic accountant, in "Accounting Fraud: Learning from the Wrongs" *Financial Executive*, September/October 2000).

Shapiro, B., and M. Naughton. 2015. The expression of espoused humanizing values in organizational practice: A conceptual framework and case study. *Journal of Business Ethics* 126 (1): 65-81.

Simunic, D. A. 1980. The pricing of audit services: Theory and evidence. *Journal of Accounting Research* 18 (1): 161-190.

Sullivan, J. L., J. H. Aldrich, E. Borgida, and W. Rahn. 1990. Candidate appraisal and human nature: Man and superman in the 1984 election. *Political Psychology* 11 (3): 459-484.

Whitman, D. S., D. L. Van Rooy, and C. Viswesvaran. 2010. Satisfaction, citizenship behaviors, and performance in work unit: A meta-analysis of collective construct relations. *Personnel Psychology* 63 (1): 41-81.

Figure 1

Financial Trust Index

The Chicago Booth/Kellogg School Financial Trust Index is a quarterly measure of Americans' confidence in the private institutions in which they can invest their money. The Index was developed in 2008 by Paola Sapienza (Kellogg) and Luigi Zingales (Chicago Booth), and is based on data from more than 1,000 American households, randomly chosen and surveyed quarterly via phone by Social Science Research Solutions. This figure shows the percentage of people trusting two of the components that comprise the Financial Trust Index: trust in the stock market, and trust in large corporations. Professors Sapienza and Zingales publish the data, along with methodological descriptions, at www.financialtrustindex.org/. The data for the first quarter of 2014 are not available on that website.

Figure 1: Financial Trust Index, Q4/2008 - Q2/2014

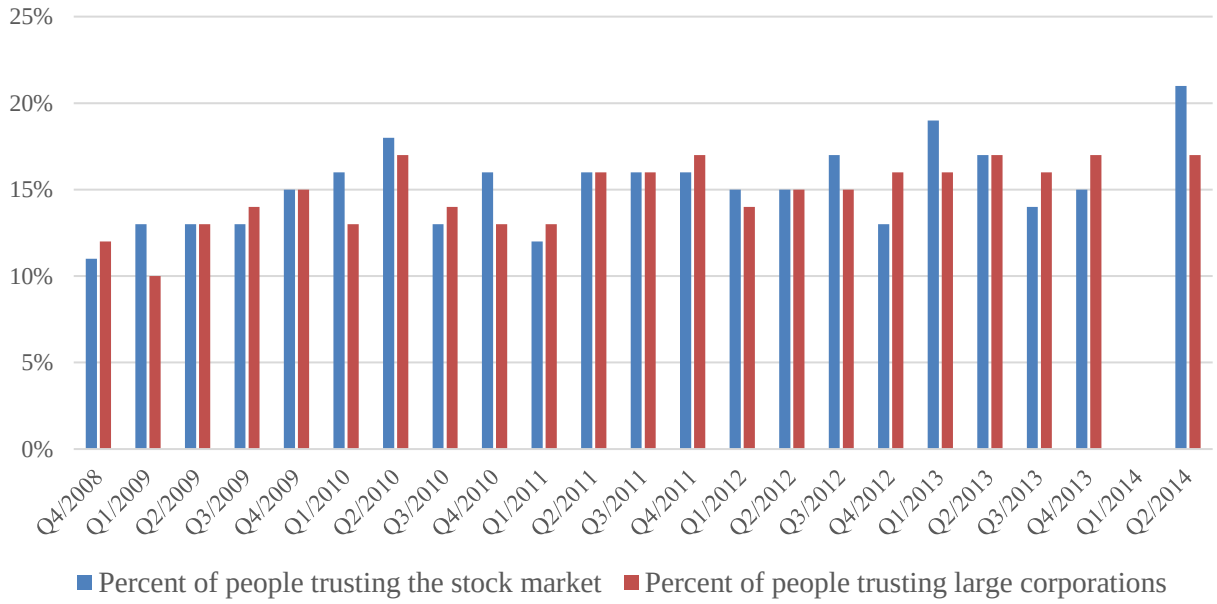

Table 1

Summary Statistics

Table 1 provides summary statistics for the full sample. We use Glassdoor data from 2008 through 2012 intersected with AuditAnalytics, COMPUSTAT, and CRSP, which results in 2,681 firm-year observations. Variable definitions are described in Table A1 of the Appendix.

Variable	Mean	S.D.	25th %	Median	75th %
Assets ($ millions)	20,040	41,601	1,493	4,555	17,485
ln(Assets) ($ millions)	8.56	1.75	7.31	8.42	9.77
Audit fees ($ millions)	5.35	6.31	1.41	3.08	6.51
ln(Audit fees)	14.97	1.06	14.16	14.94	15.69
Big N indicator	0.97	0.17	1	1	1
Busy indicator	0.66	0.47	0	1	1
CEO approval	2.27	0.40	2	2.33	2.58
Discretionary accruals (%)	0.10	5.70	-2.73	0.31	3.23
Extraordinary indicator (%)	0.30	5.46	0	0	0
Firm age	28	20	14	21	40
ln(Firm age)	3.07	0.77	2.64	3.04	3.69
Foreign indicator	0.37	0.48	0	0	1
Going concern indicator (%)	0.15	0.04	0	0	0
Intangible ratio	0.22	0.20	0.04	0.17	0.37
Inverse Mills Ratio	0.67	0.45	0.32	0.60	0.95
Leverage ratio	0.56	0.20	0.41	0.56	0.71
Loss indicator	0.14	0.34	0	0	0
Market-to-book	2.97	2.75	1.36	2.17	3.40
Material weakness indicator	0.01	0.11	0	0	0
Merger indicator	0.58	0.49	0	1	1
NoSOX404issue indicator (%)	0.34	5.79	0	0	0
Receivables and inventories ratio	0.24	0.17	0.11	0.22	0.32
Restructuring indicator	0.48	0.50	0	0	1
Return on assets	0.05	0.09	0.02	0.05	0.09
Sales growth	0.06	0.17	-0.02	0.06	0.13
SD(Cash flow)	0.04	0.04	0.02	0.03	0.05
SD(Sales growth)	0.15	0.16	0.07	0.11	0.18
Special item ratio (%)	-1.53	4.54	-1.21	-0.29	0

Table 2

Univariate Analysis

Table 2 provides descriptive statistics of firm/year variables used in matched samples of the discretionary accruals model and the audit fees model, along with mean t-tests of differences across the two groups, *High approval = 1* and *High approval = 0.* Propensity score matching is applied with caliper = 1%, nearest neighbor, and no replacements to determine the matched sample in each model, where the dependent variable in the propensity score matching is *High approval*. *High approval* is an indicator variable equal to one if *CEO approval* is greater than the median of the full sample. Variable definitions are described in Table A1 and first stage regression results of the propensity score matching are provided in Table A3 of the Appendix. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Matched sample of the discretionary accruals model

Variable	*High approval* = 1 Mean (N = 930)	*High approval* = 0 Mean (N = 930)	Difference t-stat
ln(Assets)	8.52	8.55	-0.23
ln(Firm age)	3.08	3.07	0.53
Going concern indicator (%)	0.11	0.11	0.00
Inverse Mills Ratio	0.66	0.66	0.04
Leverage ratio	0.55	0.55	0.21
Loss indicator	0.10	0.10	-0.08
Market-to-book	2.99	2.94	0.43
Material weakness indicator	0.01	0.01	0.90
Merger indicator	0.59	0.60	-0.33
Receivables and inventories ratio	0.24	0.24	-0.35
Restructuring indicator	0.48	0.49	-0.19
Return on assets	0.06	0.06	0.04
Sales growth	0.07	0.07	-0.05
SD(Cash flow)	0.04	0.04	-0.11
SD(Sales growth)	0.15	0.15	-0.02
Special item ratio (%)	-1.21	-1.16	-0.34

Table 2 (Continued)

Panel B: Matched sample of the audit fees model

Variable	*High approval* = 1 Mean (N = 934)	*High approval* = 0 Mean (N = 934)	Difference t-stat
ln(Assets)	8.54	8.54	0.00
Big N indicator	0.98	0.98	-0.17
Busy indicator	0.65	0.66	-0.05
Extraordinary indicator (%)	0.43	0.32	0.38
Foreign indicator	0.38	0.39	-0.28
Going concern indicator (%)	0.11	0.11	0.00
Intangible ratio	0.24	0.23	0.81
Inverse Mills Ratio	0.65	0.66	-0.24
Leverage ratio	0.56	0.56	-0.53
Loss indicator	0.11	0.12	-0.66
Material weakness indicator	0.01	0.01	-0.66
Merger indicator	0.60	0.60	0.24
NoSOX404issue indicator (%)	0.21	0.21	0.00
Receivables and inventories ratio	0.23	0.24	-0.65
Restructuring indicator	0.51	0.50	0.32
Return on assets	0.06	0.05	0.53
Special item ratio (%)	-1.25	-1.25	0.01

Table 3

Correlation matrix

Table 3 provides Pearson correlation coefficients for variables in the full sample. The sample period is from 2008 through 2012. Variables are defined in Table A1 of the Appendix. Bolded coefficients are significant at the 5% level.

Panel A: Pearson correlations for variables in the discretionary accruals model

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Discretionary accruals																	
2	CEO approval	0.01																
3	ln(Assets)	**0.10**	**0.18**															
4	ln(Firm age)	**0.09**	0.03	**0.32**														
5	Going concern indicator	0.03	**-0.07**	0.01	-0.01													
6	Inverse Mills Ratio	**-0.06**	**-0.05**	**-0.42**	**-0.12**	0.02												
7	Leverage ratio	**0.05**	0.00	**0.49**	**0.17**	**0.06**	**-0.10**											
8	Loss indicator	**-0.21**	**-0.17**	**-0.09**	**-0.05**	**0.10**	**0.13**	**0.10**										
9	Market-to-book	**-0.09**	**0.10**	**-0.14**	**-0.05**	-0.03	**-0.13**	**0.17**	**-0.13**									
10	Material weakness indicator	0.03	0.03	-0.04	-0.02	-0.00	0.02	-0.01	0.02	-0.04								
11	Merger indicator	0.03	**0.05**	**0.10**	0.03	-0.03	**-0.09**	-0.00	**-0.06**	**-0.04**	0.01							
12	Receivables and inv. ratio	**0.08**	0.01	0.01	**0.13**	-0.03	**0.08**	**0.18**	0.02	**-0.11**	0.03	**-0.06**						
13	Restructuring indicator	0.01	**-0.10**	0.03	**0.08**	**0.04**	-0.00	**0.04**	**0.16**	-0.03	**0.04**	**0.11**	**-0.07**					
14	Return on assets	**0.26**	**0.18**	-0.01	0.03	**-0.06**	**-0.16**	**-0.25**	**-0.66**	**0.29**	-0.02	0.00	**-0.05**	**-0.15**				
15	Sales growth	0.01	**0.14**	**-0.04**	**-0.12**	**-0.05**	0.00	**-0.14**	**-0.24**	**0.12**	-0.02	**0.09**	**-0.07**	**-0.13**	**0.27**			
16	SD(Cash flow)	**-0.13**	-0.00	**-0.32**	**-0.22**	-0.00	**0.16**	**-0.23**	**0.13**	**0.12**	-0.00	**-0.08**	-0.02	-0.02	-0.01	**0.13**		
17	SD(Sales growth)	-0.02	0.03	**0.08**	**-0.08**	0.02	**0.12**	**-0.06**	**0.12**	**-0.09**	-0.01	0.02	**-0.06**	**0.08**	**-0.14**	**0.15**	**0.28**	
18	Special item ratio	**0.35**	**0.14**	**0.07**	0.03	-0.02	**-0.05**	**-0.06**	**-0.51**	**0.05**	0.00	**-0.06**	0.03	**-0.20**	**0.66**	**0.18**	**-0.06**	**-0.04**

Table 3 (Continued)

Panel B: Pearson correlations for variables in the audit fees model

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	ln(Audit fees)																		
2	CEO approval	**0.12**																	
3	ln(Assets)	**0.82**	**0.18**																
4	Big N indicator	**0.16**	**0.08**	**0.16**															
5	Busy indicator	**0.18**	**0.05**	**0.17**	0.02														
6	Extraordinary indicator	**0.08**	0.02	**0.10**	0.01	**0.04**													
7	Foreign indicator	**0.12**	0.03	**-0.05**	0.02	**0.04**	-0.01												
8	Going concern indicator	0.01	**-0.07**	0.01	0.01	0.03	-0.00	-0.01											
9	Intangible ratio	**0.11**	**-0.09**	-0.01	-0.00	**0.10**	-0.03	**0.07**	-0.03										
10	Inverse Mills Ratio	**-0.41**	**-0.05**	**-0.42**	**-0.08**	**0.08**	-0.01	-0.01	0.02	**-0.07**									
11	Leverage ratio	**0.37**	0.00	**0.49**	**0.08**	**0.18**	**0.07**	**-0.12**	**0.06**	**-0.10**	**-0.10**								
12	Loss indicator	**-0.04**	**-0.17**	**-0.09**	**-0.05**	0.02	-0.00	-0.00	0.10	-0.03	**0.13**	**0.10**							
13	Material weakness indicator	0.01	0.03	-0.04	0.02	-0.01	-0.01	0.04	-0.00	-0.01	0.02	-0.01	0.02						
14	Merger indicator	**0.20**	**0.05**	**0.10**	0.03	**0.04**	0.02	**0.11**	-0.03	**0.33**	**-0.09**	-0.00	**-0.06**	0.01					
15	NoSOX404issue indicator	**-0.06**	**-0.04**	**-0.07**	-0.03	-0.01	-0.00	**-0.04**	-0.00	0.00	**0.07**	0.00	0.03	-0.01	**-0.04**				
16	Receivables and inv. ratio	-0.01	0.01	0.01	**-0.09**	**-0.12**	-0.02	-0.03	-0.03	**-0.33**	**0.08**	**0.18**	0.02	0.03	**-0.06**	**0.05**			
17	Restructuring indicator	**0.22**	**-0.10**	0.03	**0.07**	0.03	-0.03	**0.16**	**0.04**	**0.19**	-0.00	**0.04**	**0.16**	**0.04**	**0.11**	-0.00	**-0.07**		
18	Return on assets	-0.03	**0.18**	-0.01	**0.04**	**-0.07**	-0.01	0.01	**-0.06**	-0.03	**-0.16**	**-0.25**	**-0.66**	-0.02	0.00	-0.04	**-0.05**	**-0.15**	
19	Special item ratio	-0.02	**0.14**	**0.07**	-0.01	-0.01	0.02	**-0.04**	-0.02	**-0.08**	**-0.05**	**-0.06**	**-0.51**	0.00	**-0.06**	-0.03	0.03	**-0.20**	**0.66**

Table 4

The Effect of CEO Approval on Discretionary Accruals

Table 4 reports linear regression results of discretionary accruals in the full sample and the matched sample. The sample period is from 2008 through 2012. Propensity score matching is applied with caliper = 1%, nearest neighbor, and no replacements to determine the matched sample. Variables are defined in Table A1 of the Appendix. Industry and year fixed effects are included, and robust t-statistics adjusted for clustering by firm are presented. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Full sample

	Discretionary accruals		Positive accruals		Negative accruals	
	(1)	(2)	(3)	(4)	(5)	(6)
Variable	β	t-stat	β	t-stat	β	t-stat
CEO approval	-0.0081***	-2.58	-0.0046***	-2.68	-0.0035*	-1.80
ln(Assets)	0.0012	0.62	-0.0004	-0.38	0.0016	1.35
Leverage ratio	0.0421***	4.28	0.0171***	2.91	0.0250***	4.16
Sales growth	-0.0085	-0.98	0.0053	0.91	-0.0138***	-2.83
Receivable and inv. ratio	0.0453***	4.03	0.0311***	4.17	0.0143**	2.51
Special item ratio	0.3268***	7.15	0.0461**	2.26	0.2807***	7.68
ln(Firm age)	0.0036*	1.93	0.0020*	1.77	0.0016	1.44
Market-to-book	-0.0037***	-5.72	-0.0017***	-4.86	-0.0020***	-4.87
Return on assets	0.1348***	4.23	0.0591***	3.40	0.0757***	3.52
SD(Sales growth)	0.0096	0.80	0.0060	0.91	0.0036	0.50
SD(Cash flow)	-0.0979*	-1.89	0.0791***	2.73	-0.1770***	-5.22
Loss indicator	-0.0026	-0.52	-0.0030	-1.15	0.0003	0.08
Merger indicator	0.0002	0.06	-0.0017	-1.03	0.0018	1.09
Restructuring indicator	0.0086***	3.37	0.0029*	1.90	0.0057***	3.52
Going concern indicator	0.0395	1.31	0.0210	0.77	0.0185*	1.90
Material weakness indicator	0.0091	1.16	0.0017	0.26	0.0074**	2.24
Inverse Mills Ratio	0.0040	0.83	0.0008	0.25	0.0032	1.14
Constant	-0.0400	-0.93	0.0187	0.72	-0.0587**	-2.14
Industry fixed effects	Included		Included		Included	
Year fixed effects	Included		Included		Included	
Observations	2,681		2,681		2,681	
Adjusted R^2	0.264		0.166		0.326	

Table 4 (Continued)

Panel B: Matched sample

	Discretionary accruals		Positive accruals		Negative accruals	
	(1)	(2)	(3)	(4)	(5)	(6)
Variable	β	t-stat	β	t-stat	β	t-stat
CEO approval	-0.0093***	-2.66	-0.0055***	-2.60	-0.0038*	-1.94
ln(Assets)	0.0010	0.47	0.0002	0.16	0.0008	0.63
Leverage ratio	0.0413***	3.79	0.0192***	2.73	0.0220***	3.58
Sales growth	-0.0112	-1.15	0.0053	0.87	-0.0165***	-2.85
Receivable and inv. ratio	0.0520***	3.79	0.0347***	3.63	0.0174***	2.77
Special item ratio	0.3240***	5.72	0.0319	1.13	0.2921***	6.05
ln(Firm age)	0.0040**	1.98	0.0027**	2.03	0.0014	1.18
Market-to-book	-0.0035***	-4.42	-0.0019***	-4.11	-0.0016***	-3.20
Return on assets	0.1592***	4.36	0.0883***	3.54	0.0709***	2.98
SD(Sales growth)	0.0149	1.46	0.0067	1.04	0.0082	1.50
SD(Cash flow)	-0.1387***	-2.67	0.0797**	2.34	-0.2184***	-7.12
Loss indicator	-0.0023	-0.39	-0.0031	-0.90	0.0008	0.20
Merger indicator	0.0011	0.38	-0.0017	-0.92	0.0028*	1.73
Restructuring indicator	0.0088***	2.96	0.0038**	2.08	0.0049***	2.87
Going concern indicator	-0.0067	-0.54	-0.0196*	-1.87	0.0128	1.32
Material weakness indicator	0.0078	0.87	-0.0018	-0.25	0.0096**	2.21
Inverse Mills Ratio	0.0047	0.81	0.0042	1.11	0.0005	0.16
Constant	-0.0353	-0.75	-0.0010	-0.03	-0.0344	-1.26
Industry fixed effects	Included		Included		Included	
Year fixed effects	Included		Included		Included	
Observations	1,860		1,860		1,860	
Adjusted R^2	0.253		0.189		0.295	

Table 5

The Effect of CEO Approval on Audit Fees

Table 5 reports linear regression results of audit fees in the full sample and the matched sample. The sample period is from 2008 through 2012. Dependent variables are *ln(Audit fees)*. Propensity score matching is applied with caliper = 1%, nearest neighbor, and no replacements to determine the matched sample. Variables are defined in Table A1 of the Appendix. Industry and year fixed effects are included, and robust t-statistics adjusted for clustering by firm are presented. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Full sample		Matched sample	
	(1)	(2)	(3)	(4)
Variable	β	t-stat	β	t-stat
CEO approval	-0.107***	-3.63	-0.111***	-3.50
ln(Assets)	0.487***	21.86	0.496***	20.74
Leverage ratio	0.130	1.25	0.149	1.36
Intangible ratio	0.185*	1.68	0.185	1.53
Receivables and inv. ratio	0.551***	3.42	0.470**	2.50
Special item ratio	-0.124	-0.36	-0.322	-0.73
Return on assets	-0.158	-0.64	-0.121	-0.39
Extraordinary indicator	0.338**	2.39	0.295**	2.05
Loss indicator	0.084*	1.82	0.032	0.54
Foreign indicator	0.134***	3.94	0.122***	3.20
Merger indicator	0.043	1.45	0.032	0.99
Restructuring indicator	0.139***	4.92	0.127***	4.12
Big N indicator	0.062	0.88	0.143	1.54
Busy indicator	0.060	1.58	0.032	0.81
Going concern indicator	-0.168	-0.62	-0.643***	-3.54
Material weakness indicator	0.324***	3.41	0.381***	3.03
NoSOX404issue indicator	0.077	0.79	0.288***	3.23
Inverse Mills Ratio	-0.323***	-5.68	-0.321***	-5.06
Constant	3.982***	7.69	3.797***	6.69
Industry fixed effects	Included		Included	
Year fixed effects	Included		Included	
Observations	2,681		1,868	
Adjusted R^2	0.824		0.828	

Table 6

The Effect of CEO Approval on Going Concern Opinions

Table 6 examines the effect of CEO approval on going concern opinions. The sample period is from 2008 through 2012. Panel A reports probit regression results of going concern opinions in the full sample. Dependent variable is *Going concern indicator*. Panel B compares means and medians between treatment group (*High approval = 1*) and control group (*High approval = 0*) in the matched sample. Propensity score matching is applied with caliper = 1%, nearest neighbor, and no replacements to determine the matched sample, where the dependent variable in the propensity score matching is *High approval*. *High approval* is an indicator variable equal to one if *CEO approval* is greater than the median of the sample. Variables are defined in Table A1 of the Appendix. Industry and year fixed effects are included, and robust z-statistics adjusted for clustering by firm are presented. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Full sample

Variable	(1) β	(2) z-stat
CEO approval	-2.387***	-3.07
ln(Assets)	-0.650	-1.61
Altman Z-score	0.255	1.15
Leverage ratio	9.919***	3.98
Δ(Leverage ratio)	-11.102***	-3.78
Cash ratio	-14.936***	-2.70
Operating cash flow ratio	-39.831***	-3.74
Stock return	-0.485	-1.55
Restructuring indicator	4.095**	2.51
Debt issuance indicator	0.371	0.49
Equity issuance indicator	-0.636	-1.22
Inverse Mills Ratio	-1.950	-1.61
Constant	17.133*	1.77
Industry fixed effects	Included	
Year fixed effects	Included	
Wald chi^2	131.76***	
Observations	315	
Pseudo R^2	0.723	
Area under ROC curve	0.990	

Table 6 (Continued)

Panel B: Matched sample

	High approval = 1 (N = 99)		*High approval* = 0 (N = 99)		Difference	
Variable	Mean	Median	Mean	Median	t-stat	z-stat
Going concern indicator	0	0	0.05	0	-2.28**	-2.26**
Altman Z-score	1.18	1.501	0.71	1.33	0.69	0.64
ln(Assets)	21.72	21.86	21.84	21.92	-0.61	-0.71
Big N indicator	1	1	1	1	0.00	0.00
Cash ratio	0.15	0.11	0.16	0.11	-0.38	-0.37
Debt issuance indicator	0.58	1	0.62	1	-0.58	-0.58
Equity issuance indicator	0.78	1	0.74	1	0.66	0.66
Leverage ratio	0.64	0.61	0.65	0.65	-0.36	-0.23
Δ(Leverage ratio)	1.13	1.07	1.12	1.05	0.42	0.72
Loss indicator	1	1	1	1	0.00	0.00
Operating cash flow ratio	0.06	0.07	0.05	0.05	0.48	0.73
Restructuring indicator	0.76	1	0.78	1	-0.34	-0.34
Stock return	-0.04	-0.09	0.09	-0.16	-0.93	0.73

Table 7

The Effect of CEO Approval on Accounting Litigation

Table 7 reports probit regression results of accounting litigation in the full sample and the matched sample. The sample period is from 2009 through 2013. Dependent variables are *Accounting litigation indicator*. Panel A and B examine the effect of CEO approval on accounting litigation in the full sample and the matched sample, respectively. Propensity score matching is applied with caliper = 1%, nearest neighbor, and no replacements to determine the matched sample. Variables are defined in Table A1 of the Appendix. Industry and year fixed effects are included, and robust z-statistics adjusted for clustering by firm are presented. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Full sample		Matched sample	
	(1)	(2)	(3)	(4)
Variable	β	z-stat	β	z-stat
CEO approval $_{t-1}$	-0.233**	-2.28	-0.331***	-3.06
ln(Assets)	0.168***	2.77	0.161**	2.17
Leverage ratio	0.517*	1.85	0.686*	1.79
Sales growth	-0.237	-0.69	0.000	0.00
Intangible ratio	-0.205	-0.63	-0.070	-0.17
Special item ratio	-2.477*	-1.65	-3.481*	-1.83
Return on assets	-0.414	-0.50	-1.177	-1.04
Loss indicator	0.295*	1.66	0.393*	1.89
Foreign indicator	-0.177	-1.44	-0.067	-0.48
Big N indicator	-0.351	-1.41	-0.254	-0.70
Going concern indicator	0.718**	2.43	-	-
Material weakness indicator	0.697**	2.45	0.832***	2.90
Inverse Mills Ratio $_{t-1}$	-0.215	-1.17	-0.171	-0.71
Constant	-5.572***	-4.10	-5.453***	-3.19
Industry fixed effects	Included		Included	
Year fixed effects	Included		Included	
Observations	2,786		2,062	
Adjusted R^2	0.188		0.204	

Table 8

Robustness Tests

Table 8 reports linear regression results of audit fees and discretionary accruals with additional controls and alternative matching specifications in matching samples. The sample period is from 2008 through 2012. Dependent variables are *ln(Audit fees)* and *Discretionary accruals*. Scenario (1) reprints estimates from Panel B of Table 4 and Table 5 as the "Baseline." Scenario (2) – (11) include various control variables as additional independent variables. Scenario (12) applies propensity score matching with replacements. Scenario (13) constructs a single matching sample for both the audit fees model and the discretionary accruals model by including their determinants in the same probit model. For conciseness, coefficients of *CEO approval* and number of observations in each scenario are reported, and estimates of control variable are suppressed. Variables are defined in Table A1 of the Appendix. Industry and year fixed effects are included, and robust t-statistics adjusted for clustering by firm are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	ln(Audit fees)		Discretionary accruals	
	(1)	(2)	(4)	(3)
Scenario	β(CEO approval)	N	β(CEO approval)	N
(1) Baseline	-0.111***	1,868	-0.008***	1,860
	(-3.50)		(-2.58)	
(2) Control for CEO external award	-0.113***	1,868	-0.009***	1,860
	(-3.53)		(-2.71)	
(3) Control for Founder CEO and ln(CEO tenure)	-0.098***	1,804	-0.007**	1,778
	(-2.97)		(-2.11)	
(4) Control for CEO turnover	-0.106***	1,872	-0.008**	1,858
	(-3.22)		(-2.13)	
(5) Control for CEO external hire	-0.089***	1,854	-0.009**	1,836
	(-2.64)		(-2.45)	
(6) Control for Excess(CEO pay)	-0.086***	1,818	-0.007**	1,806
	(-2.59)		(-2.13)	
(7) Control for Ratings-to-employees	-0.093***	1,872	-0.006*	1,864
	(-2.81)		(-1.92)	
(8) Control for Downsizing indicator	-0.091***	1,874	-0.006*	1,838
	(-2.65)		(-1.74)	
(9) Control for MSCI employee strengths and concerns	-0.097***	1,756	-0.006*	1,740
	(-2.84)		(-1.69)	
(10) Control for Debt and Equity issuance	-0.113***	1,872	-0.008**	1,858
	(-3.49)		(-2.13)	
(11) Control for 2-year-average forward ROA	-0.113***	1,736	-0.006*	1,794
and Market-to-book	(-3.28)		(-1.69)	
(12) Matching with replacements	-0.142***	2,628	-0.008*	2,646
	(-3.92)		(-1.78)	
(13) Matching on the same set of determinants	-0.109***	1,822	-0.007**	1,822
	(-3.36)		(-2.17)	