

Audit Fees, Non-audit Fees, and Auditor Reporting on UK Stressed Companies

by

Ilias G. Basioudis
Aston Business School
Aston University
Birmingham B4 7ET
United Kingdom

and

Marshall A. Geiger
Robins School of Business
1 Gateway Road
University of Richmond
Richmond, VA 23173
USA

and

Vaggelis Papanastasiou
Aston Business School
Aston University
Birmingham B4 7ET
United Kingdom

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Contact Author:

Ilias G. Basioudis

Email: i.g.basioudis@aston.ac.uk

Tel: +44 121 2043024

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SUMMARY

The accounting profession has come under increased scrutiny over recent years about the growing amount of non-audit fees received from audit clients and the possible negative impact of such fees on auditor independence. The argument advanced is that providing lucrative non-audit services (NAS) to clients may make it more likely that auditors concede to the wishes of the client management when difficult judgments are made. Such concerns are particularly salient in the case of reporting decisions related to going concern uncertainties for financially stressed clients.

This study examines empirically the assertion that auditors may act more favourably towards those clients from whom they receive higher NAS fees. We examine the audit reports rendered to financially stressed companies in the UK and the relative magnitude of non-audit fees (and audit fees) paid by such companies to their auditors. In our analysis, we control for financial stress, reporting lag, default status, and management plans and find that the magnitude of both audit fees and non-audit fees are significantly associated with the issuance of a going-concern modified (GCM) audit opinion. In particular, financially stressed companies with high audit fees are *more* likely to receive a GCM audit opinion, whereas those financially stressed companies with high non-audit fees are *less* likely to receive a GCM audit opinion. Additional analyses indicate that our results are generally robust across alternative model, variable and sample specifications. Overall, we find evidence of a significant adverse effect of non-audit fees on auditor reporting judgments for our sample of UK distressed companies.

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Introduction

This study examines the association between audit and non-audit service (NAS) fees received by an auditor and the auditor's decision regarding the type of opinion to render to a financially stressed company. There is evidence from the U.S. that the amount of audit fees (non-audit fees) are (are not) related to the audit opinion (Geiger and Rama 2003; DeFond et al. 2002). In order to expand this line of research, we investigate whether the recent reporting and fee associations found in the U.S. are similar to those found in the U.K audit market. Specifically, in this study we examine audit reports for U.K. companies in financial stress and test for the association between the type of audit opinion issued (going-concerned or not) and the level of audit and NAS fees received by the audit firm.

The accounting profession has come under increased scrutiny over the past several years about the growing amount of non-audit fees received from audit clients and the possible negative impact of such fees on auditor independence. The economic bond has been argued by many as an impediment to audit independence. The SEC in the U.S. has asserted that significant non-audit service fees can adversely impact auditor independence and impair auditor decision-making, especially when those decisions involve a substantial amount of professional judgment. Such concerns over auditor independence and the magnitude of NAS performed for audit clients led to the SEC's adoption of new rules related to the amounts and types of non-audit services supplied by auditors for publicly traded companies. Largely fueled by the Enron failure, these legislative concerns in the U.S. led to the Sarbanes-Oxley Act which limits the type of NAS auditors can perform and requires companies to disclose the amount and type of fees paid to their

external audit firm. These new restrictions and disclosures have been introduced in the U.K. with only subtle differences (Department of Trade and Industry, 2003). The Sarbanes-Oxley Act expressly prohibits certain types of non-audit services (e.g., internal audit outsourcing), and also requires that a company's audit committee explicitly approve any other non-audit service purchased from the incumbent external auditor.

In this study we empirically examine the assertion that auditors may act more favorably toward those clients from whom they receive higher NAS fees. In order to assess the possible effect of this NAS fee influence on audit firms, we examine the audit reports rendered to financially stressed companies and the relative magnitude of audit and non-audit fees paid by such companies to their auditors. If non-audit fees can be argued to have an impact on audit judgments, then it is also plausible that the magnitude of audit fees could also influence auditor judgments. Hence, in our study we examine if there is an association between the magnitude of both NAS fees and audit fees on audit opinions.

Our analyses of stressed UK companies finds a significant negative association between receiving a going-concern (GC) modified audit report and the magnitude of NAS fees. These results suggest that the size of NAS fees paid to the external audit firm has a significant impact on the external audit firm's final reporting decision. We also find a positive association between audit fees and GC opinions. Our results are generally robust across alternative model, variable and sample specifications. Our findings are not consistent with contemporary research on NAS fees in the US (Geiger and Rama 2003; DeFond et al. 2002). While NAS fees appear to have a minimal impact on going concern reporting decisions in the US, we find a significant relationship between NAS fees and final audit report decisions in the UK. Our results also lend additional evidence to prior research on NAS fees and auditor independence/reporting decisions

in other non-US countries (Craswell 1999; Lennox 1999). Additionally, our audit fee results are consistent with audit pricing studies that have found modified audit opinions require additional audit work and therefore are associated with increased audit fees (Simunic 1980; Palmrose 1986; Francis and Simon 1987; Barkess and Simnett 1994; Bell et al. 2001).

Auditor Reporting Independence and NAS Fees

DeAngelo (1981) and Watts and Zimmerman (1986) have defined auditor independence as the joint probability of detecting and reporting errors. DeAngelo (1981) and Craswell (1999) note that the first element of the definition relates more to auditor technical competence or capability, and the second relates more directly to the issue of auditor independence. Thus, auditor independence depends not only on the ability of the auditor to identify problems, but also their willingness to report those problems appropriately. Since prior research has indicated that auditors typically do not have difficulty identifying cases involving going-concern issues for financially stressed clients (Kida 1980; Mutchler 1984, 1986; Simnett and Trotman 1989), the independence issue is more directly related to auditor reporting decisions on these financial difficulties. Thus, Firth (1997), Craswell (1999), Lennox (1999), and Geiger (2003) have argued that a direct test of the effects of NAS fees on auditor independence is the examination of auditor reporting decisions, particularly on financially stressed companies.

The decision on what type of opinion to render on the client's financial statements is the final, cumulative audit decision and is subject to a considerable amount of professional judgment and negotiation between the auditor and client management. Reporting standards require auditors to assess the continued viability of their clients in each audit engagement, and if there is substantial doubt about the ability of the entity to continue as a going-concern, then the auditor

must evaluate management's plans and mitigating circumstances. Both the initial going-concern assessment and the evaluation of the appropriateness and probability of success of management's plans involve highly subjective judgments.¹

Accordingly, negotiations about the type of audit opinion to be issued are particularly sensitive in the case of a financially stressed client. If auditors defer to the wishes of client management they would be less likely to issue going-concern modified audit opinions, since audit clients do not welcome the receipt of a going-concern modified audit opinion (Kida 1980; Mutchler 1984). Further, the issuance of a going-concern modified audit opinion involves costs to both the auditor and the client (Kida 1980; Mutchler 1984; Geiger et al. 1998; Blay and Geiger 2001; Weil 2001).

Receiving a going-concern modified audit opinion can lead to adverse consequences for the client in terms of stock price declines (Loudder et al. 1992; Blay and Geiger 2001; Weil 2001) and increased risk of business failure (Geiger et al. 1998). Auditors have long been cognizant of the possibility of losing a disgruntled client after issuing them a going-concern modified opinion (Kida 1980; Mutchler 1984).

Prior research has documented that auditors are less likely to issue a going-concern modified audit opinion for large companies even after controlling for other factors (McKeown et al. 1991; Mutchler et al. 1997). Audit fee research has also documented client size is an important determinant of audit fees (Simunic 1980; 1984; Francis 1984), and recent research indicates that the relative magnitude of non-audit fees also is higher for larger clients (Abbott et al. 2002). Together, these results suggest that audit opinions may be influenced by the magnitude of non-audit (and audit) fees received from clients.

¹ Mutchler et al. (1997) and Behn et al. (2001) find that decisions about going-concern modified opinions are related to the evaluation of management's plans and mitigating circumstances.

The relationship between NAS fees and auditor reporting behavior has been examined in Australia where NAS fees have been publicly available for some time. However, the results of that research are mixed. For example, Wines (1994) finds evidence of a negative association between non-audit fees and the issuance of any type of qualified report in a sample of 76 Australian companies over the period 1980-1989. However, Barkess and Simnett (1994) and Craswell (1999) in two large sample studies find no significant association between the level of NAS fees and audit report qualifications. Additionally, Sharma (2001) and Sharma and Sidhu (2001) examined 49 bankrupt Australian companies and conclude that higher NAS fees were associated with a lower likelihood of receiving going-concern modified reports.

In the US, DeFond et al. (2002) conclude that there is no association between audit and NAS fees and audit opinions. However, given their large sample size, DeFond et al. (2002) do not include default status, management plans, or audit committee composition as control factors in their study. These variables have been shown by prior researchers to be associated with audit opinions in the US. A study by Geiger and Rama (2003) examines a sample of 66 going-concern modified companies and a matched sample of financially distressed, non-going-concern modified companies and includes controls for default status, management plans and audit committee composition. Using this small-sample, matched-pairs methodology, Geiger and Rama (2003) find that audit fees were positively associated with going-concern modifications, but that NAS fees were not significantly associated with going-concern modification decisions. Thus, the results in the US are consistent in their finding no significant association between NAS fees and going-concern modification report decisions.

However, these overseas results are not necessarily directly transferable to the UK audit market (Simunic and Stein 1987, 1996). Without direct testing, it is unclear whether the UK

auditors might respond differently to litigation and reputation concerns than their US and Australian colleagues causing UK auditors to report differently when faced with similar NAS fee issues.

Research Questions

Audit opinions for financially stressed companies have been an ongoing issue of concern to legislators and the public, and have been the subject of the business press (Weil 2001; Coffee 2002; Dietz 2002) and several governmental hearings and legislation over the years (U.S. House of Representatives 1985, 1990, 2002; Department of Trade and Industry 2003). In the US the SEC (2000a, 2000b) has asserted that auditor judgments, particularly those that are highly subjective, may be significantly influenced by the magnitude of non-audit fees. As discussed earlier, audit reporting related to going-concern is an area that involves considerable auditor judgment. Hence, it is worth empirically examining whether non-audit services have an impact on audit opinions issued for companies in financial stress. This leads to the first research question examined in this paper (in the null form):

Q₁: There is no association between the magnitude of non-audit fees and audit opinions received by financially stressed companies.

Auditors and others have noted that the magnitude of non-audit fees cannot be viewed separately from the level of audit fees received from clients (SEC 2000b; DeFond et al. 2002). Specifically, if the argument is that the fees paid by clients compromise audit judgments, the same argument can be applied to both audit fees and non-audit fees. Consequently, we also examine the association between audit fees and audit opinions. This leads to the second research question examined in this paper (in the null form):

Q₂: There is no association between the magnitude of audit fees and audit opinions received by financially stressed companies.

Sample and Data

Our sample comprises companies listed on the London Stock Exchange (LSE). Global Access and FAME databases provide financial and other data for the 2002-03 financial year.² The initial sample includes around 2,000 companies. Following prior research, we exclude listed companies that provide financial and other services, and companies with missing data, and arrive at a final sample of 643 publicly-listed companies.

The process of our sample selection includes two additional stages. In the first stage, we identified the test sample (n = 29) which includes all the non-financial listed companies that received a going-concern modified opinion in the year 2003 (i.e., the GC sample), that also had all the control variable information needed for our models.³ In the second stage, we identify a control sample that includes only financially stressed, non-financial companies, with all necessary data, that received an unqualified audit opinion in the year 2003 (i.e., the NGC sample). Our control sample is selected from the remaining listed companies (n=614) that did not receive a going concern modified opinion. Based on prior literature (Hopwood *et al.* 1994; Geiger and Rama 2003), we select only the financially distressed companies for the control sample to compare our going concern modified companies to. Following Mutchler *et al.* (1997) and Geiger and Rama (2003), we consider a company as being in financial stress when it meets at least one of the following criteria: 1) negative working capital at the end of the year 2003, or

² Global Access is a product by Thomson Publishing Group, and FAME is an acronym for “Financial Analysis Made Easy,” a comprehensive data base for U.K. private and publicly-listed companies maintained by *Bureau Van Dijk*.

³ Arguably, we could have restricted our analysis to only those companies receiving a first-time GC opinion, but the sample size is reduced substantially (by 14 companies). In the Additional Analyses section, however, we test the robustness of our results and find no significant differences in this reduced sample of first-time GC recipients compared to our full sample of 29 GC companies.

2) bottom line loss for the year 2003. Then, we calculate the probability of bankruptcy for this sample of distressed firms as well as for the test sample of going-concern modified firms according to the model used in Hopwood *et al.* (1994).

Following Geiger and Rama (2003), we use a matched-pair design for our analysis in order to better control for the other non-financial factors found in prior research to influence auditor reporting decisions. After having identified a sample of financially stressed companies that did not receive a going concern-modified audit opinion (i.e., the NGC sample), we then matched the companies of this control sample with the companies of the going-concern modified test sample (i.e., the GC sample) according to the probability of bankruptcy, net sales and UK SIC code, in the order mentioned. This procedure ensured that we included similar companies with respect to financial stress, company size, and type of industry in our experimental and control samples of companies.

Research Method

Following prior research (Geiger and Rama 2003), we employ a logistic regression to examine the association between the magnitude of audit and non-audit fees and auditor report modification decisions for financially stressed companies. Accordingly, we use the following model:

$$GC = b_0 + b_1 * SIZE + b_2 * PROB + b_3 * DFT + b_4 * DEBT + b_5 * EQUITY + b_6 * COSTRED + b_7 * ASSETSALE + b_8 * REPORTLAG + b_9 * BIG4 + b_{10} * AUDFEE + b_{11} * NASFEE + \text{standard error} \quad (1)$$

The variables are defined as follows:

GC	= coded 1 if audit opinion was modified for going-concern, else 0,
SIZE	= natural log of total assets (in millions of GB pounds),
PROB	= probability of bankruptcy from Hopwood et al.'s (1994) model,
DFT	= coded 1 if the company was in default, else 0,
DEBT	= coded 1 if company issued new debt during the year, else 0,
EQUITY	= coded 1 if company issued new equity during the year, else 0,
COSTRED	= coded 1 if company entered into significant cost reduction program, else 0,
ASSETSALE	= coded 1 if company announced sales of significant assets, else 0,
REPORTLAG	= number of days from the end of the year to the audit report date,
BIG4	= coded 1 if company was audited by a Big 4 audit firm, else 0,
AUDFEE	= natural log of fees paid for audit services, and
NASFEE	= natural log of fees paid for non-audit services.

In the model above, AUDFEE and NASFEE are the variables of interest. Consistent with prior research, we use natural log of audit and non-audit fees in our logistic regression as our audit fee measures (Geiger and Rama 2003; DeFond et al. 2002).⁴ Based on the findings of prior research we include the following types of control factors in our analysis: (a) financial variables, (b) management plans and mitigating factors, (c) audit firm size, and (d) audit reporting lag.

Auditors have financial and other incentives to retain large clients, and large companies may be able to mitigate their financial stress easier than small companies or may be afraid that the issuance of a GCM may lead the company to a bankruptcy, and thus, a negative association

⁴ As discussed in the Additional Analyses section, use of alternative measures of audit and NAS fees do not substantially alter the results presented.

between the likelihood of a going-concern modified audit opinion and company size is expected, consistent with prior research (Geiger and Raghunandan 2001; Geiger and Rama 2003; Mutchler et al. 1997). Hence, we include company size (SIZE) measured using log of total assets (in millions of GB pounds).

Prior research suggests that there is a positive association between the likelihood of a going-concern modified audit opinion, and financial stress and default on debt obligations (Mutchler 1985; Hopwood et al. 1989, 1994; Chen and Church 1992; Geiger and Rama 2003). Hence, we include financial stress (PROB), and default status (DFT) as control factors. Following prior research (Geiger and Raghunandan 2001, Geiger and Rama 2003), we measure financial stress (PROB) using the coefficients of the probability of bankruptcy model given in Hopwood et al. (1994)⁵. We classify a company as in default (DFT) if it is either in payment default or technical default of loan covenants, as identified in the company's annual report.

Professional standards require auditors to evaluate client management plans when there is substantial doubt about the client's ability to continue as a going-concern. Behn *et al.* (2001) indicate that the ability of a company to raise capital and borrowing funds to finance its operations is negatively associated with the likelihood of receiving a going-concern opinion. Geiger and Rama (2003) suggest that going concern modified companies are more likely to have entered into a significant cost reduction efforts, and to have plans to sell significant assets. Hence, in our analysis, we take into consideration the importance of management plans and include the following control variables: issuance of new debt (DEBT) or new equity (EQUITY); entered into a notable cost reduction plan (COSTRED); and entered into the sale of significant

⁵ We use the value of the intercept as corrected by Geiger and Raghunandan (2001). As part of sensitivity tests, we also used the model from Zmijewski (1984) to calculate the probability of bankruptcy and obtained similar results to those presented.

assets (ASSETSALE). This non-financial information is manually extracted from both the accounts and notes of the accounts of the companies' financial reports.

Results from prior research have shown that the time between the company's fiscal year-end and the audit report date (known as reporting lag) is associated with the type of the audit opinion (Chen and Church 1992; Behn et al. 2001). Auditors typically take more time to audit financially stressed companies and to issue going-concern modified opinions than non-modified audit reports. As a consequence, we include an audit report lag variable (REPORTLAG) in our analysis to control for the timeliness of audit opinions on stressed companies.

Auditor size may also be related to the type of audit opinion issued. Pryor and Terza (2001), Altman (1982) and Boritz (1991) have investigated the possibility of the creation of the self-fulfilling prophecy after an issuance of GCM opinion. That is, the issuance of the financial stress warning in the going-concern modified report itself causes a higher likelihood of subsequent company failure. Further, audit firms also run the risk of losing a client after rendering a going-concern modified opinion, because the audit client is more likely to change an auditor when they receive a GCM opinion (Geiger et al. 1998; Carcello and Neal 2003). This risk may be even higher for the Big 4 audit firms, because they charge higher prices in comparison with small audit firms, as documented from prior audit pricing research (Basioudis and Francis 2006, Francis 1984). In addition, Big 4 auditors may have more to lose from litigation related to any one particular audit which may lead them to be more conservative in their reporting decisions compared to non-Big 4 audit firms. This would suggest a more cautious and conservative reporting model would be used by the largest accounting firms which would lead to the issuance of more modified audit reports (Francis and Krishnan 1999). Conversely, the Big 4 may derive a higher proportion of their revenues from non-audit services than do the

non-Big 4 firms. This would suggest that the largest audit firms might be more leery of upsetting and possibly losing an existing client by issuing them a modified opinion (Carcello and Neal 2003). Hence, we empirically examine the association between audit firm size and audit opinion and add an audit-firm size indicator dummy variable (BIG4) in our regression.

Results

Table 1 provides descriptive data for two sets of companies: the companies which received a going-concern modified opinion from their auditors for the year 2003 (our GC test sample), and the financially stressed companies that did not receive a going-concern modified opinion from their auditors for the year 2003 (our NGC control sample). The non-significant differences between the two samples with respect to the net sales and total assets, as well as the non-significant difference in the probability of bankruptcy measure (at 5% level), are evidence of the effectiveness of our matching procedure used in the formation of our NGC control sample.

In addition, the difference in report lag for our two samples was found to be highly significant ($p < .001$). Specifically, consistent with prior audit reporting research, the GC companies in our study were more likely to have a longer reporting lag than the NGC control sample companies. However, the GC companies were no less likely to have been in default on loans or to have raised funds by issuing new debt or equity during the year compared to the stressed NGC sample companies. Our results indicate that the two groups are not significantly different with respect to entering into substantial cost reduction plans or to enter into agreements to sell significant portions of their assets during the year. We also find no evidence of significant differences between the two samples for the Big 4 audit firm variable.

Interestingly, the audit fees and non-audit fees, which are the main variables of interest in our study, although not specifically used in our matching procedures, were also not significantly different between the two samples. Consistent with Geiger and Rama (2003) in their examination of the US market, the univariate results also indicate that going-concern modified companies were more likely to have not paid any non-audit fees to their auditor during the year (statistically significant at the 5% level). It is also notable that only 3.4% of the NGC companies had not paid any non-audit fees for consultancy services during the year.

Results from our multivariate logistic regression are presented in Table 2. The overall model is significant (chi-square = 65.423, 11 d.f., $p < .0001$). From the control variables, and consistent with prior research, the SIZE variable indicates a continued company size bias in favor of larger companies not receiving a GC opinion from their auditor. Consistent with Geiger and Rama (2003), the coefficient for the PROB control factor is negative and significant in our multivariate analysis of highly stressed companies. Further, companies that have longer audit report lags were more likely to receive a GC opinion ($p=.022$), which is consistent with prior audit reporting literature concluding that companies exhibiting going-concern uncertainties need more time to be audited. All other control variables are insignificant (at $p > .05$) which is generally inconsistent with Behn et al (2001) and Geiger and Rama (2003) in their examination of US firms. The BIG4 variable is negative but not significant ($p = .756$), indicating no significant Big 4 audit firm bias when deciding whether or not to issue a GC audit opinion to the financially stressed companies in our sample.

The findings regarding our first variable of interest, AUDFEE, indicate that the magnitude of the audit fee paid was positively and significantly ($p = .031$) related to receiving a going-concern audit opinion. Our results support prior research on audit pricing that finds a

positive association between audit fees and report modifications (e.g., Simunic 1980; Francis 1984; Palmrose 1986; Francis and Simon 1987; Bell et al. 2001). These results are also consistent with those of Geiger and Rama (2003) in their examination of US GC reporting decisions and levels of audit fees.

The model coefficient results for our second variable of interest, NASFEE, is also significant ($p = .032$) but is negatively associated with companies receiving a going-concern modified audit report from their audit firm. Our logistic regression results suggest that financially distressed UK companies that pay their external audit firms higher amounts of NASFEES were significantly less likely to receive a going-concern modified audit report. This result is in contrast to the non-significant association of NASFEES and going-concern modified audit opinions reported by Geiger and Rama (2003) and DeFond et al. (2002) studying US audit reporting decisions. In sum, our results provide evidence of a significant adverse effect of non-audit fees on auditor reporting judgments for our sample of UK distressed companies.

Discussion and Conclusion

After the recent, and seemingly wide-spread, high-profile corporate failures across the globe, critics of the accounting profession have once more expressed concerns that when auditors receive non-audit service fees from their audit clients, audit independence may be at risk and audit decisions may be adversely affected. In fact, the SEC in the US has noted that subtle influences are particularly likely to be prevalent in the financial reporting “gray areas” that require significant auditor judgment. This study examined the association between non-audit fees and audit reporting for financially stressed companies in the UK. We examine audits and reporting decisions of financially stressed companies because these are exactly the types of

engagements in which auditors must exercise a significant amount of professional judgment (Kida 1980, Mutchler 1984).

Our analysis of audit opinions on U.K. companies in financial stress provides fairly strong evidence of a significant and adverse association between NAS fees and the likelihood of a company not receiving a going-concern audit report. Specifically, we present evidence that financially distressed companies that paid high NAS fees were less likely to receive a going-concern modified audit report from their UK audit firm. However, a limitation to our study may be that our sample of financially stressed companies was fairly small in size and paid relatively little to their auditors in the way of audit and NAS fees. Nonetheless, our audit firm decision setting is still very germane to perceptions of audit independence issues, and audit reporting on distressed companies has over the years continued to receive disproportionate attention from legislators, the financial press and financial statement users.

Our evidence indicates that those financially stressed UK companies with high non-audit fees are *less* likely to receive a GC audit opinion. This finding is in contrast with the evidence from similar studies of US auditor decisions that have found no significant association between non-audit fees and audit opinions (Geiger and Rama 2003; DeFond et al. 2002) in the US audit market. Prior researchers have argued that it is the loss of a ‘future stream of income’ (DeAngelo 1981) that might cause auditors to compromise their independence. Our finding of a significant negative association between GC modified reports and levels of NAS fees presents strong evidence that the effect of high NAS fees may cause auditors to possibly compromise their independence. Our results using a similar methodology and sample selection as Geiger and Rama (2003), but different to DeFond et al. (2002), reinforce their position that market-based incentives, such as possible adverse litigation, loss of future income streams and possible

damage to reputation, may be strong factors in influencing UK auditors' reporting decisions in the presence of NAS fees.

Further, while DeFond et al. (2002) find no association of audit fees and auditor reporting, we find a positive association, consistent with Geiger and Rama (2003). Our findings are also consistent with prior audit fee research that finds a positive association between audit fees, audit effort and the likelihood of receiving a modified audit opinion (Kida 1980; Francis 1984; Francis and Simon 1987; Palmrose 1986; Beatty 1993).

Incumbent auditors may experience difficulties in allocating fees accurately to each service, since joint product synergies can flow in either direction (Houghton and Jubb 1999; Abdel-Khalik 1990). Any comparisons, thus, between audit and non-audit fees are dependent on the classifications comprising each category. There is always the danger of some audit-related items to be classified as non-audit services, and the split between audit work and provision of non-audit services may not be precise, and as a result some noise may exist in our calculations.

In this study we have focused only on the final audit reporting decision of financially stressed companies as documented in the annual reports. We have not examined the subsequent consequences of the reporting decision, namely "type I errors" (a going-concern modified opinion issued for a client that is subsequently viable) and "type II errors" (a clean opinion issued for a client that subsequently fails). A fruitful area for future research would be to examine if the two types of audit reporting "errors" are also associated with audit and non-audit fees. Another interesting area in the context of NAS fees and going-concern opinion decisions is the company size effect and whether this size effect is related to the magnitude of NAS fees obtained by the auditor. Finally, assessing the possible effects of NAS fees on auditor judgments

especially in cases involving larger amounts of NAS fees paid to the auditor would extend our knowledge on the possible adverse effects of auditors providing significant NAS to audit clients.

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Table 1

Descriptive data: Going-concern companies vs. Non-going-concern companies

Variable	Going-concern Sample (n=29)		Non Going-concern Sample (n=29)		
	Mean (st.dev.)	Range [median]	Mean (st.dev.)	Range [median]	Mean Difference p-value
NETSALES (in millions)	19.5 (36.3)	0.02 - 166.6 [6.48]	17.6 (45.9)	0 - 248.5 [6.95]	0.862
TOTAL ASSETS (in millions)	18.2 (26.5)	0.04 - 109.36 [7.89]	38.6 (122.4)	2.03 - 667 [9.2]	0.386
PROB	0.45 (0.18)	0.2 - 1.00 [0.39]	0.52 (0.12)	0.44 - 0.95 [0.47]	0.076
DFT %		10.3		0	0.078
DEBT %		20.7		41.4	0.092
EQUITY %		48.3		48.3	1.000
COSTRED %		37.9		24.1	0.264
ASSETSALE %		31		20.7	0.377
REPORTLAG (in days)	160 (60.8)	44 - 342 [168]	94.3 (31.2)	27 -180 [91]	0.000
BIG4 %		51.7		51.7	0.797
AUDITFEE ('£000)	68.4 (70.5)	7.2 - 228 [39]	51.7 (71.5)	9.8 - 400 [37]	0.376
NONAUDITFEE ('£000)	58.1 (98.2)	0 - 430 [25]	47.5 (78.7)	0 - 300 [16.8]	0.653
COMPANIES W/NO NASFEES %		27.6		3.4	0.011

Legend:

- PROB** = probability of bankruptcy from Hopwood et al.'s (1994) model,
DFT = coded 1 if the company was in default, else 0,
DEBT = coded 1 if company issued new debt during the year, else 0,
EQUITY = coded 1 if company issued new equity during the year, else 0,
COSTRED = coded 1 if company entered into significant cost reduction program, else 0,
ASSETSALE = coded 1 if company announced sales of significant assets, else 0,
REPORTLAG = number of days from the end of the year to the audit report date,
BIG4 = coded 1 if company was audited by a Big 4 audit firm, else 0,
AUDFEE = natural log of fees paid for audit services, and
NASFEE = natural log of fees paid for non-audit services.

Table 2**Logistic Regression Results (n=58)**

$$GC = b_0 + b_1 * SIZE + b_2 * PROB + b_3 * DFT + b_4 * DEBT + b_5 * EQUITY + b_6 * COSTRED + b_7 * ASSETSALE + b_8 * REPORTLAG + b_9 * BIG4 + b_{10} * AUDFEE + b_{11} * NASFEE + \text{standard error}$$

VARIABLES	Exp Sign	COEFFICIENT	STANDARD ERROR	WALD CHI-SQ	p-VALUE ^a
Constant		-211.628	112.398	3.545	.060
SIZE	-	-12.179	6.643	3.361	.034
PROB	-	-42.457	22.431	3.582	.029
DFT	+	32.298	117.513	.076	.392
DEBT	-	-1.124	1.864	.364	.273
EQUITY	-	2.214	2.026	1.194	.138
COSTRED	+	-.911	2.526	.130	.359
ASSETSALE	+	11.123	7.111	2.447	.059
REPORTLAG	+	.312	.155	4.065	.022
BIG4	?	-.634	2.042	.096	.756
AUDFEE	+	21.934	11.722	3.501	.031
NASFEE	-	-1.422	.767	3.439	.032

Model Chi-square: 65.423, 11 d.f., $p < .00001$; Cox & Snell $R^2 = .676$; Nagelkerke $R^2 = .902$

^a p-values are one-tail, except for the intercept and BIG4 term.

Legend:

- GC = coded 1 if audit opinion was modified for going-concern, else 0,
 SIZE = natural log of total assets (in millions of GB pounds),
 PROB = probability of bankruptcy from Hopwood et al.'s (1994) model,
 DFT = coded 1 if the company was in default, else 0,
 DEBT = coded 1 if company issued new debt during the year, else 0,
 EQUITY = coded 1 if company issued new equity during the year, else 0,
 COSTRED = coded 1 if company entered into significant cost reduction program, else 0,
 ASSETSALE = coded 1 if company announced sales of significant assets, else 0,
 REPORTLAG = number of days from the end of the year to the audit report date,
 BIG4 = coded 1 if company was audited by a Big 4 audit firm, else 0,
 AUDFEE = natural log of fees paid for audit services, and
 NASFEE = natural log of fees paid for non-audit services.