

Auditor Going Concern Opinions and FIN 48 Reserves¹

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Contingencies are one of the final items that the auditor examines before rendering an opinion on a client's financial statements. Consequently, contingent reserves created due to uncertain tax positions arising from Interpretation 48 of Financial Accounting Standard 109 (FIN 48) issued by the Financial Accounting Standards Board (FASB, 2006), could significantly influence the auditor's assessment of going concern status. However, while there is a growing number of studies on FIN 48 and a well-established literature on determinants of going concern opinions, there is little research examining how auditors evaluate the role of FIN 48 reserves in assessing the going concern status of clients. This study addresses the gap by examining whether FIN 48 reserves increase, decrease, or have no effect on the probability of going concern opinions and whether the implications of FIN 48 reserves differ for firms with auditor-provided tax services or tax-related material weaknesses.

Since 2007, accounting for uncertain tax positions is governed by FIN 48 rules that require firms to evaluate tax positions and establish and disclose reserves for cash tax savings during the current period that could be denied if successfully challenged by the tax authorities. Under FIN 48, firms have to follow a recognition and measurement process regarding their tax positions. A tax position must be more likely than not sustained in the court of highest order based on technical merits, to meet the recognition

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threshold. If the threshold is not met, the firm must record a liability for the entire amount of the benefit. If a position meets the recognition threshold, the firm measures the benefit to be recognized as the largest amount that is cumulatively greater than 50% likely to be sustained upon audit.

Generally accepted auditing standards require that audit reports refer to loss contingencies in financial statements, if the auditor believes that the loss amount is material and probable (AICPA, 1988 Statement on Auditing Standards No. 58, paras. 24-25). The auditor should consider whether a reference is necessary if the loss is reasonably possible. Given the existence of ambiguity in loss contingencies, auditors have two potentially conflicting incentives on whether to refer to the contingencies in their report, or not. If the contingent loss were to occur, there are potential costs to the auditor in terms of litigation and reputation loss and this will incentivize them to refer to the contingency. On the other hand, referencing the contingency may antagonize the client who prefer not to emphasize the seriousness of the potential loss (Nelson and Kinney, 1997). As uncertain tax position is a contingency, auditors likely face conflicting incentives in how they evaluate such reserves.

Using financially distressed firms in *COMPUSTAT* over a ten-year period, this study estimates the going concern opinion model and finds that the log of FIN 48 reserve is negative and significant indicating that the reserves reduce the probability of a going concern opinion even if firms purchase auditor-provided tax services. However, the reduction in the probability of going concern opinion does not hold for FIN 48 reserves of firms that report tax-related material weaknesses consistent with the finding in prior literature that material weaknesses indicate low reliability of the reported numbers. Finally, the results show that the significance of the reserve appears to be primarily for firms with high managerial ability.

This paper contributes to both audit and tax literatures. First, the findings show how auditors consider the role of contingencies such as FIN 48 reserves in providing going concern opinions. In doing so, the study answers the call for research by Carson *et al.* (2013) in understanding what “financial statements variables auditors rely on in practice when making going concern decisions.” Second, the results help clarify the mixed findings on the role of FIN 48 reserves in the tax literature on whether it is a proxy for uncertainty (Donohoe and Knechel, 2014) or whether they are value relevant reserves for uncertain tax positions (Robinson *et al.*, 2015; Koester *et al.*, 2015).

The remainder of the paper is organized as follows. The next section discusses prior literature and develops the main hypothesis. The subsequent section elaborates the methodology followed by the section that describes the data and discusses the main results. The additional analyses section includes robustness and sensitivity tests while the summary section concludes.

LITERATURE AND HYPOTHESIS

The Financial Accounting Standards Board (FASB) issued Interpretation 48 of Financial Accounting Standard 109 commonly known as “FIN 48” in June 2006 (effective for fiscal years beginning after December 15, 2006) to reduce diversity in accounting practices and enhance required disclosures (FASB, 2006). Prior to FIN 48, there were no specific regulatory requirements addressing income tax uncertainty, beyond the accounting rules for contingencies and firms were not required to disclose

the contingent liability for uncertain tax positions. Only a few firms disclosed such liabilities prior to FIN 48 (Gleason and Mills, 2002) and the lack of uniform guidance enabled firms to use the income tax account for earnings manipulation (Dhaliwal *et al.*, 2004). Under FIN 48, a two-step recognition and measurement process is required in assessing each tax position. In the first step, the firm must assess whether a tax position would “more likely than not” survive examination by a tax authority based on the technical merits of the position, such that only tax positions that exceed the “more likely than not” threshold may be recognized in a firm’s financial statements (FASB, 2006). In the second step, the firm should estimate the portion of the tax benefit obtained from the position and the amount at least 50 percent likely to be realized. Difference between tax positions taken in a tax return and amounts recognized in the financial statements is considered uncertain tax benefit (UTB) or the FIN 48 tax reserve. FIN 48 rules require that firms disclose their UTB balances and a reconciliation of the changes in those balances.

Koester (2012) and Koester *et al.* (2015) study investor valuation of FIN 48 reserves. Koester (2012) finds a positive relation between firm value and FIN 48 reserves while Koester *et al.* (2015) confirm the positive relation but show that it is attenuated for firms that report tax-related material weaknesses in their internal controls. Koester (2012) argues that investors would positively value FIN 48 reserves as (1) such reserves represent past and current-period tax avoidance, (2) the reserves may signal future tax avoidance, and (3) investors may value the ability of managers who preserve the resources of the firm. In addition, Wilson (2009) and Robinson and Schmidt (2013) find that investors value tax avoidance activities. These arguments and empirical evidence suggest that to the extent that investors perceive FIN 48 reserves as representing tax avoidance activities and thus as enhancing firm value, auditors also likely take into account the value enhancing potential of FIN 48 reserves when assessing the financial health of the client.

Robinson *et al.* (2015) find that FIN 48 reserves are significantly overstated. Specifically, they report that FIN 48 reserves overstate future cash payments by 76 cents to a dollar over the subsequent three years (i.e., only 24 cents of every dollar of reserve unwind via settlements) and 66 cents to a dollar beyond three years. Robinson *et al.* (2017) also support this evidence by noting several reasons why firms may book greater reserves than they need. Koester *et al.* (2015) argue that this evidence suggests UTB balances are, on average, a reliable indicator of firms’ past and current-period tax avoidance activities. To the extent auditors view the FIN 48 reserves as tax avoidance indicators and thus beneficial to the firm, they may appropriately adjust their evaluation of reserves as enhancing firm value in considering the financial position of the client.

To summarize, the investor valuation literature finds that the reserves are valued positively. In addition, evidence also points to significant overstatement of such reserves indicating that most of the reserve is not likely to result in a cash outflow. These findings suggest that how auditors view FIN 48 reserves in evaluating the going concern status of the firm is an empirical question leading to the first hypothesis (stated in null form):

Hypothesis 1: There is no association between going concern opinions and FIN 48 reserves.

METHODOLOGY

To test the hypothesis about the association between FIN 48 reserves and auditors' going concern opinions, the following logistic model based on the variables adapted from DeFond and Zhang (2014) is used:

$$\begin{aligned} FIRSTGC_{it} = & \beta_0 + \beta_1 LUTB_{it} + \beta_2 LAT_{it} + \beta_3 LEV_{it} + \beta_4 CHLEV_{it} + \beta_5 BIG4_{it} \\ & + \beta_6 ZSCORE_{it} + \beta_7 OCF_{it} + \beta_8 BM_{it} + \beta_9 LIQUID_{it} + \beta_{10} RET_{it} \\ & + \beta_{11} GROWTH_{it} + \beta_{12} INVEST_{it} + \beta_{13} NEWFIN_{it} + \\ & \beta_{14} LLOSS_{it} + Year\ fixed\ effects + Industry\ fixed\ effects + e \end{aligned} \quad (1)$$

FIRSTGC is an indicator variable equal to 1 for clients receiving a going concern opinion for the first time, and 0 otherwise. *LUTB* is the log of uncertain tax benefit (FIN 48 reserve balance) and is the variable of interest. Based on the hypothesis development, no prediction is offered on the expected sign on *LUTB*. The expected signs on the control variables are based on prior literature. As large firms have more resources and are more likely to avoid financial difficulties, the sign on *LAT*, the log of total assets, is expected to be negative. *LEV* is the ratio of total liabilities to total assets and *CHLEV* represents change in *LEV* during the year. As these variables reflect proximity to debt covenant violations which are associated with going concern opinions, the expected signs on *LEV* and *CHLEV* are positive (Mutchler *et al.*, 1997). *BIG4* is an indicator variable that equals 1 if the firm's auditor is a Big N auditor and 0 otherwise; the expected sign on this variable is positive based on Mutchler *et al.* (1997) who argue that Big N auditors are more likely to give going concern opinions. *ZSCORE* represents Zmijewski's (1984) bankruptcy score. As higher values in the score indicate higher probability of bankruptcy, the expected sign on the variable is positive. The Zmijewski measure does not include a cash flow variable, and thus *OCF* representing operating cash flows scaled by total assets, is included in the model. As higher cash flows are an indicator of financial strength, the expected sign on the variable is negative. The expected sign on *BM*, the book to market ratio, is negative as firms with low book to market ratios are riskier high growth firms and are thus more likely to fail in contrast to high book to market firms. *LIQUID* is the ratio of current assets to current liabilities, and the expected sign on *LIQUID* is negative as low liquidity indicates financial trouble. Higher the compounded stock return of the firm, *RET*, lower the probability of a going concern opinion and thus a negative sign is expected on *RET*. *GROWTH* is year over year growth in sales, and is expected to be negative as financially distressed firms likely are not growing. *INVEST* is cash, cash equivalents, and short- and long-term investment securities deflated by total assets, and is expected to have a negative sign as firms with higher cash can avoid financial difficulties for longer periods of time. *NEWFIN* is an indicator variable that equals 1 if long-term debt or stock was issued in the following year, and 0 otherwise. It is expected to have a negative sign as this reduces the probability of bankruptcy (Mutchler *et al.*, 1997). *LLOSS* is an indicator variable that equals 1 if the return on assets (ROA) in the prior period is negative and 0 otherwise. Based on Defond *et al.* (2016) the sign on this variable is expected to be positive.

DATA AND RESULTS

Sample

Prior literature on auditor going concern opinions generally use financially distressed firms as the sample to estimate the going concern model. Defond *et al.* (2016) define financially distressed firms as firms that report either negative net income or negative operating cash flows. This definition is used in this study and the sample is collected from *COMPUSTAT* over the period 2007-16.² The sample begins from the year 2007 as FIN 48 data is available for most firms from that year. Audit-related information are collected from Audit Analytics. The intersection of *COMPUSTAT*, Segment data, and Audit Analytics data over the period 2007-16 requiring availability of data for all variables in Model 1 results in 57,667 observations. Consistent with prior research, firms in the financial sector (SIC codes 60-69) and utility sector (SIC codes 4900-4949) are removed. This reduces the sample to 43,338 observations. All continuous variables are winsorized at the top and bottom one percent in line with prior literature. Finally, imposing the financial distress condition (income or operating cash flows are negative) results in 20,433 observations. The sample period includes the Great Recession of 2007-10. The sensitivity of the empirical results to this inclusion are addressed later in the study.

Table 1 Panel A provides industry distribution of the sample by one digit SIC code. One digit SIC codes 2 (in particular, pharmaceuticals and biological products) and 3 (in particular, semiconductors and instruments) are significantly represented in the sample. Panel B provides the distribution of the sample by year, and the distribution is even across years with most years contributing between 9 and 11% of the overall sample. Last column of Panel B displays the sample as a proportion of all *COMPUSTAT* firms. The proportion of firms that report either losses or negative cash flow from operations is greater than 40% in most years consistent with prior research on loss firms.

Table 1
Panel A: Sample Industry Distribution

| 1-digit SIC code | Number of Firm-year Observations | % |
|------------------|----------------------------------|--------|
| 0 | 83 | 0.41 |
| 1 | 2825 | 13.83 |
| 2 | 5161 | 25.26 |
| 3 | 5405 | 26.45 |
| 4 | 1321 | 6.47 |
| 5 | 1210 | 5.92 |
| 7 | 3219 | 15.75 |
| 8 | 798 | 3.90 |
| 9 | 411 | 2.01 |
| | 20433 | 100.00 |

² Data for 2016 is for partial year at the time of estimation of the model.

Table 1 (continued)
Panel B: Sample Year Distribution

| Year | Number of Firm-year Observations | Firm-year observations as a % of total sample | Firm-year observations as a % of all COMPUSTAT Firms for that year* |
|-------|----------------------------------|---|---|
| 2007 | 2261 | 11.07 | 45.18 |
| 2008 | 2400 | 11.75 | 50.82 |
| 2009 | 2255 | 11.04 | 49.10 |
| 2010 | 1915 | 9.37 | 42.60 |
| 2011 | 1894 | 9.27 | 42.80 |
| 2012 | 2095 | 10.25 | 46.64 |
| 2013 | 2263 | 11.08 | 48.98 |
| 2014 | 2259 | 11.06 | 49.40 |
| 2015 | 2220 | 10.86 | 51.65 |
| 2016 | 871 | 4.25 | 40.87 |
| Total | 20433 | 100.00 | |

*All COMPUSTAT firms in the U.S. excluding SIC codes 4900 to 4949 and 6000 to 6999.

Descriptive Statistics

Table 2 provides descriptive statistics and variable descriptions for the key variables in Model 1 for all the sample firms. Variable *FIRSTGC*, an indicator variable equal to 1 for clients receiving a going concern opinion for the first time, has a mean value of 8.5% indicating the proportion of loss firms that receive a first time going concern opinion. This is comparable to other papers on going concern opinions (DeFond *et al.* (2016) report 8% for one of their samples). The main variable of interest in the study, *LUTB* has a mean value of 0.389 and a median value of 0, indicating that majority of the firms do not report a reserve.³ The distributions of the size variable, *LAT*, and the leverage variable, *LEV*, are similar to prior studies on going concern opinions.

Among the other variables reported in Table 2, some of the notable descriptive statistics are: *BIG4* has a mean value of 0.493 indicating that only about half of the sample firms are audited by a BIG N auditor, in contrast to the population of COMPUSTAT firms where the proportion is much higher as reported in prior literature; the *RET* variable that measures the compounded stock return has a positive mean value but a negative median value as the majority of the sample firms have negative stock returns; the mean value of the *GROWTH* variable is negative given that the sample consists of financially distressed firms; similarly the *LLOSS* variable that indicates whether the firm reported a loss in the prior year has a mean value of 0.733 implying that most of the sample firms have been reporting losses consistent with the sample selection based on financial distress.

³ Donohoe and Knechel (2014) note that COMPUSTAT reports some FIN 48 reserves as missing even though the company's filings report some reserves. This shortcoming is considered in the sensitivity analysis.

Table 2
Descriptive Statistics

| Variable | Mean | Standard Deviation | 25% | Median | 75% |
|----------------|--------|--------------------|--------|--------|-------|
| <i>FIRSTGC</i> | 0.085 | 0.279 | 0.000 | 0.000 | 0.000 |
| <i>LUTB</i> | 0.389 | 1.329 | 0.000 | 0.000 | 0.420 |
| <i>LAT</i> | 4.276 | 2.612 | 2.613 | 4.309 | 5.996 |
| <i>LEV</i> | 0.793 | 1.054 | 0.273 | 0.531 | 0.843 |
| <i>BIG4</i> | 0.493 | 0.499 | 0.000 | 0.000 | 1.000 |
| <i>ZSCORE</i> | 2.689 | 10.147 | -1.956 | 0.324 | 2.192 |
| <i>OCF</i> | -0.293 | 0.787 | -0.311 | -0.049 | 0.036 |
| <i>BM</i> | -1.850 | 6.615 | -0.029 | 0.273 | 0.778 |
| <i>LIQUID</i> | 3.582 | 5.493 | 0.935 | 1.821 | 3.654 |
| <i>RET</i> | 0.141 | 1.781 | -0.674 | -0.282 | 0.185 |
| <i>GROWTH</i> | -0.158 | 0.576 | -0.696 | -0.043 | 0.181 |
| <i>INVEST</i> | 0.301 | 0.303 | -0.005 | 0.179 | 0.500 |
| <i>NEWFIN</i> | 0.838 | 0.368 | 1.000 | 1.000 | 1.000 |
| <i>LLOSS</i> | 0.733 | 0.442 | 0.000 | 1.000 | 1.000 |
| <i>APTR</i> | 0.263 | 0.444 | 0.000 | 0.000 | 1.000 |
| <i>TMW</i> | 0.019 | 0.138 | 0.000 | 0.000 | 0.000 |
| <i>MA</i> | 0.513 | 0.279 | 0.300 | 0.500 | 0.700 |

Total number of observations equals 20433 (except for the managerial ability sub-sample).

Variables are defined as follows:

- FIRSTGC* = 1 for clients receiving a going concern opinion for the first time, and 0 otherwise;
LUTB = Log of FIN 48 tax reserve (unrecognized tax benefits);
LAT = Log of total assets;
LEV = Total liabilities over total assets;
BIG4 = 1 if the firm's auditor is a Big N auditor, and 0 otherwise;
ZSCORE = Zmijewski's (1984) bankruptcy score;
OCF = Operating cash flows deflated by total assets;
BM = Book-to-market ratio;
LIQUID = Current assets divided by current liabilities;
RET = Compounded stock return over the fiscal year;
GROWTH = Year over year growth in sales;
INVEST = Cash, cash equivalents, and short- and long-term investment securities deflated by total assets;
NEWFIN = 1 if long-term debt or stock issued in the following year, and 0 otherwise;
LLOSS = 1 if ROA is negative in the prior year, and 0 otherwise;
APTR = 1 if the proportion to fees received from tax services to audit fees is > 10%, and 0 otherwise;
TMW = 1 if the firm reports a tax related material weakness, and 0 otherwise;
MA = the decile rank (by industry and year) of managerial ability score developed by Demerjian *et al.* (2012).

Table 3
Pearson Correlations for Key Variables

| | FIRST_GC | LUTB | LAT | LEV | BIG4 | ZSCORE | OCF | BM | LIQUID | RET | GROWTH | INVEST | NEWFIN | LLOS | CHLEV |
|---------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|-------|
| FIRSTGC | 1.000 | | | | | | | | | | | | | | |
| LUTB | -0.071 | 1.000 | | | | | | | | | | | | | |
| LAT | -0.196 | 0.401 | 1.000 | | | | | | | | | | | | |
| LEV | 0.113 | 0.082 | -0.042 | 1.000 | | | | | | | | | | | |
| BIG4 | -0.119 | 0.293 | 0.626 | -0.049 | 1.000 | | | | | | | | | | |
| ZSCORE | 0.210 | -0.015 | -0.333 | 0.780 | -0.169 | 1.000 | | | | | | | | | |
| OCF | -0.183 | 0.208 | 0.632 | -0.025 | 0.295 | -0.355 | 1.000 | | | | | | | | |
| BM | -0.119 | 0.029 | 0.242 | -0.457 | 0.051 | -0.502 | 0.291 | 1.000 | | | | | | | |
| LIQUID | -0.168 | 0.028 | 0.145 | -0.709 | 0.206 | -0.571 | -0.026 | 0.281 | 1.000 | | | | | | |
| RET | -0.195 | 0.036 | 0.071 | -0.120 | 0.002 | -0.172 | 0.098 | 0.103 | 0.117 | 1.000 | | | | | |
| GROWTH | -0.150 | 0.052 | 0.187 | 0.080 | 0.081 | -0.028 | 0.168 | 0.011 | -0.043 | 0.081 | 1.000 | | | | |
| INVEST | -0.022 | -0.038 | -0.232 | -0.319 | 0.073 | -0.081 | -0.381 | -0.109 | 0.561 | 0.047 | -0.084 | 1.000 | | | |
| NEWFIN | -0.048 | 0.069 | 0.183 | 0.012 | 0.158 | 0.026 | -0.011 | -0.056 | 0.041 | 0.026 | 0.123 | 0.019 | 1.000 | | |
| LLOSS | 0.052 | 0.029 | -0.056 | 0.074 | 0.032 | 0.248 | 0.024 | -0.155 | -0.033 | 0.078 | 0.064 | 0.163 | 0.007 | 1.000 | |
| CHLEV | 0.159 | -0.025 | -0.089 | 0.475 | -0.048 | 0.464 | -0.083 | -0.182 | -0.355 | -0.130 | 0.001 | -0.134 | -0.057 | 0.014 | 1.000 |

Bolded values indicate two-tailed significance at the 0.05 level. See Table 2 for variable definitions.

Table 3 reports Pearson correlation coefficients for the variables in Model 1. The main variable of interest *LUTB*, is significantly correlated (at the 5% level) with the independent variable *FIRSTGC*. Some notable high correlations include the correlations between *BIG4* and size (*LAT*), between *ZSCORE* and *LEV*, and between *LIQUID* and *LEV*. By construction, the *ZSCORE* correlations are high (as leverage and profitability are two of the key components of *ZSCORE*) and *BIG4* is highly correlated with size as shown in the prior literature. The correlation between *LIQUID* and *LEV* is also high based on the construction of the variables reflecting high proportion of current assets and liabilities, respectively. Prior literature (Defond *et al.*, 2016) on going concern models use these variables and do not find such correlations to significantly affect the results.

Main Results

The findings from estimating Model 1 are reported in Table 4. A Logistic model is used as the dependent variable is binary, consistent with prior literature. The primary variable of interest *LUTB*, is negative and significant. This indicates that the higher the value of FIN 48 reserve, the lower the probability of a going concern opinion, keeping other controls constant. One interpretation of this result is that it is consistent with the Koester *et al.* (2015) explanation: FIN 48 reserves represent past and present tax avoidance and are signals of future tax avoidance – to the extent that auditors assess these tax avoidance activities to be value enhancing, their assessment of the going concern status of the firm is improved. This result is also consistent with the evidence in Robinson *et al.* (2015) that a significant portion of the reserve never results in a cash outflow. While some of the strategies underlying the FIN 48 reserves may be risky or uncertain (Donohoe and Knechel, 2014), it appears that across the sample of firms, the beneficial effects outweigh the concerns over riskiness of the tax avoidance strategies or the potential for managerial manipulation of reserves. Apart from *LUTB*, most of the determinants of going concern opinion noted in the prior literature are significant and have the expected signs with minor exceptions.⁴ *BIG4* representing Big N auditor is not significant in Table 4. While some prior studies that include firms that report profits and losses find significance for the *BIG4* variable, others employing different sample criteria such as severely financially distressed firms (DeFond *et al.*, 2016; Krishnan and Wang, 2015) do not.

ADDITIONAL ANALYSES

To explore the contextual nature of the association between FIN 48 reserves and going concern opinions, a variety of additional analyses are conducted next. These analyses are motivated by prior literature and they look at auditor-provided tax services, tax-related material weaknesses, and managerial ability.

⁴ While the *LEV* variable is negative, the change in leverage variable, *CHLEV* is positive and significant. Some of the leverage variables are found to be negative or insignificant in other studies too (DeFond *et al.* (2016) also report a negative sign on *LEV*).

Table 4
Logistic Regression of Going Concern Opinion Model

| Variables | Predicted Sign | Coefficient (Wald Statistic) |
|-------------------------|----------------|------------------------------|
| Intercept | ? | -1.673 (78.58) ^a |
| <i>LUTB</i> | ? | -0.059 (4.02) ^b |
| <i>LAT</i> | - | -0.207 (149.08) ^a |
| <i>LEV</i> | + | -0.486 (85.29) ^a |
| <i>CHLEV</i> | + | 0.587 (123.69) ^a |
| <i>BIG4</i> | + | -0.023 (1.58) |
| <i>ZSCORE</i> | + | 0.011 (4.05) ^b |
| <i>OCF</i> | - | -0.017 (0.22) |
| <i>BM</i> | - | -0.035 (85.31) ^a |
| <i>LIQUID</i> | - | -0.066 (63.24) ^a |
| <i>RET</i> | - | -0.162 (46.99) ^a |
| <i>GROWTH</i> | - | -0.661 (183.52) ^a |
| <i>INVEST</i> | - | -0.502 (20.78) ^a |
| <i>NEWFIN</i> | - | -0.020 (0.09) |
| <i>LLOSS</i> | + | 0.588 (14.88) ^a |
| Pseudo R ² % | | 15.10 |
| % Concordant | | 78.2 |
| N | | 20433 |

^a, ^b, and ^c indicate two-tailed significance at the 0.01, 0.05, and 0.10 levels respectively. Logistic regression is run clustered by firm. For each variable, the logistic regression coefficient is reported, followed by the robust Wald statistic. Industry and year dummies are included (results not tabulated). Industry-dummy variables are based on eleven Fama-French industries other than money and finance. The dependent variable is *FIRSTGC*. Variable definitions are in Table 2.

Auditor-provided Tax Services

There is conflicting evidence about the relationship between nonaudit services and auditor independence and audit quality. While early research argued the potential for compromise of auditor independence and thus lower audit quality in the presence of nonaudit services, others find that there are benefits such as knowledge spillovers to having a single auditor perform both audit and some nonaudit services (Ashbaugh *et al.*, 2003; Kinney *et al.*, 2004). Such mixed evidence raises the issue whether the auditor's assessment of FIN 48 reserves is modified in the presence of nonaudit services, specifically auditor-provided tax services, and lead to a higher likelihood (based on knowledge spillover) or a lower likelihood (based on compromise of auditor independence) of going concern opinions.

To examine this issue empirically in the current study, Model 1 is modified to include an indicator variable, *APTR*, for auditor-provided tax services, that takes the value of 1 if the proportion of fees received from tax services to audit fees is > 10%, and 0 otherwise. *APTR* is interacted with the variable of interest *LUTB*. These results are reported in Table 5.

Table 5
Going Concern Opinion Model with Auditor-Provided Tax Services

| Variables | Predicted Sign | Coefficient (Wald Statistic) |
|-------------------------|----------------|------------------------------|
| Intercept | ? | -1.678 (73.07) ^a |
| <i>LUTB</i> | ? | -0.062 (4.33) ^b |
| <i>LUTB*APTR</i> | ? | 0.012 (0.04) |
| <i>APTR</i> | - | -0.278 (16.81) ^a |
| <i>LAT</i> | - | -0.203 (144.09) ^a |
| <i>LEV</i> | + | -0.487 (85.35) ^a |
| <i>CHLEV</i> | + | 0.588 (124.51) ^a |
| <i>BIG4</i> | + | -0.019 (1.87) |
| <i>ZSCORE</i> | + | 0.011 (3.94) ^b |
| <i>OCF</i> | - | -0.018 (0.24) |
| <i>BM</i> | - | -0.034 (82.89) ^a |
| <i>LIQUID</i> | - | -0.065 (62.65) ^a |
| <i>RET</i> | - | -0.163 (47.58) ^a |
| <i>GROWTH</i> | - | -0.657 (181.2) ^a |
| <i>INVEST</i> | - | -0.494 (20.18) ^a |
| <i>NEWFIN</i> | - | -0.015 (0.05) |
| <i>LLOSS</i> | + | 0.582 (14.56) ^a |
| Pseudo R ² % | | 15.16 |
| % Concordant | | 78.3 |
| N | | 20433 |

^a, ^b, and ^c indicate two-tailed significance at the 0.01, 0.05, and 0.10 levels respectively. Logistic regression is run clustered by firm. For each variable, the logistic regression coefficient is reported, followed by the robust Wald statistic. Industry and year dummies are included (results not tabulated). Industry-dummy variables are based on eleven Fama-French industries other than money and finance. The dependent variable is *FIRSTGC*. Variable definitions are in Table 2.

APTR has a mean value of 0.263 (see Table 2) indicating that about a quarter of the firms use auditor-provided tax services where the proportion of fees for tax services exceeds 10% of audit fees. Results in Table 5 show that *APTR* is negative and significant indicating that the probability of going concern opinion is lower for firms that use auditor-provided tax services. The interaction variable *LUTB*APTR* is not significant while *LUTB* is negative and significant as before. The insignificance of the interaction variable indicates that auditors do not modify their assessment of FIN 48 reserves if a firm uses auditor-provided tax services. These results do not clearly yield a characterization supporting either knowledge spillover or compromised auditor independence. Finally, note that non-audit services may differ significantly based on audit firm size. To address this, the FIN 48 and auditor provided tax services variable is also interacted with *BIG4*. This interaction is also found to be insignificant.

Tax-related Material Weaknesses

Section 404 of the Sarbanes-Oxley Act of 2002 requires most public firms and auditors to report on the effectiveness of firms' internal controls over financial reporting. A number of studies (Doyle *et al.*, 2007; Ashbaugh-Skaife *et al.*, 2009) find that material weaknesses in internal controls are associated with lower-quality information. This would suggest that a tax-related material weakness in internal controls potentially indicates that tax-related accounts such as UTB account balances may be unreliable. Specifically, UTB balances may be an unreliable indicator of uncertain tax avoidance pertaining to past and present and a poor signal of future tax avoidance. In line with this, Koester *et al.* (2015) find that while there is a positive relationship between firm value and unrecognized tax benefits, this relationship is attenuated in the presence of tax-related material weaknesses.

To address whether tax-related material weaknesses modify the auditors' assessment of FIN 48 reserves, Model 1 is modified to include an indicator variable, *TMW*, which takes the value of 1 if the firm reported a tax-related material weakness and 0 otherwise. The indicator variable is interacted with *LUTB*. The results of estimating this model are reported in Table 6.

Table 6
Going Concern Opinion Model with Tax related Material Weaknesses

| Variables | Predicted Sign | Coefficient (Wald Statistic) |
|-------------------------|----------------|------------------------------|
| Intercept | ? | -1.681 (79.33) ^a |
| <i>LUTB</i> | ? | -0.072 (3.97) ^b |
| <i>LUTB*TMW</i> | ? | 0.218 (3.90) ^b |
| <i>TMW</i> | + | 0.313 (2.98) ^c |
| <i>LAT</i> | - | -0.207 (150.04) ^a |
| <i>LEV</i> | + | -0.487 (85.45) ^a |
| <i>CHLEV</i> | + | 0.588 (123.91) ^a |
| <i>BIG4</i> | + | -0.021 (1.89) |
| <i>ZSCORE</i> | + | 0.011 (3.97) ^b |
| <i>OCF</i> | - | -0.018 (0.24) |
| <i>BM</i> | - | -0.035 (86.41) ^a |
| <i>LIQUID</i> | - | -0.065 (62.97) ^a |
| <i>RET</i> | - | -0.162 (46.66) ^a |
| <i>GROWTH</i> | - | -0.661 (183.37) ^a |
| <i>INVEST</i> | - | -0.499 (20.51) ^a |
| <i>NEWFIN</i> | - | 0.021 (0.15) |
| <i>LLOSS</i> | + | 0.590 (14.96) ^a |
| Pseudo R ² % | | 15.15 |
| % Concordant | | 78.3 |
| N | | 20433 |

^a, ^b, and ^c indicate two-tailed significance at the 0.01, 0.05, and 0.10 levels respectively. Logistic regression is run clustered by firm. For each variable, the logistic regression coefficient is reported, followed by the robust Wald statistic. Industry and year dummies are included (results not tabulated). Industry-dummy variables are based on eleven Fama-French industries other than money and finance. The dependent variable is *FIRSTGC*. Variable definitions are in Table 2.

The tax-related material weakness variable, *TMW*, has a mean value of 0.019 (Table 2) indicating that only about 2% of the firms report such material weaknesses. The results in Table 6 show that the *TMW* variable is positive and significant indicating that reporting such material weaknesses increase the probability of a going concern opinion. The tax reserve variable, *LUTB*, is negative and significant while the interaction variable, *LUTB*TMW*, is positive and significant supporting the argument that auditors modify their assessment of FIN 48 reserves when a firm reports tax-related material weaknesses.

Managerial Ability

One of the key arguments for why FIN 48 reserves may enhance firm value is the ability of managers to serve as good stewards of firm resources. Given that prior literature argues that auditors will take into account client characteristics in rendering opinions and that Krishnan and Wang (2015) find that going concern opinions are negatively related to managerial ability, it is likely that auditors when considering the role of FIN 48 reserves in their assessment of going concern status, condition their response based on the managerial ability of the client firm.

The managerial ability score developed by Demerjian *et al.* (2012) is used to test whether the FIN 48 reserves is likely to be significant for firms with high managerial ability.⁵ Table 7 presents the results for Model 1 that includes an indicator variable for high managerial ability score, *HMA*, and its interaction with the main variable of interest *LUTB*HMA*.⁶ *HMA* is a dummy variable that equals 1 if *MA* is greater than 0.7, and is 0 otherwise. The indicator variable approach is used to facilitate interpretation of the coefficients.

Results in Table 7 show that *HMA*, the indicator variable representing high managerial ability, is negative and significant. This indicates that the probability of going concern opinions is lower for firms with high managerial ability which is consistent with Krishnan and Wang (2015). The interaction variable, *LUTB*HMA* is negative and significant while the main variable *LUTB* (representing firms that do not have high managerial ability) is not significant. The combined coefficient on *LUTB* and *LUTB*HMA* is negative and significant (not reported). These results indicate that FIN 48 reserves are associated with a lower probability of going concern opinions only for firms with high managerial ability.

⁵ The study is indebted to Peter Demerjian for allowing the use of managerial ability data available at <http://faculty.washington.edu/pdemerj/data.html>.

⁶ The number of observations is less in Table 7 compared to other tables with the going concern model because of lack of availability of managerial ability data for some firms.

Table 7
Going Concern Opinion Model with Managerial Ability

| Variables | Predicted Sign | Coefficient (Wald Statistic) |
|-------------------------|----------------|------------------------------|
| Intercept | ? | -1.516 (24.65) ^a |
| <i>LUTB</i> | ? | -0.050 (1.33) |
| <i>LUTB*HMA</i> | ? | -0.114 (2.96) ^c |
| <i>HMA</i> | + | -0.329 (11.25) ^a |
| <i>LAT</i> | - | -0.175 (43.94) ^a |
| <i>LEV</i> | + | -0.518 (32.45) ^a |
| <i>CHLEV</i> | + | 0.327 (14.66) ^a |
| <i>BIG4</i> | + | 0.024 (0.65) |
| <i>ZSCORE</i> | + | 0.020 (3.92) ^b |
| <i>OCF</i> | - | -0.183 (6.24) ^a |
| <i>BM</i> | - | -0.033 (32.35) ^a |
| <i>LIQUID</i> | - | -0.300 (80.10) ^a |
| <i>RET</i> | - | -0.164 (17.47) ^a |
| <i>GROWTH</i> | - | -0.560 (41.82) ^a |
| <i>INVEST</i> | - | -0.169 (0.61) |
| <i>NEWFIN</i> | - | -0.143 (2.14) |
| <i>LLOSS</i> | + | 0.690 (9.46) ^a |
| Pseudo R ² % | | 12.5 |
| % Concordant | | 78.4 |
| N | | 14490 |

^a, ^b, and ^c indicate two-tailed significance at the 0.01, 0.05, and 0.10 levels respectively. Logistic regression is run clustered by firm. For each variable, the logistic regression coefficient is reported, followed by the robust Wald statistic. Industry and year dummies are included (results not tabulated). Industry-dummy variables are based on eleven Fama-French industries other than money and finance. The dependent variable is *FIRSTGC*. *HMA* is a dummy variable that equals 1 if *MA* is greater than 0.7, and is 0 otherwise. Variable definitions are in Table 2.

Sensitivity Analyses

In this section, a variety of sensitivity analyses are conducted to address potential concerns with the findings and potential alternative explanations.

Errors in COMPUSTAT FIN 48 data. Following Lisowsky *et al.* (2013), Donohoe and Knechel (2014) find that *COMPUSTAT* reports the reserve information as missing for some firms even though the 10-K statements report a reserve. To assess the extent of this problem, Lisowsky *et al.* (2013) hand-collect the FIN 48 reserve information for a sample of firms and report a high correlation of 0.86 between tax reserves reported in *COMPUSTAT* and the hand-collected sample. This provides some assurance that the analysis conducted by using the *COMPUSTAT* data is not likely to be of significant concern. However, to make sure that the findings are not solely driven by any incorrect reporting, following Donohoe and Knechel (2014), the analysis is modified by removing all firms with a reported reserve value of 0 in *COMPUSTAT*. These results (with a reduced sample of 16,632) also show that the reserve is negative and significant (results not tabulated).

Conservatism as a correlated omitted variable. Conservatism in financial reporting may affect the amount of FIN 48 reserves as some managers may create abnormally large reserves. This possibility exists as there is discretion in estimating the reserves and significant cross-sectional variation exists in the amount of reserves as documented by De Simone *et al.* (2014). If conservatism is the reason behind the size of the reserves, auditors could be considering conservatism as the mitigating factor in going concern opinion rather than the tax avoidance reflected in the reserves. To address the issue whether conservatism could be an explanation for the findings in this study, following Koester *et al.* (2015), an unconditional conservatism measure is developed and included in the going concern opinion model. The unconditional conservatism measure is based on Easton and Pae (2004). After controlling for this conservatism measure, the FIN 48 variable, *LUTB*, continues to be negative and significant.

Potential endogeneity. As FIN 48 reserves are a financial statement item, they are subject to audit. As part of the audit, it is possible that auditors may challenge and accordingly, the client may change the estimate of the reserve. If that is the case, a potential endogeneity issue exists in estimating the effect of FIN 48 reserves on going concern opinions. In order to address this issue, the change in the reserve rather than the balance in the reserve is used in estimating the going concern opinion model. In this specification, the change in reserve is negative and significant at the 5% level (results not tabulated). While this result does not completely rule out the existence of endogeneity, it provides some assurance that the results may not be driven solely by it.⁷

Exclusion of recessionary period in sample. Currently the sample includes the years 2007-10 that was characterized by the Great Recession and a significant increase in regulatory scrutiny. Potentially, the severe economic conditions and change in regulatory response may bias the results of this study. To address this issue, the model is estimated by excluding the period 2007-10. The results for this reduced sample show that the FIN 48 reserve variable is negative and significant as in the full sample (results not tabulated).

SUMMARY

Conclusion

FIN 48 requires firms to establish and disclose reserves for cash tax savings during the current period that could be denied if successfully challenged by the tax authorities. The results of this study indicate that auditors consider the FIN 48 reserves as reducing the probability of a going concern opinion. This evidence is consistent with prior research that finds investors consider FIN 48 reserves to reflect tax avoidance strategies and thus value enhancing to the firm and also the finding by prior research that most of the reserves do not result in cash outflows. The findings of the study are contextual

⁷ Another approach to address the endogeneity issue would be to estimate a model of determinants of FIN 48 reserves and then use a second stage estimation where the predicted value from the first stage estimation is used in the going concern model, instead of the FIN 48 reserve. The lack of an established model for determinants of FIN 48 reserves makes this procedure difficult to implement. Goldman *et al.* (2018) note that R&D tax credits comprise a significant portion of FIN 48 reserves. Using the R&D expense as an instrumental variable for FIN 48 reserve, the going concern model is re-estimated and this specification also finds the FIN 48 reserve variable to be significant.

however; when client firms report tax-related material weaknesses or have managements with low managerial ability, FIN 48 reserves do not reduce the probability of the going concern opinion. These results further the understanding of how auditors assess FIN 48 reserves in their decision-making, and whether auditors' assessment is contextual on firm specific factors and managerial characteristics. The evidence is of interest to regulators who want to assess the impact of accounting regulation, to investors who are interested in how auditors assess client financial health, and to academic researchers studying the impact of FIN 48 rules.

Limitations

While FIN 48 applies to all firms with uncertain tax positions, this study considers going concern opinions only for a sample of financially distressed firms and excludes financial and utility firms. This limits the generalizability of the findings to firms to the broader population of firms.

To address potential endogeneity the study uses the changes in FIN 48 reserve instead of the level of the reserve. This procedure does not account for the fact that the changes to reserves made on the advice of auditors are not observable and thus endogeneity concerns cannot be completely ruled out.

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MAIN ARTICLES

- In the Eyes of the Helper and Recipient: A Help-Giving and Help-Receiving Model in Organizations.....* 355
Shih Yung Chou, Tree Chang, and Bo Han

Despite its popularity in the literature, helping behavior has been investigated primarily from the helper's perspective with an implicit assumption that helping behavior is a static, rather than a process, organizational phenomenon, thus leaving the literature of helping behavior incomplete. Synergizing various streams of research on helping behavior, the authors develop a theoretical model of the help-giving and help-receiving process. Specifically, the authors discuss the process through which help giving and help receiving occur by simultaneously considering the helper and recipient. As a result, the proposed theoretical model highlights specific behaviors and responses that the helper and recipient demonstrate from beginning to end of the helping process. Theoretically, this article provides a dyadic and process approach for future research investigating helping behavior in organizations.

- Auditor Going Concern Opinions and FIN 48 Reserves.....* 371
Jagadison K. Aier and Gnanakumar Visvanathan

This study examines the association between auditors' going concern opinions and FIN 48 reserves. The existence of the reserve may indicate tax uncertainty and thus a future obligation, or reflect tax avoidance strategies that enhance firm value. Using a sample of financially distressed firms over the period 2007-16, the study finds that the probability of a going concern opinion is reduced when a firm reports a FIN 48 reserve suggesting that auditors consider FIN 48 reserves as value enhancing in their going concern assessments. These results are contextual however as this reduction is not found for firms that report tax-related material weaknesses or for firms with low managerial ability. Overall the results provide some evidence on the role of FIN 48 reserves and how auditors evaluate the reserves in assessing the going concern status of client firms.

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