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Auditor Independence in a Private Firm and Low Litigation Risk Setting

Abstract

We examine the issue of auditor independence in a unique setting. Specifically, we test for auditor independence impairment among (1) private client firms for which the risk of auditor reputation loss is lower than for publicly traded firms and (2) in a low litigation environment (i.e., Norway) that further reduces the expected costs to the auditor associated with independence impairment. We have thus chosen a setting that gives independence impairment its best chance of being detected if it exists. Using a large sample of private Norwegian firms, we analyze whether auditors who receive higher fees are less likely to issue modified opinions. Despite the low litigation risk and the reduced reputation risk, our empirical results provide no evidence that auditors compromise their independence through fee dependence. These results are robust to including a large number of control variables into the model, to controlling for the expected portion of fees, to different sample specifications, to the use of both levels and changes specifications, and to a number of sensitivity analyses.

Keywords

Auditing; auditor independence; private firms; litigation risk; reputation; accounting; professional ethics

Data availability

The data used in this study are publicly available from the sources described.

I. INTRODUCTION

The question of auditor independence has received increased attention from regulators, academics, and practitioners around the world in recent years due to highly publicized audit failures. This is not surprising since the fact that auditors receive their fees from their client firms clearly creates the *potential* for an independence problem. Regulators argue that independence is compromised through an auditor's dependence on non-audit as well as on "excessive" audit fees. Some academics, however, argue that regulators ignore the possibility that non-audit services provided by the incumbent auditor may actually improve audit quality and that regulators fail to consider the cost to auditors of compromising their independence. Consistent with these arguments, prior studies that have examined the linkage from audit/non-audit fees to auditor independence have been inconclusive, and in the more recent studies the case for excessive fees leading to impaired independence seems less than compelling (see Section II for details). These papers have focused on publicly traded companies in the U.S. (or similar countries). Two reasons put forth in the literature for why auditors maintain independence despite fee incentives to the contrary are that they fear lawsuits and loss of reputation.

The purpose of this study is to examine the issue of auditor independence in an environment characterized by *low litigation risk* and *low reputation risk*. Specifically, we use a large sample of private Norwegian firms in a documented low litigation environment for audit firms (in contrast to more litigious environments like the U.S.), but where the overall level of investor protection is high. Holding other factors constant, reducing the risk of lawsuits for negligence and misconduct should remove (or lessen) one of the major constraints for auditors to impair their independence in return for greater fees (e.g., DeAngelo 1981; Chung and Kallapur 2003; Francis 2004). Second, prior research has shown that the risk of auditor reputation loss is

lower for private client firms than for publicly traded client firms (e.g., Johnstone and Bedard 2003; Bell et al. 2002). In other words, both the low litigation environment and our use of private firms represent forces that work in the same direction (i.e., to reduce constraints to independence impairment). As a third force working in the same direction, for our going concern opinion tests we eliminate firms with very high likelihood of going bankrupt, as auditors are not likely to impair their independence for such clients (see Section III for details). Our study thus provides a unique context to give independence impairment tests "their best shot."

Using a large sample of Norwegian privately owned firms (between 17,390 and 433,176 firm-years depending on the test), we find no evidence that fees have the negative consequences that regulators fear. That is, we find no evidence that auditors receiving high fees or fees in excess of normal (or expected) fees for audit and/or non-audit services are less likely to issue going concern modifications or other types of modified audit opinions. These results are robust to including a large number of control variables in the model, to using either abnormal fees that control for the expected portion of fees (using a model consisting of 21 firm-level variables as well as industry and year fixed effects) or raw fees, to using both association and changes tests, to different sample specifications and different time periods, and to a large number of sensitivity analyses.

In addition to our main contribution of providing a "natural laboratory" in which to test auditor independence, we contribute to the literature in several other ways. First, most of the extant literature on auditor independence focuses on publicly listed companies, primarily in the U.S., the U.K., or Australia. The majority of companies worldwide, however, are not publicly listed. The lack of evidence on non-publicly traded firms despite their economic importance and likely differences from public companies provides an interesting research opportunity. To our

knowledge, this is the first large-scale study of auditor independence among private firms. Our study thus provides some insight into the role of the external audit function for *private* firms that face different incentives than do listed firms. We believe an analysis of auditor independence in a private firm setting is warranted, as the role of auditors may be different in private firms, in which agency conflicts are generally different (due to more concentrated ownership), than in public firms (Coffee 2005).

Second, one of the concerns with the prior research in this area is that data typically are from a single year only (e.g., Kinney and Libby 2002; Reynolds et al. 2004) and prior studies thus have examined associations only. Given our large sample spanning several years we are able to employ changes specifications which may provide more reliable inferences than basing conclusions on levels alone.

Third, we have data available to investigate *all* deviations from a clean audit opinion. For ease of exposition and for comparability with recent research, most of our tabulated tests focus on going concern opinions. However, in additional analyses we also examine other audit modications.

If we had found evidence of independence impairment, it would be difficult to know whether such impairment results from low litigation risk or low reputation risk (or both). However, despite the fact that we investigate independence impairment in a powerful setting (i.e., low litigation and low reputation risk environment), we detect no evidence of such impaired objectivity. From this we conclude that inconclusive findings in prior research cannot just be brushed aside as being driven by litigation or reputation concerns. Other factors likely also play a role. For example, the importance of ethics and professionalism is stressed in the codes of conduct issued by auditor associations as well as in university education leading toward the

professional audit examinations and in auditors' continuing education. In general, integrity and independence are among the most important economic assets of audit firms, and our results suggest such concerns dominate any short-term financial gain auditors could obtain from compromising their independence.

In the next section, we discuss related literature and describe our institutional setting. Section III explains the sample and the empirical models. In sections IV and V, we discuss the main empirical results and results of additional analyses, respectively. Section VI explores potential alternative explanations. Finally, Section VII concludes the paper.

II. BACKGROUND AND INSTITUTIONAL SETTING

Auditor fees and threats to independence

The external auditor plays a crucial role in promoting financial reporting quality, because auditors lend credibility to accounting information by providing independent verification of manager-prepared financial statements (e.g., Simunic and Stein 1987). In other words, the external audit potentially reduces agency costs between firms (managers) and external parties. However, outsiders cannot be expected to trust a company's reported financial information without confidence in the auditor's independence.

We investigate the threats to auditor independence posed by (audit and/or non-audit) fee dependence. In particular, we examine whether the exercise of auditor objectivity in the formulation of the audit opinion is affected by the amount of fees received from the client. In order to issue a modified opinion, an auditor must be able to objectively evaluate firm performance and withstand any client pressure to issue a clean opinion (Watkins et al. 2004). Clearly, the fact that auditors receive their fees from their clients suggests the *potential* for

auditor independence impairment with respect to fees. A line of research, starting with DeAngelo (1981) and Watts and Zimmerman (1986), suggests that an auditor's incentive to compromise independence relates to the economic significance of client fees. This research argues that, because of an economic bond, auditors concerned with the possible loss of fee revenue are more likely to acquiesce to clients' wishes. DeAngelo (1981, 113) states that "the existence of client-specific quasi-rents to incumbent auditors … lowers the optimal amount of auditor independence." Survey evidence reported by Nelson et al. (2002) and Trompeter (1994) provides further support for this argument; the more economically dependent the auditor is on the client, the more likely the auditor is to succumb to client pressure.

Notwithstanding these arguments, the relation between audit remuneration and auditors sacrificing their independence is theoretically ambiguous. The reason is that the auditors do not only consider the benefit of higher expected fees when compromising their objectivity, but also the expected costs of audit failures. In particular, it is often argued that costs related to the loss of reputation and litigation reduce the incentives for auditors to compromise their independence (DeAngelo 1981; Simunic 1984; Chung and Kallapur 2003). Specifically, if the auditor acquiesces to her client and damages her reputation, she potentially loses fees from other current and future clients (and/or faces lawsuits). Thus, based on these conflicting arguments, it is not surprising that the extant research on whether auditors compromise their independence through fee dependence provides mixed evidence.

Although the extant research has focused on reputation effects and expected lawsuits as the primary reasons why auditors may refrain from compromising their independence,

professional ethics likely also play a role.[1] According to the International Federation of Accountants (IFAC Section 100.1), a distinguishing mark of the accountancy profession is its acceptance of the responsibility to act in the public interest. We return to the importance of this dimension is Section VI.

Auditor fees and impaired auditor independence

Most of the prior empirical literature tests the relation between fees and some measure of earnings management or accruals quality (and/or the likelihood of meeting or beating earnings targets). Consistent with DeAngelo's (1981) arguments, Gul et al. (2003) find a positive association between discretionary accruals and audit fees in Australia, and Frankel et al. (2002) find a positive relation between the provision of non-audit services and measures of earnings management in the U.S. (see also Ahmed et al. 2006 and Choi et al. 2006). However, subsequent studies have criticized the findings and interpretations of Frankel et al. For example, after controlling for firm performance, Ashbaugh et al. (2003) find that there is no longer a positive relation between non-audit fees and abnormal accruals (see also Chung and Kallapur 2003; Larcker and Richardson 2004; Reynolds et al. 2004).

As an alternative to testing auditor fee dependence using accrual measures, we focus on the auditor's propensity to issue going concern (or other modified) audit opinions. Such an investigation may provide a more direct test of auditor independence than research investigating earnings management. First, the literature has documented the difficulties associated with measuring discretionary accruals (e.g., Hribar and Collins 2002; Reynolds et al. 2004; Dopuch et al. 2007). Second, in contrast to the indirect influence of auditors on earnings characteristics, the

[1] According to Frankel (1989, 114), a profession's code of ethics is perhaps its most visible and explicit enunciation of its professional norms. In particular, the code embodies the collective conscience of a profession and is testimony to the group's recognition of its moral dimension.

auditor directly influences the type of audit opinion, and measuring the audit opinion is unambiguous (DeFond et al. 2002).[2]

Prior research provides mixed evidence on the relation between fees and modified audit opinions. On the one hand, DeFond et al. (2002) examine the relation between audit and non-audit fees and the issuance of a going concern audit opinion - one of the most severe audit modifications. Using a sample of 1,158 financially distressed publicly listed U.S. firms in 2001-2002, they find no association between fees and impaired auditor independence. They attribute their results to auditors' concerns over the loss of reputation and litigation costs, and argue that these costs dominate the expected benefits from compromising auditor independence. Craswell et al. (2002) report similar findings for a sample of Australian firms. In contrast to these findings, Wines (1994) and Basioudis et al. (2008) report results consistent with independence impairment using small samples of Australian and U.K. firms, respectively.

Following research by Wines (1994), Barkess and Simnett (1994), Craswell (1999), DeFond et al. (2002), and Craswell et al. (2002), in this study we assume that auditors with impaired independence will be less likely to issue going concern (or other modified) opinions when such opinions are warranted. Specifically, we test whether auditor fees are inversely related to auditors' propensity to issue modified audit opinions. We now turn to discussing our setting: privately owned firms in a low litigation environment (i.e., Norway).

Private firms and institutional setting

Empirical research on the possible consequences of compromised auditor independence is dominated by (but not limited entirely to) research on publicly listed U.S., Australian, or U.K.

[2] In part motivated by the problems introduced by relying on accrual quality models, Hope et al. (2009a) focus on investors' perceptions of auditor independence, as reflected in their required rate of return on equity capital.

firms. We are not aware of any studies that analyze whether the Anglo-Saxon evidence on audit quality for public companies generalizes to other countries with different legal systems and in particular, to non-common law countries with less ability to sue auditors for negligence and misconduct (Francis 2004). In this study, we empirically investigate the potential for fee dependence to affect auditors' willingness to issue modified audit opinions in *non-publicly traded* firms. In spite of their economic importance and likely differences from public companies, little is known about financial reporting by private firms (Ball and Shivakumar 2005). In particular, there is limited research on the role of auditing for private firms. Coffee (2001; 2005) argues that the role of the auditor may be different in private firms than in public firms because of private firms' higher ownership concentration, and in particular because these firms often have controlling shareholders. This means that the agency costs relate relatively more to a controlling shareholder versus minority shareholder conflict rather than a manager versus shareholders conflict.[3]

It is not obvious whether external auditors play a lesser or a stronger role in private firms than in public firms. On the one hand, Coffee (2005) discusses how the existence of controlling shareholders can affect auditor independence. That is, Coffee argues that it is difficult for the auditor to escape the control of the party that she is expected to monitor. On the other hand, Lennox (2005) posits that the monitoring value of auditing may be higher in private firms because they are less vulnerable to takeovers and because they are required to disclose less accounting and non-accounting information than public firms.

This study may thus enhance our understanding of private firms, which are predominant in the economy in most countries. To illustrate this point, Berzins et al. (2008) analyze *all*

[3] Just like for public firms, suppliers, customers, employees, and (perhaps especially) lenders likely find the auditors' function useful for private firms.

limited liability firms in Norway during the 1994-2005 period and report that more than 99% were not listed on a stock exchange. They further show that (in aggregate) nonlisted firms have about four times more employees than listed firms, have three times higher revenues, and twice the amount of assets. They further provide indirect evidence suggesting that the relative importance of nonlisted firms in Norway is representative for most countries in the world. Related to auditing of private firms, there are millions of small and medium sized corporations in Europe with audited annual reports (Pacter 2004) and private firms make up a significant portion of the market for audit services (Chaney et al. 2004).

Although the above reasons to examine private firms are important, for the purpose of our study, of even greater importance is the fact that private firm clients are widely regarded as being of *lower reputation risk* to auditors than public clients (e.g., Clatworthy and Peel 2007; Johnstone and Bedard 2003, 2004; Bell et al. 2002; Lys and Watts 1994; Palmrose 1986; St. Pierre and Anderson 1984). In other words, the reputation risk is lower for our sample of private firms than for the samples of public firms typically examined in the literature.

There are several reasons why Norway provides a unique environment in which to study auditor independence. First and most importantly, consistent with the statements of Francis (2004), Norway is a low litigation environment compared with the U.S.[4] Between 1945 and 2005 the total number of court cases against auditors is 40. Only 12 of the cases were related to annual statements and the audit report (and the auditor was convicted in only three cases). Equally important, since all court cases prior to 1996 had been published and discussed in the widely

[4] According to DeFond and Francis (2005, 13), "… there is an urgent need to better understand the role of legal liability in achieving audit quality and whether the kind of extreme litigation exposure we have in the U.S. is really necessary to achieve an appropriate level of audit quality." Note that we do not argue that there is *no* regulatory oversight in Norway; rather our argument is based on significantly lower expected litigation costs than in the U.S. The authors have conducted an extensive review of the regulatory environment in Norway. For reasons of brevity that analysis is not included with this study but is available from the authors upon request.

read professional magazine *Revisjon og Regnskap* ("*Accounting and Auditing,*" various issues) and in Grønn et al. (1996), it was common knowledge among auditors at the start of our sample period that there had been very few court cases against auditors.[5] The number of court cases appears small compared with a total of 5,154 authorized auditors and 514 authorized audit firms in Norway in 2003, and approximately 1.6 million audited financial statements during the 1994-2004 period.[6]

The lower litigation risk, combined with our focus on private firms with lower reputation risk, suggests that we have created the "perfect storm" in which to test for auditor independence impairment. Since both low litigation and low reputation risk represent forces that work in the same direction, if we want to study independence in a real world setting in which independence impairment is most likely to occur, our setting provides a powerful test.

[5] Source: Grønn et al. (1996) supplemented with our own research using the legal database lovdata.no. Grønn et al. (1996), which contains all court cases against auditors during the years 1945-1996, was published by the Norwegian Institute of Public Accountants and the court cases had also been discussed in *Revisjon og Regnskap* ("Accounting and Auditing"). 11 out of the 12 cases that are concerned with topics relevant for this study took place between 1987 and 1995, and the last case took place in 2003. We eliminate bankruptcy candidates from our sample since auditors have few or no incentives to impair their independence for these firms (see Section III for details).

[6] The Financial Supervisory Authority of Norway (FSAN) licenses and supervises auditors and takes disciplinary actions against auditors when deemed necessary. During the years 1994-2005, the yearly average of auditors and audit firms under supervision of FSAN numbered about 5,000. Primarily for statistical purposes, FSAN has document-based inspections that cover all auditors. In addition, based on complaints received against auditors or where signs of shortcomings are evident (e.g., ".. auditors with few assignments owing to age" or auditors "who have failed to keep up with the trend in sound auditing practices through refresher training, memberships in the auditor's association, or the like" (FSAN, Annual Report 1995: 26)), FSAN has on-site inspections. On-site inspections means that FSAN assesses "… of the appropriateness of auditing methods, whether the scope of audit procedures is sufficient, whether the auditor's assessments and conclusions accord with the result of the audit procedures and whether satisfactory supporting documentation for the audit is available" (FSAN Annual Report 2002: 42). During the years 1994-2005, the yearly average of on-site inspections (complaints received) was 113 (44.6), resulting in a yearly average of 7.4 licenses being withdrawn (FSAN Annual Report, various issues). These numbers include FSAN's investigations of auditors reported to FSAN by liquidators of bankrupt firms (see also footnote 11).

Second, financial statements filed by Norwegian private firms *must be audited*.[7] The auditing environment in Norway is otherwise similar to that in other Western European countries (Eilifsen 1998).

Third, firms have been required to disclose auditor fees (i.e., audit and non-audit fees separately) in the annual report since 1990 (as per the Accounting Act paragraphs 7-31A/7-44 and the Auditor Act paragraph 5-3). Our data providers have collected information on total remuneration to auditors (i.e., the sum of audit and non-audit fees) since 1996 and on audit and non-audit fees separately for the 1997 – 2002 period. Consequently, in contrast to the small samples used in most previous research, we can use large samples over several years.

The Financial Supervisory Authority of Norway (FSAN) and the Norwegian Ministry of Finance made regulatory changes in 2003 and 2005 that tighten the rules regarding the types of non-audit services that can be offered by the audit firm to the audit client. To our knowledge, the decisions in Norway to restrict non-audit services were not based on research. As Simunic (1984) points out, hiring the auditor to perform non-audit services may benefit firms due to "knowledge spillovers," whereby client-specific information that the auditor gains while performing non-audit services is used to enhance the quality of the audit. This could be especially relevant for private firms. Compared with listed companies, private firms are typically small and may have less expertise internally and therefore have a greater demand for services that auditors provide. In addition, these firms often face higher costs of obtaining non-audit

[7] Similar to the rest of Europe, Norway's accounting regulation is primarily based on a firm's legal form, rather than its listing status. Specifically, the Norwegian Accounting Act requires *all* private and public limited liability companies to file annual financial statements that comply with the same accounting standards (with some minor exceptions as explained later), and these statements are made publicly available. Furthermore, private and public companies are subject to the same tax laws and other company regulations. To our knowledge, Sweden is the only other country where all limited liability firms are required to be audited. In both countries there is currently a regulatory debate over whether the smallest private firms should be exempt from the audit requirement.

services from independent consultants due to their geographic location (i.e., they are often located outside of urban centers).[8]

III. SAMPLE AND RESEARCH DESIGN

Sample

We obtain data on audit and non-audit fees from D&B Norge AS, the Norwegian subsidiary of Dun & Bradstreet. All other data are from Experian AS. We merge data using the company organizational number (a unique identifier).

In our main tests we report results for two sample periods: 1997-2002 and 2001-2002. The former sample spans more years and is thus larger and more representative. However, the latter sample contains data on five potentially important control variables that are unavailable in earlier years: who the auditor is, whether there has been a switch in auditor, auditor industry specialization, the number of subsidiaries, and the percentage of foreign subsidiaries. We end our sample period in 2002 because, even though fee disclosure continues to be required after 2002, our data provider stopped reporting audit and non-audit fees separately in 2003. In additional analyses we report results through 2005 using only total fees. Please note that in the Appendix we provide definitions for all variables used (and hence we do not repeat all definitions in the text).

[8] According to a speech by Head of the Auditing Section of FSAN (Elvestad 2006), the most common services provided to private firms by audit firms include assistance with taxes and other duties, assistance with complex accounting rules, assistance with cost-benefit analyses, help with development of internal routines and controls, and assistance with restructuring, M&A, and ownership transitions. With respect to regulation of non-audit services, The Norwegian Act on Auditing and Auditor prohibits the auditor from providing management functions to the audit client or act as principal for the client. In addition to the legal requirements, the Norwegian Institute of Public Accountants issues recommendation for its members on matters such as the provision of non-audit services to audit clients. For example, the auditor should not make decisions on behalf of the audit client, provide valuation services, or perform bookkeeping services. Since 2003 the regulation of the provision of non-audit services to audit clients has been significantly tightened.

Table 1 summarizes our sample selection criteria. Our starting point is all private limited liability firms in Norway. Since many of these firms are very small, we exclude firms with less than 1 million Norwegian krone (NOK) in sales revenue or total assets as well as firms with total auditor fees less than NOK 10,000.[9,10] We further remove firms for which we do not have data available for audit opinions or other variables used in our tests, and following prior research we exclude financial firms.

For tests of audit modifications *other* than going concern we employ the full sample of firms. However, for going concern opinions, we restrict our sample to "moderately distressed firms" (Mutchler et al. 1997; Reynolds and Francis 2000; DeFond et al. 2002). The sample should exclude the most extremely distressed companies as auditors likely would have little incentive to not issue going concern opinions for such firms.[11] We employ two approaches. First, we exclude firms that exit the sample during the two-year period following our test period (an ex post criterion). Second, we use the Ohlson (1980) bankruptcy prediction model to identify firms that are in risk of facing bankruptcy (an ex ante criterion). We form 20 equally-sized portfolios based on the probability of bankruptcy and we eliminate the portfolio with the highest bankruptcy score from the analysis.[12] We further eliminate the bottom 12 portfolios (or 60%) as

[9] This exclusion criterion ensures that we do not include a number of "shell companies" that have little economic activity and few if any employees. To illustrate this point, these very small excluded firms have a mean (median) number of employees of 1.83 (1). The average exchange rate between NOK and USD during our sample period was 7.49.

[10] We later report result of sensitivity analyses in which we (1) apply more stringent size criteria so that we exclude more small firms, (2) report results for size quartiles separately, (3) focus only on client firms that are the most important in terms of fees, and (4) report results separately for Big 4 and non-Big 4 auditors.

[11] It is well known to auditors that liquidators, in accordance with the Bankruptcy Act paragraph 120, investigate the auditor's work prior to bankruptcy. About two thirds of *all* court cases against auditors in Norway are preceded by bankruptcies or debt negotiations between the client and its creditors. For court cases related to annual reports and audit reports, 10 out of the 12 cases in the 1945-2005 period were preceded by bankruptcies or debt negotiations. Unrelated to legal issues but working in the same direction, auditors cannot expect any futures fees from bankruptcy candidates.

[12] Note that by eliminating firms that are most likely to go bankrupt (based on both ex ante and ex post measures), we have further added to the "perfect storm" described earlier in that we have removed the cases for which auditors are most likely to be sued should they not provide a going concern opinion. In other words, this research design

these firms do not face any serious risk of going out of business. Our sample consists of 42,296 (1997-2002) and 17,390 (2000-2001) firm-year observations from portfolios 13-19 of moderately distressed firms. In Section V we report results of using an alternative approach to identifying distressed firms. Table 2 shows that this approach sorts firms in an intuitive way: There is a monotonic increase in the percent of going concern opinions when going from portfolio one to portfolio 20. Similarly, other audit modifications also increase, and the percent of clean audit opinions is strictly decreasing across portfolios. In addition, the fraction of firms that exit the sample is also increasing with the probability of bankruptcy, consistent with the bankruptcy prediction model sorting firms correctly. (An exception is the first group which also has a quite high exit rate; this is likely caused by these firms being highly profitable and thus likely take-over targets.)

Logistic regression model

Our main tests examine the effects of (abnormal) audit and non-audit fees on the probability of issuing going concern opinions (either in an explanatory paragraph or as a disclaimer of opinion), possibly the most serious audit modification provided. In additional analyses, we study auditors' propensity to issue any other form of modified audit opinions.

Since most of the extant research in this area has relied on association tests, we employ these tests to ease comparison with prior studies. However, we also employ changes tests that are potentially better specified than association tests. The following paragraphs describe the association tests, but the changes tests include the same variables in changes form (please see notes to Table 6). We estimate the following logit regression that models the auditor's propensity

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choice is consistent with our choice of a low litigation risk environment and client firms with low (or reduced) reputation risk.

to issue a going concern audit opinion, controlling for a large number of variables that prior research has shown to potentially affect this decision (subscripts for firm and year omitted).

$$\begin{aligned} GC = {} & \alpha_0 + \alpha_1 FEE + \alpha_2 LNTA + \alpha_3 LNAGE + \alpha_4 LEV + \alpha_5 ChLEV \\ & + \alpha_6 OPCF + \alpha_7 LOSS + \alpha_8 ROA + \alpha_9 INVESTMENTS + \alpha_{10} PROBANK \\ & + \alpha_{11} INCPIC + \alpha_{12} NEWDEBT + \alpha_{13} FUTINCPIC + \alpha_{14} FUTNEWDEBT \\ & + \alpha_{15} BIG4 + \alpha_{16} ChAUD + \alpha_{17} GCPY + \alpha_{18} IND + \alpha_{19} YR + \varepsilon \end{aligned} \quad (1)$$

GC is an indicator variable that takes the value of one for going concern modified audit opinions (zero otherwise). *FEE* is either total auditor fees (audit plus non-audit fees), audit fees or non-audit fees separately, or audit and non-audit fees included jointly.[13] The notion of fee dependence refers to the extent to which the auditor is influenced by unusually high (or low) fees. However, since there is no consensus in the literature as to whether abnormal or raw fees best capture "economic bonding" between auditors and their clients, in this study we employ both measures. We describe our abnormal fee model in the next section. Regulators have shown concern that auditors are willing to sacrifice their independence in exchange for retaining clients that pay lucrative consulting and other non-audit fees (e.g. Levitt 2000; Aamo 2002). But based on the argument that fee dependence is inherent in auditor-client contracting and that both fees could create similar incentives to the auditor (e.g., Hansen and Watts 1997; Reynolds and Francis 2000), we examine the effects of non-audit as well as audit fees. Specifically, our tests include either total fees, audit fees or non-audit fees included separately, or audit and non-audit fees included jointly.

[13] The specification with both audit and non-audit fees included in effect estimates the effect of one fee variable on the propensity to issue modified opinions while controlling for the effect of the other fee variable. This may be important as Whisenant et al. (2003) provide empirical evidence that audit and non-audit fees are simultaneously determined.

The control variables are based on prior research and are intended to control for the impact of client firm size, complexity, risk, and mitigating factors on auditors' decisions to qualify or modify their opinions (e.g., Craswell et al. 2002; Frankel et al. 2002; DeFond et al. 2002). We use firm size (*LNTA*) to control for the impact client size can have on the propensity to be independent. We control for firm age (*LNAGE*) since younger firms are more prone to failure and have less experience with accounting controls. Leverage (*LEV*) controls for the level of financial risk, and the change in leverage (*ChLEV*) controls for changes in financial risk. To control for operating risk and the probability of bankruptcy, we use cash flow from operations (*OPCF*), an indicator variable for accounting loss (*LOSS*), and return on assets (*ROA*).

We add investments in liquid assets (*INVESTMENTS*) as a liquidity measure following DeFond et al. (2002). Although we exclude the lowest 12 and the highest Ohlson portfolio groups, there is likely still considerable variation in the likelihood of bankruptcy within the sample, and consequently we include the Ohlson bankruptcy prediction variable (*PROBANK*) as a control variable. We further control for increases in shareholders' equity and debt in both the current and next period (*INCPIC*, *NEWDEBT*, *FUTINCPIC*, and *FUTNEWDEBT*) as mitigating factors (e.g., Mutchler et al. 1997).

We include auditor size (*BIG4*) to capture the impact audit quality could have on the exercise of professional judgment. We also control for change in audit firm (*ChAUD*) as an indicator of client firm risk and potential effects on audit report modifications (Lennox 2000). As described above, *BIG4* and *ChAUD* are only available for the 2001-2002 sample period. Since going concern opinions tend to be sticky, we control for the existence of a prior-year going concern modification (*GCPY*). An alternative approach, which yields consistent results, is to only include firms which receive a modified opinion for the first time. We add industry controls

(two-digit SIC industry indicators) in order to account for systematic differences in the riskiness or complexity of the audit function across industries. Finally, we include time period (*YR*) to control for possible shifts in the propensity to issue modified opinions over time.

In addition to association tests, we also employ changes tests which are potentially better specified to document a causal relation between fees and the likelihood of not issuing modified opinions than association tests alone. Furthermore, changes tests represent a useful additional test specification as results are less likely to be affected by potential correlated omitted variables, as we in effect use the firm as its own control. They may also be useful in addressing possible endogeneity concerns, especially in conjunction with the use of abnormal fee models that control for the expected amount of fees.

We employ two specifications of changes tests. In the first, the dependent variable is coded as one if the audit opinion is modified and if there was no modification in the previous year. The independent variables represent changes from the previous year. In the second test, the dependent variable is defined as one if *next* year's audit opinion is modified and there was no modification in the previous year.

Abnormal (or unexpected) fee model

To control for the expected component of audit and non-audit fees, we compute excess auditor remuneration following prior research (e.g., Frankel et al. 2002; DeFond et al. 2002; Choi et al. 2005; Hope et al. 2009a). In particular, we want to control for normal fees charged by the auditor for a given level of effort and risk. We regress the log of auditor fee measures on two audit-firm variables and 19 client-firm variables, as well as year and industry fixed effects, and

use the residuals from these regressions as our proxy for abnormal fees.

$$\begin{aligned} LN(FEE) = {} & \alpha_0 + \alpha_1 LNSALES + \alpha_2 LNEMPLOY + \alpha_3 ChLEV + \alpha_4 INVEST \\ & + \alpha_5 INVREC + \alpha_6 GROWTH + \alpha_7 ROA + \alpha_8 ACQUISITIONS + \alpha_9 INTANG \\ & + \alpha_{10} UNITEMS + \alpha_{11} GAAP + \alpha_{12} INCPIC + \alpha_{13} DECPIC + \alpha_{14} NEWDEBT \\ & + \alpha_{15} BIG4 + \alpha_{16} INDSPEC + \alpha_{17} CURRATIO + \alpha_{18} LNSUB + \alpha_{19} FOREIGN \\ & + \alpha_{20} NOIND + \alpha_{21} FYE + \alpha_{22} IND + \alpha_{23} YR + \upsilon \end{aligned} \qquad (2)$$

For our 2001-2002 sample, we include an indicator variable for Big 4 audit firm (*BIG4*) because large audit firms offer more insurance for the client (e.g., Dye 1993) and provide higher quality audits (e.g., Becker et al. 1998). DeAngelo (1981) notes that the ability of an auditor to detect material error in the financial statements is a function of auditor competence, and auditors that specialize in an industry are likely to be more competent. We therefore control for auditor industry specialization by adding *INDSPEC* as control variable.[14]

The remainder of the instruments are employed in both the 1997-2002 and 2001-2002 samples. Given the importance of firm size in explaining auditor fees, we include two size-based explanatory variables: the log of sales revenues (*LNSALES*) and the log of number of employees (*LNEMPLOY*).[15] To further control for variations in client firm characteristics, we include the change in financial leverage during the year (*ChLEV*), investments in securities and cash equivalents (*INVESTMENTS*), inventories and accounts receivable (*INVREC*), percentage growth in sales (*GROWTH*), return on assets (*ROA*), acquisitions (*ACQUISITIONS*), intangible asset

[14] The sample used to calculate *INDSPEC* consists of *all* audited firms in 2001 and 2002 with available information on industry affiliation and auditor identification. No inferences are affected if we instead measure *INDSPEC* by clients' revenue (i.e., the sum of revenue of all clients an auditor has in a particular industry divided by total revenue of all firms in that industry).

[15] Given the concern in the audit literature about the effects of size nonlinearities, we have considered adding either the square root of sales or the square of sales to the model. As an alternative we have run the test adding an interaction term between *LNSALES* and all other instruments. Finally, we have run the model separately for different size quartiles (see Section V). No inferences are affected with these alternative specifications. The size variables are obviously positively correlated (the correlation coefficients between *TA* and *SALES* (*TA* and *EMPLOY*) [*SALES* and *EMPLOY*] is 0.43 (0.21) [0.38]) and some of the other variables also exhibit significant correlations. However, consistent with prior literature we are primarily interested in obtaining a model with reasonable fit. In any case, variance inflation factors and condition indices do not suggest the presence of serious multicollinearity.

intensity (*INTANG*), an indicator variable for the presence of unusual or extraordinary items (*UNITEMS*), and an indicator variable equal to one if the firm uses regular GAAP and zero if the firm uses "simplified GAAP" for small firms (*GAAP*).

To control for efforts and risks related to capital structure changes (over and above what is captured by *ChLEV*), we include indicator variables for increase or decrease in paid-in capital and for issuance of new interest-bearing debt (*INCPIC, DECPIC*, and *NEWDEBT*, respectively) and we control for current ratio effects (*CURRATIO*).[16]

To further capture factors related to firm complexity, we include the log of the number of subsidiaries (*LNSUB*), the percentage of foreign subsidiaries (*FOREIGN*), the number of distinct two-digit SIC code industries the firm operates in (*NOIND*), and an indicator variable for whether the firm has a fiscal year different from the calendar year (*FYE*).

Finally, we control for both time period (year) and industry affiliation (controlling for potential industry variation in complexity and litigation risk) through indicator variables for two-digit SIC codes. We estimate Equation (2) and use the error term (υ) as our measure of abnormal fees.

IV. EMPIRICAL RESULTS

Descriptive statistics

Table 3 presents descriptive statistics for the variables used in our main regression (Equation 1) as well as in the computation of abnormal fees (Equation 2). With the exception of *BIG4*, *ChAUD*, *INDSPEC, NOSUBS* (the raw number of *LNSUBS*), and *FOREIGN*, for

[16] To reduce the potential impact of extreme observations, we winsorize *ChLEV, OPCF, ROA, INVESTMENTS, INVREC, GROWTH,* and *CURRATIO* at the 1% and 99% of their distributions (and *LEV* at 99%). We have also considered commonly used procedures such as to delete the top and bottom one percent of the independent variables. No inferences are affected by outlier removal choices.

simplicity we report these descriptive statistics based on the 1997-2002 sample. The table shows that 8% of our sample of financially distressed firms received a going concern modification. The mean total fees, audit fees, and non-audit fees are 45, 28, and 18 (rounding) thousand NOK, respectively. Not surprisingly, the sample firms are small (with mean total assets of 15 million NOK), relatively young (mean age of 13 years), and frequently reporting accounting losses (mean of 37%). Big 4 auditors are employed by 29% of the firms and 16% changed auditors during the year.

Results of estimation of abnormal fees

Table 4 presents the OLS regression results of estimating Equation 2 for the 1997-2002 (Panel A) and 2001-2002 sample (Panel B). Reported significance levels for these and subsequent tests are two-sided and based on robust standard errors clustered at the firm level. The adjusted R^2s are 52-54% for audit and total fees and 28-31% for non-audit fees. As predicted, auditor remuneration (i.e., both audit and non-audit fees) is significantly positively associated with the two firm size variables *LNSALES* and *LNEMPLOY*. Consistent with expectations, fees are further significantly positively related to *INVESTMENTS, INVREC, ACQUISITIONS, INTANG, UNITEMS, GAAP, INCPIC, DECPIC, NEWDEBT, NOIND, FYE, BIG4,* and *LNSUB*, and negatively correlated with *ROA*. As explained above, our model also incorporates year and industry fixed effects (not shown in table).

Logit regression results

Table 5 presents the results of estimating Equation (1) for the two sample periods and for both abnormal and raw fees. For brevity we do not tabulate the control variables when reporting

the results for raw fees. Most importantly, across all 16 estimations, the abnormal fee variables are *not* negatively associated with auditors' propensity to issue a going concern opinion. More specifically, Panels A1 and B1 show that abnormal auditor fees are not significantly related to the likelihood of issuing going concern opinions. In other words, after controlling for effort and risk components of auditor fees, we find that the level of auditor fee dependence does not affect auditor propensity to modify their audit opinions.

In Panel A2 we see that several of the coefficients on raw fees are significantly positive.[17] However, in Panel B2, which includes the additional control variables, the estimated coefficients for raw fees are no longer statistically significant. Based on the results in Table 5, there is thus no evidence supporting the contention that fee dependence leads to lower independence and hence a reduced probability of issuing a going concern opinion.

The control variables generally have the predicted signs. Larger, more mature (i.e., "older"), and more profitable firms, as well as firms that have increased their share capital, are less likely to receive a modified opinion. More highly levered firms and firms with losses and prior-year going concern opinions are more likely to receive a modified opinion. The future financing variables (*FUTINCPIC* and *FUTNEWDEBT*) are positive and significant (except *FUTNEWDEBT* in Panel B1), indicating that firms with going concern modification are able or forced to raise more capital in the future than otherwise equally troubled firms without going concern modifications.[18,19]

[17] This finding is not surprising since, when companies experience financial problems (which lead to a going concern opinion), it is likely that additional audit effort is required. As the cost of auditing increases, ceteris paribus, the measured dependence on fees mechanically increases (e.g., Craswell et al. 2002). In our view, this line of arguments suggests the need to either explicitly control for effort and risk when measuring fees (i.e., using abnormal fees) or testing whether increases in fees are related to a lower propensity of receiving a modified opinion the same year or in subsequent years (as we do below).

[18] In Panel A1, firms that increase their leverage have lower propensity to receive going concern opinions. These results do not hold in Panel B1. In Panel A1 the coefficient on *OPCF* is positive and significant. This is not the case

We report results of the two changes specifications for both abnormal and raw fees and for the two sample periods in Table 6. For brevity we only report the test variables in these and subsequent tests. Specifically, in Table 6 all control variables are included in the estimation and are also measured in changes. Consistent with the association tests, none of the estimated coefficients are negative and significant. Thus, we find no evidence that higher fees lead to a lower propensity to issue modified audit opinions. These results complement and strengthen the conclusions drawn from our association tests.

To summarize the findings from Tables 5 and 6, we do not observe any evidence that auditor fee dependence is associated with reduced auditor independence with respect to issuing modified audit opinions and thus we find no indication that auditors abuse their trust. Recall that we selected our sample with the idea of "giving independence impairment its best chance of being detected." Specifically, we focus on the private firm market which has lower reputation risk for auditors. Second, we examine independence in an environment characterized by low litigation risk. In addition, we exclude firms that are the most likely to go bankrupt. In other words, even in a setting in which these important forces should work to reduce the constraints on auditors, there is no evidence that (large) fees received from clients translate into a lower likelihood of issuing modified audit opinions. We provide further discussion of results in Section VI.

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in Panel B1 that includes the additional control variables. When we exclude *LOSS* and *ROA* from the model (since these variables capture similar dimensions), the significance of *OPCF* disappears also in Panel A1.

[19] From Panel B1 we see that *ChAUD* is not significant. As an alternative control, we have excluded firms that changed auditors during the year and rerun the tests. No inferences are affected. Our main equation includes a control for change in auditors during the year. We have also considered including this variable in the fee model. Untabulated analyses show that auditor change is positively and significantly (not significantly) related to total fees and audit fees (non-audit fees).

V. ADDITIONAL TESTS[20]

Results for most recent time period using total fees

As explained previously, after 2002 we do not have data on audit and non-audit fees separately, but we do have data on total fees. Given that the media has focused more on auditor independence issues in recent years than in the past, and because of recent changes in auditor legislation described above, we test whether inferences are the same for the more recent 2003-2005 period. Consistent with prior results, Panel A of Table 7 shows no significant association between fees and going concern-modified opinions during recent years.

Other audit modifications

For brevity and for ease of comparison with prior research (e.g., DeFond et al. 2002), our main tests have centered on going concern modifications and financially distressed firms. To check if (large) fees negatively impact auditors' likelihood of issuing audit modifications other than going concern opinions, we repeat the tests using several alternative modifications as dependent variables (without requiring that firms be classified as financially distressed). Experian has categorized deviations from a clean audit report into 12 categories in addition to the going concern opinion. Thus, one of the advantages of our data set is that we have detailed data on exactly what type of audit modifications was issued. We group the 12 categories into three clusters based on the Norwegian Auditing Standard RS 700 (which follows ISA 700) and repeat our tests. These categories are, from least to most serious, "clarifications" (i.e. unqualified opinions with emphasis of matter), "reservations" (i.e. modified opinions due to limitations with respect to scope or disagreements with management*)*, and unable to issue an opinion (i.e.,

[20] For brevity we only report results using abnormal fees in Table 7. Inferences are not affected if we instead use raw fees.

substantial limitations with respect to scope/disclaimer of opinion). In Panels B and C of Table 7, we present the results using association tests and changes tests, respectively. As the table shows, there is no indication of impaired independence when examining these other audit modifications. Specifically, across the nine regressions reported, there is no case of significantly negative coefficients (and only two of the 19 estimated coefficients on fees are significantly positive). In other words, our inferences are not just limited to going concern opinions for financially distressed firms but rather extend to other forms of audit report modifications.

Other sensitivity analyses

In addition to the various specifications tested above, in the following we report results of numerous additional sensitivity tests. We (1) repeat the tests without imposing the constraint that firms be defined as financially distressed and have positive non-audit fees, (2) employ an alternative approach to classifying firms as financially distressed for going concern tests, (3) test for subsamples of Big 4 versus non-Big 4 auditors, (4) analyze a subsample of firms that likely are most important to the auditor in terms of fees, (5) use subsamples based on client firm size, (6) use the non-audit fee ratio, (7) analyze firms with positive abnormal fees only, and (8) add firm-level governance variables as controls. The results of these tests are not tabulated for brevity, but are available from the authors upon request.

We first repeat both our association and change tests using a much larger sample of firms. Specifically, we no longer impose the requirement that firms be financially distressed and have positive non-audit fees. This means we have up to 433,176 observations spanning 10 years (1996-2005).

As there is no theoretically correct way of defining "financially distressed," as an alternative to using the Ohlson model to sort firms, as our second sensitivity test we follow Reynolds and Francis (2000) and DeFond et al. (2002) and focus on firms with negative net income or negative operating cash flow in the current year. For these tests our sample consists of 46,762 (1997-2002) and 19,349 (2001-2002) firm-year observations, respectively.

Although we control for Big 4 auditor in our reported tests, as an alternative approach (and our third robustness check) we estimate the tests separately for non-Big 4 and Big 4 samples. It is conceivable that the independence threat could vary between these two groups of audit firms.

Since it is possible that auditors' incentives to compromise independence are related to client importance, our fourth test focuses on the most important clients (Watts and Zimmerman 1986; DeAngelo 1981). Specifically, the overall sample fee magnitude reported in Table 3 is NOK 45,280, and it could be that this amount is too small to cause a meaningful economic bond. First, following Chung and Kallapur (2003), we use fees to construct measures of client importance. Client importance is measured as the ratio of a client's total fees to the audit firm's total fees from all clients, the ratio of client's audit fee to the audit firm's total fees from all clients, or the ratio of client's non-audit fees to the audit firm's total fees from all clients. We then run the tests on a subset of firms consisting of the ten percent of firms that have highest scores on each of the three client importance variables. We also run tests on the subset of client firms that have the have highest fees (as NOK 200,000 in fees from one client is presumably more important than NOK 20,000 from 10 clients). Specifically, we analyze a subset of firms for which total, audit, or non-audit fees are above the 90th percentile of total, audit, or non-audit fee respectively. The mean total fee for this subsample is NOK 177,350 (4.2 times larger than for the full sample of firms), which seems economically important to most audit firms in Norway.

Despite the fact that we include several controls for size in our tests, it is possible that our size controls are inadequate. In our fifth test, we create subsamples of firms based on total assets (*TA)*. First we remove the smallest firms from our sample, as these firms may be of least interest in a non-Norwegian context and when comparing our results with those of publicly traded firms or private firms in other countries where mandatory auditing is required but only when a size threshold is exceeded. Specifically, we exclude the first quartile of firms in terms of *TA* and rerun our tests. Second, we group all firms into four equal-sized subsets based on *TA* and rerun the tests for each of the size groups. Finally, we group firms into two subsets depending on whether they use regular GAAP or simplified GAAP and rerun the tests for each subset.

In the sixth test, as a specification check on our tests on the effect of non-audit fee dependence, we also considered non-audit fee *ratio* (instead of including the audit and non-audit fees jointly).

According to Choi et al. (2006) and Hope et al. (2009a), economic bonding between the client and audit firm is less likely to occur for any level of negative abnormal fees. Consequently, in the seventh sensitivity test we run all tests using only the subsample with positive abnormal fees.

Although our models already include numerous control variables, in our final test we further add control variables related to firm-level corporate governance issues (e.g., Larcker and Richardson 2004; Coffee 2005). In particular, we control for firm ownership percentage by the CEO, whether the CEO is also the chairman of the board, government ownership, and foreign ownership.

In conclusion, the additional robustness tests provide the same conclusion as the tabulated results: There is no evidence that auditors are willing to impair their independence over fees received from their clients.

VI. POSSIBLE ALTERNATIVE EXPLANATIONS AND FURTHER DISCUSSION

In theory, it could be the case that auditors always have their independence impaired regardless of the level of fees or risk. In this case it would not be possible to detect a difference by conditioning on fees. However, we believe it would be hard to argue that auditors' independence is always impaired.[21] If this were the case, there would be little (if any) demand for auditors' services. We know, however, that there is a demand for audit services around the world (both mandated by governments and voluntarily demanded as means to reduce agency costs) and the literature has provided ample evidence that external audits are valuable in a variety of settings around the world (e.g., Simunic and Stein 1987; Abdel-Khalik and Solomon 1988; Becker et al. 1998; Fan and Wong 2005; Boone et al. 2008; Haw et al. 2008; Hope et al. 2009b).

A second possibility is that the audit report has no value (and thus there is no point in examining audit opinion modifications). With respect to the usefulness of the audit report in the Norwegian context, audit report accuracy is also important. For example, did the auditor fail to issue a going concern opinion when there is a subsequent business failure and a clean opinion when there is no subsequent business failure? Eilifsen and Gjesdal (2001) report that the fraction of bankrupt companies receiving going concern modifications in Norway (62%) is comparable to or higher than figures reported in U.S. studies (i.e., Hopwood et al. (1994) and Venuti (2004)

[21] In Section V we report that we ran our tests separately for clients of Big 4 and non-Big 4 auditors. We do not observe any differences between these groups. As an additional sensitivity check, we form four size portfolios (using *TA*) for each subset of Big 4 and non Big 4 clients and rerun our tests. Again, we observe no differences between the groups. Perhaps most important, it is less likely that international audit firms auditing relatively large clients consistently are impaired (compared to national or local audit firms auditing smaller firms).

report rates between 40-50%). Furthermore, Lensberg et al. (2006) find that the most significant variable for predicting bankruptcy among Norwegian firms is the prior auditor opinion. These studies thus provide support for the information value of the auditor's report in Norway and do not support the alternative view that auditors' independence is always impaired and/or that auditors have low abilities to detect bankruptcy candidates.

Since reputation risk and the expected costs of lawsuits are (at least partially) "controlled for" in our setting, it is likely that other factors explain our findings. Although it is difficult to ascribe the results to a single factor, our findings are certainly consistent with auditors behaving with ethics and integrity in mind. Codes of ethics such as those used by the International Federation of Accountants (IFAC), the Norwegian Institute of Public Accountants, the American Institute of Certified Public Accountants, the Canadian Institute of Chartered Accountants, and others are designed to motivate members to operate in an ethical manner. Specifically, Section 100.4 of the Code of Ethics promulgated by The International Ethics Standards Board for Accountants (which is under the auspices of IFAC) requires public accountants to adhere to five fundamental principles: Integrity, Objectivity, Professional Competence and Due Care, Confidentiality, and Professional Behavior.[22]

We find that neither audit nor non-audit fees relate negatively to the probability of audit opinion modifications. Although some authors argue that objectivity can be impaired based on both audit fees and non-audit fees, regulators have recently put more emphasis on non-audit fees and in particular restricted the provision of such services to audit clients. Our research does not

[22] In a survey conducted among 400 professional auditors in Canada, Libby and Thorne (2003) found that integrity, truthfulness, and independence received perfect or near perfect ratings across the entire group of respondents. The authors conclude that virtue plays an integral role in both the intention to exercise professional judgment and in the exercise of professional judgment. Similar inferences can be drawn from a U.S. study by Ahadiat and Mackie (1993) and from an experimental study by Falk et al. (1999). For an example of more theoretical work, see for instance Shapiro (1986) who models the value of occupational licensing (such as the certification of auditors). He argues and finds that, by raising professionals' training levels, licensing helps alleviate moral hazard problems associated with the provision of high quality services.

speak directly to whether such prohibitions are warranted or not; at a minimum we can conclude that non-audit fees per se do not seem to imply a lower likelihood of issuing modified opinions. Other researchers have specifically examined the effects of non-audit services by auditors. According to this line of research, there is at least a potential for such services to have a positive effect on the quality of the audit work. For example, Simunic (1984) models the relation between audit and non-audit fees and empirically demonstrates that knowledge spillovers exist between audit and non-audit tasks. Joe and Vandervelde (2007) conduct an experimental study and show that auditor-provided non-audit services can be beneficial in that knowledge transfer aids risk assessments. Similarly, Gleason and Mills (2007) find that a specific type of non-audit service, tax services (which is commonly provided to private firm clients), actually improves the quality of the audit work.

VII. CONCLUSION

The audit report communicates the auditor's findings to outsiders and plays a crucial role in warning financial statement users of impending problems with the firm's financial reporting or internal controls, including going concern problems. However, for the audit opinion to play a credible role as a warning signal, the auditor must be able to objectively evaluate firm performance and withstand any client pressure to issue a clean opinion. More generally, auditor independence is recognized as one of the central values or ideals that underlie the work and legitimacy of public accountants (e.g., Levitt 2000).

Although there is mixed evidence in prior research, it would be hard to argue based on the weight of the evidence in recent studies that there is compelling evidence that auditors systematically impair their independence. However, most of this research has been conducted in

the U.S. (or similar countries) and researchers have appealed to either risk of litigation or loss of reputation as explanations for not finding evidence of independence impairment. The purpose of this study is to create a "perfect storm" so that the factors that constrain auditors' behavior are less important (or non-existent). Specifically, we examine auditor independence in a private firm setting, and prior research has unanimously concluded that reputation risk is considerably lower for auditors for private than for public client firms. In addition, we choose an environment characterized by low litigation risk for auditors (Norway). Finally, we exclude the most extremely financially distressed firms as auditors would not be likely to avoid issuing going concern opinions for such firms. These three choices imply that we selected our sample with the idea of "giving independence impairment its best chance of success."

Using a large sample of private firms in Norway, we test whether (large) audit and non-audit fees are associated with a lower incidence of going concern audit opinions as well as other audit opinion modifications. In contrast to concerns raised by media and regulators, our results suggest that auditors are not willing to forego their independence by issuing fewer going concern opinions or other modified audit opinions when they receive (large) fees from their clients. These results are robust to the inclusion of a large number of control variables, to controlling for the expected amount of fees, to using different samples, and to numerous other sensitivity analyses. Since our setting to a large extent "controls" for the effects of litigation risk and reputation loss, we conclude that something deeper and more fundamental must be going on. Although it is difficult to ascribe the results to a single factor, our results are certainly consistent with auditors adhering to professional ethics and integrity in fulfilling their duties.

We can of course never rule out the possibility that we have not controlled for factors that could impact the relation between fees and the propensity to issue modified audit opinions.

However, given the extensive set of control variables included in our models, the control for the expected portion of fees, and the use of both association and changes tests, we do not consider the possibility of omitted variables a serious threat to our conclusions.

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Appendix: List of Variables

ABAF	=	Abnormal audit fee in year t, estimated as the residuals from the model with *LNAF* as dependent variable in Table 4.
ABNAF	=	Abnormal non audit fee in year t, estimated as the residuals from the model with *LNNAF* as dependent variable in Table 4.
ABTF	=	Abnormal total fee in year t, estimated as the residuals from the model with *LNTF* as dependent variable in Table 4.
ACQUISITIONS	=	1 if firm has increased long term investments in other companies from t-1 to t, 0 otherwise.
AF	=	Audit fee = Total fee paid to auditor for auditing services in year t in NOK 1,000.
AGE	=	Firm's age in years in year t.
BIG4	=	1 if auditing firm is a one of the BIG 4 auditing firms or their forerunners in year t, 0 otherwise.
ChABAF	=	Change in abnormal audit fee from t-1 to t = $ABAF_t$ - $ABAF_{t-1}$.
ChABNAF	=	Change in abnormal non audit fee from t-1 to t = $ABNAF_t$ - $ABNAF_{t-1}$.
ChABTF	=	Change in abnormal total fee from t-1 to t = $ABTF_t$ - $ABTF_{t-1}$.
ChAUD	=	1 if firm changed auditor from t-1 to t, 0 otherwise.
ChCLAR1	=	Change in clarification (*CLAR*) from t-1 to t = 1 in year t if the firm did not receive a modification in year t-1 but did in year t, 0 otherwise.
ChCLAR2	=	Change in clarification (*CLAR*) from t to t+1 = 1 in year t if the firm did not receive a modification in year t but did in year t+1, 0 otherwise.
ChGC1	=	Change in going concern modification (*GC*) from t-1 to t = 1 in year t if the firm did not receive a going concern modification in year t-1 but did in year t, 0 otherwise.
ChGC2	=	Change in going concern modification (*GC*) from t to t+1 = 1 in year t if firm did not receive a going concern modification in year t but did in year t+1, 0 otherwise.
ChINVESTMENTS	=	Change in investments from t-1 to t = $INVESTMENTS_t$ - $INVESTMENTS_{t-1}$.
ChLEV	=	Change in leverage from t-1 to t = LEV_t - LEV_{t-1}.
ChLNAF	=	Change in the natural logarithms of audit fee from t-1 to t = $LNAF_t$ - $LNAF_{t-1}$.
ChLNNAF	=	Change in the natural logarithms of non audit fee from t-1 to t = $LNNAF_t$ - $LNNAF_{t-1}$.
ChLNTF	=	Change in the natural logarithms of total fee from t-1 to t = $LNTF_t$ - $LNTF_{t-1}$.
ChLOSS	=	1 if firm went from profit in year t-1 to loss in year t, e.g. $ChLOSS_t$ = 1 if $LOSS_{t-1}$ = 0 and $LOSS_t$ = 1, 0 otherwise.
ChOPCF	=	Change in operating cash flow from t-1 to t = $OPCF_t$ - $OPCF_{t-1}$.
ChPROBANK	=	Change in the probability of going bankrupt from t-1 to t = $PROBANK_t$ - $PROBANK_{t-1}$.
ChRES1	=	Change in reservation (*RES*) from t-1 to t = 1 in year t if the firm did not receive a reservation in year t-1 but did in year t, 0 otherwise.
ChRES2	=	Change in reservation (*RES*) from t to t+1 = 1 in year t if the firm did not receive a modification in year t but did in year t+1, 0 otherwise.
ChTA	=	Change in natural logarithms of total assets from t-1 to t = $LNTA_t$ - $LNTA_{t-1}$.
ChUNA1	=	Change in unable to issue an opinion (*UNA*) from t-1 to t = 1 in year t if the firm did not receive a audit report where the auditor states he/she is unable to issue an opinion in year t-1 but did in year t, 0 otherwise.
ChUNA2	=	Change in unable to issue an opinion (*UNA*) from t to t+1 = 1 in year t if the firm did not receive a audit report where the auditor states he/she is unable to issue an opinion

		in year t but did in year t+1, 0 otherwise.
CLAR	=	1 for firms receiving audit report with clarification (i.e. clean (or unqualified) audit report with emphasis of matter) in year t, 0 otherwise.
CLEAN	=	1 for firms receiving audit report with no modifications (neither emphasis of matter, modifications nor other deviations from a clean report) in year t, 0 otherwise.
CURRATIO	=	Current ratio at the end of year t.
DECPIC	=	1 if firm decreased share capital from t-1 to t, 0 otherwise.
EMPLOY	=	Number of employees in year t.
EXIT	=	1 if firm is included in the sample in year t, but not in years t+1 or t+2.
FOREIGN	=	Percentage of foreign subsidiaries in year t = the number of foreign subsidiaries in year t * 100 / total number of subsidiaries in year t.
FUTINCPIC	=	Future increases in share capital = 1 if share capital increased in year t+1, 0 otherwise.
FUTNEWDEBT	=	Future increases in interest bearing debt = 1 if firm obtained long term or short term interest bearing debt in year t+1, 0 otherwise.
FYE	=	1 for fiscal years ending other than Dec. 31 in year t, 0 otherwise.
GC	=	1 if the firm received a going concern modification only in year t, 0 otherwise. Similarly, *GCPY* = 1 if the firm received a going concern modification in the previous year, 0 otherwise.
GROWTH	=	Change in sales in year t = $(SALES_t - SALES_{t-1}) / SALES_{t-1}$.
GAAP	=	1 if firm uses regular Norwegian accounting principles in year t, 0 if firm uses the simplified set of accounting principles that is available for small companies.
INCPIC	=	1 if firm increased share capital from t-1 to t, 0 otherwise.
IND	=	Industry affiliation (two digit industry codes)
INDSPEC	=	Auditor industry specialization in year t = number of clients the firms auditor has in industry j in year t / total number of clients for all auditing firms in industry j in year t. Two digits industry codes were used to calculate *INDSPEC*. The sample used to compute *INDSPEC* consists of all firms in 2001-2002 with available information on industry affiliation and auditor identification (245,901 observations).
INTANG	=	Intangible assets / total assets, both at the end of year t.
INVESTMENTS	=	(Long and short term investments in securities + bank deposits + cash) / total assets, both at the end of year t.
INVREC	=	Inventory and accounts receivable at the end of year t scaled by $SALES_t$.
LEV	=	Long and short-term interest bearing debt / total assets at year end, both at the end of year t. Short-term interest bearing debt = total short term debt - accounts payable - dividends - taxes payable – VAT and social service taxes - other short term debt.
LNEMPLOY	=	Natural logarithm of 1+ number of employees = $\ln(1 + EMPLOY_t)$.
LNSALES	=	Natural logarithm of total revenue from operations = $\ln(SALES_t)$.
LNSUB	=	Natural logarithm of 1 + number of subsidiaries = $\ln(1 + NOSUB_t)$.
LOSS	=	1 if net income after taxes before extraordinary item and taxes on extraordinary item < 0 in year t, 0 otherwise.
NAF	=	Non audit fee = Total fee paid to auditor for non-auditing services in year t in NOK 1,000.
NEWDEBT	=	Increase in interest bearing debt in year t = 1 firm obtained long term or short term interest bearing debt in year t, 0 otherwise.

NOIND	=	Number of two digit industry codes the firm is registered with in year t.
NOSUBS	=	Number of subsidiaries in year t.
OPCF	=	Operating cash flow in year t scaled by $SALES_t$. Operating cash flow = earnings - total accruals. Earnings = net income after taxes before extraordinary item and taxes on extraordinary items. Total accruals = change in current assets - change in cash - change in short term debt + change in short term interest bearing debt + change in dividends + depreciation + amortization - change in net deferred taxes.
PROBANK	=	Probability of going bankrupt, estimated using Model 1 in Ohlson (1980).
RES	=	1 for firms receiving audit report with reservation in year t, 0 otherwise.
ROA	=	Return on assets = Net income before taxes and extraordinary items in year t scaled by $(TA_{t-1} + TA_t) * 0.5$
SALES	=	Total revenue from operating activities in year t in NOK 1,000.
TA	=	Total assets at the end of year t in NOK 1,000.
TF	=	Total fee = Total fee paid to auditor for audit and non audit services in year t in NOK 1,000 (e.g. $TF_t = AF_t + NAF_t$).
UNA	=	1 for firms receiving audit report where auditor states that he/she is unable to issue an opinion in year t, 0 otherwise.
UNITEMS	=	Dummy for unusual items in year t = 1 for firms with impairments or extraordinary items in year t, 0 otherwise.
YR_t	=	1 if observations belong to year t, 0 otherwise.

Please note further that "LN" denotes the natural logarithm.

Table 1: Sample Size and Sample Selection Criteria

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	All-years
Number of private limited liability companies	110,694	118,359	126,335	130,300	135,562	138,176	140,625	141,502	143,965	138,470	1,323,988
Exclusion criteria											
Sales < 1 mill NOK	49,501	52,701	56,475	58,199	60,761	61,565	62,751	61,853	60,871	61,149	585,826
Total Assets < 1 mill NOK	15,374	15,564	16,103	15,668	15,524	15,282	15,521	16,079	16,239	14,027	155,381
Total auditor remuneration < 10 000 NOK	10,832	11,556	11,619	10,955	10,348	10,207	9,135	8,680	8,755	12,815	104,902
Firm age, industry affiliation, number of employees, audit report or prior year's financial statement not available	1,529	1,876	2,151	2,302	13,428	3,458	6,326	3,284	3,571	2,379	40,304
Financial institutions	328	381	425	502	446	464	467	445	462	479	4,399
No of observations in 1996-2005	33,130	36,281	39,562	42,674	35,055	47,200	46,425	51,161	54,067	47,621	433,176
Information on audit and non audit fee not available	33,130	0	0	0	0	0	0	51,161	54,067	47,621	185,979
Firms with non audit fee = 0	-	19,399	20,260	16,923	12,711	17,030	16,198	-	-	-	102,521
Firms with other than going concern modifications	-	2,151	2,365	2,483	1,498	3,266	3,015	-	-	-	14,778
Firms not in the sample the following two years	-	960	1,144	1,759	1,473	1,977	1,740	-	-	-	9,053
The 60 % of firms with lowest probability of going bankrupt	-	8,263	9,476	12,905	11,624	14,956	15,283	-	-	-	72,507
The 5% of firms with highest probability of going bankrupt	-	689	790	1,075	969	1,246	1,274	-	-	-	6,042
No of financially distressed firms in 1997-2002	-	4,820	5,528	7,528	6,781	8,724	8,915	-	-	-	42,296
Information missing on auditor, auditor change, auditor industry specialization, and number of subsidiaries	-	4,820	5,528	7,528	6,781	246	3	-	-	-	24,906
No of financially distressed firms in 2001-2002	-	-	-	-	-	8,478	8,912	-	-	-	17,390

Notes to Table 1

The table shows sample size and sample selection criteria. Firms are defined as financially distressed if they do not belong to the 60 % (5 %) of firms with the lowest (highest) probabilities of going bankrupt. The probability of going bankrupt is estimated using Model 1 in Ohlson (1980), which predicts bankruptcy within one year.

Table 2: Distributions of Contents of Audit Reports and Firms Not Included in Sample in t+1 or t+2

		Percentage of firms in each group with						
Group	*N*	*CLEAN*	*GC*	*CLAR*	*RES*	*NEG*	*UNA*	*EXIT*
1	7,238	96.0 %	0.1 %	3.6 %	0.3 %	0.2 %	0.0 %	9.1 %
2	7,233	95.9 %	0.1 %	3.7 %	0.3 %	0.3 %	0.0 %	5.5 %
3	7,234	95.5 %	0.1 %	4.1 %	0.3 %	0.4 %	0.0 %	5.0 %
4	7,233	95.5 %	0.1 %	4.1 %	0.2 %	0.2 %	0.0 %	4.4 %
5	7,233	95.0 %	0.1 %	4.6 %	0.3 %	0.3 %	0.0 %	4.6 %
6	7,235	94.5 %	0.1 %	5.0 %	0.3 %	0.4 %	0.0 %	4.5 %
7	7,233	94.6 %	0.3 %	5.0 %	0.3 %	0.3 %	0.0 %	4.4 %
8	7,233	93.2 %	0.4 %	6.1 %	0.5 %	0.5 %	0.0 %	4.9 %
9	7,234	92.3 %	0.8 %	7.0 %	0.6 %	0.5 %	0.0 %	5.2 %
10	7,233	91.6 %	1.0 %	7.7 %	0.5 %	0.5 %	0.0 %	5.6 %
11	7,237	90.1 %	2.0 %	8.9 %	0.6 %	0.7 %	0.0 %	5.6 %
12	7,233	87.7 %	2.6 %	11.4 %	0.7 %	0.8 %	0.0 %	6.1 %
13	7,234	86.9 %	3.2 %	12.2 %	0.7 %	0.8 %	0.0 %	6.4 %
14	7,232	84.6 %	4.6 %	14.4 %	1.0 %	1.0 %	0.0 %	6.3 %
15	7,235	81.5 %	5.6 %	17.1 %	1.5 %	1.4 %	0.0 %	7.8 %
16	7,233	77.7 %	7.6 %	21.0 %	1.5 %	1.6 %	0.1 %	8.8 %
17	7,234	73.7 %	9.6 %	24.6 %	1.8 %	1.9 %	0.1 %	10.8 %
18	7,233	67.2 %	13.8 %	31.0 %	2.1 %	2.5 %	0.1 %	11.5 %
19	7,234	57.6 %	20.9 %	40.4 %	2.6 %	3.2 %	0.1 %	15.2 %
20	7,232	32.1 %	39.7 %	64.9 %	5.3 %	5.3 %	0.2 %	24.7 %
Total	144,676	84.2 %	5.6 %	14.8 %	1.1 %	1.1 %	0.0 %	7.8 %

Notes to Table 2
The sample (N=144,676) consists of all firms in 1997-2002 (N= 433,176) less firms with missing information on audit and non-audit fees (N = 185,979) or firms with non-audit fee = 0 (N=102,521). The firms are grouped into 20 equal sized portfolios based on the probability of going bankrupt as estimated using Model 1 in Ohlson (1980). Firms with lowest (highest) probabilities of going bankrupt are found in group 1 (20). *CLEAN* = Audit report with no modifications. *GC* = Audit report with going concern modification only. *CLAR* = Audit report with clarification. *RES* = Audit report with reservation. *NEG* = Audit report with negative conclusion. *UNA* = Audit report where auditor states that he/she is unable to issue an opinion. *EXIT* shows the percentage of firms in each group in year t that does not meet sample selection criteria in t+1 or t+2.

Table 3: Descriptive Statistics for Variables in Abnormal Fee Models and Going Concern Models

	N	*Mean*	*St.dev*	*Q1*	*Median*	*Q3*
Panel A: 1997-2002						
GC	42,296	0.08	0.28	0.00	0.00	0.00
TF	42,296	45.28	78.96	20.00	30.00	48.00
AF	42,296	28.23	34.91	13.00	20.00	31.00
NAF	42,296	18.06	60.90	6.00	10.00	18.00
SALES	42,296	21,485	67,011	3,815	7,919	18,004
TA	42,296	15,244	67,013	2,298	4,780	11,763
EMPLOY	42,296	14.41	50.50	3.00	6.00	14.00
AGE	42,296	12.69	12.01	5.00	10.00	15.00
ROA	42,296	0.02	0.12	-0.03	0.02	0.08
GROWTH	42,296	0.34	1.27	-0.05	0.06	0.22
LEV	42,296	0.49	0.26	0.28	0.51	0.70
ChLEV	42,296	0.00	0.17	-0.06	0.00	0.07
OPCF	42,296	0.02	0.88	-0.03	0.02	0.08
LOSS	42,296	0.37	0.48	0	0	1
INVESTMENTS	42,296	0.15	0.17	0.03	0.08	0.21
INVREC	42,296	0.21	0.30	0.07	0.16	0.27
ACQUISITIONS	42,296	0.17	0.38	0	0	0
INTANG	42,296	0.03	0.08	0.00	0.00	0.01
UNITEMS	42,296	0.05	0.22	0	0	0
GAAP	42,296	0.10	0.30	0	0	0
INCPIC	42,296	0.09	0.29	0	0	0
DECPIC	42,296	0.09	0.28	0	0	0
NEWDEBT	42,296	0.25	0.43	0	0	0
CURRATIO	42,296	1.34	1.20	0.90	1.12	1.42
NOIND	42,296	1.64	0.92	1	1	2
FYE	42,296	0.01	0.10	0	0	0
FUTINCPIC	42,296	0.12	0.33	0	0	0
FUTNEWDEBT	42,296	0.23	0.42	0	0	0
Panel B: 2001-2002						
BIG4	17,390	0.29	0.45	0	0	1
ChAUD	17,390	0.16	0.36	0	0	0
INDSPEC	17,390	2.08	3.08	0.16	0.42	4.05
NOSUBS	17,390	0.38	1.32	0	0	0
FOREIGN	17,390	1.43	10.99	0	0	0

Notes to Table 3
The table shows descriptive statistics for variables used in the abnormal fee models and/or the going concern models (in the models we use natural logarithms, indicated by the prefix *LN*, of some of the variables). As described in the text, we report results for two sample periods: 1997-2002 (Panel A) and 2001-2002 (Panel B). The main reason for using two sample periods is that data for some potentially important control variables only are available for the more limited time period (see Panel B). The sample consists of financially distressed firms as defined in Table 1. N = number of observations. Q1 and Q3 are the 25th percentile and 75th percentile, respectively. Please see appendix for variable definitions.

Table 4: OLS Estimation of Abnormal Total Fees, Abnormal Audit Fees, and Abnormal Non Audit Fee

Panel A: 1997-2002 (N=42,296)

Dep.var.	*LNTF*		*LNAF*		*LNNAF*	
	Coeff.	*t-value*	*Coeff.*	*t-value*	*Coeff.*	*t-value*
LNSALES	0.283***	75.84	0.289 ***	80.11	0.234 ***	43.32
LNEMPLOY	0.112***	27.84	0.133 ***	33.62	0.067 ***	11.61
ChLEV	0.011	0.69	-0.013	-0.87	0.048 **	2.03
INVESTMENTS	0.174***	10.34	0.092 ***	5.53	0.266 ***	11.51
INVREC	0.119***	7.09	0.121 ***	7.28	0.108 ***	5.71
GROWTH	-0.002	-0.69	-0.014 ***	-5.72	0.013 ***	3.82
ROA	-0.580***	-25.22	-0.531 ***	-23.88	-0.574 ***	-17.43
ACQUISITIONS	0.103***	15.17	0.080 ***	12.12	0.121 ***	12.10
INTANG	0.384***	10.64	0.261 ***	7.73	0.542 ***	9.93
UNITEMS	0.143***	11.97	0.105 ***	9.52	0.174 ***	9.59
GAAP	0.221***	19.86	0.168 ***	16.33	0.261 ***	15.86
INCPIC	0.103***	11.62	0.052 ***	6.10	0.171 ***	12.90
DECPIC	0.139***	14.81	0.075 ***	8.44	0.209 ***	14.97
NEWDEBT	0.020***	3.22	0.014 **	2.32	0.019 **	2.12
CURRATIO	-0.001	-0.38	-0.003	-1.46	0.001	0.34
NOIND	0.043***	15.63	0.037 ***	13.83	0.045 ***	11.06
FYE	0.274***	10.10	0.252 ***	8.98	0.310 ***	8.20
Adjusted R^2	51.6 %		53.8 %		27.7 %	

Panel B: 2001-2002 (N=17,390)

Dep.var.	*LNTF*		*LNAF*		*LNNAF*	
	Coeff.	*t-value*	*Coeff.*	*t-value*	*Coeff.*	*t-value*
LNSALES	0.263***	45.13	0.274***	48.07	0.21***	25.35
LNEMPLOY	0.109***	17.81	0.133***	21.56	0.061***	6.95
ChLEV	0.049*	1.74	0.009	0.32	0.106***	2.64
INVESTMENTS	0.15***	6.08	0.087***	3.59	0.219***	6.53
INVREC	0.101***	4.70	0.097***	4.65	0.098***	3.71
GROWTH	-0.006	-1.56	-0.012***	-3.18	0.003	0.53
ROA	-0.547***	-15.23	-0.514***	-15.06	-0.51***	-9.97
ACQUISITIONS	0.066***	6.04	0.053***	4.94	0.075***	4.73
INTANG	0.402***	7.61	0.328***	6.59	0.483***	6.04
UNITEMS	0.16***	8.21	0.115***	6.28	0.186***	6.28
GAAP	0.194***	11.29	0.155***	9.54	0.215***	8.47
INCPIC	0.099***	7.18	0.034***	2.59	0.182***	9.06
DECPIC	0.126***	9.71	0.065***	5.21	0.196***	10.44
NEWDEBT	0.018**	1.97	0.011	1.19	0.023*	1.73
BIG4	0.126***	6.84	0.095***	5.42	0.139***	4.33
INDSPEC	0.003	1.18	-0.002	-0.84	0.015***	2.95
CURRATIO	-0.006*	-1.73	-0.006*	-1.79	-0.005	-1.17
LNSUB	0.157***	13.90	0.096***	8.93	0.213***	12.96
FOREIGN	0.001*	1.76	0.001*	1.83	0.001	1.22
NOIND	0.043***	9.73	0.037***	8.23	0.045***	7.05
FYE	0.289***	6.96	0.266***	6.44	0.339***	5.45
Adjusted R^2	53.2 %		53.7 %		31.3 %	

Notes to Table 4

This table reports ordinary least squares (OLS) estimated coefficients (Coeff.) and corresponding t-values for the abnormal fee models estimated on the 1997-2002 (Panel A) and 2001-2002 (Panel B) samples described in Table 1. Two-digit industry indicator variables and year indicator variables are included in the models but not tabulated. Reported significance levels (*, **, and *** for 0.10, 0.05 and 0.01 levels, respectively) are for two-sided tests and based on robust standard errors clustered at the firm level. Please see appendix for variable definitions.

Table 5: Logit Regressions of the Propensity to Issue Going Concern Modifications on Fees (Abnormal and Raw Total Fees, Audit Fees, and Non-Audit Fees) and Control Variables

Panel A1: 1997-2002 (N=42,296)

	Model 1		*Model 2*		*Model 3*		*Model 4*	
	Coeff.	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
ABTF	0.079	1.62						
ABAF			0.055	1.11			0.040	0.77
ABNAF					0.040	1.19	0.031	0.89
LNTA	-0.333***	-13.35	-0.329***	-13.30	-0.331***	-13.24	-0.332***	-13.30
LNAGE	-0.231***	-6.88	-0.229***	-6.82	-0.228***	-6.81	-0.230***	-6.85
LEV	2.856***	23.64	2.857***	23.64	2.859***	23.68	2.857***	23.64
ChLEV	-0.431***	-2.78	-0.432***	-2.79	-0.434***	-2.80	-0.432***	-2.79
OPCF	0.066**	2.07	0.066**	2.06	0.066**	2.08	0.066**	2.07
LOSS	1.146***	18.84	1.145***	18.83	1.146***	18.84	1.145***	18.84
ROA	-3.945***	-14.67	-3.938***	-14.61	-3.941***	-14.53	-3.944***	-14.65
INVESTMENTS	-0.028	-0.17	-0.022	-0.14	-0.024	-0.15	-0.026	-0.16
PROBANK	7.184***	6.37	7.185***	6.38	7.162***	6.35	7.181***	6.37
INCPIC	-0.422***	-4.98	-0.421***	-4.98	-0.422***	-4.98	-0.422***	-4.98
NEWDEBT	0.093	1.56	0.093	1.56	0.092	1.55	0.093	1.56
FUTINCPIC	0.463***	7.30	0.465***	7.34	0.464***	7.31	0.464***	7.30
FUTNEWDEBT	0.122**	2.10	0.122**	2.10	0.123**	2.11	0.122**	2.10
GCPY	3.234***	55.02	3.236***	55.08	3.235***	55.04	3.234***	55.02
Pesudo R^2	38.3 %		38.3 %		38.3 %		38.3 %	

Panel A2: Logarithms of raw fee 1997-2002 (N=42,296)

	Model 1		*Model 2*		*Model 3*		*Model 4*	
	Coeff.	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
LNTF	0.152***	3.08						
LNAF			0.106**	2.13			0.074	1.42
LNNAF					0.084**	2.51	0.069**	1.95
Pseudo R2	39.8%		39.8%		39.8%		39.8%	

Panel B1: Abnormal fee, 2001-2002 (N=17,390)

	Model 1		*Model 2*		*Model 3*		*Model 4*	
	Coeff.	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
ABTF	0.016	0.21						
ABAF			0.01	0.13			0.00	0.04
ABNAF					0.016	0.31	0.02	0.28
LNTA	-0.322***	-8.29	-0.322***	-8.34	-0.323***	-8.29	-0.32***	-8.29
LNAGE	-0.266***	-4.89	-0.266***	-4.87	-0.266***	-4.90	-0.27***	-4.88
LEV	2.717***	15.05	2.718***	15.05	2.717***	15.06	2.72***	15.05
ChLEV	-0.394	-1.47	-0.395	-1.47	-0.395	-1.47	-0.40	-1.47
OPCF	0.051	1.13	0.05	1.13	0.051	1.13	0.05	1.13
LOSS	1.235***	12.75	1.235***	12.75	1.235***	12.76	1.24***	12.75
ROA	-3.566***	-9.02	-3.564***	-9.01	-3.566***	-9.01	-3.57***	-9.02
INVESTMENTS	-0.407	-1.55	-0.405	-1.54	-0.409	-1.55	-0.41	-1.55
PROBANK	5.593***	2.98	5.597***	2.98	5.584***	2.98	5.59***	2.98
INCPIC	-0.257**	-1.98	-0.257**	-1.98	-0.257**	-1.99	-0.26**	-1.99
NEWDEBT	-0.038	-0.45	-0.038	-0.45	-0.038	-0.45	-0.04	-0.45
FUTINCPIC	0.39***	4.25	0.391***	4.25	0.39***	4.24	0.39***	4.24
FUTNEWDEBT	0.059	0.65	0.059	0.65	0.059	0.64	0.06	0.64
BIG4	-0.094	-1.17	-0.094	-1.17	-0.094	-1.17	-0.09	-1.17
ChAUD	-0.01	-0.10	-0.01	-0.10	-0.01	-0.11	-0.01	-0.11
GCPY	3.523***	36.10	3.523***	36.10	3.522***	36.10	3.52***	36.09
Pesudo R^2	38.0 %		38.0 %		38.0 %		38.0 %	

Panel B2: Logarithms of raw fee 2001-2002

	Model 1		*Model 2*		*Model 3*		*Model 4*	
	Coeff.	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
LNTF	0.078	1.05						
LNAF			0.061	0.79			0.042	0.52
LNNAF					0.049	0.96	0.040	0.74
Pseudo R^2	39.4%		39.4%		39.4%		39.4%	

Notes to Table 5
This table reports Logit estimated coefficients (Coeff.) and corresponding z-values for the going concern models estimated on the 1997-2002 (Panel A1 and A2) and 2001-2002 (Panel B1 and B2) samples described in Table 1. Panels A1 and B1 uses abnormal fees (*ABTF, ABAF*, and *ABNAF*) as test variables and the abnormal fees are computed as the results from the models estimated in Table 4. Two-digit industry indicator variables and year indicator variables are included in all models but not tabulated. Panels A2 and B2 uses natural logarithms of raw fees (*LNTF*, *LNAF*, and *LNNAF*) as test variables. The control variables in Panel A2 (B2) are the variables from the fee model in Table 4 Panel A (B) in addition to the control variables shown in Table 5 Panel A1 (B1). Reported significance levels (*, **, and *** for 0.10, 0.05, and 0.01 levels, respectively) are for two-sided tests and based on robust standard errors clustered at the firm level. Please see appendix for variable definitions.

Table 6: Changes Specifications of Logit Regressions on the Propensity to Issue Going Concern Modifications

Panels A and B: Logit Regressions on the Propensity to Issue Going Concern Modifications on Changes in Abnormal Total Fees (*ChABTF*), Changes in Abnormal Audit Fees (*ChABAF*), Changes in Abnormal Non Audit Fees (*ChABNAF*) and Changes in Control Variables

Panel A: Dependent Variable is Change From No Going Concern Modification in t-1 to Going Concern Modification in t (= *ChGC1*).

Panel A1: Sample period 1998-2002. N=29,029

	Model 1		*Model 2*		*Model 3*		*Model 4*	
	Coeff.	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
ChABTF	0.073	0.86						
ChABAF			-0.062	-0.80			-0.053	-0.69
ChABNAF					0.055*	1.74	0.053*	1.68

Panel A1: Sample period 2001-2002. N = 12,874

	Model 1		*Model 2*		*Model 3*		*Model 4*	
	Coeff.	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
ChABTF	0.144	1.23						
ChABAF			-0.027	-0.24			-0.022	-0.20
ChABNAF					0.083 *	1.80	0.083*	1.80

Panel B: Dependent Variable is Change From No Going Concern Modification in t to Going Concern Modification in t+1 (= *ChGC2*).

Panel B1: Sample period 1998-2002. N=29,029

	Model 1		*Model 2*		*Model 3*		*Model 4*	
	Coeff.	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
ChABTF	0.201***	2.58						
ChABAF			0.045	0.59			0.053	0.70
ChABNAF					0.041	1.36	0.043	1.41

Panel B2: Sample period: 2001-2002. N=12,874

	Model 1		*Model 2*		*Model 3*		*Model 4*	
	Coeff.	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
ChABTF	0.183*	1.67						
ChABAF			0.142	1.33			0.142	1.32
ChABNAF					-0.012	-0.25	-0.011	-0.23

Panel C: Logit Regressions on the Propensity to Issue Going Concern Modifications on Changes in Logarithms of Raw Audit Fees (*ChLNAF*), Changes in Logarithms of Raw Non Audit Fees (*ChLNNAF*) and Changes in Control Variables

	1998-2002 (N=29,029)				*2001-2002 (N=13,302)*			
Test var.	*ChLNAF*		*ChLNNAF*		*ChLNAF*		*ChLNNAF*	
Dep.var.:	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
ChGC1	-0.034	-0.43	0.039	1.23	0.041	0.38	0.702	1.5
ChGC2	0.024	0.31	0.036	1.19	0.134	1.28	-0.003	-0.07

Notes to Table 6
This table reports coefficients (Coeff.) and z-values for change specifications of models 1, 2, 3, and 4 in Table 5. Model 1 shows results from changes in abnormal total fees (*ChABTF*), model 2 shows results from changes in abnormal audit fees (*ChABAF*), model 3 shows results from changes in abnormal non audit fees (*ChABNAF*), and model 4 shows results for changes in abnormal audit fees (*ChABAF*) and changes in abnormal non-audit fees (*ChABNAF*). Change in abnormal fees is calculated as $ChABFEE = ABFEE_t - ABFEE_{t-1}$, where *ABFEE* is abnormal total fee (*ABTF*), audit fee (*ABAF*) or non-audit fee (*ABNAF*) estimated using the residuals from the models in Table 4. Panel C reports similar results using changes in raw fees. Reported significance levels (*, **, and *** for 0.10, 0.05, and 0.01 levels, respectively) are for two-sided tests and based on robust standard errors clustered at the firm level. Please see appendix for variable definitions.

In Panel A1, the coefficients and z-values for the changes in fee variables are obtained from four versions of the following model estimated for the time period 1998-2002 (year fixed effects included but not reported):

$$ChGC1 = \alpha_0 + \alpha_1 ChABFEE + \alpha_2 ChTA + \alpha_3 ChLEV + \alpha_4 ChOPCF + \alpha_5 ChLOSS + \alpha_6 ROA + \alpha_7 ChINVESTMENTS + \alpha_8 ChPROBANK + \alpha_9 INCPIC + \alpha_{10} FUTINCPIC + \alpha_{11} NEWDEBT + \alpha_{12} FUTNEWDEBT + \upsilon$$

ChGC1 is change in opinion from t-1 to t, defined as no going concern modification in year t-1 and a going concern modification in year t. In Panel A2 the sample period is 2001-2002 and the models used in Panel A1 are augmented with *ChAUD* as independent variable. The models in Panel B1 and B2 are similar to the models in Panel A1 and A2 except that the dependent variable is *ChGC2*. *ChGC2* is change in opinion from t to t+1, defined as no going concern modification in period t and a going concern modification in t+1.

Panel C reports results from change specifications of the models in panels A2 and B2 in Table 5. The change model is identical to model 4 in Panel A1 and B1 in Table 6.

Table 7: Additional Tests

Panel A: Logit Regressions of the Propensity to Issue Going Concern Modifications on Abnormal Total Fees and Control Variables for Financially Distressed Firms in 2003-2005

	Coff	*z-value*	*Pesudo R2*	*N*
ABTF	0.063	1.30	38.4 %	48,142

Panel B: Logit Regressions on the Propensity to Issue Modified Opinions Other Than Going Concern Modifications on Abnormal Audit Fees, Abnormal Non Audit Fees, and Control Variables. Sample Period: 1998-2002

Sample consists of firms with:	*Clean opinions or clarifications only*		*Clean opinions or reservations only*		*Clean opinion or unable to issue an opinion only*	
Dep. var.:	*CLAR*		*RES*		*UNA*	
Test var.:	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
ABAF	0.097**	2.41	0.055	0.45	0.140	0.85
ABNAF	-0.004	-0.13	0.057	0.71	0.116	1.15
N	84,004		78,990		79,646	

Panel C: Logit Regressions on the Propensity to Issue Modified Opinions Other Than Going Concern Modifications on Changes in Abnormal Audit Fees (*ChABAF*), Changes in Abnormal Non Audit Fees (*ChABAF*) and Changes in Control Variables. Sample period: 1998-2002

Panel C1: Changes in Opinion Defined as No Modified Opinion in t-1 and a Modified Opinion in t.

Sample: Firms with:	*Clean opinions or clarifications only*		*Clean opinions or reservations only*		*Clean opinion or unable to issue an opinion only*	
Dep.var.:	*ChCLAR1*		*ChRES1*		*ChUNA1*	
Test var.:	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
ChABAF	-0.004	-0.07	0.124	0.74	0.157	0.85
ChABNAF	0.009	0.01	-0.004	-0.06	0.029	0.45
N	84,004		78,990		79,646	

Panel C2: Changes in Opinion Defined as No Modified Opinion in t and a Modified Opinion in t+1

Sample: Firms with:	*Clean opinions or clarifications only*		*Clean opinions or reservations only*		*Clean opinion or unable to issue an opinion only*	
Dep.var.:	*ChCLAR2*		*ChRES2*		*ChUNA2*	
Test var.:	*Coeff.*	*z-value*	*Coeff.*	*z-value*	*Coeff.*	*z-value*
ChABAF	0.053	1.29	-0.030	-0.21	-0.115	-0.66
ChABNAF	0.040**	2.57	0.082	1.41	0.002	0.03
N	84,004		78,990		79,646	

Notes to Table 7
This table reports estimated coefficients (Coeff.) and z-values for various versions of level and change specifications of the opinion models for various subsets of the sample. Only the results for the audit fee and non-audit fee variables from Model 4 are presented for brevity. Reported significance levels (*, **, and *** for 0.10, 0.05, and 0.01 levels, respectively) are for two-sided tests and based on robust standard errors clustered at the firm level. Please see appendix for variable definitions.

Panel A reports results from estimating model 1 in Table 5 for the latter period in which only total fee is available. The dependent variable is going concern modifications (*GC*). The sample consists of financially distressed firms as defined in the notes to Table 1 without deleting firms that do not enter the sample in t+1 or t+2 (as no information is available after 2005, variables capturing future financing (*FUTINCPIC* and *FUTNEWDEBT*) are excluded from the model).

Panel B reports results obtained when the dependent variable in model 4 in Table 5 is either clarification (*CLAR*), reservation (*RES*), or unable to issue an opinion (*UNA*), respectively. The sample initially consisted of all firms in the 1997-2002 period except those that (1) did not meet the sample selection criteria for t+1 or t+2, (2) had probabilities of going bankrupt > 95 percentile of *PROBANK*, and (3) did receive a audit report with a going concern modification or a negative conclusion in year t. In order to have comparable samples in Panel B and C, we also deleted observations for which changes in abnormal audit (non audit) fees could not be estimated. Finally, for each type of deviation from a clean audit report, we only include firms that did not have other forms of audit opinion modifications.

Panel C reports results from change specification of the models used in Panel B. The sample is identical to the sample used in Panel B. The independent variables are identical to model 4 specified in the notes to Table 6. The dependent variables are *ChCLAR1* (*ChRES1*) [*ChUNA1*], which are defined as an audit report with no clarification (reservation) [unable to issue and opinion] in year t-1 and an audit report with clarification (reservation) [unable to issue and opinion] in year t. For *ChCLAR2* (*ChRES2*) [*ChUNA2*], the change in opinion goes from no modified opinion in t to a modified opinion in t+1.

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