

Federal Judge Ideology and the Converging Reporting Incentives of Big 4 and non-Big 4 Auditors

Abstract

The thresholds auditors use when issuing going concern modified audit opinions to clients are of interest to both policymakers and financial statement users. Because a going concern opinion requires a forecast of a future event (i.e. client business failure), this reporting decision involves considerable uncertainty and a trade-off between possible Type I and Type II reporting errors. The relative costs of these errors will depend on the level of litigation risk. We analyze whether variations in litigation risk arising from the ideology of U.S. federal judges affect auditors' going concern reporting behavior. The prior literature shows that the ideology of federal judges in the circuit where a company is headquartered is an important ex-ante determinant of litigation occurrence and outcomes. We find that in circuits with more liberal judges, hence greater litigation risk, Big 4 and non-Big 4 auditors tend to converge in their reporting decisions. This is caused by the greater effect of judge ideology on non-Big 4 auditors than on Big 4 auditors. Consistent with previous international studies, we also find that audit fees of Big 4 and non-Big 4 auditors converge in circuits with more liberal judges. We do not find a statistically significant relationship between federal judge ideology and auditor choice. Our results are robust to several matched samples, and contribute to an understanding of the importance of federal legal liability in determining the audit quality differences between Big 4 and non-Big 4 firms.

Keywords: Federal Judge Ideology, Federal Litigation Risk, Going Concern Modified Audit Opinions, Big 4 and Non-Big 4

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1. Introduction

The auditor's evaluation of a company's ability to continue to operate as a going concern is an important part of an audit under federal securities law (Securities and Exchange Act of 1934, Section 10A) and the Public Company Accounting Oversight Board (PCAOB) auditing standards (AU sec. 341). Section 10A of the 1934 Act requires that audits include "an evaluation of whether there is substantial doubt about the ability of the issuer to continue as a going concern during the ensuing fiscal year." Because the term "substantial doubt" is currently undefined in auditing rules, auditors have considerable discretion in determining the thresholds for issuing going concern opinions. Conceptual discussions of auditors' going concern reporting incentives allude to the importance of the federal legal regime toughness, but empirical evidence on the issue is surprisingly limited. Since 2012 the PCAOB has considered revisions to the existing going concern auditing standards to enhance auditors' evaluation processes, including clarification of the term "substantial doubt" (PCAOB Investor Advisory Group Meeting, 2012, 2015). To produce more effective standards, policymakers are particularly interested in the factors that influence auditors' going concern reporting decisions (PCAOB Investor Advisory Group Meeting, 2015). We examine the effects of within-U.S. auditor legal liability differences associated with variations in the political ideology of U.S. Federal Appeals Court judges on auditors' going concern reporting behavior.

Specifically, we develop a simple model of an auditor's optimal going concern decision as a function of the costs of Type I error (issuing a going concern modified opinion for clients that *do not* go bankrupt in the subsequent year) and Type II error (failing to issue a modified going concern opinion for companies that subsequently go bankrupt) where the relative costs of these errors depend on the level of litigation risk. We then empirically examine how variations in the ideology of judges across federal circuits affect the likelihoods that Big 4

auditors and non-Big 4 auditors will issue a modified going concern opinion on the financial statements of financially distressed clients and the accuracy of these reporting decisions.

While there are many studies that examine differences in audit fees and discretionary accruals across countries with different legal environments (e.g., Clarkson and Simunic, 1994; Seetharaman et al., 2002; Choi, Kim, Liu and Simunic, 2008) and some within the U.S. under different legal regimes (e.g., Venkataraman, Weber and Willenborg, 2008),¹ only a limited number of studies examine how legal environments affect auditors' going concern reporting. Specifically, Anantharam, Pittman, and Wans (2016) find that a tougher state-level common law legal regime is associated with a greater likelihood of receiving a modified going concern opinion. They do not find a significant difference between Big 4 and non-Big 4 auditors. DeFond, Francis, and Hallman (2016) examine whether the degree of oversight by the Securities & Exchange Commission (SEC) affects auditors' going concern reporting. They study the effect of varying proximity of auditors to regional SEC offices on auditor reporting decisions, and find that closer proximity has an impact on non-Big 4 auditors, but not Big 4 auditors.

While these prior studies provide important insights into litigation factors affecting auditors' going concern reporting incentives, there is no existing research as to whether and how variation in perceived federal legal liability within the U.S. affects auditors' going concern reporting, even though most third party (investor) litigation against auditors is filed in federal courts (Kaplan and Williams, 2013). Empirical evidence on the effects of state-level legal liability (Anantharam, Pittman, and Wans, 2016) cannot be directly applied to federal legal

¹ For instance, Seetharaman et al. (2002) and Choi et al. (2009) document that auditors charge higher fees for firms that are cross-listed in countries with stronger regimes than they do for non-cross-listed firms. In the U.S. setting, Venkataraman, Weber and Willenborg (2008) examine how the differences between the very tough legal liability imposed by section 11 of the Securities Act of 1933 vs. the milder liability provisions of Section 10 and SEC Rule 10b-5 of the Securities Exchange Act of 1934 affect audit fees.

liability because federal securities laws are concerned with the protection of the buyers and sellers of securities, while state laws mostly govern the auditors' relationship with other parties, namely clients and creditors. As a result, "tougher" federal legal liability can be expected to have different incentive effects than "tougher" state laws.² We study the effects of variations in legal interpretation within the federal law and add to the extant literature by analyzing how the variation within federal legal liability affects Big 4 and non-Big 4 auditors' going concern reporting incentives.

Concerning variations within the federal law, the legal literature has extensively documented that the political ideology of judges is the most important attribute that influences judges' decisions in lawsuits (e.g., Johnston, 1976; Segal and Cover, 1989; Tate, 1981; Staudt, Epstein, and Wiedenbeck, 2006). Applying the political theory of judicial decision-making that liberal judges are more protective of investors, Hui, Li, and Huang (2018) construct a measure of firms' ex-ante litigation risk based on the political ideology of federal judges. They find that firms located in more liberal circuits (i.e. circuits with a higher value of the constructed measure) are more likely to be sued, and that lawsuits filed in more liberal circuits are less likely to be dismissed and result in higher settlement amounts. Their evidence is consistent with the legal literature that more liberal judges are more likely to favor plaintiffs. We follow Hui et al. (2018) in constructing the measure of federal judge ideology by calculating judge ideology for the eleven U.S. Federal Court circuits and the D.C. circuit as the probability that a panel of three judges randomly selected from the circuit is dominated by appointees of Democratic Presidents. We investigate whether this proxy measure of litigation risk is associated with auditors' likelihoods of issuing a modified going concern opinion for Big 4 auditors and non-Big 4 ones, and the accuracy of that decision.

² Third parties can only hold the auditor liable under Section 10b-5 for fraud, which requires the intent to deceive. Auditor liability for ordinary negligence is governed by common law.

Applying a simple model of auditors' trade-offs between Type I and Type II errors, we show that if Big 4 auditors bear a sufficiently high level of litigation risk as compared to non-Big 4 auditors when the level of judge liberality is low, the likelihood of Big 4 auditors and non-Big 4 auditors issuing going concern opinions will converge as the litigation risk arising from judge ideology increases. Using a large sample of financially distressed companies and examining the interaction between the Big 4 indicator variable and the level of judge liberality, we find that as the judge liberality of federal circuits in which the companies are headquartered increases the going concern reporting behavior of the Big 4 and non-Big 4 firms tends to converge. We also find that when the level of judge liberality is low, Big 4 auditors are more likely to issue modified going concern opinions than non-Big 4 auditors. In subsample analyses we find that the probability that a distressed company will receive a modified going concern opinion from its auditor is not changed if the auditor is a Big 4 firm. However, for the clients of non-Big 4 audit firms, the probability of receiving a going concern modified opinion increases significantly. These results suggest that the heightened litigation risk associated more liberal judges motivates the non-Big 4 firms to be more independent of their clients' interests and more "defensive" in their reporting decisions. The evidence is consistent with the prediction that the variation in federal judge ideology has differential effects on Big 4 auditors and non-Big 4 auditors.

Concerning reporting accuracy, we find that the Type II error rates (failing to issue a going concern opinion for companies that subsequently are bankrupt) do not vary significantly between the Big 4 and non-Big 4 audit firms, irrespective of the litigation risk associated with judge ideology. However, in circuits with a low level of judge liberality, the Type I error rate for Big 4 audit firms is higher than for the non-Big 4 firms, when differences in client characteristics between the two types of audit firms are controlled. As the litigation risk (across the 12 federal court circuits) associated with judge ideology increases, the Type I error rate for

Big 4 firms remains unchanged while the Type I error rate increases significantly for the non-Big 4 firms. The greater willingness of non-Big 4 audit firms to commit Type I errors, relative to the Big 4 firms, as litigation risk increases suggests that the loss functions of the Big 4 and non-Big 4 are not the same with respect to their weighting of Type I and Type II errors. Specifically, this is consistent with non-Big 4 firms being less independent and concerned with client retention when litigation risk is relatively low. However, as investor litigation risk increases thereby increasing the cost of Type II reporting errors, the heightened legal liability associated with more liberal judge ideology motivates a change in the behavior of non-Big 4 audit firms that makes them more similar to the Big 4 firms in terms of the likelihood of issuing a going concern opinion.

To substantiate that the greater effect of federal judge ideology on non-Big 4 auditors are not driven by the non-Big 4 clients' potentially greater bankruptcy probability, we adopt several sub-samples of Big 4 clients whose characteristics are matched to client characteristics of non-Big 4 clients. This issue would be a potential concern if we miss important controls for clients' bankruptcy probability and these controls are captured by the non-Big 4 indicator variable.³ To address this potential concern, we adopt matched sample analyses and also include firm-fixed effects in the separate analyses of the Big 4 sub-sample and non-Big 4 sub-sample. In addition, we directly examine whether the Big 4 indicator variable is associated with clients' likelihood of bankruptcy in the subsequent year. Inferences from these empirical specifications suggest that differential effects between Big 4 and non-Big 4 remains. Finally, we investigate the association between federal judge ideology and auditor choice to address the concern that auditor choice might affect the relative importance of each client and thereby affect auditor independence as reflected in their going concern audit reports. Results suggest

³ This concern is actually not very likely because we find a significantly positive coefficient on the Big 4 indicator variable, which means that Big 4 auditors are more likely to issue going concern modified audit opinions.

that federal judge ideology and auditor choice do not have a statistically significant association. Collectively, the evidence suggests that the difference in Big 4 and non-Big 4 auditors' going concern reporting incentives varies in different circuits.

Our study is important to understanding the effects of variations in litigation risk on auditor behavior. Our evidence indicates that external auditors exert discretion in defining “substantial doubt about the ability of the issuer to continue as a going concern” and results of this decision vary with federal level litigation risk and auditor type. These findings are particularly relevant for regulators who are currently assessing the proposal of changing the existing auditing standard regarding auditors' going concern evaluation of their clients. Our findings are also informative to investors in interpreting the implication of modified going concern audit opinions.

As noted earlier, most studies of the effects of variations in litigation risk are international in scope and investigate how audit fees and the properties of discretionary accruals vary across countries (e.g., Choi et al., 2008; Seetharaman et al., 2002). While international studies are useful, these studies – by their nature – involve many other cross-country differences so that it is difficult to establish that *ceteris paribus* conditions exist. For example, Clarkson and Simunic compare the effects of the legal regimes in the U.S. vs. Canada on auditor choice and the behavior of entrepreneurs and auditors in the markets for initial public offerings in the two countries. However, Canadian companies tend to be much smaller than U.S. companies, and business ethics are not necessarily identical even in these two quite similar countries, so that *ceteris paribus* may not hold. Our study mitigates this concern by examining situations where the degree of federal legal liability varies within one country.

The remainder of the paper is organized as follows. In section 2 we present a simple model of an auditor's going concern reporting decision that focuses on the impact of variations

in legal liability on an auditor's cost-benefit trade-off associated with going concern reporting. In section 3, we present institutional background information, discuss related prior literature, and develop our hypothesis to be tested. Our empirical tests are developed in section 4. Section 5 presents our findings, including several robustness tests. Section 6 concludes the paper.

2. A Model of the Going Concern Reporting Decision When Litigation Risk Varies

Consider the following 2-action, 2-state going concern reporting decision that an auditor faces after completing all necessary audit tests that yield "sufficient appropriate evidence" that the financial statements are, indeed, free of material misstatements. Assume that the auditor's optimal decision is therefore to issue an unqualified opinion on the client's financial statements. However, the unqualified opinion may or may not be modified to explain that there is "substantial doubt" that the client is a going concern and therefore may not be able to continue to operate in the foreseeable future. So the auditor's possible actions are: {unqualified opinion (UN), or unqualified opinion with a going concern modification (UNGC)}. The two states of nature concern the future operations of the business, namely: {success (S), or failure (F)}.

The monetary consequences to the auditor of the action-state pairs are as follows: (UN, S) = 0; (UN, F) = cost of Type II error; (UNGC, S) = cost of Type I error; and (UNGC, F) = 0.⁴ If the auditor makes a Type I error, then the likely consequences flow from the negative effects on the client and could include a client lawsuit, loss of future business – both from this client and possibly other clients, etc. Denote these losses as L_I . We expect these losses to be a function of client characteristics, and *ceteris paribus*, we assume L_I is the same for Big 4 and non-Big 4 audit firms. However, extensive prior literature, starting with DeAngelo (1981)

⁴ This simplified payoff structure focuses on the cost of reporting errors since these costs are incremental to making an erroneous going concern reporting decision, while the costs and benefits of issuing a correct opinion in the circumstances can be ignored.

argues that the consequences of Type II reporting errors, denoted L_{II} , will depend on audit firm size, reputation investments, etc., such that the costs to Big 4 firms $>$ costs to non-Big 4 firms. We treat these costs as having two components, namely, the wealth at risk denoted W , and the probability of lawsuit against an auditor, denoted λ . Thus the expected loss is λW , where $\lambda W_{Big4} > \lambda W_{non-Big4}$.

Now let p denote the probability of a client' business failure in the future, while $(1 - p)$ is the probability of future business success. The value of p captures the level of "substantial doubt" that must exist before the auditor is motivated to issue a UNGC. To a rational, wealth maximizing auditor the threshold level of p above which the auditor issues a UNGC depends upon the relative values of L_I and L_{II} . Specifically, an auditor is indifferent between issuing UN or UNGC when:

$$p \cdot L_{II} = (1-p) \cdot L_I, \quad \text{or} \quad p \lambda W = (1-p) L_I$$

and,

$$p = L_I / (\lambda W + L_I)$$

By inspection, for a given level of the cost of Type I error, L_I , the threshold probability, p , for issuing a UNGC *decreases* as W increases and/or as λ increases. Since it has long been argued that $W_{Big4} > W_{non-Big4}$ we expect that, *ceteris paribus*, and for a fixed λ , the threshold for a Big 4 firm issuing a UNGC will be lower than the threshold for a non-Big 4 firm.

We next consider the effects of variation in judge ideology from being less favorable to plaintiff investors in a securities class action, to being more favorable to such plaintiffs. This can be interpreted as an increase in λ . It is easy to show that

$$\partial p / \partial \lambda < 0, \text{ and}$$

$$\partial^2 p / \partial \lambda^2 > 0$$

That is, for any given level of auditor wealth (W), the threshold probability for issuing a UNGC opinion decreases at a decreasing rate as litigation risk increases. Also, as $\lambda \rightarrow 1$,

$$p = L_I / (W + L_I)$$

That is, when a lawsuit is certain to occur if the auditor gives an erroneous opinion, the larger is the auditor's wealth, the lower is the threshold probability for issuing a UNGC opinion. These basic relations are pictured in Figure 1.

By inspection of Figure 1, as litigation risk increases both Big 4 and non-Big 4 audit firms can be expected to reduce the threshold probability of business failure that triggers a UNGC opinion. Moreover, if the initial level of litigation risk (i.e. the value of λ) is the same for both classes of audit firms, then increasing litigation risk will cause their reporting behavior to **diverge**. That is, the Big 4 firms will become differentially more conservative and issue relatively more UNGC opinions than the non-Big 4, other things remaining equal. On the other hand, if the **initial** level of litigation risk (the value of λ) for the Big 4 is greater than for the non-Big 4, then their GC reporting behavior **may converge** as λ increases. For example, if the initial value of λ for the Big 4 is close to 1, even when judge ideology is quite conservative, while the initial value of λ for the non-Big 4 with conservative judges is close to 0, then more liberal judges will have relatively little impact on the already high litigation risk facing Big 4 firms, but can have a large impact on the litigation risk facing non-Big 4 firms. As shown in Figure 1, suppose $\lambda_{non-Big4 \text{ when ideology}=0}$ is the probability of lawsuit against a non-Big 4 firm in the case of Type II error when the judges are most conservative ones and $\lambda_{Big4 \text{ when ideology}=0}$ is the corresponding probability of lawsuit against a Big 4 firm. As the judges become more liberal thereby increasing λ , the result will be a convergence of Big 4 and non-Big 4 GC reporting behavior.

Since the initial value of λ facing Big 4 vs. non-Big 4 audit firms is not known, the relative impact of heightened litigation risk arising from more liberal judge ideology on the Big 4 vs. non-Big 4 firms is an empirical question. However, anticipating the larger settlements associated with a deep pocket audit firm, plaintiffs are more likely to commence litigation against Big 4 audit firms. This suggests that λ may well be greater for Big 4 firms than for non-Big 4 firms.

3. Institutional Background, Related Literature, and Hypothesis Development

3.1 U.S. Judge Ideology and Litigation Risk

Under the U.S. judicial system, securities class-action lawsuits under the 1933 and 1934 securities' laws are filed in federal courts. In the federal court system, there are 94 district courts of trials and 12 circuit courts of appeals that review cases decided in district courts within the circuit. The 12 geographically defined circuits include 11 numbered circuits (from the First Circuit to the Eleventh Circuit) and the District of Columbia Circuit (i.e. the D.C. Circuit). The plaintiffs of securities class-action lawsuits first file a complaint against the defendant in one of the 94 district courts. If the judge dismisses a case or the trial reaches a verdict in the district court, parties dissatisfied with the decision has a right to appeal the case to the corresponding circuit court. After receiving the case, the court randomly assigns a panel of three judges to the case. The final decision for the case will be based on the panel's majority opinion (i.e., at least two of the three judges on the panel must agree with the decision). Although the Supreme Court can send cases back to district and circuits for review, it only accepts 1 percent of all cases it receives. In this way, the decisions by judges in circuit courts can be very influential because they can set a legal precedent when deciding appeals and can affect the decisions of district judges.

Judges in all federal courts are appointed to their office by the then President of the United States, with the approval of the U.S. Senate. Presidents almost always appoint members of the President's own political party as judges, so that they share the same ideology and judicial outcomes are more likely to be aligned with the Presidents' own policy preferences (Dorsen, 2006; Federal Judicial Center, 2006). After appointment, federal judges almost always hold office for as long as they wish, with the U.S. Constitution guaranteeing that their salaries will not decrease (Federal Judicial Center, 2006). This life tenure and salary protection fosters judiciary independence and gives judges great latitude to vote based on their own ideology.

It is well-documented in the political science literature that judge ideology influences judicial votes in federal courts, with judges appointed by Democratic Presidents being more protective of private plaintiffs and in favor of government intervention than those appointed by Republican Presidents. Cross and Tiller (1998) document that panels of judges dominated by Democratic appointees are more likely to produce liberal decisions than are panels controlled by Republican appointees. They argue that even though legal doctrine appears to play an important role in the partisan struggle over policy circuit court judges are more prone to obey (disobey) legal doctrine when such doctrine supports (does not support) their own partisan or ideological policy preferences. Supporting this argument, by analyzing 84 studies in the legal literature between 1959 and 1998, Pinello (1999) concludes that almost one half of the variance of judicial actions is attributable to judge partisanship. In a similar vein, Sunstein et al. (2004) show that circuit court judges' votes are explained by the political party of the appointing Presidents.

Supporting the importance of judge ideology to judicial outcomes in class-action lawsuits, Hui et al. (2018) find that judge ideology complements existing measures of litigation risk based on industry membership and firm characteristics and is economically meaningful in predicting litigation occurrence. Firms in more liberal circuits are more likely to be sued in

securities class-action lawsuits. The evidence in the prior legal studies and in Hui et al. (2018) collectively suggests that the ideology of federal circuit judges creates the variation in the litigation risk arising from securities' laws.

3.2 Prior Theory on Auditing Institutions and Hypothesis Development

It is generally recognized that information asymmetries play an important role in explaining auditing institutions. Specifically, there is an asymmetry of information between auditors and investors, creditors, and regulators concerning the effort expended by an auditor in verifying financial statements. The resulting moral hazard problem gives rise to auditor legal liability as an important mechanism to discipline an auditor in the event of audit failure (e.g., a failure to detect materially misstated financial statements through negligence or worse behavior, such as collusive fraud with a client or to not issue a going concern modified opinion on clients that subsequently fail). To empirically study the effects of legal liability on auditors, it is useful to examine situations where the degree of liability varies since, in a fixed legal environment, it is difficult (impossible) to disentangle the effects of legal liability from the effects of other economic (e.g. reputation) and non-economic incentives (e.g. ethics) on auditor behavior. The toughness of legal regimes is known to vary considerably across countries (see Wingate (1997) and others), with the U.S. normally considered to be the toughest legal regime auditors face internationally.

As noted earlier, an important feature of our study is that we examine *within-U.S.A.* legal liability differences and we separately examine the effects of variations in litigation risk on Big 4 vs. non-Big 4 public accounting firms. It is well established in the prior literature that the audit quality of Big 4 firms exceeds the audit quality of non-Big 4 firms, irrespective of the legal environment in which the firms operate. This occurs so long as the potential loss (penalty for audit failure) to a Big 4 firm from association with a client exceeds the potential loss to a

non-Big 4 firm, were it to audit the same client. Thus a higher litigation risk can be expected to *qualitatively* impact on both types of audit firms, inducing them to exert greater effort (more due care). However, Choi, Kim, Liu and Simunic (2008) (CKLS hereafter) show analytically and present empirical evidence that increasing legal liability has a differential *quantitative* impact on Big 4 vs. non-Big 4 auditors. Specifically, CKLS show that as the toughness of legal regimes increases, both the audit effort and audit fees of Big 4 and the non-Big 4 audit firms tend to converge. They show that when the production function for assurance is concave (from below) in effort and there is a given change in legal liability, it is relatively less costly for non-Big 4 firms (compared to Big 4 firms) to increase their assurance levels (i.e. audit quality). As a result, the audit quality of the Big 4 is considerably higher than the non-Big 4 in weak legal environments, while the two types of audit firms are more similar in tough legal environments.

However, as discussed in section 2, these arguments do not directly apply to auditors' going concern reporting. If Big 4 and non-Big 4 auditors face the same probability of being sued in an event of audit failure, then the higher "wealth at risk" (W) of the Big 4 firms causes them to be more conservative and issue a going concern report at a lower probability (p) of client future business failure than would a non-Big 4 firm in similar circumstances. As litigation risk (λ) increases, the Big 4 would become even more conservative than the non-Big 4, and their reporting behavior would diverge. However, as discussed in section 2 and shown in Figure 1, if the two classes of audit firms face different initial levels of litigation risk (different λ 's) (i.e. when the level of judge liberality is low) and the initial $\lambda_{\text{Big 4}}$ is sufficiently greater than the initial $\lambda_{\text{non-Big 4}}$, then their going concern reporting behavior will converge as λ increases. This leads to the following basic hypothesis.

H: All else equal, the effects of variation in federal judge ideology on auditors' going concern reporting incentives will be different for Big 4 audit firms than for non-Big 4 ones.

4. Research Design

4.1 Measurement

Empirically, we follow Hui et al. (2018) and adopt their measure of judge ideology: the political affiliation of the appointing President. To identify each judge's appointing President, we obtain biographical data of circuit court judges from the Federal Judicial Center's website. Specifically, judge ideology in a circuit is calculated as the probability that appointees of Democratic Presidents dominate a panel of three judges randomly selected from the circuit (*LiberalCourt*), calculated using the following formula:

$$LiberalCourt = C(x, 3)/C(y, 3) + C(x, 2) \times C(y - x, 1)/C(y, 3) \quad (1)$$

where x is the number of Democratic appointees in the circuit and y is the total number of judges in the circuit, both measured at the end of each month. A higher value of *LiberalCourt* means that the circuit is more liberal. To measure ex-ante litigation risk at the firm-year level, we assign each firm-year observation to a circuit based on the firm's historical headquarters location, as civil procedure usually requires securities lawsuits to be filed in the circuit where the firm's headquarters is located (hereafter, the home circuit).

Firms' historical locations are obtained from Loughran and McDonald (2016)⁵ and the historical segments of Compustat segments data. In unreported tables, we also use the highest judge ideology in the circuit where the audit office is located, the circuit where the firm headquarters are located, and the circuit where the firms are incorporated. The results are qualitatively unchanged. In our sample, 80% of firm-years have the state of historical headquarter the same as the state of their auditors' office. 85% of firm-years have the circuit of historical headquarter the same as the state of their auditors' office. We report the results based on firms' historical locations because when an auditor is sued the firm is usually a

⁵ The data is provided at <https://sraf.nd.edu/data/augmented-10-x-header-data/>.

codefendant, shareholders seldom only sue auditors without litigating against the firm. Our results are qualitatively unchanged when we use the state of auditors' office.

4.2 Sample Selection

We obtain the audit related from Audit Analytics, financial variables from the Compustat database, and stock price data from the CRSP database for the years from 2000 to 2014. Bankruptcy data is from Audit Analytics and is from 2000 to 2015. As in prior studies, our analyses concern financially distressed firms because the going-concern decision is more salient among this group, and we focus on first-time going concern opinions because an initial going-concern opinion requires more discretion (e.g., Hopwood, McKeown, and Mutchler 1994; Mutchler, Hopwood, and McKeown 1997; DeFond, Raghunandan, and Subramanyam 2002; DeFond et al. 2016; Anantharam et al. 2016). Financially distressed firms are defined as those whose income before extraordinary items is negative or cash flow from operations is negative. Our final sample starts in 2001 rather than 2000, the first year for which Audit Analytics Opinions database provides data on auditors' opinions, because we need lagged audit opinion information to identify first-time going concern opinions.

We restrict our sample to publicly-traded companies headquartered and incorporated in the U.S. and audited by U.S. accounting firms to ensure that all accounting firms and clients in the sample are subject to the same U.S. legal and institutional environment. We exclude firms in the financial industry (SIC codes from 6000 to 6999). The requirement that firms must have audit related, stock market, and accounting data available leads to a final sample of 17,073 firm-year observations, covering 5,134 unique firms. The sample distributions across two-digit SIC industries are reported in Table 1 Panel A. Panel B of Table 1 shows the distribution of our sample across years. Except for the fact that we have only partial year data in 2014, our sample is generally distributed evenly across the years. All test variables are winsorized at the 1st and 99th percentiles of their empirical distribution.

4.3 Baseline Model of Going Concern Reporting

We estimate the following probit regression model to test whether the variation in the federal legal liability associated with federal judge ideology affects auditors' propensity to issue a first-time going-concern opinion. To check the robustness of our results, we also run ordinary least square models for all the probit models used in this paper. In untabled robustness tests, the results are qualitatively unchanged if we use linear probability models (Woolridge 2010).

$$\text{Prob. (First_concern)} = a_0 + a_1 \times \text{Big4} + a_2 \times \text{Big4} \times \text{Liberal_court} + a_3 \times \text{Liberal_court} + \text{Controls_Concerns} + \text{Locale_Controls} + \text{Industry FE} + \text{Year FE} + e \quad (2)$$

The dependent variable, *First_concern*, is an indicator variable equal to 1 (and 0 otherwise) if the firm-year receives a first-time going concern opinion. A first-time going concern opinion means that the firm did not receive a going concern opinion in the previous year. Because Big 4 firms have a “deeper pocket” and greater reputation concerns (DeAngelo, 1981), we expect that a Big 4 firm has a lower threshold in issuing going concern opinion even when the level of judge liberality is low. Correspondingly, we predict that a_1 to be positive. Our variable of interest is the interaction between *Big4* (an indicator variable equal to one if the audit firm is a Big 4 firm) and *Liberal_court* (judge ideology of the circuit where the firm headquarters are located). We expect that a_2 will be significantly different from zero. Specifically, if $a_2 > 0$, then the going concern reporting behavior of the Big 4 diverges from the non-Big 4 in federal circuits where there are more liberal judges. Conversely, if $a_2 < 0$, this would indicate that the difference in the likelihood of a Big 4 vs. a non-Big 4 audit firm issuing a going concern modified opinion is significantly reduced in a federal circuit with more liberal judge ideology. The detailed definitions of all variables are in Appendix A.

We follow the prior literature (e.g., Mutchler et al. 1997; Reynolds and Francis 2000) in controlling for a series of variables (*Controls_Concerns*) capturing client-level and auditor-

level determinants of going concern opinions. Specifically, larger clients are less likely to fail and thereby less likely to receive a first-time going concern opinion. Client size (*Lnasset*) is measured by the natural logarithm of a firm's total assets. Leverage (*Leverage*) and change in leverage (*C_leverage*) are included to capture closeness to covenant violation. New issuances of equity (*Equity*) and debt (*Debt*) are indicator variables, equal to 1 (and 0 otherwise) if the firm issues new equity or debt in the subsequent year. Firm's financial performance is measured by indicator variables for losses in the current year (*Loss*) and the previous year (*Lag_loss*), the ratio of net income to total assets (*ROA*), the ratio of operating cash flow to total assets (*Cfo*), and sales growth (*Salegrw*). Short-term liquidity is measured by cash plus short-term investments scaled by total assets (*Cashsti*). Altman Z-score (*Z_score*) is further included to capture financial distress. Firms with higher leverage, poorer financial performance, greater financial distress are closer to covenant violation. Firm age (*Ln_age*) is included because younger firms are more prone to failure. To control for the potential effect of earning quality on auditors' going concern reporting decision, we include the absolute value of discretionary accruals (*Absnda*).

As to auditor related controls, in addition to the Big 4 indicator variable, we control for the following: audit report lag (*Ln_reportlag*), which is the the natural logarithm of the lag between the auditor's signature date and the date of the fiscal year-end, and an auditor change indicator variable (*Auditor_change*), equal to 1 (and 0 otherwise) if a client-firm's auditor in the current year is different from its auditor in the previous year. Prior research shows that the probability of receiving a going-concern audit opinion is positively correlated with an audit-report lag variable (e.g., McKeown, Mutchler, and Hopwood, 1991; Raghunandan and Rama 1995; Mutchler et al. 1997). The auditor change indicator variable is included to control for potential differential incentives of a new auditor in going concern reporting.

Because our measure of federal judge ideology is a circuit-level measure, we control for

other potentially confounding locale-level variables: the unemployment rate of the firm's headquarters state in the previous year (*Unemployment*), the GDP growth of the firm's headquarters state in the current year (*Gdp_growth*), the natural logarithm of the population in the firm's headquarters state in the current year (*Ln_pop*), an indicator value equal to 1 (and 0 otherwise) if the firm's headquarters state favors a democratic candidate in the presidential election in the current year (*Blue_state*). We also control for firms' litigation risk associated with firms' financial, stock related, and industry characteristics by adopting Kim and Skinner's (2012) measure (*Skinner_litigation*). Finally, we include two stock market-based variables to incorporate stock market information on firms' probability of business failure: stock return volatility (*Idiosyncratic_risk*) and the market adjusted cumulative annual stock return (*S_mkt_adj_ret*). Firms with greater idiosyncratic risk and poorer stock market returns are more likely to fail. The fixed effects are the two-digit SIC industry fixed effects and fiscal year fixed effects. The t-statistics are based on heteroskedasticity-consistent standard errors that are clustered by state in all of the models adopted in this paper. Our results are statistically similar if we cluster standard errors by firm.

Table 2 Panel A reports the descriptive statistics for our variables. The mean of going concern is 0.07 indicating that 7% of firm-years receive first-time going concern opinions. The rate of going concern opinions is similar to those documented in the prior going concern studies. Big4 is 61%, indicating more than half of our sample firm years are audited by Big 4 auditors. The mean value of *Liberal_court* is 0.40, similar to Huang et al. (2018). It has a first quartile threshold value of 0.25 and third quartile of 0.59, suggesting a large variation of ex-ante litigation risk as measured by judge ideology in our sample. Panel B of Table 2 reports the pairwise (Pearson and Spearman) correlations between other variables and our key variable of interest, i.e. judge ideology. There are no significantly high correlations between *Liberal_court* and the control variables, suggesting that there is no serious concern

of multicollinearity.

To address the potential concern that Big 4 and non-Big 4 clients may be different and therefore the coefficients on the going concern models of these two different samples may also be different, we apply the following model separately for Big 4 clients and non-Big 4 clients. The controls variables (i.e. *Controls_Concerns* and *Locale_Controls*) are the same as the ones in model (2).

$$\text{Prob. (First_concern)} = \beta_0 + \beta_2 \times \text{Liberal_court} + \text{Controls_Concerns} + \text{Locale_Controls} + \text{Industry FE} + \text{Year FE} + e \quad (3)$$

5. Empirical Findings

5.1 Test of Going Concern

Table 3 reports the findings on auditors' going concern reporting decisions from our baseline regression models. Column (1) reports the results from the probit model as specified in equation (2). The marginal effects at the means are reported. For ease of exposition, we multiply all coefficients in Table 3 (except for column (3)) by 100. The coefficients present the change in the probability for an infinitesimal change in each independent, continuous variable and, by default, reports the discrete change in the probability for dummy variables. Ai and Norton (2003) argue that the coefficient on the interaction term in a nonlinear regression may not equal the marginal effect of the interaction term. On the contrary, Le (1998) and Kolasinski and Siegel (2010) show that the coefficient, along with its standard error is still meaningful, especially when one is interested in evaluating the proportional rather than the absolute marginal effects. In our setting, we are interested in evaluating whether the effects of judge ideology differ between Big 4 and non-Big4, rather than the combined effect of ideology for Big 4 clients and non-Big 4. Thus, the coefficient on the interaction term is still meaningful. Nevertheless, we still apply an ordinary least squares (OLS) model and run a logit model by reporting the odds ratios for each variable in the regression. Similar to the OLS model, a logit

model is linear in the log-odd metric and thus the odds ratios represent the effect of a given variable on the likelihood of receiving going concern opinions (Buis, 2010; Doidge, Karolyi, and Stulz, 2013). Odds ratios are also simpler to interpret when there are interaction terms in the model. Columns (2) and (3) report the results from the OLS regression and the odds ratios from the logit model, respectively.

The test of our basic hypothesis concerns the interaction of judge ideology and Big4. In columns (1) and (2), the coefficients on *Big4*×*Liberal_court* are both statistically negative at the 1% level. The coefficient on *Big4* is statistically positive. The results suggest that while Big 4 firms are more likely to issue going concern opinions than non-Big 4, the reporting difference converges in circuits with more liberal judges. After presenting the mitigation effect of judge ideology, we report its marginal effects for Big 4 and non-Big 4 in Panels B and C. Panel B reports the average adjusted marginal effects, which is the average of the marginal effects for each value of judge ideology by treating each firm-year as if having this value of judge ideology and leave all other independent values as is and then taking the average of all the predictions for this value of judge ideology. Panel C reports the marginal effect of judge ideology when all variables are at their means.⁶ In panels B and C, the marginal effects for non-Big 4 are 3.59% and 1.93% regarding average marginal effects and marginal effects at the means, respectively. Both are significantly positive at the 1% level. In contrast, the marginal effects are not significant for Big 4, which means that judge ideology does not affect the going concern reporting behavior of Big 4 in a statistically significant way.

Column (3) reports the odds ratios from the logit model. The the odds ratio for Big 4 is 2.21 (z-statistic= 4.31), which means the odds of receiving going concern opinions for Big 4 clients are 2.21 times higher than non-Big 4 clients. The odds on *Liberal_court* is 2.36 (z-statistic=3.22), suggesting that the odds of receiving going concern opinion increase as the

⁶ The Stata `-margins-` command provides the average marginal effect and the marginal effect at the means.

level of judge liberality increases. The odds ratio for *Big4*×*Liberal-court* is 0.31 (z-statistic = -4.49). This suggests that the effect of judge ideology for Big 4 clients is 0.31 times the effect of judge ideology for non-Big 4 clients. This effect is statistically significant at the 1% level. In other words, the effect of judge ideology for Big 4 clients is 69% lower the effect for non-Big 4 clients. Taken together, the evidence is consistent with the argument that the going concern reporting behavior tends to converge because the non-Big 4 firms become relatively more likely to issue a going concern audit opinion as the level of judge liberality increases.

We also evaluate marginal effects of judge ideology on the likelihood of receiving going concern opinions for Big 4 clients and non-Big 4 clients. Columns (4) and (5) reports the marginal effects at the means for the non-Big 4 and Big 4 clients, respectively. Subsample analysis is superior to the full sample analysis to the extent that subsample analysis allows the coefficients on the independent variables vary in the subsample. We find that the litigation risk related to judge ideology significantly increases non-Big 4 auditors' likelihood of issuing going concern opinions. Specifically, in column (4), the coefficient on *Liberal_court* is 4.87% (z-statistic = 3.30), suggesting that in circuit with judges who are more liberal, non-Big 4 auditors are more likely to issue going concern reports. In terms of economic significance, a one standard deviation (0.18) increase in judge ideology from the sample mean (0.39) will increase the probability of going concern reporting by 0.88% ($4.87 \times 0.18\%$), which is 8.8% of the base going concern ratio for the non-Big 4 sample (10%).⁷ By contrast, as reported in column (5), the effect is not significant for Big 4 auditors. This finding is consistent with the notion that Big 4 auditors are less sensitive to the increase in federal level litigation risk than non-Big 4 auditors, presumably because their initial risk is already high.

⁷ Because probit model is a nonlinear model, the marginal effect varies with the values of other variables in the model. The reported marginal effects are the effects at the means. The summary statistics in Table 2 are those for the full sample. In the full sample, the standard deviation for *Liberal_court* is 0.19 and the mean is 0.40. In the non-Big 4 sample, the standard deviation is 0.18 and the mean is 0.39. The mean for *First_concern* is 0.10.

Figures 2 and 3 visualize the predictions of going concern reporting by Big 4 auditors and non-Big 4 auditors based on equation (2).⁸ Figure 2 shows the average adjusted prediction for each observed value of judge ideology. We compute the average adjusted prediction by treating each firm-year as if having this value of judge ideology and leave all other independent values as is and then taking the average of all the predictions for this value of judge ideology. Figure 3 shows the prediction of going concern probability for each observed value of judge ideology at the means of other variables in the model. We compute the adjusted prediction at mean by treating all other variables at their mean values. Note that because the marginal effect of judge ideology on Big 4 is not statistically significant, the slightly downward line for the Big 4 auditors should not be interpreted as judge ideology having a negative effect on Big 4 auditors' propensity to issue going concern audit opinions. In both figures, non-Big 4 auditors are more likely to issue first-time going concern audit opinions as the value of *Liberal_court* increases. In addition, the going concern reporting behaviors of Big 4 and non-Big 4 firms tend to converge as the judges become more liberal.

5.2 Supplementary Test: Audit Fees

As a supplementary test, we examine the association between the litigation risk associated with judge ideology and audit fees, and the differential impact of litigation risk on Big 4 audit firm fees versus non-Big 4 audit firm fees. The audit fee literature suggests that audit fees increase with the level of litigation risk (e.g., Simunic, 1980; Simunic and Stein, 1996). Our model is as follows.

$$\begin{aligned}
 Fees = & b_0 + b_1 \times Big4 + b_2 \times Big4 \times Liberal_court + b_3 \times Liberal_court + Controls_Fees \\
 & + Locale_Controls + Industry\ FE + Year\ FE + e \quad (3)
 \end{aligned}$$

⁸ The Stata `-mcp-` command computes the average adjusted prediction and the prediction at the means and plots the graphs. We thank Richard Williams for suggesting to use this command. The introduction is available at: <https://www3.nd.edu/~rwilliam/stats3/Margins03.pdf>

Similar to equation (2) in section 4, the t-statistics are based on heteroskedasticity-consistent standard errors that are clustered by state. The dependent variable is *Fees* defined as the natural logarithm of audit fees in the fiscal year. Our variable of interest is the interaction between *Big4* and *Liberal_court*. For the control variables, in addition to all the control variables used in our going concern baseline model, we follow the prior literature including classical determinants of audit fees (e.g., Simunic, 1980; DeFond et al., 2002). The additional controls further capture clients' complexity and business risk, including the total number of business segments (*Segnum*) and the total number of foreign segments (*Fsegnum*), an indicator variable that is set to 1 (and 0 otherwise) if the firm is involved with a merger event in the current year (*MA*), and going concern indicator variable equal to 1 (and 0 otherwise) if the auditor opinion for the fiscal year includes a going concern modification. The detailed definitions for all of the variables are provided in Appendix A. In addition to equation (3), we also test the effect of the variation in federal judge ideology on audit fees separately for Big 4 clients and non-Big 4 clients.

We report our findings on audit fees in Table 4. Our findings support the notion that the variation in federal judge ideology across circuit courts is a useful measure of within-U.S. variations in litigation risk. Specifically, in column (1), the interaction of *Liberal_court* and *Big4* is again significantly negative, which is consistent with our findings concerning going concern opinions that the behavior of Big 4 auditors and non-Big 4 auditors tends to converge as the litigation risk rises. We separately test the judge ideology effect on non-Big 4 auditors and Big 4 auditors in Columns (2) and (3), respectively. We find that the litigation risk related to judge ideology significantly increases the audit fees for both Big 4 clients and non-Big 4 clients, but the fee increase is higher for non-Big 4 clients than for the Big 4 clients. Note that these results are also consistent with the findings in Choi et al (2008) that the audit effort and audit fees of Big 4 and non-Big 4 audit firms converge as across-country litigation risk

increases. The analytical model in Choi et al (2008) suggests that because the failure rate of non-Big4 is higher (in their paper audit failure is defined as a failure to detect materially misstated financial statements), an increase in the toughness of legal regime has a greater impact on non-Big 4 auditors' expected litigation cost.

5.3 Additional Controls, Matched Sample, and Firm-Fixed Effects

We conduct several additional tests to 1) address the concern that our findings may be driven by state level legal liability and SEC enforcement strength, 2) investigate whether the effect for non-Big 4 auditors' going concern reports is partially driven by non-Big 4 clients' greater likelihood of bankruptcy or the effect of judge ideology on non-Big clients' bankruptcy risk; and 3) test the concern that our results are driven by the potential effect of judge ideology on auditor choice.

The underlying implication for the convergence of Big 4 and non-Big 4 going concern reporting incentive is that the litigation risk associated with federal judge ideology affects non-Big 4 auditor's propensity to issue going concern audit opinions, but does not have a statistically significant effect on Big 4 auditors. To address the concern that our findings are driven by omitted factors that shape auditors' legal environment, we add three control variables to equations (2) and (3) including a liability sharing index (*JSLINDEX*), a third party liability index (*TPLINDEX*), and the auditor to SEC office distance (*Auditor_to_sec*). Anantharaman et al., (2016) and Defond et al. (2016) find that these state-level legal liability measures and auditors' distance to SEC office affect auditors' going concern reporting decisions. In columns (1) to (3) of Table 5, we report the findings regarding non-Big-4 auditors, and columns (4) to (6) report findings for Big 4 auditors. Consistent with the results in Table 3, the Ideology variable is significant in columns 1 to 3, but is insignificant in columns 4 to 6, suggesting that non-Big4 auditors issue more going concern opinions when the litigation risk related to federal

judge ideology increases, but Big 4 auditors do not change their reporting behavior. This evidence suggests that the effect of federal judge ideology is not driven by our measure's potential correlation with the state level legal liability and SEC enforcement strength documented by Anantharaman et al., (2016) and Defond et al. (2016).

In addition, the reason that we do not document a statistically significant association between federal judge ideology and Big 4 auditors' propensity to issue going concern audit reports may be driven by the fact that the likelihood of bankruptcy of Big 4 clients is much smaller than that of non-Big 4 clients. That is, it is possible that while both non-Big 4 and Big 4 auditors substantially lower the threshold for issuing going concern audit reports (i.e. the lowest probability of bankruptcy at which auditors will issue an going concern opinion) due to the increased litigation risk associated with judge ideology, we do not observe it for Big 4 clients because Big 4 clients are much less likely to go bankrupt than non-Big clients even after considering the controls we have included. To investigate this possibility, we conduct several tests. First, we adopt several sub-samples of Big 4 clients whose characteristics are matched to client characteristics of non-Big 4 clients, and then investigate the effect of federal ideology on going concern reports separately for these subsamples. Second, we include firm-fixed effects in the Big 4 sub-sample and non-Big 4 sub-sample. Third, we directly examine whether the Big 4 indicator variable is associated with clients' likelihood of bankruptcy in the subsequent year.

Tables 6-10 report results of our empirical investigation regarding the above issue. Table 6 shows that after we match the non-Big 4 sample with a sub-sample of Big 4 clients on size and industry, our main findings remain consistent. In column (1), the coefficient on the interaction between the Big 4 indicator variable and judge ideology is significantly negative. In columns (2) and (3), the coefficient of judge ideology is only significant in the sub-sample of firm years audited by non-Big 4 auditors. These results are again consistent with our prior

findings, supporting the notion that federal judge ideology effects non-Big 4 auditors' going concern reporting decisions but not Big 4 decision, and that the reporting decisions of Big 4 and non-Big4 converge.

Similarly, in Table 7, we match the non-Big 4 sample with a sub-sample of Big 4 clients both on ROA and the two-digit SIC industry. In Table 8, we match the non-Big 4 sample using the propensity score. Specifically, our model for generating propensity scores is reported in Panel A, and our findings using the matched sample are reported in Panel B of Table 8. As shown in Tables 7 and 8, our main findings remain consistent. For instance, in column (1) of Panel B, Table 8, the coefficient on *Big4*×*Liberal_court* is significantly negative (estimate = -3.03, t-stat. = -2.79), and the coefficient on *Big4* is significantly positive (estimate = 2.34, t-stat. = 3.77). This evidence is again consistent with the findings reported in Table 3.

Table 9 reports the findings after controlling for firm- and state- fixed effects for the subsample of Big 4 clients and non-Big 4 clients. The models in columns (1) and (2) include firm fixed effects, and the models in columns (3) and (4) further control for state fixed effects. Note that since we use firms' historical location, adding state fixed effects can further control for the state fixed characteristics not captured by firm fixed effects. Because our regression model controls for firm fixed effects and state fixed effects, we choose OLS models instead of probit models following the suggestion of Greene (2004). The coefficients on *Liberal_court* are significantly positive for the non-Big 4 sample in columns (2) and (4). In contrast, in columns (1) and (3), for the Big 4 sample, we do not find a statistically significant effect of judge ideology on the likelihood of first time going concern opinions. This evidence further confirms our earlier inference that judge ideology has a statistically significant effect on non-Big 4 audit firms' going concern reporting decisions. Collectively, results from regressions using matched samples and including firm fixed effects suggest that the effects of judge

ideology on going concern audit reports is unlikely merely driven by the potential that non-Big 4 clients are more likely to go bankrupt.

To directly address the concern that our results are driven by the potential greater likelihood of non-Big 4 clients to go bankrupt, we examine the coefficient on the Big 4 indicator variable (*Big4*) in a bankruptcy prediction probit model. The dependent variable is an indicator variable set to 1 (and 0 otherwise) if the client goes bankrupt in the subsequent year. In column (1) of Table 10, the coefficient on *Big4* is not significant. This evidence further suggests that our main results are not driven by the differential bankruptcy probabilities between Big 4 clients and non-Big 4 clients.

Moreover, our observed effect of federal judge ideology on going concern audit reports may be driven by the possibility that the litigation risk associated with judge ideology affects clients' bankruptcy probability. If this effect differs for Big 4 clients and non-Big 4 clients, then our findings can be driven by the differential effects of judge ideology on the bankruptcy probabilities of Big 4 clients and non-Big 4 clients. To address this concern, we evaluate the effects of judge ideology on firms' bankruptcy risk. As shown in columns (2) to (4) of Table 10, we do not observe a statistically significant effect of judge ideology on firms' bankruptcy probability.

Lastly, if the litigation risk associated with federal judge ideology causes firms to be more likely to have non-Big 4 auditors due to the Big 4's tougher screening of risky clients, then non-Big 4 auditors will have a greater client base in circuits with more liberal judges. The relative importance of each client is smaller when the whole client base is greater. To this extent, the increased tendency of non-Big 4 auditors to issue going concern reports may be driven by the decreased importance of clients associated with a larger client base. To address this potential concern, we examine the association between federal judge ideology and auditor

choice. The controls in our auditor choice probit model we adopt are similar to those in our audit fee model, except that we follow Guedhami et al. (2014) by further including the ratio of inventory to total assets (*Inv*) and financial constraints as captured by the firm's financing activities. Column (1) of Table 11 reports the results of our baseline auditor choice model. Column (2) further adds the measures for state level legal liability and SEC enforcement strength to the baseline model. The coefficients on judge ideology (*Liberal_court*) are not significant in both models, indicating that our results are unlikely driven by the potential effects of judge ideology on auditor choice.

5.4 Going Concern Reporting Errors

Finally, we test the going concern reporting errors. If non-Big 4 auditors lower the threshold for issuing going concern audit opinions, then the rate of Type I error is likely to increase. With respect to Type II error, whether a lower threshold decreases the rate of Type II errors depends on auditors' ability to accurately assess the likelihood of client bankruptcy. We apply a probit model to investigate the determinants of auditors' rate of Type I and Type II errors. The control variables are the same as the ones in our baseline going concern reporting model. The dependent variable in the model on the rate of Type I error is an indicator variable equal to 1 (and 0 otherwise) for client-years which received a going concern opinion from their auditor but did not declare bankruptcy in the subsequent year. The dependent variable in the model on the rate of Type II error is an indicator variable equal to 1 (and 0 otherwise) for client-years which did not receive a going concern opinion from their auditor but declare bankruptcy in the subsequent year.

Table 12 reports the findings on the effects of judge ideology on auditors' rate of Type I and Type II errors. Columns (1) to (4) report results on Type I errors and columns (5) to (8) reports results on Type II errors. For the two types of errors, we first examine whether Big 4

auditors commit more or fewer errors when the level of judge liberality is low. To do so, we do not include either *Big4*×*Liberal_court* or *Liberal_court* in columns (1) and (5), where we use the full sample for the regressions. In column (1), the coefficient on Big 4 is significantly positive. This evidence suggests that Big 4 audit firms commit more Type I errors than non-Big 4 audit firms when judges are conservative. In column (5), where the dependent variable is the Type II error indicator variable, the coefficient on *Big4* is not significant (t-stat. = -0.85). In columns (3) to (4) and columns (7) to (8), we evaluate the rates of Type I and Type II errors separately for Big 4 and non-Big 4. We find that the Type I error rate of non-Big 4 auditors increases with the level of judge liberality. The coefficient on ideology is significant only for firms audited by non-Big 4 auditors, suggesting non-Big 4 auditors increase their issuance of going concern opinions to lower the risks of being sued by investors for audit failures. On the other side, we do not find the same results with respect to Type II errors. Note that for a lower threshold to reduce Type II errors, auditors need to have an accurate assessment of clients' bankruptcy probability. However, auditors' ability to correctly assess bankruptcy probability is still an open question.

6. Conclusion

Auditor reporting when a client faces possible future business failure is important to investors, creditors, and regulators. The reporting decision is complex and involves judgment because the auditor needs to assess whether or not there is “substantial doubt” about a company's ability to continue to operate in the future. Because a going concern opinion requires a forecast of a future event, this reporting decision involves considerable uncertainty and a trade-off between possible Type I and Type II reporting errors. A Type I error (issuing a going concern modified opinion when a business does not subsequently fail) may lead to client lawsuit and harm to an auditor's reputation. Conversely, a Type II error (not issuing a going concern opinion when a business subsequently fails) may lead to lawsuits by investors and

creditors, sanctions by regulators, and again may harm an auditor's reputation. A rational auditor will consider the trade-off between these two possible errors in determining a threshold for the probability of business failure that leads to a going concern modified opinion. For example, a very low probability threshold will lead to a high rate of Type I error, while a very high threshold will lead to a high rate of Type II error.

We develop a simple model of this trade-off where Type II error costs depend upon the level of auditor wealth as well as the magnitude of the third party litigation risk that auditors face. Because Big 4 audit firms have long been regarded as auditors with "deep pockets," we expect the probability thresholds used by Big 4 firms to differ from the thresholds used by non-Big 4 firms. We then consider how variations in third party litigation risk will affect the thresholds of the two classes of audit firms, and find that their going concern reporting behavior may either diverge or converge as litigation risk increases, depending upon the initial level of litigation risk faced by Big 4 firms vs. non-Big 4 firms.

We then develop and report the results of empirical tests of cross-sectional differences in auditor going concern reporting behavior as a function of variations in the ideology of federal judges in U.S. Federal Court Circuits. The political science literature and the recent accounting literature show that the ideology of federal judges in the circuit where a company is headquartered is an important ex-ante determinant of litigation occurrence and outcomes. We find that the litigation risk associated with federal judge ideology has a different effect on Big 4 and non-Big 4 auditors' going concern reporting behavior. Specifically, in circuits with more liberal judges, Big 4 and non-Big auditors tend to converge in their reporting decisions. This is caused by the greater effect of judge ideology on non-Big 4 auditors than on Big 4 auditors. In a supplementary test, we find that the audit fees charged by Big 4 and non-Big 4 firms also converge as the litigation risk associated with judge ideology increases. Our results are qualitatively unchanged using several matched samples, and a battery of robustness tests.

In conclusion, we believe that our research contributes to an understanding of the importance of variations in within-U.S. litigation risk associated with federal judge ideology on the behavior of auditors in going concern reporting, the pricing of audit services, and audit quality differences between Big 4 and non-Big 4 audit firms. The findings are potentially useful to policymakers who are currently considering a clarification of the term “substantial doubt” in auditors’ going concern reporting and debating the appropriate threshold that auditors should adopt. Our findings also suggest that a “one size fits all” threshold will have different economic consequences for audit firms in different geographic locations, depending on the ideology of judges in the corresponding circuits.

REFERENCES

- Ai, Chunrong, and Edward Norton, 2003, Interaction Terms in Logit and Probit Models, *Economics Letters* 80, 123–129.
- Anantharaman, D., Pittman, J.A. and Wans, N., 2016. State Liability Regimes within the United States and Auditor Reporting. *The Accounting Review*, 91(6), 1545-1575.
- Anderson, J.C., Lowe, D.J. and Reckers, P.M., 1993. Evaluation of Auditor Decisions: Hindsight Bias Effects and the Expectation Gap. *Journal of Economic Psychology*, 14(4), 711-737.
- Beatty, R.P., 1989. Auditor Reputation and the Pricing of Initial Public Offerings. *Accounting Review*, 693-709.
- Buis, M., 2010. Stata tip87: Interpretation of Interactions in Non-linear Models. *The Stata Journal* 10, 305–308.
- Choi, J.H., Kim, J.B., Liu, X., Simunic, D.A., 2008. Audit pricing, Legal Liability Regimes, and Big 4 Premiums: Theory and cross-country evidence. *Contemporary Accounting Research*, 25(1), 55-99.
- Clarkson, P.M., Simunic, D.A., 1994. The Association between Audit Quality, Retained Ownership, and Firm-specific Risk in US vs. Canadian IPO markets. *Journal of Accounting and Economics*, 17(1-2), 207-228.
- Cross, F.B., Tiller, E.H., 1998. “Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals.” *Yale Law Journal* 107, 2155–2176.
- DeAngelo, L.E., 1981. Auditor Size and Audit Quality. *Journal of accounting and economics*, 3(3), 183-199.
- DeFond, M. L., K. Raghunandan, and K. R. Subramanyam. 2002. Do Non-audit Service Fees Impair Auditor Independence? Evidence from Going Concern Audit Opinions. *Journal of Accounting Research* 40 (4): 1247–74.
- DeFond, M.L., Francis, J.R., Hallman, N.J., 2016. Awareness of SEC Enforcement and Auditor Reporting Decisions. Forthcoming in. *Contemporary Accounting Research*.
- Doidge, C., Karolyi, G. A., & Stulz, R. M. 2013. The US Left Behind? Financial globalization and the Rise of IPOs outside the US. *Journal of Financial Economics*, 110(3), 546-573.
- Dorsen, N., 2006. The Selection of US Supreme Court Justices. *International Journal of Constitutional Law*, 4(4), 652-663.
- Federal Judicial Center. 2006. “Federal Judicial Center Annual Report 2006.” Federal Judicial Center. <https://www.fjc.gov/sites/default/files/2012/AnnRep06.pdf>
- Feltham, G.A., Hughes, J.S., Simunic, D.A., 1991. Empirical Assessment of the Impact of Auditor Quality on the Valuation of New Issues. *Journal of accounting and Economics*, 14(4), 375-399.
- Goldman, S., 1999. *Picking Federal Judges: Lower Court Selection from Roosevelt Through Reagan*. Yale University Press.
- Guedhami, O., Pittman, J.A., Saffar, W., 2014. Auditor Choice in Politically Connected Firms. *Journal of Accounting Research*, 52(1), 107-162.
- Hopwood, W., J. C. McKeown, and J. F. Mutchler. 1994. A Reexamination of Auditor versus Model Accuracy within the Context of the Going-concern Opinion Decision. *Contemporary Accounting Research* 10 (2): 409–31.

- Huang, A., Hui, K.W., Li, R.Z., 2018. Federal Judge Ideology: A New Measure of ex-ante Litigation Risk. <https://ssrn.com/abstract=3170842> or <http://dx.doi.org/10.2139/ssrn.3170842>
- Jognston.1976. Marine Policy and the Coastal Community; the Impact of the Law of the Sea. London: Croom Helm.
- Kaplan, S.E., Williams, D.D., 2013. Do Going Concern Audit Reports Protect Auditors from Litigation? A Simultaneous Equations Approach. *Accounting Review*, 88(1), 199-232.
- Kolasinski, Adam C., and Andrew F. Siegel, 2010, On the Economic Meaning of Interaction Term Coefficients in Non-linear Binary Response Regression Models, Working paper, Texas A&M University.
- Kothari, S. P., A. J. Leone, and C. E. Wasley. 2005. Performance Matched Discretionary Accrual Measures. *Journal of Accounting and Economics* 39 (1): 163–97.
- Le, Chap T., 1998, *Applied Categorical Data Analysis* (John Wiley & Sons, Hoboken, NJ).
- Loughran, T., & McDonald, B. 2016. Textual Analysis in Accounting and Finance: A survey. *Journal of Accounting Research*, 54(4), 1187-1230.
- Mutchler, J. F., W. Hopwood, and J. M. McKeown. 1997. The Influence of Contrary Information and Mitigating Factors on Audit Opinion Decisions on Bankrupt Companies. *Journal of Accounting Research* 35 (2): 295–310.
- McKeown J C, Mutchler J F, Hopwood W. 1991. Towards an Explanation of Auditor Failure to Modify the Audit Opinions of Bankrupt Companies. *Auditing-a Journal of Practice & Theory*, 10: 1-13.
- Norton, E., Wang, H., Ai, C., 2004. Computing Interaction Effects and Standard Errors in Logit and Probit models. *Stata Journal* 4, 154–167.
- PCAOB Investor Advisory Group Meeting. 2012. https://pcaobus.org/News/Events/pages/03282012_iagmeeting.aspx
- PCAOB Investor Advisory Group Meeting. 2015. https://pcaobus.org/News/Releases/Pages/08192015_IAG.aspx
- Pinello, D.R., 1999. Linking Party to Judicial Ideology in American courts: A meta-analysis. *The Justice System Journal*, 219-254.
- Raghunandan, K., and D. V. Rama. 1995. Audit Reports for Companies in Financial Distress –before and after SAS No. 59. *Auditing: A Journal of Practice and Theory* 14: 50–63.
- Reynolds, J. K., and J. Francis. 2000. Does Size Matter? The Influence of Large Clients on Office-Level Auditor Reporting Decisions. *Journal of Accounting and Economics* 30 (3): 375–400.
- Scherer, N., 2005. *Scoring Points: Politicians, Activists, and the Lower Federal Court Appointment Process*. Stanford University Press.
- Seetharaman, A., Gul, F.A., Lynn, S.G., 2002. Litigation risk and audit fees: Evidence from UK firms cross-listed on US markets. *Journal of accounting and economics*, 33(1), 91-115.
- Segal, J.A., Cover, A.D., 1989. Ideological Values and the Votes of US Supreme Court justices. *American Political Science Review*, 83(2), 557-565.
- Simunic, D.A. and Stein, M.T., 1987. Product Differentiation in Auditing: Auditor Choice in the Market for Unseasoned New Issues (No. 13). *Canadian Certified General*.
- Staudt, N., Epstein, L., Wiedenbeck, P., 2006. The Ideological Component of Judging in the Taxation Context. *Wash. UL Rev.*, 84, 1797-1821.

- Sunstein, C.R., Schkade, D., Ellman, L.M., 2004. Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation. *Virginia Law Review*, 301-354.
- Tate, C.N., 1981. Personal Attribute Models of the Voting Behavior of US Supreme Court justices: Liberalism in Civil Liberties and Economics Decisions, 1946–1978. *American political Science Review*, 75(2), 355-367.
- Venkataraman, R., Weber, J.P., Willenborg, M., 2008. Litigation Risk, Audit Quality, and Audit Fees: Evidence from Initial Public Offerings. *The Accounting Review*, 83(5), 1315-1345.
- Wingate, M.L., 1997. An Examination of Cultural Influence on Audit Environments. *Research in Accounting Regulation*, 129-148.
- Woolridge, J. 2010. *Econometric Analysis of Cross Section and Panel Data*. MIT Press, 4th Edition.

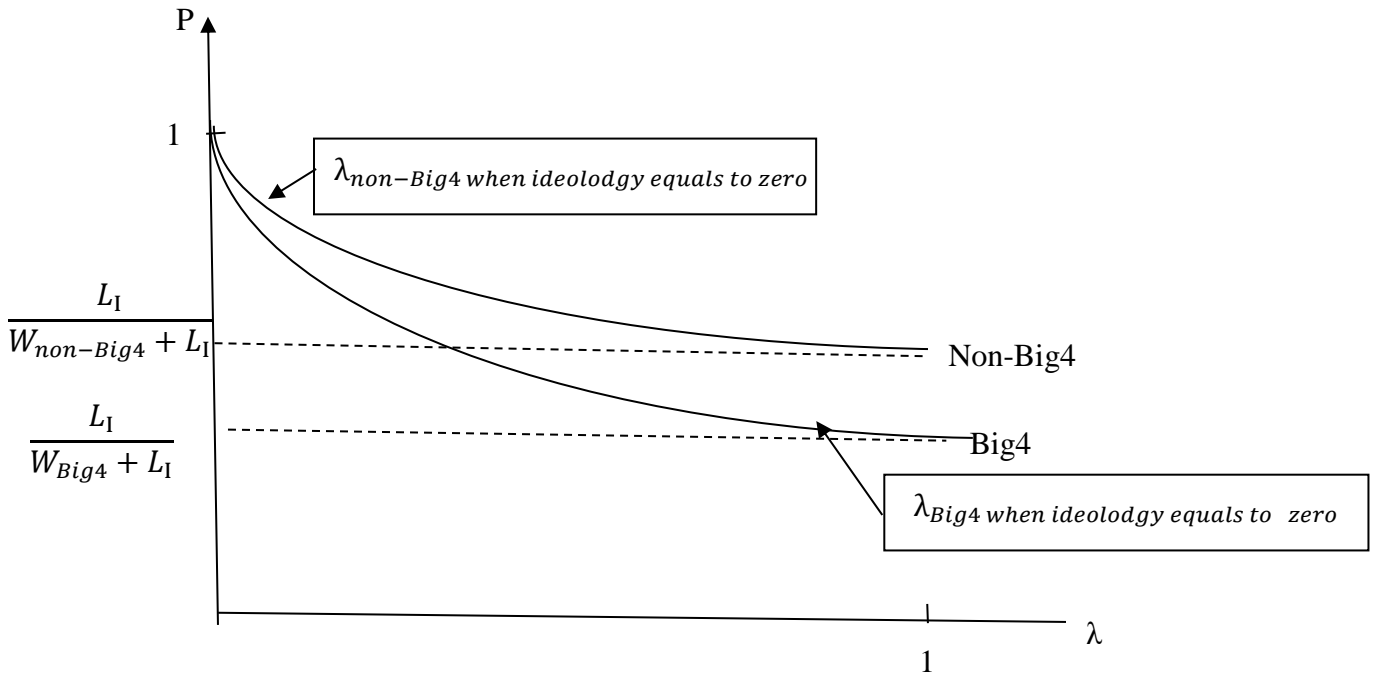
Appendix A Variable Definitions

| Variables | Definitions |
|-----------------------|---|
| <i>First_concern</i> | 1 (and 0 otherwise) if the firm-year receives first-time going concern opinion. First-time going concern opinion means that the firm does not receive a going concern opinion in the previous year. Source: Audit Analytics. |
| <i>Big4</i> | 1 (and 0 otherwise) when a firm uses one of the Big 5 auditors (Arthur Anderson, PricewaterhouseCoopers, Ernst & Young, Deloitte & Touche, or KPMG). For ease of expression, we call this indicator variable Big 4 even though it also includes Arthur Anderson. Our entire set of results is robust when we delete clients of Arthur Anderson from our sample. Source: Audit Analytics |
| <i>Fees</i> | The natural logarithm of audit fees. Source: Audit Analytics. |
| <i>Liberal_court</i> | The probability that a three-judge panel randomly selected from a circuit court has at least two judges appointed by Democratic presidents, that is, $C(x,3)+C(x,2) \times C(y-x,1) / C(y,3)$, where y is the total number of judges in the circuit court, and x is the number of judges in the circuit court who were appointed by Democratic presidents. C(a,b) is the number of combinations of selecting b objects from a distinct objects. We then assign each firm-year observation to a circuit court based on the firm's headquarters. |
| <i>Lnasset</i> | The natural logarithm of total assets (AT). |
| <i>Leverage</i> | The ratio of year-end total liabilities (DLTT) to total assets (AT). |
| <i>C_leverage</i> | The change in the firm's leverage from the previous year. |
| <i>Equity</i> | 1 (and 0 otherwise) if the firm issues equity (sale of common and preferred stock) in the following year. |
| <i>Debt</i> | 1 (and 0 otherwise) if the firm issues long-term debt in the following year. |
| <i>Loss</i> | 1 (and 0 otherwise) when income before extraordinary items (IB) is less than zero. |
| <i>Lag_loss</i> | 1 (and 0 otherwise) when income before extraordinary items (IB) is less than zero is the previous fiscal year. |
| <i>Roa</i> | Net income (NI) over total assets (AT). |
| <i>Cfo</i> | Cash flow from operations deflated by average total assets from years t-5 to t-1 (cash flow = $2 \times \text{OANCF} / (\text{AT} + \text{LAG}(\text{AT}))$). |
| <i>Cashsti</i> | Cash plus short-term investments (CHE) scaled by total assets (AT) in year t; |
| <i>Z_score</i> | Altman's Z-score (1968), calculated as: $3.3 \times (\text{PI} + \text{XINT}) / \text{AT} + 0.99 \times (\text{SALE} / \text{AT}) + 0.6 \times (\text{CSHO} * \text{PRCC_F} / \text{LT}) + 1.2 \times (\text{WCAP} / \text{AT}) + 1.4 \times (\text{RE} / \text{AT})$. |
| <i>Going_concern</i> | An indicator variable that is set to 1 (and 0 otherwise) if the auditor opinion for the fiscal year includes a going concern qualification. |
| <i>Salegrw</i> | Sales growth in the current year, where assets denotes sales (SALE). |
| <i>Absnda</i> | The absolute value of discretionary accruals. The discretionary accrual model follows the modified Jones (1991) model, as implemented by Dechow, Sloan, and Sweeney (1995) and modified by Kothari, Leone, and Wasley (2005). The abnormal discretionary accruals for firm <i>i</i> (which is in industry <i>j</i>) in year <i>t</i> are the difference between the total accruals (TAC) and predicted accruals estimated using the model specified as $\frac{TAC_{i,j,t}}{AT_{i,j,t-1}} = \alpha_{0,j,t} + \alpha_{1,j,t} \frac{1}{AT_{i,j,t-1}} + \alpha_{2,j,t} \left(\frac{\Delta \text{SALE}_{i,j,t} - \Delta \text{RECT}_{i,j,t}}{AT_{i,j,t-1}} \right) + \alpha_{2,j,t} \left(\frac{\text{PPEGT}_{i,j,t}}{AT_{i,j,t-1}} \right) + \alpha_{3,j,t} \left(\frac{\text{NI}_{i,j,t-1}}{AT_{i,j,t-1}} \right) + \varepsilon_{i,j,t}$. TAC=IBC-OANCF. All the variables in the discretionary accrual model are winsorized at the 1 st and 99 th percentiles before estimation. The estimated absolute value of abnormal discretionary accrual is winsorized at 99 th percentile. Source: Compustat. |
| <i>Log_age</i> | The natural logarithm of 1 plus a firm's age. Firm age is measured as the difference between the current fiscal year and the first year the firm appears in Compustat. |
| <i>Ln_reportlag</i> | The natural logarithm of the lag between the auditor's signature date and the date of the fiscal year-end. Source: Audit Analytics. |
| <i>Auditor_change</i> | 1 (and 0 otherwise) if a client-firm's auditor in the current year (t) is different from its auditor in the previous period (t-1). |
| <i>Unemployment</i> | The unemployment rate of the firm's headquarters state at the end of year t-1; |
| <i>Gdp_growth</i> | The GDP growth of the firm's headquarters state in year t. |
| <i>Ln_pop</i> | The natural logarithm of the population in the firm's headquarters state in year t; |

| | |
|---------------------------|---|
| <i>Blue_state</i> | 1 (and 0 otherwise) if the firm's headquarters state favors a democratic candidate in the presidential election immediately before the end of year t-1. |
| <i>Skinner_litigation</i> | The firm's litigation risk as of year t measured following Kim and Skinner (2012). |
| <i>Idiosyncratic_risk</i> | The standard deviation of the residual of the model that regresses daily return on the CRSP equal-weighted index for year t-1. |
| <i>S_mkt_adj_ret</i> | The market adjusted cumulative annual stock return in fiscal year t. |
| <i>Invrec</i> | The sum of inventories (INVT) and receivables (RECT) divided by total assets (AT). |
| <i>Specialist</i> | 1 if the ratio of the total fees collected by the auditor for the industry to the total fees collected is the highest and 0 otherwise. Source: Audit Analytics. |
| <i>Segnum</i> | The total number of business segments; this is coded as 1 when this information is missing in the segment file. |
| <i>Fsegnum</i> | The total number of foreign segments; this is coded as 0 when this information is missing in the segment file. |
| <i>Busy</i> | 1 (and 0 otherwise) if the company's current fiscal year ends in December. |
| <i>Mkt_to_book</i> | The ratio of the market value of total assets to the book value of total assets $(AT+CSHO \times PRCC_F-CEQ- TXDB)/AT$. |
| <i>Ma</i> | 1 (and 0 otherwise) a firm has a merger event in that year. Specially, if sale_fn is "AA" or AB" in Comupstat, then MA is 1. |
| <i>Lag_assetgrw</i> | Asset growth in the past year, where assets denotes total assets (AT) |
| <i>Inv</i> | The ratio of total inventories (INVT) to total assets (AT). |
| <i>Invrec</i> | The sum of inventories (INVT) and receivables (RECT) divided by total assets (AT). |
| <i>Std_cfo</i> | Firm-specific standard deviation of the cash flow from operations deflated by average total assets from years t-5 to t-1 (cash flow = $2 \times OANCF / (AT+LAG(AT))$). We require at least three years of data available for standard variation calculation. |
| <i>Financing</i> | An indicator variable that is set to 1 if the sum of new long-term debt plus new equity (DLTIS+SSTK) exceeds 20% of total assets and 0 otherwise. |
| <i>JSLINDEX</i> | Index of joint-and-several-liability (JSL) rules in the state. JSLINDEX is set to 0 for pure proportionate liability, set to 1 for full JSL, and set to 0.5 for some "modified" version of JSL that is between pure proportionate liability and full JSL. Following Anantharaman, Pittman, and Wans (2016) in constructing this measure, we assign to each client firm the highest of the indices assigned to the client's state of incorporation, the client's state of headquarters, the state of the audit engagement office. Source: American Tort Reform Association (ATRA) (2014). |
| <i>TPLINDEX</i> | An index developed by Pacini et al. (2000) and Gaver et al. (2012), measuring the extent to which auditors can be held liable for negligence by third-party nonclients. The index scales from 1 to 9, with 1 (9) representing the most restrictive (expansive) definition of third parties who can hold the auditor liable for negligence. Following Anantharaman, Pittman, and Wans (2016) in constructing this measure, we assign to each client firm the highest of the indices assigned to the client's state of incorporation, the client's state of headquarters, the state of the audit engagement office. |
| <i>Auditor_to_sec</i> | 1 (and 0 otherwise) if a client-year's auditor is located within 100 kilometers of an SEC regional office. |
| <i>Type I Error</i> | 1 (and 0 otherwise) for client-years which received a going concern opinion from their auditor but did not declare bankruptcy in the subsequent year. |
| <i>Type II Error</i> | 1 (and 0 otherwise) for client-years which did not receive a going concern opinion from their auditor but declare bankruptcy in the subsequent year. |

Figure 1 The Effect of Increasing Federal Litigation Risk on the Threshold for Issuing a Going Concern Opinion

This figure illustrates the theoretical relation between the probability of a lawsuit against an auditor and the threshold values (of the probability of bankruptcy) above which auditors issue going concern audit reports. “ λ ” refers to the probability of a lawsuit against an auditor, and “ P ” refers to the threshold bankruptcy probabilities for issuing going concern opinions.



Figures 2 & 3 The Empirical Probability of Issuing a Going Concern Opinion as a Function of Federal Judge Ideology

Figure 2 shows the average adjusted prediction of going concern probability for each observed value of judge ideology. For each value of judge ideology (*Liberal_court*), we compute the average adjusted prediction by treating each firm-year as if having this value of judge ideology and leave all other independent values as is and then taking the average of all the predictions for this value of judge ideology. Figure 3 shows the adjusted prediction of going concern probability for each observed value of judge ideology at the means of other variables in the model. We compute the adjusted prediction at mean by treating all other variables at their mean values. Note that because the marginal effect of judge ideology on Big 4 is not statistically significant (either average or at the mean), the line for the Big 4 auditors should not be considered statistically meaningful. The probabilities are estimated based on equation (2).

$$Prob. (First_concern) = a_0 + a_1 \times Big4 + a_2 \times Big4 \times Liberal_court + a_3 \times Liberal_court + Controls_Concerns + Locale_Controls + Industry\ FE + Year\ FE + e \quad (1)$$

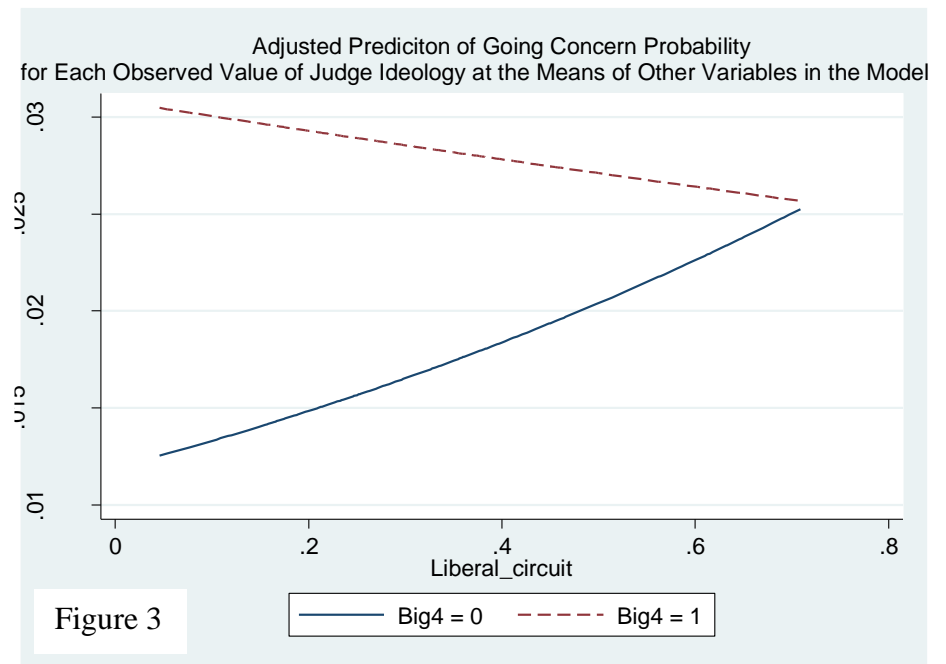
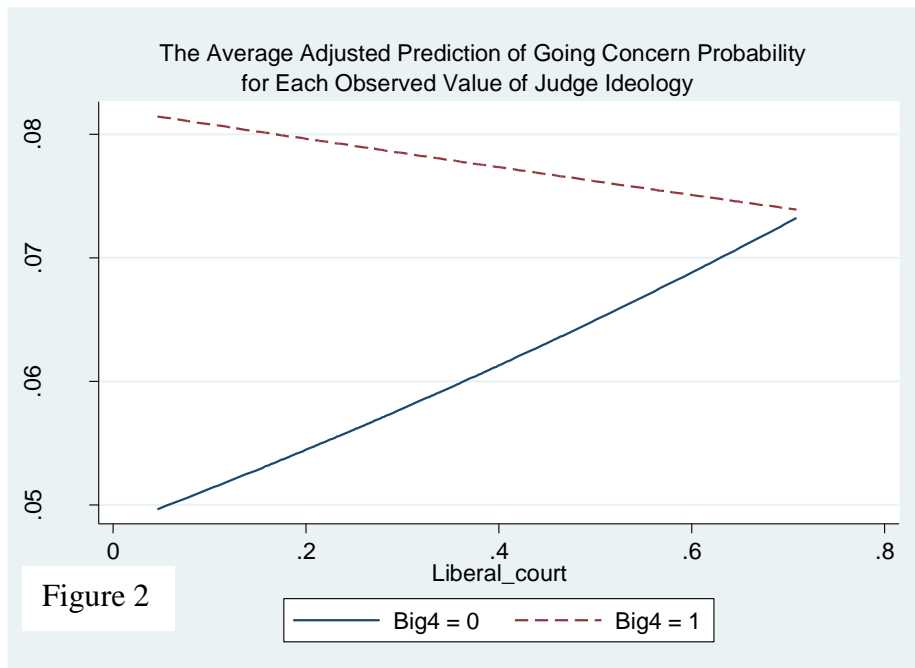


Table 1 Sample Distribution

This table presents the distribution for our sample. Panel A provides the distribution across 2-digit SIC industries, and Panel B shows the distribution across fiscal years.

Panel A: Sample Distribution by Industry

| | sic2 | Freq. | Percent | %<= | | sic2 | Freq. | Percent | %<= |
|---------------------------------------|------|-------|---------|-------|---|------|-------|---------|--------|
| Agricultural Production – Crops | 1 | 28 | 0.16 | 0.16 | Trucking & Warehousing | 42 | 75 | 0.44 | 59.68 |
| Metal, Mining | 10 | 98 | 0.57 | 0.74 | Water Transportation | 44 | 39 | 0.23 | 59.91 |
| Coal Mining | 12 | 55 | 0.32 | 1.06 | Transportation by Air | 45 | 102 | 0.60 | 60.51 |
| Oil & Gas Extraction | 13 | 686 | 4.01 | 5.07 | Pipelines, Except Natural Gas | 46 | 2 | 0.01 | 60.52 |
| Nonmetallic Minerals, Except Fuels | 14 | 14 | 0.08 | 5.15 | Transportation Services | 47 | 49 | 0.29 | 60.81 |
| General Building Contractors | 15 | 23 | 0.13 | 5.28 | Communications | 48 | 711 | 4.15 | 64.96 |
| Heavy Construction, Except Building | 16 | 54 | 0.32 | 5.60 | Electric, Gas, & Sanitary Services | 49 | 291 | 1.70 | 66.66 |
| Special Trade Contractors | 17 | 42 | 0.25 | 5.84 | Wholesale Trade – Durable Goods | 50 | 366 | 2.14 | 68.80 |
| Food & Kindred Products | 20 | 216 | 1.26 | 7.10 | Wholesale Trade – Nondurable Goods | 51 | 155 | 0.91 | 69.70 |
| Textile Mill Products | 22 | 77 | 0.45 | 7.55 | Building Materials & Gardening Supplies | 52 | 3 | 0.02 | 69.72 |
| Apparel & Other Textile Products | 23 | 128 | 0.75 | 8.30 | General Merchandise Stores | 53 | 38 | 0.22 | 69.94 |
| Lumber & Wood Products | 24 | 102 | 0.60 | 8.90 | Food Stores | 54 | 44 | 0.26 | 70.20 |
| Furniture & Fixtures | 25 | 78 | 0.46 | 9.35 | Automotive Dealers & Service Stations | 55 | 81 | 0.47 | 70.67 |
| Paper & Allied Products | 26 | 92 | 0.54 | 9.89 | Apparel & Accessory Stores | 56 | 116 | 0.68 | 71.35 |
| Printing & Publishing | 27 | 137 | 0.80 | 10.69 | Furniture & Homefurnishings Stores | 57 | 57 | 0.33 | 71.68 |
| Chemical & Allied Products | 28 | 2813 | 16.43 | 27.13 | Eating & Drinking Places | 58 | 187 | 1.09 | 72.78 |
| Petroleum & Coal Products | 29 | 50 | 0.29 | 27.42 | Miscellaneous Retail | 59 | 320 | 1.87 | 74.65 |
| Rubber & Misc. Plastics Products | 30 | 121 | 0.71 | 28.12 | Hotels & Other Lodging Places | 70 | 53 | 0.31 | 74.95 |
| Leather & Leather Products | 31 | 37 | 0.22 | 28.34 | Personal Services | 72 | 29 | 0.17 | 75.12 |
| Stone, Clay, & Glass Products | 32 | 77 | 0.45 | 28.79 | Business Services | 73 | 2873 | 16.78 | 91.91 |
| Primary Metal Industries | 33 | 172 | 1.00 | 29.79 | Auto Repair, Services, & Parking | 75 | 19 | 0.11 | 92.02 |
| Fabricated Metal Products | 34 | 161 | 0.94 | 30.74 | Motion Pictures | 78 | 52 | 0.30 | 92.32 |
| Industrial Machinery & Equipment | 35 | 1041 | 6.08 | 36.82 | Amusement & Recreation Services | 79 | 198 | 1.16 | 93.48 |
| Electronic & Other Electric Equipment | 36 | 1954 | 11.42 | 48.23 | Health Services | 80 | 349 | 2.04 | 95.52 |
| Transportation Equipment | 37 | 293 | 1.71 | 49.94 | Educational Services | 82 | 67 | 0.39 | 95.91 |
| Instruments & Related Products | 38 | 1430 | 8.35 | 58.30 | Social Services | 83 | 16 | 0.09 | 96.00 |
| Miscellaneous Mfg. Industries | 39 | 158 | 0.92 | 59.22 | Engineering & Management Services | 87 | 400 | 2.34 | 98.34 |
| Railroad Transportation | 40 | 4 | 0.02 | 59.25 | Non-Classifiable Establishments | 99 | 284 | 1.66 | 100.00 |

Panel B: Sample Distribution by Fiscal Years

| Year | Freq. | Percent | Cumulative % |
|------|-------|---------|--------------|
| 2001 | 1547 | 9.04 | 9.04 |
| 2002 | 1605 | 9.38 | 18.41 |
| 2003 | 1535 | 8.97 | 27.38 |
| 2004 | 1392 | 8.13 | 35.51 |
| 2005 | 1340 | 7.83 | 43.34 |
| 2006 | 1284 | 7.5 | 50.84 |
| 2007 | 1256 | 7.34 | 58.18 |
| 2008 | 1463 | 8.55 | 66.73 |
| 2009 | 1315 | 7.68 | 74.41 |
| 2010 | 981 | 5.73 | 80.14 |
| 2011 | 928 | 5.42 | 85.56 |
| 2012 | 997 | 5.82 | 91.39 |
| 2013 | 1012 | 5.91 | 97.3 |
| 2014 | 462 | 2.7 | 100 |

Table 2 Variable Descriptive Statistics

This table presents descriptive statistics for our sample. Panel A reports the summary statistics for all the variables. Panel B reports the correlation between federal judge ideology and other variables. Variable definitions are in Appendix A.

| Panel A Summary Statistics | | | | | |
|----------------------------|-------|-------|-------|--------|-------|
| | Mean | Stdev | 25% | Medium | 75% |
| <i>First_concern</i> | 0.07 | 0.25 | 0.00 | 0.00 | 0.00 |
| <i>Big4</i> | 0.61 | 0.49 | 0.00 | 1.00 | 1.00 |
| <i>Liberal_court</i> | 0.40 | 0.19 | 0.25 | 0.38 | 0.59 |
| <i>Lnasset</i> | 4.65 | 2.01 | 3.26 | 4.54 | 5.93 |
| <i>Leverage</i> | 0.18 | 0.27 | 0.00 | 0.05 | 0.29 |
| <i>C_leverage</i> | -0.01 | 0.15 | -0.03 | 0.00 | 0.01 |
| <i>Equity</i> | 0.78 | 0.42 | 1.00 | 1.00 | 1.00 |
| <i>Debt</i> | 0.43 | 0.50 | 0.00 | 0.00 | 1.00 |
| <i>Loss</i> | 0.91 | 0.28 | 1.00 | 1.00 | 1.00 |
| <i>Lag_loss</i> | 0.71 | 0.45 | 0.00 | 1.00 | 1.00 |
| <i>Roa</i> | -0.32 | 0.89 | -0.34 | -0.12 | -0.03 |
| <i>Cfo</i> | -0.11 | 0.31 | -0.16 | -0.02 | 0.05 |
| <i>Cashsti</i> | 0.29 | 0.28 | 0.05 | 0.19 | 0.47 |
| <i>Z_score</i> | 0.56 | 17.08 | -0.81 | 1.47 | 3.53 |
| <i>Salegrw1</i> | 0.21 | 1.04 | -0.15 | 0.01 | 0.22 |
| <i>Absnda</i> | 0.19 | 0.33 | 0.04 | 0.10 | 0.21 |
| <i>Log_age</i> | 2.64 | 0.63 | 2.20 | 2.56 | 3.04 |
| <i>Ln_reportlag</i> | 4.21 | 0.37 | 4.06 | 4.28 | 4.44 |
| <i>Auditor_change</i> | 0.11 | 0.32 | 0.00 | 0.00 | 0.00 |
| <i>Unemployment_hhf</i> | 6.44 | 2.05 | 4.90 | 5.90 | 7.40 |
| <i>Gdp_growth_hhf</i> | 3.84 | 3.00 | 2.29 | 4.00 | 5.65 |
| <i>Ln_pop_hhf</i> | 9.41 | 0.89 | 8.76 | 9.43 | 10.18 |
| <i>Blue_state_hhf</i> | 0.80 | 0.40 | 1.00 | 1.00 | 1.00 |
| <i>Skinner_litigation</i> | 0.23 | 0.28 | 0.03 | 0.10 | 0.32 |
| <i>Idiosyncratic_risk</i> | 0.05 | 0.03 | 0.03 | 0.04 | 0.06 |
| <i>S_mkt_adj_ret</i> | 0.06 | 0.81 | -0.40 | -0.05 | 0.38 |
| <i>Invrec</i> | 0.25 | 0.21 | 0.07 | 0.20 | 0.38 |
| <i>Specialist</i> | 0.18 | 0.39 | 0.00 | 0.00 | 0.00 |
| <i>Segnum</i> | 2.31 | 3.67 | 0.00 | 0.00 | 3.00 |
| <i>Fsegnum</i> | 3.13 | 5.35 | 0.00 | 0.00 | 4.00 |
| <i>Busy</i> | 0.71 | 0.45 | 0.00 | 1.00 | 1.00 |
| <i>Mkt_to_book</i> | 2.49 | 5.04 | 1.02 | 1.42 | 2.46 |
| <i>Ma</i> | 0.12 | 0.32 | 0.00 | 0.00 | 0.00 |
| <i>Lag_assetgrw</i> | 0.31 | 1.31 | -0.14 | -0.00 | 0.21 |
| <i>Inv</i> | 0.11 | 0.14 | 0.00 | 0.04 | 0.16 |
| <i>Std_cfo</i> | 0.17 | 0.31 | 0.05 | 0.09 | 0.17 |
| <i>Financing</i> | 0.32 | 0.47 | 0.00 | 0.00 | 1.00 |
| <i>JSLINDEX</i> | 0.88 | 0.28 | 1.00 | 1.00 | 1.00 |
| <i>TPLINDEX</i> | 5.21 | 1.19 | 5.00 | 5.00 | 5.00 |
| <i>Auditor_to_sec</i> | 0.61 | 0.49 | 0.00 | 1.00 | 1.00 |

Panel B Correlation between Federal Judge Ideology and Other Variables

| | Pearson Correlation | | Spearman Correlation | |
|---------------------------|---------------------|--------|----------------------|--------|
| <i>First_concern</i> | 0.000 | 0.974 | 0.002 | 0.802 |
| <i>Big4</i> | 0.065 | <0.001 | 0.071 | <0.001 |
| <i>Lnasset</i> | -0.058 | <0.001 | -0.052 | <0.001 |
| <i>Leverage</i> | -0.093 | <0.001 | -0.118 | <0.001 |
| <i>C_leverage</i> | 0.001 | 0.910 | 0.009 | 0.275 |
| <i>Equity</i> | 0.111 | <0.001 | 0.106 | <0.001 |
| <i>Debt</i> | -0.118 | <0.001 | -0.112 | <0.001 |
| <i>Loss</i> | 0.029 | <0.001 | 0.034 | <0.001 |
| <i>Lag_loss</i> | 0.081 | <0.001 | 0.083 | <0.001 |
| <i>Roa</i> | -0.036 | <0.001 | -0.106 | <0.001 |
| <i>Cfo</i> | -0.083 | <0.001 | -0.121 | <0.001 |
| <i>Cashsti</i> | 0.186 | <0.001 | 0.199 | <0.001 |
| <i>Z_score</i> | -0.006 | 0.470 | -0.017 | 0.037 |
| <i>Salegrw1</i> | 0.009 | 0.219 | 0.006 | 0.449 |
| <i>Absnda</i> | 0.008 | 0.325 | 0.002 | 0.832 |
| <i>Log_age</i> | -0.136 | <0.001 | -0.140 | <0.001 |
| <i>Ln_reportlag</i> | -0.083 | <0.001 | -0.070 | <0.001 |
| <i>Auditor_change</i> | -0.006 | 0.418 | -0.007 | 0.379 |
| <i>Unemployment_hhf</i> | 0.248 | <0.001 | 0.229 | <0.001 |
| <i>Gdp_growth_hhf</i> | 0.031 | <0.001 | 0.011 | 0.175 |
| <i>Ln_pop_hhf</i> | 0.434 | <0.001 | 0.442 | <0.001 |
| <i>Blue_state_hhf</i> | 0.352 | <0.001 | 0.348 | <0.001 |
| <i>Skinner_litigation</i> | 0.015 | 0.043 | 0.025 | 0.002 |
| <i>Idiosyncratic_risk</i> | 0.004 | 0.591 | 0.034 | <0.001 |
| <i>S_mkt_adj_ret</i> | 0.016 | 0.038 | 0.024 | 0.003 |
| <i>Invrec</i> | -0.038 | <0.001 | -0.039 | <0.001 |
| <i>Specialist</i> | 0.006 | 0.424 | 0.003 | 0.724 |
| <i>Segnum</i> | -0.004 | 0.635 | 0.046 | <0.001 |
| <i>Fsegnum</i> | 0.057 | <0.001 | 0.075 | <0.001 |
| <i>Busy</i> | -0.002 | 0.747 | 0.001 | 0.876 |
| <i>Mkt_to_book</i> | 0.034 | <0.001 | 0.113 | <0.001 |
| <i>Ma</i> | 0.029 | <0.001 | 0.035 | <0.001 |
| <i>Lag_assetgrw</i> | 0.028 | <0.001 | 0.005 | 0.531 |
| <i>Inv</i> | -0.034 | <0.001 | -0.046 | <0.001 |
| <i>Std_cfo</i> | 0.027 | 0.001 | 0.121 | <0.001 |
| <i>Financing</i> | -0.015 | 0.052 | -0.017 | 0.038 |
| <i>JSLINDEX</i> | 0.234 | <0.001 | 0.260 | <0.001 |
| <i>TPLINDEX</i> | -0.263 | <0.001 | -0.227 | <0.001 |
| <i>Auditor_to_sec</i> | 0.120 | <0.001 | 0.113 | <0.001 |

Table 3 Federal Judge Ideology and the Likelihood of Issuing Going Concern Opinion

This table reports the regression results on the relation between first-time going concern opinion and circuit court judge ideology. In panel A, columns (1), (4), (5) use probit models. Column (2) uses an ordinary least square regression. Column (3) reports odds ratio from a logit model. The dependent variable is an indicator set to 1 (and 0 otherwise) if the firm-year receives first-time going concern opinion. First-time going concern opinion means that the firm does not receive a going concern opinion in the previous year. For ease of exposition, coefficients in columns (1), (2), (3), and (4) are multiplied by 100. z-stats based on standard errors clustered by state are reported in parentheses below the coefficients. Panels B and C report the average marginal effect of judge ideology and the marginal effect of judge ideology at the means for Big 4 clients and non-Big 4 clients, respectively. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in Appendix A.

Panel A Results from Various Models

| VARIABLES | (1) | (2) | (3) | (4) | (5) |
|------------------------------------|---|--|---|--|--|
| | <i>First_Concern</i> Probit Model Full Sample | <i>First_Concern</i> OLS Model Full Sample | <i>First_Concern</i> Odds ratio from the logit model Full Sample | <i>First_Concern</i> Probit Model Non-Big 4 Sample | <i>First_Concern</i> Probit Model Big 4 Sample |
| <i>Big4</i> | 2.00*** [4.14] | 3.63*** [4.26] | 2.21*** [4.31] | | |
| <i>Big4</i> × <i>Liberal_court</i> | -2.97*** [-3.97] | -4.98*** [-3.30] | 0.31*** [-4.49] | | |
| <i>Liberal_court</i> | 2.35*** [3.07] | 4.70*** [3.06] | 2.36*** [3.22] | 4.87*** [3.30] | -0.33 [-0.68] |
| <i>Lnasset</i> | -1.10*** [-9.18] | -1.04*** [-4.66] | 0.68*** [-8.62] | -1.85*** [-6.84] | -0.49*** [-6.29] |
| <i>Leverage</i> | -0.00 [-0.00] | -1.55 [-1.35] | 0.90 [-0.48] | 0.09 [0.06] | 0.09 [0.35] |
| <i>C_leverage</i> | 5.27*** [9.70] | 16.77*** [7.04] | 6.21*** [9.10] | 4.96*** [4.26] | 4.53*** [8.57] |
| <i>Equity</i> | -0.57** [-1.98] | -0.83 [-1.47] | 0.82** [-2.02] | -1.05* [-1.95] | -0.25 [-1.23] |
| <i>Debt</i> | 0.99*** [3.41] | 1.76*** [2.70] | 1.41*** [3.15] | 1.89** [2.40] | 0.37*** [2.99] |
| <i>Loss</i> | 1.67*** [5.15] | 1.49*** [4.46] | 2.57*** [5.05] | 2.96*** [4.59] | 0.87*** [2.87] |
| <i>Lag_loss</i> | 1.32*** [5.69] | 1.86*** [4.88] | 1.67*** [5.16] | 2.77*** [4.52] | 0.44*** [2.78] |
| <i>Roa</i> | -0.16 [-0.81] | -3.13*** [-3.58] | 0.91 [-1.13] | -0.25 [-0.66] | -0.55*** [-3.02] |
| <i>Cfo</i> | -3.54*** [-5.89] | -11.91*** [-7.85] | 0.28*** [-4.52] | -4.68*** [-4.61] | -2.63*** [-5.37] |
| <i>Salegrw</i> | -0.43*** [-3.89] | -12.29*** [-11.98] | 0.11*** [-8.74] | -0.54* [-1.82] | -0.34*** [-5.40] |
| <i>Cashsti</i> | -6.09*** [-9.43] | -0.03 [-1.26] | 1.00 [-0.79] | -10.55*** [-7.76] | -3.70*** [-9.73] |
| <i>Z_score</i> | -0.01 [-1.00] | -0.75*** [-4.36] | 0.85*** [-3.53] | -0.00 [-0.03] | -0.02** [-1.98] |
| <i>Ln_age</i> | -0.14 [-0.94] | -0.47 [-0.42] | 0.90 [-0.65] | -1.11*** [-2.84] | 0.28** [2.31] |
| <i>Absnda</i> | -0.22 [-0.51] | -0.22 [-0.65] | 0.96 [-0.71] | 0.09 [0.12] | -0.25 [-0.94] |
| <i>Ln_reportlag</i> | 4.38*** [11.55] | 7.73*** [7.38] | 4.68*** [10.21] | 8.22*** [8.54] | 1.94*** [9.22] |
| <i>Auditor_change</i> | 0.04 | 0.11 | 1.03 | -0.08 | 0.27 |

| | | | | | |
|---------------------------|----------|-----------|-------------|----------|----------|
| | [0.12] | [0.16] | [0.25] | [-0.14] | [0.72] |
| <i>Unemployment</i> | 0.26* | 0.50** | 1.09* | 0.80*** | 0.06 |
| | [1.91] | [2.20] | [1.83] | [3.10] | [0.62] |
| <i>Gdp_growth</i> | 0.05 | 0.10 | 1.02 | 0.16 | 0.01 |
| | [0.92] | [0.85] | [0.82] | [1.23] | [0.24] |
| <i>Ln_pop</i> | -0.21* | -0.42* | 0.93 | -0.80*** | 0.01 |
| | [-1.86] | [-1.85] | [-1.58] | [-3.11] | [0.09] |
| <i>Blue_state</i> | 0.28 | 0.67 | 1.13 | 0.08 | 0.31* |
| | [1.25] | [1.62] | [1.42] | [0.16] | [1.66] |
| <i>Skinner_litigation</i> | 4.64*** | 6.62*** | 4.94*** | 8.15*** | 2.08*** |
| | [9.32] | [4.98] | [8.28] | [6.44] | [6.11] |
| <i>Idiosyncratic_risk</i> | 26.60*** | 114.66*** | 4,128.81*** | 36.84*** | 17.93*** |
| | [5.43] | [8.43] | [4.39] | [3.35] | [4.02] |
| <i>S_mkt_adj_ret</i> | -2.45*** | -5.69*** | 0.41*** | -4.55*** | -1.03*** |
| | [-16.60] | [-14.21] | [-15.93] | [-19.49] | [-7.07] |
| Observations | 17,073 | 17,117 | 17,045 | 6,560 | 10,413 |
| Industry FE | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes |
| Standard Error | State | State | State | State | State |
| Pseudo/Adj. R-squared | 0.3163 | 0.1865 | 0.3098 | 0.2706 | 0.3945 |

Panel B The Average Marginal Effects of Judge Ideology for Big 4 and Non-Big 4

| | Delta-method | | | | |
|----------------------|--------------|-----------|-------|-------|------------------------|
| | dy/dx | Std. Err. | z | P>z | [95% Conf. Interval] |
| <i>Liberal_court</i> | | | | | |
| Big4 | | | | | |
| 0 | 0.0359 | 0.0116 | 3.10 | 0.002 | 0.0132 0.0586 |
| 1 | -0.0114 | 0.0138 | -0.82 | 0.412 | -0.0385 0.0158 |

Panel C The Marginal Effects of Judge Ideology at the Mean for Big 4 and Non-Big 4

| | Delta-method | | | | |
|----------------------|--------------|-----------|-------|-------|------------------------|
| | dy/dx | Std. Err. | z | P>z | [95% Conf. Interval] |
| <i>Liberal_court</i> | | | | | |
| Big4 | | | | | |
| 0 | 0.0193 | 0.0063 | 3.06 | 0.002 | 0.0069 0.0316 |
| 1 | -0.0071 | 0.0088 | -0.80 | 0.422 | -0.0243 0.0102 |

Table 4 Federal Judge Ideology and Audit Fees

This table reports the OLS regression results on the relation between audit fees and circuit court judge ideology. The dependent variable is the natural logarithm of audit fees. Standardized coefficients are reported. *t*-stats based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in Appendix A.

| | (1) Fees Full Sample | (2) Fees Non-Big 4 Sample | (3) Fees Big 4 Sample |
|------------------------------------|----------------------------|---------------------------------|-----------------------------|
| <i>Big4</i> | 19.79*** [17.82] | | |
| <i>Big4</i> × <i>Liberal_court</i> | -2.77*** [-3.07] | | |
| <i>Liberal_court</i> | 5.58*** [4.19] | 7.38*** [4.59] | 3.85** [2.48] |
| <i>lnasset</i> | 76.70*** [68.80] | 78.54*** [50.14] | 76.79*** [36.48] |
| <i>Invrec</i> | 6.02*** [9.94] | 4.89*** [3.06] | 8.82*** [13.93] |
| <i>Specialist</i> | 1.02** [2.31] | 1.71*** [15.88] | 1.34** [2.20] |
| <i>Segnum</i> | 5.69*** [8.84] | 3.88*** [3.46] | 7.58*** [7.57] |
| <i>Fsegnum</i> | 5.92*** [6.50] | 8.24*** [6.05] | 5.98*** [5.32] |
| <i>Roa</i> | -2.66*** [-3.21] | -3.17* [-1.88] | -3.02*** [-3.94] |
| <i>Leverage</i> | 0.31 [0.46] | 2.19*** [2.81] | -1.33 [-1.34] |
| <i>Loss</i> | 4.15*** [9.56] | 7.21*** [8.83] | 2.88*** [5.79] |
| <i>Z_score</i> | -4.92*** [-4.46] | -8.50*** [-4.47] | -6.19*** [-8.05] |
| <i>Going_concern</i> | 2.59*** [7.76] | 3.49*** [5.15] | 1.74*** [4.59] |
| <i>Mkt_to_book</i> | 2.24*** [2.76] | 4.51** [2.65] | 6.31*** [10.51] |
| <i>Salegrw</i> | -1.65** [-2.62] | -4.09*** [-4.34] | -1.11 [-1.41] |
| <i>Log_age</i> | 0.39 [0.76] | 1.70 [1.50] | 0.08 [0.10] |
| <i>Busy</i> | 2.87*** [4.09] | 3.24*** [3.34] | 2.83*** [2.90] |
| <i>Ma</i> | 0.07 [0.21] | 0.00 [0.00] | 0.50 [0.99] |
| <i>Ln_reportlag</i> | 9.14*** [15.02] | 6.43*** [7.23] | 11.18*** [9.36] |
| <i>Auditor_change</i> | -2.35*** [-7.20] | -2.91*** [-4.60] | -2.42*** [-8.66] |
| <i>Unemployment</i> | -1.32 [-0.78] | -0.50 [-0.18] | -2.02 [-1.15] |
| <i>Gdp_growth</i> | -0.75 [-1.28] | -0.55 [-0.46] | -1.34** [-2.24] |
| <i>Ln_pop</i> | 4.98*** [5.31] | 4.60*** [3.61] | 6.14*** [5.18] |
| <i>Blue_state</i> | 2.73** [2.60] | 3.10** [2.26] | 2.58** [2.20] |
| <i>Skinner_litigation</i> | 0.72 [1.11] | 3.73*** [4.15] | -0.41 [-0.49] |
| <i>Idiosyncratic_risk</i> | 0.62 [1.05] | -2.53* [-1.77] | 4.61*** [4.56] |

| | | | |
|----------------------|------------------|---------------------|------------------|
| <i>S_mkt_adj_ret</i> | -0.30 [-0.98] | -3.01*** [-4.23] | -0.10 [-0.26] |
| Observations | 17174 | 6663 | 10511 |
| Industry FE | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Standard Error | State | State | State |
| Adj. R-sq | 0.8314 | 0.7179 | 0.8243 |

Table 5 Federal Judge Ideology and Going Concern Reporting: Additional Controls

This table reports the probit model regression results on the relation between first-time going concern opinion and circuit court judge ideology. The dependent variable is an indicator set to 1 (and 0 otherwise) if the firm-year receives a first-time going concern opinion. The marginal probabilities at the means are reported. For ease of exposition, all coefficients are multiplied by 100. z-stats based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in Appendix A.

| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) |
|-----------------------|--------------------------------------|--------------------------------------|--------------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | First_Concern Non-Big 4 Sample | First_Concern Non-Big 4 Sample | First_Concern Non-Big 4 Sample | First_Concern Big 4 Sample | First_Concern Big 4 Sample | First_Concern Big 4 Sample |
| <i>Liberal_court</i> | 4.81*** [3.13] | 5.61*** [3.10] | 5.37*** [2.67] | -0.46 [-0.91] | -0.32 [-0.60] | -0.26 [-0.47] |
| <i>JSLINDEX</i> | 0.28 [0.27] | 0.18 [0.18] | -0.03 [-0.03] | 0.78*** [3.31] | 0.75*** [3.08] | 0.67*** [2.69] |
| <i>TPLINDEX</i> | | 0.39 [1.51] | 0.40 [1.55] | | 0.09* [1.85] | 0.10** [2.03] |
| <i>Auditor_to_sec</i> | | | 0.88* [1.77] | | | -0.02 [-0.09] |
| <i>Lnasset</i> | -1.86*** [-6.43] | -1.87*** [-6.56] | -1.77*** [-6.72] | -0.50*** [-6.61] | -0.50*** [-6.64] | -0.46*** [-6.33] |
| <i>Leverage</i> | 0.09 [0.06] | 0.10 [0.07] | 0.54 [0.47] | 0.12 [0.44] | 0.11 [0.41] | -0.05 [-0.18] |
| <i>C_leverage</i> | 4.97*** [4.27] | 5.00*** [4.30] | 3.95*** [3.48] | 4.49*** [8.69] | 4.47*** [8.67] | 4.25*** [7.82] |
| <i>Equity</i> | -1.06* [-1.95] | -1.06* [-1.96] | -1.08* [-1.88] | -0.22 [-1.13] | -0.23 [-1.17] | -0.26 [-1.42] |
| <i>Debt</i> | 1.89** [2.41] | 1.86** [2.36] | 1.53** [2.04] | 0.37*** [3.03] | 0.37*** [3.05] | 0.37*** [3.08] |
| <i>Loss</i> | 2.96*** [4.53] | 2.92*** [4.46] | 2.77*** [4.25] | 0.86*** [2.88] | 0.86*** [2.86] | 0.85*** [2.79] |
| <i>Lag_loss</i> | 2.76*** [4.47] | 2.75*** [4.47] | 2.28*** [4.05] | 0.43*** [2.73] | 0.42*** [2.67] | 0.42** [2.50] |
| <i>Roa</i> | -0.25 [-0.66] | -0.25 [-0.67] | -0.07 [-0.19] | -0.55*** [-3.08] | -0.55*** [-3.08] | -0.45*** [-2.81] |
| <i>Cfo</i> | -4.68*** [-4.61] | -4.67*** [-4.60] | -4.36*** [-5.02] | -2.58*** [-5.48] | -2.56*** [-5.46] | -2.47*** [-5.54] |
| <i>Cashsti</i> | -10.58*** [-7.96] | -10.60*** [-8.08] | -9.72*** [-7.79] | -3.71*** [-10.48] | -3.68*** [-10.34] | -3.44*** [-11.21] |
| <i>Z_score</i> | -0.00 [-0.01] | 0.00 [0.04] | 0.00 [0.08] | -0.02* [-1.92] | -0.02* [-1.89] | -0.02* [-1.85] |
| <i>Salegrw</i> | -0.54* [-1.82] | -0.55* [-1.85] | -0.45 [-1.53] | -0.34*** [-5.39] | -0.33*** [-5.31] | -0.30*** [-5.10] |
| <i>Absnda</i> | 0.09 [0.13] | 0.07 [0.10] | 0.21 [0.30] | -0.26 [-1.01] | -0.27 [-1.04] | -0.16 [-0.66] |
| <i>Log_age</i> | -1.11*** [-2.87] | -1.04*** [-2.74] | -0.89*** [-2.65] | 0.31** [2.55] | 0.32*** [2.61] | 0.30*** [2.74] |
| <i>Ln_reportlag</i> | 8.21*** [8.50] | 8.24*** [8.85] | 7.05*** [8.61] | 1.92*** [9.26] | 1.92*** [9.09] | 1.75*** [8.57] |
| <i>Auditor_change</i> | -0.08 [-0.13] | -0.06 [-0.10] | -0.05 [-0.08] | 0.28 [0.76] | 0.29 [0.78] | 0.16 [0.50] |
| <i>Unemployment</i> | 0.81*** [3.09] | 0.78*** [3.09] | 0.67** [2.53] | 0.09 [0.97] | 0.08 [0.90] | 0.09 [1.06] |
| <i>Gdp_growth</i> | 0.16 | 0.14 | 0.02 | 0.01 | 0.00 | -0.01 |

| | | | | | | |
|---------------------------|----------|----------|----------|----------|----------|----------|
| | [1.24] | [1.03] | [0.15] | [0.22] | [0.07] | [-0.16] |
| <i>Ln_pop</i> | -0.82*** | -0.88*** | -0.74*** | -0.04 | -0.05 | -0.05 |
| | [-3.06] | [-3.18] | [-2.62] | [-0.46] | [-0.56] | [-0.52] |
| <i>Blue_state</i> | 0.05 | 0.23 | -0.55 | 0.27 | 0.29 | 0.14 |
| | [0.10] | [0.45] | [-0.95] | [1.41] | [1.50] | [0.66] |
| <i>Skinner_litigation</i> | 8.16*** | 8.15*** | 7.64*** | 2.07*** | 2.06*** | 1.94*** |
| | [6.35] | [6.36] | [6.01] | [6.14] | [6.08] | [5.85] |
| <i>Idiosyncratic_risk</i> | 36.72*** | 36.51*** | 24.76** | 17.50*** | 17.40*** | 16.12*** |
| | [3.27] | [3.27] | [2.32] | [3.97] | [3.89] | [3.65] |
| <i>S_mkt_adj_ret</i> | -4.55*** | -4.54*** | -4.03*** | -1.01*** | -1.01*** | -1.02*** |
| | [-19.58] | [-19.55] | [-15.00] | [-7.09] | [-7.11] | [-6.86] |
| Observations | 6,560 | 6,560 | 6,042 | 10,413 | 10,413 | 10,107 |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Standard Error | State | State | State | State | State | State |
| Pseudo R-squared | 0.2707 | 0.2713 | 0.2651 | 0.3960 | 0.3964 | 0.3990 |

Table 6 Matching on Size and Industry

This table reports the probit model regression results on the association between first-time going concern opinion and circuit court judge ideology using subsamples matched on client size (*Lnasstet*) and two-digit SIC industry. The dependent variable is an indicator set to 1 (and 0 otherwise) if the firm-year receives first-time going concern opinion. The marginal probabilities at the means are reported. For ease of exposition, all coefficients are multiplied by 100. z-stats based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in Appendix A.

| VARIABLES | (1) First_Concern | (2) First_Concern | (3) First_Concern |
|------------------------------------|----------------------|----------------------|----------------------|
| <i>Big4</i> | 1.74*** [3.27] | | |
| <i>Big4</i> × <i>Liberal_court</i> | -1.78* [-1.89] | | |
| <i>Liberal_court</i> | 2.13* [1.85] | 4.34** [2.15] | -0.52 [-0.75] |
| <i>JSLINDEX</i> | 0.32 [0.64] | 0.04 [0.04] | 0.59 [1.47] |
| <i>TPLINDEX</i> | 0.30** [2.30] | 0.40 [1.47] | 0.05 [0.89] |
| <i>Auditor_to_sec</i> | 0.56** [2.03] | 0.86* [1.72] | 0.11 [0.50] |
| <i>Lnasstet</i> | -1.37*** [-9.14] | -1.82*** [-6.58] | -0.72*** [-7.42] |
| <i>Leverage</i> | 0.30 [0.44] | 0.47 [0.45] | 0.27 [0.55] |
| <i>C_leverage</i> | 5.13*** [6.83] | 3.79*** [3.08] | 4.89*** [7.41] |
| <i>Equity</i> | -0.29 [-0.91] | -0.75 [-1.47] | 0.12 [0.49] |
| <i>Debt</i> | 0.92*** [3.05] | 1.34** [2.07] | 0.38** [2.07] |
| <i>Loss</i> | 1.92*** [4.53] | 2.60*** [3.97] | 1.20*** [2.59] |
| <i>Lag_loss</i> | 1.39*** [4.47] | 2.21*** [4.30] | 0.51* [1.88] |
| <i>Roa</i> | 0.01 [0.04] | 0.07 [0.18] | -0.58** [-2.31] |
| <i>Cfo</i> | -3.73*** [-7.03] | -4.37*** [-5.48] | -2.53*** [-5.13] |
| <i>Cashsti</i> | -6.04*** [-8.51] | -9.25*** [-7.42] | -3.64*** [-9.96] |
| <i>Z_score</i> | -0.01 [-1.18] | -0.00 [-0.20] | -0.02 [-1.57] |
| <i>Salegrw</i> | -0.45*** [-2.59] | -0.38 [-1.17] | -0.38*** [-4.47] |
| <i>Absnda</i> | -0.14 [-0.28] | 0.03 [0.04] | 0.04 [0.10] |
| <i>Log_age</i> | -0.18 [-1.04] | -0.91*** [-2.71] | 0.51*** [2.79] |
| <i>Ln_reportlag</i> | 4.18*** [8.37] | 6.81*** [7.67] | 1.49*** [4.37] |
| <i>Auditor_change</i> | 0.11 [0.28] | 0.13 [0.20] | 0.13 [0.27] |

| | | | |
|---------------------------|----------------------|----------------------|---------------------|
| <i>Unemployment</i> | 0.40** [2.50] | 0.82*** [3.01] | 0.19* [1.69] |
| <i>Gdp_growth</i> | 0.06 [0.77] | 0.07 [0.45] | 0.09 [1.23] |
| <i>Ln_pop</i> | -0.33** [-2.06] | -0.86*** [-2.62] | 0.08 [0.53] |
| <i>Blue_state</i> | 0.04 [0.14] | -0.13 [-0.20] | 0.17 [0.61] |
| <i>Skinner_litigation</i> | 5.88*** [8.73] | 7.61*** [5.65] | 2.89*** [7.16] |
| <i>Idiosyncratic_risk</i> | 22.30*** [3.56] | 23.36** [2.11] | 16.80** [2.50] |
| <i>S_mkt_adj_ret</i> | -3.00*** [-15.02] | -4.15*** [-14.21] | -1.45*** [-6.63] |
| Observations | 11,561 | 5,396 | 5,990 |
| Industry FE | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Standard Error | State | State | State |
| Pseudo R-squared | 0.2979 | 0.2671 | 0.3953 |

Table 7 Matching on ROA and Industry

This table reports the probit model regression results on the association between first-time going concern opinion and circuit court judge ideology using subsamples matched on ROA and two-digit SIC industry. The marginal probabilities at the means are reported. For ease of exposition, all coefficients are multiplied by 100. *z*-stats based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in Appendix A.

| VARIABLES | (1) First_Concern | (2) First_Concern | (3) First_Concern |
|------------------------------------|----------------------|----------------------|----------------------|
| <i>Big4</i> | 2.40*** [4.05] | | |
| <i>Big4</i> × <i>Liberal_court</i> | -3.01*** [-3.16] | | |
| <i>Liberal_court</i> | 2.28** [2.17] | 3.74** [2.11] | -0.50 [-0.78] |
| <i>JSLINDEX</i> | 0.24 [0.45] | -0.13 [-0.14] | 0.52 [1.48] |
| <i>TPLINDEX</i> | 0.33*** [2.75] | 0.40 [1.61] | 0.15** [2.53] |
| <i>Auditor_to_sec</i> | 0.39 [1.35] | 0.63 [1.29] | 0.10 [0.44] |
| <i>Lnasset</i> | -1.26*** [-8.47] | -1.85*** [-7.26] | -0.56*** [-5.56] |
| <i>Leverage</i> | 0.14 [0.26] | 0.48 [0.47] | -0.07 [-0.15] |
| <i>C_leverage</i> | 4.21*** [5.94] | 3.07*** [2.60] | 3.81*** [6.04] |
| <i>Equity</i> | -0.69* [-1.94] | -1.07* [-1.78] | -0.39 [-1.42] |
| <i>Debt</i> | 1.22*** [4.16] | 1.53** [2.25] | 0.75*** [3.86] |
| <i>Loss</i> | 1.88*** [4.23] | 2.73*** [3.72] | 1.10** [2.18] |
| <i>Lag_loss</i> | 1.18*** [3.87] | 2.09*** [3.56] | 0.33 [1.34] |
| <i>Roa</i> | -0.07 [-0.31] | -0.04 [-0.12] | -0.57*** [-2.78] |
| <i>Cfo</i> | -3.44*** [-6.73] | -4.12*** [-5.21] | -2.47*** [-4.59] |
| <i>Cashsti</i> | -5.92*** [-7.78] | -9.98*** [-7.33] | -3.16*** [-7.74] |
| <i>Z_score</i> | -0.00 [-0.49] | 0.00 [0.13] | -0.02 [-1.31] |
| <i>Salegrw</i> | -0.44*** [-2.82] | -0.38 [-1.25] | -0.40*** [-4.19] |
| <i>Absnda</i> | 0.01 [0.04] | 0.31 [0.46] | -0.11 [-0.32] |
| <i>Log_age</i> | -0.35* [-1.80] | -0.94*** [-2.83] | 0.17 [0.91] |
| <i>Ln_reportlag</i> | 4.30*** [10.08] | 6.42*** [6.98] | 1.96*** [6.64] |
| <i>Auditor_change</i> | -0.03 [-0.10] | 0.05 [0.08] | -0.25 [-0.51] |
| <i>Unemployment</i> | 0.31* [0.31] | 0.89*** [0.89] | 0.06 [0.06] |

| | | | |
|---------------------------|----------|----------|----------|
| | [1.87] | [3.39] | [0.58] |
| <i>Gdp_growth</i> | 0.02 | 0.01 | 0.03 |
| | [0.28] | [0.10] | [0.59] |
| <i>Ln_pop</i> | -0.25 | -0.76*** | 0.06 |
| | [-1.63] | [-2.73] | [0.47] |
| <i>Blue_state</i> | -0.04 | -0.55 | 0.26 |
| | [-0.11] | [-1.00] | [0.82] |
| <i>Skinner_litigation</i> | 5.38*** | 7.71*** | 2.48*** |
| | [7.21] | [5.87] | [5.41] |
| <i>Idiosyncratic_risk</i> | 22.95*** | 23.01** | 18.14*** |
| | [4.16] | [2.43] | [2.93] |
| <i>S_mkt_adj_ret</i> | -2.75*** | -3.99*** | -1.33*** |
| | [-16.74] | [-17.00] | [-6.02] |
| Observations | 11,536 | 5,376 | 5,984 |
| Industry FE | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Standard Error | State | State | State |
| Pseudo R-squared | 0.3014 | 0.2642 | 0.3990 |

Table 8 Propensity Score Matching

Panel B of this table reports the probit model regression results on the association between first-time going concern opinion and circuit court judge ideology using propensity score matched subsamples. Panel A reports the results of the probit model used for propensity score matching. *z*-stats based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in Appendix A.

Panel A. Probit Model for Propensity Score Matching

| VARIABLES | <i>Big4</i> |
|-------------------|----------------------|
| <i>Lnasset</i> | -0.55*** [-34.74] |
| <i>Leverage</i> | 0.14** [2.21] |
| <i>C_leverage</i> | 0.21** [2.47] |
| <i>Equity</i> | -0.14*** [-4.84] |
| <i>Debt</i> | 0.08** [2.46] |
| <i>Loss</i> | -0.06 [-1.33] |
| <i>Lag_loss</i> | -0.04* [-1.89] |
| <i>Roa</i> | 0.11*** [7.13] |
| <i>Cfo</i> | 0.08 [1.43] |
| <i>Cashsti</i> | -1.34*** [-13.22] |
| <i>Z_score</i> | 0.00*** [3.81] |
| <i>Salegrw</i> | 0.06*** [3.27] |
| <i>Absnda</i> | 0.44*** [10.09] |
| <i>Log_age</i> | 0.18*** |
| Observations | 17,385 |
| Pseudo R-squared | 0.3192 |

Panel B. Results from the Propensity Score Matched Sample

| VARIABLES | (1) First_Concern | (2) First_Concern | (3) First_Concern |
|------------------------------------|----------------------|----------------------|----------------------|
| <i>Big4</i> | 2.34*** [3.77] | | |
| <i>Big4</i> × <i>Liberal_court</i> | -3.03*** [-2.79] | | |
| <i>Liberal_court</i> | 2.10* [1.77] | 4.13** [2.16] | -1.18 [-1.59] |
| <i>JSLINDEX</i> | 0.26 [0.47] | -0.31 [-0.32] | 0.79** [2.43] |
| <i>TPLINDEX</i> | 0.31** [2.31] | 0.32 [1.27] | 0.10 [1.46] |
| <i>Auditor_to_sec</i> | 0.49* [1.75] | 0.70 [1.42] | 0.19 [0.86] |
| <i>Lnasset</i> | -1.41*** [-9.36] | -2.03*** [-7.34] | -0.61*** [-5.28] |
| <i>Leverage</i> | 0.01 [0.01] | 0.28 [0.29] | -0.04 [-0.08] |
| <i>C_leverage</i> | 4.91*** [5.87] | 3.07** [2.53] | 5.27*** [7.29] |
| <i>Equity</i> | -0.49* [-1.69] | -0.91* [-1.76] | -0.09 [-0.37] |
| <i>Debt</i> | 1.24*** [4.61] | 1.27** [1.97] | 0.75*** [3.19] |
| <i>Loss</i> | 1.99*** [4.10] | 2.58*** [3.03] | 1.22*** [2.67] |
| <i>Lag_loss</i> | 1.56*** [4.18] | 2.63*** [4.74] | 0.47* [1.66] |
| <i>Roa</i> | 0.02 [0.06] | 0.06 [0.14] | -0.47** [-2.05] |
| <i>Cfo</i> | -3.36*** [-6.10] | -3.81*** [-4.46] | -2.50*** [-4.69] |
| <i>Cashsti</i> | -5.66*** [-7.24] | -9.48*** [-7.42] | -2.98*** [-10.32] |
| <i>Z_score</i> | -0.01 [-1.37] | -0.00 [-0.42] | -0.02 [-1.32] |
| <i>Salegrw</i> | -0.46*** [-2.91] | -0.46 [-1.60] | -0.35*** [-3.84] |
| <i>Absnda</i> | -0.16 [-0.37] | 0.01 [0.01] | -0.17 [-0.49] |
| <i>Log_age</i> | -0.31 [-1.62] | -0.86** [-2.43] | 0.38** [2.11] |
| <i>Ln_reportlag</i> | 4.44*** [7.57] | 6.59*** [7.27] | 1.74*** [4.50] |
| <i>Auditor_change</i> | -0.02 [-0.04] | -0.20 [-0.36] | 0.21 [0.36] |
| <i>Unemployment</i> | 0.37** [2.21] | 0.76*** [2.78] | 0.16 [1.41] |
| <i>Gdp_growth</i> | 0.04 [0.57] | 0.05 [0.36] | 0.07 [0.95] |
| <i>Ln_pop</i> | -0.24 [-1.49] | -0.74** [-2.18] | 0.07 [0.42] |
| <i>Blue_state</i> | -0.02 [-0.07] | -0.43 [-0.70] | 0.16 [0.50] |
| <i>Skinner_litigation</i> | 5.87*** [7.78] | 8.22*** [5.87] | 2.57*** [6.72] |
| <i>Idiosyncratic_risk</i> | 17.26*** [2.69] | 12.10 [1.09] | 17.22*** [2.61] |

| | | | |
|----------------------|----------------------|----------------------|---------------------|
| <i>S_mkt_adj_ret</i> | -2.85*** [-11.98] | -3.98*** [-12.63] | -1.33*** [-5.60] |
| Observations | 10,955 | 5,349 | 5,326 |
| Industry FE | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Standard Error | State | State | State |
| Pseudo R-squared | 0.2964 | 0.2719 | 0.3943 |

Table 9 Firm- and State- fixed Effects

This table reports the ordinary least squares regression model results on the association between first-time going concern opinion and circuit court judge ideology. The dependent variable is an indicator set to 1 (and 0 otherwise) if the firm-year receives first-time going concern opinion. Standardized coefficients are reported. z-stats based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in Appendix A.

| VARIABLES | (1) | (2) | (3) | (4) |
|-----------------------|-------------------------------|-----------------------------------|-------------------------------|-----------------------------------|
| | First_Concern Big 4 Sample | First_Concern Non-Big 4 Sample | First_Concern Big 4 Sample | First_Concern Non-Big 4 Sample |
| <i>Liberal_court</i> | -3.59 [-0.65] | 13.12* [1.75] | -1.33 [-0.24] | 13.12* [1.79] |
| <i>JSLINDEX</i> | -7.64 [-1.27] | 7.55 [0.87] | -8.10 [-1.29] | 7.75 [0.87] |
| <i>TPLINDEX</i> | 10.82 [1.27] | -5.16 [-0.42] | 9.34 [1.08] | -6.70 [-0.56] |
| <i>Auditor_to_sec</i> | 9.41* [1.72] | 5.91 [1.03] | 9.59 [1.59] | 4.79 [0.81] |
| <i>Lnasset</i> | -35.75*** [-6.46] | -29.05*** [-3.04] | -35.69*** [-6.49] | -29.88*** [-3.20] |
| <i>Leverage</i> | -7.38*** [-2.69] | -4.52 [-1.64] | -7.24** [-2.56] | -4.87* [-1.86] |
| <i>C_leverage</i> | 15.81*** [3.67] | 4.95** [2.16] | 15.82*** [3.65] | 4.97** [2.16] |
| <i>Equity</i> | -1.09 [-0.52] | -2.31 [-0.62] | -0.99 [-0.47] | -2.22 [-0.59] |
| <i>Debt</i> | 4.18** [2.55] | 3.38 [1.27] | 4.22** [2.60] | 3.28 [1.23] |
| <i>Loss</i> | 1.90 [1.31] | 1.53 [1.07] | 1.98 [1.33] | 1.35 [0.97] |
| <i>Lag_loss</i> | 1.05 [0.97] | 2.63 [1.29] | 1.08 [0.97] | 2.54 [1.21] |
| <i>Roa</i> | -11.06*** [-3.96] | -7.92 [-1.09] | -11.14*** [-3.98] | -7.88 [-1.07] |
| <i>Cfo</i> | -12.55*** [-2.88] | -9.39* [-1.79] | -12.29*** [-2.82] | -8.20 [-1.50] |
| <i>Cashsti</i> | -16.29*** [-6.21] | -23.71*** [-5.02] | -16.01*** [-6.11] | -24.63*** [-4.97] |
| <i>Z_score</i> | -4.65 [-1.35] | -0.99 [-0.14] | -4.64 [-1.32] | -1.19 [-0.16] |
| <i>Salegrw</i> | -1.40 [-1.02] | -3.78 [-1.59] | -1.30 [-0.93] | -3.60 [-1.39] |
| <i>Absnda</i> | -0.87 [-0.66] | 2.82 [1.16] | -0.78 [-0.57] | 2.42 [1.01] |
| <i>Log_age</i> | 28.17*** [3.07] | 19.65** [2.19] | 29.47*** [3.17] | 20.21** [2.13] |
| <i>Ln_reportlag</i> | 8.52*** | 10.43*** | 8.39*** | 10.26*** |

| | | | | |
|---------------------------|-----------|-----------|-----------|-----------|
| | [2.71] | [3.74] | [2.73] | [3.55] |
| <i>Auditor_change</i> | -0.17 | 0.57 | -0.11 | 0.35 |
| | [-0.12] | [0.31] | [-0.08] | [0.19] |
| <i>Unemployment</i> | -3.13 | -0.94 | -3.59 | -2.70 |
| | [-0.98] | [-0.22] | [-1.02] | [-0.64] |
| <i>Gdp_growth</i> | -0.23 | 0.83 | -0.12 | 1.30 |
| | [-0.13] | [0.36] | [-0.07] | [0.51] |
| <i>Ln_pop</i> | 1.53 | 0.97 | -57.37 | 7.94 |
| | [0.24] | [0.15] | [-0.66] | [0.11] |
| <i>Blue_state</i> | 1.12 | 2.44 | 0.43 | 3.59 |
| | [0.53] | [0.80] | [0.17] | [1.03] |
| <i>Skinner_litigation</i> | 2.38 | 6.15*** | 2.25 | 5.86*** |
| | [0.56] | [3.40] | [0.53] | [3.29] |
| <i>Idiosyncratic_risk</i> | 14.69*** | 6.65** | 14.84*** | 6.49** |
| | [3.03] | [2.17] | [3.07] | [2.06] |
| <i>S_mkt_adj_ret</i> | -13.48*** | -19.87*** | -13.49*** | -19.61*** |
| | [-6.24] | [-12.22] | [-6.20] | [-12.22] |
| Observations | 10208 | 6081 | 10208 | 6081 |
| Circuit FE | Yes | Yes | Yes | Yes |
| Firm FE | Yes | Yes | Yes | Yes |
| State FE | No | No | Yes | Yes |
| Standard Error | State | State | State | State |
| Adj. R-sq. | 0.3116 | 0.2444 | 0.3117 | 0.2442 |

Table 10 Likelihood of Bankruptcy

This table reports the probit model regression results on the association between bankruptcy and circuit court judge ideology. The dependent variable is an indicator variable set to 1 (and 0 otherwise) if the firm goes bankrupt in the subsequent year. For ease of exposition, all coefficients are multiplied by 100. z-stats based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in Appendix A.

| VARIABLES | (1) | (2) | (3) | (4) |
|------------------------------------|---------------------------|---------------------------|---------------------|-------------------------|
| | Bankruptcy Full Sample | Bankruptcy Full Sample | Bankruptcy Big4 | Bankruptcy Non-Big 4 |
| <i>Liberal_court</i> | 0.06 [0.40] | 0.04 [0.21] | -0.10 [-0.52] | 0.31 [1.30] |
| <i>Big4</i> | -0.02 [-0.34] | -0.04 [-0.27] | | |
| <i>Big4</i> × <i>Liberal_court</i> | | 0.04 [0.17] | | |
| <i>Going_concern</i> | 3.82*** [13.87] | 3.82*** [13.80] | 3.88*** [14.62] | 2.31*** [7.56] |
| <i>Lnasset</i> | 0.08*** [3.46] | 0.08*** [3.45] | 0.03 [1.62] | 0.13*** [4.30] |
| <i>Leverage</i> | 0.55*** [7.49] | 0.55*** [7.49] | 0.48*** [6.26] | 0.27** [2.16] |
| <i>C_leverage</i> | 0.51*** [3.91] | 0.51*** [3.92] | 0.31*** [2.72] | 0.42* [1.66] |
| <i>Equity</i> | -0.10 [-1.35] | -0.10 [-1.35] | -0.06 [-1.35] | -0.07 [-0.72] |
| <i>Debt</i> | 0.10 [1.57] | 0.10 [1.58] | 0.05 [0.84] | 0.11* [1.71] |
| <i>Loss</i> | 0.14 [1.15] | 0.14 [1.15] | 0.03 [0.26] | 0.25** [2.02] |
| <i>Lag_loss</i> | 0.19*** [3.15] | 0.19*** [3.15] | 0.12** [2.43] | 0.16** [2.08] |
| <i>Roa</i> | 0.03 [1.00] | 0.03 [1.01] | 0.00 [0.04] | 0.09** [2.26] |
| <i>Cfo</i> | -0.19* [-1.72] | -0.19* [-1.74] | -0.04 [-0.37] | -0.34*** [-2.73] |
| <i>Cashsti</i> | -0.34** [-2.39] | -0.34** [-2.42] | -0.41*** [-2.60] | -0.28 [-1.28] |
| <i>Z_score</i> | -0.00* [-1.68] | -0.00* [-1.70] | -0.01*** [-2.68] | -0.00 [-1.47] |
| <i>Salegrw</i> | -0.04* [-1.94] | -0.04* [-1.93] | -0.01 [-0.33] | -0.09** [-2.38] |
| <i>Absnda</i> | -0.14* [-1.77] | -0.14* [-1.76] | -0.09 [-0.65] | 0.03 [0.27] |
| <i>Log_age</i> | 0.00 [0.02] | 0.00 [0.02] | 0.04 [0.99] | -0.04 [-0.71] |
| <i>Ln_reportlag</i> | 0.53*** [7.14] | 0.53*** [7.15] | 0.29*** [4.60] | 0.48*** [4.40] |
| <i>Auditor_change</i> | 0.06 [0.44] | 0.06 [0.45] | 0.11 [1.15] | -0.03 [-0.25] |
| <i>Unemployment</i> | 0.01 [0.30] | 0.01 [0.31] | -0.01 [-0.53] | 0.05 [1.06] |
| <i>Gdp_growth</i> | 0.01 [0.74] | 0.01 [0.74] | 0.00 [0.27] | 0.01 [0.63] |
| <i>Ln_pop</i> | -0.04* [-1.73] | -0.04* [-1.71] | 0.01 [0.53] | -0.10** [-2.49] |
| <i>Blue_state</i> | -0.09 [-1.23] | -0.09 [-1.24] | 0.08 [1.30] | -0.40*** [-3.04] |
| <i>Skinner_litigation</i> | 0.76*** [7.58] | 0.76*** [7.58] | 0.52*** [5.35] | 0.70*** [3.96] |

| | | | | |
|---------------------------|---------------------|---------------------|---------------------|---------------------|
| <i>Idiosyncratic_risk</i> | 3.45*** [3.16] | 3.45*** [3.15] | 3.42*** [3.18] | 1.79 [1.09] |
| <i>S_mkt_adj_ret</i> | -0.34*** [-8.67] | -0.34*** [-8.72] | -0.20*** [-5.45] | -0.32*** [-4.56] |
| Observations | 16,891 | 16,891 | 10,256 | 5,996 |
| Industry FE | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes |
| Standard Error | State | State | State | State |
| Pseudo R-squared | 0.3350 | 0.3350 | 0.3953 | 0.3360 |

Table 11 Federal Judge Ideology and Auditor Choice

This table reports the probit model regression results on the association between audit choice and circuit court judge ideology. The dependent variable is an indicator variable set to 1 (and 0 otherwise) when a firm uses one of the Big 5 auditors (Arthur Anderson, PricewaterhouseCoopers, Ernst & Young, Deloitte & Touche, or KPMG). For ease of expression, we call this indicator variable Big 4 even though it also includes Arthur Anderson. Our entire set of results is robust when we delete clients of Arthur Anderson from our sample. z-stats based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in Appendix A.

| VARIABLES | (1) Big 4 | (2) Big 4 |
|---------------------------|---------------------|---------------------|
| <i>Liberal_court</i> | 0.06 [0.58] | 0.02 [0.13] |
| <i>JSLINDEX</i> | | 0.04 [1.09] |
| <i>TPLINDEX</i> | | -0.01* [-1.77] |
| <i>Auditor_to_sec</i> | | -0.09*** [-2.76] |
| <i>Lnasset</i> | 0.20*** [21.45] | 0.19*** [21.91] |
| <i>Roa</i> | -0.06*** [-5.39] | -0.07*** [-5.21] |
| <i>Lag_assetgrw</i> | -0.03*** [-9.49] | -0.03*** [-9.81] |
| <i>Mkt_to_book</i> | 0.00 [0.87] | 0.00 [0.19] |
| <i>Salegrw</i> | -0.01*** [-3.37] | -0.01*** [-3.06] |
| <i>Inv</i> | -0.49*** [-5.73] | -0.49*** [-5.51] |
| <i>Segnum</i> | -0.00 [-0.87] | -0.00 [-0.75] |
| <i>Fsegnum</i> | 0.00 [1.06] | 0.00 [0.89] |
| <i>Std_cfo</i> | -0.09*** [-2.71] | -0.08*** [-2.88] |
| <i>Leverage</i> | -0.10*** [-4.20] | -0.10*** [-4.24] |
| <i>Log_age</i> | -0.06*** [-4.02] | -0.06*** [-3.89] |
| <i>Financing</i> | -0.01 [-1.03] | -0.01 [-0.97] |
| <i>Ma</i> | -0.06** [-2.25] | -0.06** [-2.02] |
| <i>Unemployment</i> | 0.02 [1.59] | 0.02 [1.53] |
| <i>Gdp_growth</i> | 0.00 [0.58] | 0.00 [0.58] |
| <i>Ln_pop</i> | -0.02 [-1.34] | -0.00 [-0.29] |
| <i>Blue_state</i> | -0.01 [-0.27] | -0.00 [-0.09] |
| <i>Skinner_litigation</i> | 0.13*** [5.22] | 0.11*** [4.66] |
| <i>Idiosyncratic_risk</i> | -1.78*** [-4.79] | -1.80*** [-4.53] |
| <i>S_mkt_adj_ret</i> | -0.01*** [-2.99] | -0.01 [-1.35] |
| Observations | 16,819 | 16,035 |

| | | |
|------------------|--------|--------|
| Industry FE | Yes | Yes |
| Year FE | Yes | Yes |
| Standard Error | State | State |
| Pseudo R-squared | 0.4056 | 0.4031 |

Table 12 Federal Judge Ideology and Going Concern Reporting Errors

This table reports the probit model results on the association between going concern opinion errors and circuit court judge ideology. For ease of exposition, all coefficients are multiplied by 100. The dependent variable in columns (1) to (4) is an indicator variable set to 1 (and 0 otherwise) if the client-year receives a going concern audit opinion but does not go bankrupt in the subsequent year. The dependent variable in columns (5) to (8) is an indicator variable set to 1 (and 0 otherwise) if the client-year does not receive a going concern audit opinion but go bankrupt in the subsequent year. z-stats based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in Appendix A.

| VARIABLES | (1) Type I Error Full Sample | (2) Type I Error Full Sample | (3) Type I Error Non-Big 4 Sample | (4) Type I Error Big 4 Sample | (5) Type II Error Full Sample | (6) Type II Error Full Sample | (7) Type II Error Non-Big 4 Sample | (8) Type II Error Big 4 Sample |
|---------------------------|--|--|---|---|---|---|--|--|
| <i>Big4</i> | 0.80*** [3.50] | 1.57*** [3.34] | | | -0.06 [-0.85] | -0.13 [-1.02] | | |
| <i>Big4×Liberal_court</i> | | -2.04*** [-2.72] | | | | 0.17 [0.76] | | |
| <i>Liberal_court</i> | | 2.18*** [3.07] | 4.44*** [3.24] | 0.01 [0.02] | | 0.11 [0.73] | 0.22 [1.23] | 0.07 [0.56] |
| <i>Lnasset</i> | -1.18*** [-10.50] | -1.18*** [-10.49] | -2.01*** [-7.54] | -0.60*** [-7.64] | 0.01 [0.68] | 0.02 [0.75] | 0.09*** [3.08] | -0.02 [-1.32] |
| <i>Leverage</i> | -0.38 [-0.69] | -0.37 [-0.67] | -0.63 [-0.48] | -0.05 [-0.16] | 0.38*** [4.66] | 0.37*** [4.62] | 0.15 [1.27] | 0.30*** [4.16] |
| <i>C_leverage</i> | 3.01*** [5.51] | 2.98*** [5.45] | 3.03** [2.40] | 2.64*** [5.40] | -0.21 [-1.16] | -0.20 [-1.14] | -0.01 [-0.02] | -0.24* [-1.68] |
| <i>Equity</i> | -0.19 [-0.82] | -0.20 [-0.89] | -0.68 [-1.44] | 0.03 [0.16] | 0.02 [0.36] | 0.01 [0.27] | -0.00 [-0.06] | 0.03 [0.70] |
| <i>Debt</i> | 0.86*** [2.77] | 0.87*** [2.88] | 2.00** [2.33] | 0.20 [1.50] | 0.09* [1.68] | 0.09* [1.70] | 0.19*** [3.02] | 0.02 [0.37] |
| <i>Loss</i> | 1.47*** [4.72] | 1.46*** [4.65] | 2.79*** [3.87] | 0.75*** [2.78] | 0.08 [0.92] | 0.09 [0.98] | 0.19** [2.04] | -0.07 [-0.68] |
| <i>Lag_loss</i> | 1.23*** [5.26] | 1.22*** [5.29] | 2.52*** [4.70] | 0.46*** [3.11] | 0.19*** [3.98] | 0.18*** [3.96] | 0.14*** [2.59] | 0.12** [2.53] |
| <i>Roa</i> | -0.07 [-0.41] | -0.08 [-0.47] | -0.25 [-0.71] | -0.05 [-0.61] | 0.03 [1.34] | 0.03 [1.30] | 0.05* [1.65] | -0.03 [-0.80] |
| <i>Cfo</i> | -2.92*** [-5.79] | -2.88*** [-5.79] | -3.73*** [-4.13] | -2.60*** [-6.14] | -0.13* [-1.80] | -0.13* [-1.91] | -0.16 [-1.57] | 0.00 [0.02] |
| <i>Cashsti</i> | -5.36*** [-9.77] | -5.32*** [-9.90] | -9.29*** [-7.25] | -3.29*** [-9.38] | -0.33** [-2.41] | -0.33** [-2.53] | -0.06 [-0.40] | -0.42*** [-2.85] |
| <i>Z_score</i> | -0.00 [-1.00] | -0.00 [-0.91] | -0.00 [-0.12] | -0.01* [-1.93] | -0.00 [-1.58] | -0.00 [-1.53] | -0.00** [-2.22] | 0.00 [0.14] |
| <i>Salegrw</i> | -0.37*** [-3.37] | -0.36*** [-3.35] | -0.33 [-1.30] | -0.43*** [-5.57] | -0.03 [-1.34] | -0.03 [-1.32] | -0.03 [-1.04] | -0.02 [-0.88] |
| <i>Absnda</i> | -0.12 [-0.33] | -0.12 [-0.33] | 0.04 [0.07] | 0.03 [0.17] | -0.15 [-1.46] | -0.14 [-1.42] | 0.04 [0.28] | -0.30 [-1.50] |
| <i>Log_age</i> | -0.13 [-0.82] | -0.10 [-0.67] | -0.93** [-2.55] | 0.27** [1.97] | 0.03 [0.98] | 0.04 [1.12] | -0.00 [-0.01] | 0.05** [2.06] |
| <i>Ln_reportlag</i> | 3.45*** [11.56] | 3.44*** [11.22] | 6.99*** [8.71] | 1.38*** [8.51] | 0.28*** [4.44] | 0.28*** [4.46] | 0.38*** [3.76] | 0.11*** [2.77] |
| <i>Auditor_change</i> | 0.08 [0.26] | 0.08 [0.26] | -0.02 [-0.04] | 0.26 [0.68] | 0.04 [0.28] | 0.04 [0.27] | -0.03 [-0.23] | 0.04 [0.60] |
| <i>Unemployment</i> | 0.26*** [2.68] | 0.18* [1.69] | 0.61** [2.48] | 0.05 [0.77] | 0.00 [0.01] | -0.01 [-0.34] | 0.00 [0.07] | -0.00 [-0.19] |

| | | | | | | | | |
|---------------------------|----------------------|----------------------|----------------------|---------------------|---------------------|---------------------|--------------------|---------------------|
| <i>Gdp_growth</i> | 0.07 [1.26] | 0.06 [1.05] | 0.16 [1.26] | 0.01 [0.39] | 0.02** [1.98] | 0.02* [1.87] | 0.02 [1.49] | 0.01 [1.05] |
| <i>Ln_pop</i> | -0.17 [-1.46] | -0.21* [-1.95] | -0.65** [-2.29] | -0.03 [-0.39] | -0.02 [-0.95] | -0.03 [-1.37] | -0.07** [-2.35] | 0.00 [0.07] |
| <i>Blue_state</i> | 0.56*** [2.70] | 0.44** [2.13] | 0.54 [1.03] | 0.37* [1.82] | 0.03 [0.55] | 0.01 [0.19] | -0.18* [-1.76] | 0.08* [1.81] |
| <i>Skinner_litigation</i> | 3.56*** [7.30] | 3.54*** [7.35] | 6.25*** [5.32] | 1.81*** [7.10] | 0.57*** [5.93] | 0.57*** [5.91] | 0.37** [2.07] | 0.42*** [5.27] |
| <i>Idiosyncratic_risk</i> | 19.20*** [3.63] | 19.25*** [3.64] | 29.17** [2.43] | 11.63*** [2.79] | 1.54* [1.72] | 1.54* [1.73] | -0.01 [-0.01] | 2.04** [2.35] |
| <i>S_mkt_adj_ret</i> | -1.87*** [-15.30] | -1.86*** [-15.10] | -3.62*** [-16.51] | -0.78*** [-5.30] | -0.21*** [-5.33] | -0.21*** [-5.43] | -0.14** [-2.22] | -0.14*** [-4.92] |
| Observations | 16,800 | 16,800 | 6,553 | 10,054 | 15,611 | 15,611 | 5,184 | 9,119 |
| Industry FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Standard Error | State | State | State | State | State | State | State | State |
| Pseudo R-squared | 0.2836 | 0.2845 | 0.2476 | 0.3395 | 0.2053 | 0.2064 | 0.2249 | 0.2799 |