

**EXPECTED CLIENT LOSS AND AUDITOR INDEPENDENCE:
A PARTNER-LEVEL ANALYSIS IN A LOW LITIGIOUS SETTING**

Sofie Vandenberghe^{*}
Katholieke Universiteit Leuven, Belgium

Annelies Renders
Maastricht University, The Netherlands

Marleen Willekens
Katholieke Universiteit Leuven, Belgium

April 2011

Please do not quote or distribute without permission of the authors

^{*} Corresponding author: E-mail: sofie.vandenberghe@econ.kuleuven.be

We would like to thank Don Stokes, Jeff Payne, and participants at the 2010 European Accounting Association Doctoral Colloquium.

**EXPECTED CLIENT LOSS AND AUDITOR INDEPENDENCE:
A PARTNER-LEVEL ANALYSIS IN A LOW LITIGIOUS SETTING**

Summary

Prior studies on auditor independence examine whether auditors are more likely to impair independence for important clients in their portfolio. However, an auditor's incentive to impair independence depends on the expected loss from a client, which includes the risk that the client dismisses the auditor, and not only the relative size of the client in the auditor's portfolio. Using a sample of private firms in a low litigious environment, we investigate (1) whether the probability that a client dismisses the incumbent auditor has an impact on the auditor's impairment of independence and (2) whether this association is conditional on the importance of the client in the audit partner's client portfolio. The results show that the likelihood an auditor is being dismissed has no significant effect on the propensity of issuing a going-concern opinion for financially distressed clients. However, we find evidence that auditors accept higher levels of abnormal accruals when they have a higher likelihood of being dismissed. The importance of a client in the partner's portfolio does not affect this association. Our results emphasize the importance of expected client losses for improving our understanding about auditor independence.

Keywords: Auditor independence; client importance; audit partner; private firms.

INTRODUCTION

Studies on auditor independence typically investigate whether auditors have a higher likelihood of impairing independence for relative important clients in their portfolio (e.g., Reynolds and Francis 2001; Chung and Kallapur 2003; Chen et al. 2010). An auditor may impair his independence to avoid losing a large client. Studies using client importance as a proxy for this expected client loss of the auditor only take into account the amount at stake. Hence, they assume that the likelihood of an auditor to be dismissed by his client is constant. However, the auditor's impairment of independence depends on both the economic dependence of the auditor on the client and the dependence of the client on the auditor. The client's dependence on the auditor can be defined as the value that a client attaches to the audit of the incumbent auditor compared to the client's valuation of the audit services of other auditors in the market. Hence, this dependence influences the probability that the client will dismiss the incumbent auditor (Shockley 1982). Focusing on the latter, we investigate (1) whether the likelihood that a client will end the cooperation with his auditor affects the auditor's propensity to compromise independence and (2) whether this relation is influenced by the importance of the client in the auditor's portfolio.

To our knowledge, Chung and Kallapur (2003) is the only study indicating that the auditor's likelihood of being dismissed may affect the impairment of independence. However, they investigate the effect of client importance on independence impairment across different subsamples for which the characteristics that influence the auditor's probability to be fired differ. Hence, they do not examine the direct effect of the auditor's probability of being dismissed on the impairment of independence. The results provide no evidence of independence impairment for more important clients. This may be due to the fact that they investigate listed companies in

a high litigious environment. These sample characteristics create a high litigation and reputation risk for auditors which may deter them from giving up independence.

Therefore, we test our research questions using a sample of Belgian private firms in 2006. Belgium is a low litigious environment (Aerts 2002). This minimizes the auditor's risk of being sued after compromising his independence. Besides our focus on a low litigious environment, we also limit the auditor's risk by investigating private companies. Prior studies show that the reputation risk for auditors of private firms is on average lower than the reputation risk of listed clients (e.g., Johnstone and Bedard 2003; Clatworthy and Peel 2007; Hope and Langli 2010). In other words, our setting creates a lower bound on auditor independence impairment (Hope and Langli 2010). Furthermore, private companies that exceed certain size criteria have to publish an annual report which is audited by an external auditor (Vander Bauwhede et al. 2003; Vander Bauwhede and Willekens 2004).¹ These private firms represent more than 99 per cent of the Belgian companies subject to an audit (Willekens and Gaeremynck 2005).

Our choice of Belgium is further justified because auditors are appointed for a renewable three-year period in Belgium. So, after three years the audit contract has to be renegotiated and clients have to decide whether they will retain or dismiss the incumbent auditor (Branson and Breesch 2004). This regulation enables us to distinguish between years where the auditor's likelihood to be dismissed is high (third year of the mandate) and years where the auditor's likelihood to be dismissed is almost zero (first and second year of the mandate).

¹ Only large companies are obliged to have their financial statements audited. Large firms are defined as companies that met at least two of the following size criteria: balance sheet total > 3,650,000 EUR; annual net turnover > 7,300,000 EUR; average number of employees > 50. Firms that employ more than 100 employees are always classified as large firms irrespective of the size of the total assets or turnover.

Finally, the use of Belgian data enables us to measure client importance at the individual partner level as we have access to proprietary fee data from the Belgian Institute of Registered Auditors (e.g., Ferguson et al. 2003, Chi et al. 2010).

The findings indicate that the likelihood of an auditor to be dismissed has no significant effect on the propensity of issuing a going-concern opinion for financially distressed clients. In particular, we find that auditors do not report more favorably in the last year of the mandate. However, we find evidence that accruals-based earnings quality decreases in the likelihood that an auditor is being dismissed. Further analyses show that this result is driven by negative abnormal accruals. Since financial statements are also used for tax purposes in our sample, it is likely that firms manage earnings down to minimize taxes (e.g., Vander Bauwhede et al. 2003; Coppens and Peek 2005). Thus our findings suggest that auditors that allow more income-decreasing earnings management in the last year of their mandate could impair their independence. The importance of a client in the partner's portfolio does not affect this relation. These results suggest that auditors impair independence by allowing more abnormal accruals only when there is a high likelihood of being dismissed.

This paper contributes to the literature in the following ways. First, prior studies on auditor independence mainly focus on the importance of a client in the auditor's client portfolio. These studies take into account the auditor's economic dependence on the client, but ignore the dependence of the client on the auditor. The latter may influence the client's decision to retain or dismiss the incumbent auditor (Shockley 1982). In this study, we add a proxy for the likelihood that an auditor is dismissed by a particular client. In doing so, we emphasize the importance of expected client losses for improving the understanding of auditor independence. Second, we contribute to the limited research on audit quality measured at the

individual partner level (e.g., Ferguson et al. 2003; Chi et al. 2010; Zerni 2010). Studying audit quality at the partner level might give important insights in auditor behavior (DeFond and Francis 2005; Chen et al. 2010). Third, we use the year of the mandate of the auditor as proxy for the likelihood of an auditor to be dismissed by his client. Therefore, our results may add to the debate on the value of long-term renewable audit mandates as auditors only seem to give up independence in the last year of the mandate. Fourth, prior research on auditor independence and audit practices in general focuses on listed firms. However, the majority of firms worldwide are unlisted. This study helps to fill the gap in the auditing literature on audit practices in private (unlisted) firms. Lastly, as we investigate a low-litigious environment, our study contributes to the growing body of literature on the effect of country-specific institutions on auditing practices and audit quality (Magnan 2008; Francis and Wang 2008).

The remainder of this paper is organized as follows. The next section reviews the literature and discusses the research questions. The sample selection is described in section 3 and section 4 presents the research design. Section 5 shows the empirical results. Section 6 provides sensitivity analyses and section 7 concludes.

LITERATURE REVIEW, RESEARCH QUESTIONS AND INSTITUTIONAL BACKGROUND

An auditor needs to evaluate the financial statements of a client impartially and in an unbiased manner in order to deliver a high-quality audit (DeAngelo 1981). Hence, the auditor has to be independent and thus withstand a client's pressure to allow more earnings management or to issue a favorable opinion (DeFond et al. 2008; Hope and Langli 2010). Prior literature suggests that the probability that auditor

independence is compromised depends on the economic bond with their clients (DeAngelo 1981; Beck et al. 1988; Magee and Tseng 1990; Ashbaugh et al. 2003). The strong economic dependence of an auditor on a client might incite the auditor to act in favor of that client and thus to give up his independence to avoid losing the client.

Prior studies have looked into this issue but they differ in how they measure the economic bond between auditors and their clients. Some argue that non-audit services delivered by the auditor are the main reason for an auditor to compromise independence (e.g., DeFond et al. 2002; Frankel et al. 2002; Francis and Ke 2003; Reynolds et al. 2004; Ruddock et al. 2006; Ye et al. 2011). Other studies posit that, besides non-audit fees, also the amount of (excessive) audit fees may influence the economic bonding of the auditor (e.g., Beck et al. 1988; Dye 1991; Kinney and Libby 2002; Choi et al. 2006). Finally, the economic theory of auditor independence (DeAngelo 1981; Watts and Zimmerman 1981) suggests that auditors' incentives to compromise independence depend on the economic importance of a client in an auditor's client portfolio. Accordingly, a number of recent studies use the weight of a client in the auditor's portfolio as a proxy for the economic dependence of the auditor on the client.

For example, Craswell et al. (2002) investigate whether Australian auditors are less likely to qualify the accounts of clients that pay relative high fees. The results indicate that fee dependence, measured as the ratio of the fees paid by a particular client over the total audit office or audit firm fees, does not affect an auditor's propensity to issue unqualified audit opinions. Reynolds and Francis (2001) investigate whether Big 5 auditors treat larger clients more favorably than smaller clients. Based on an office-level proxy for client importance, they find no evidence

that larger clients are treated more favorably. In contrast, their results indicate that larger clients have lower abnormal accruals and are more likely to obtain a going-concern opinion when in financial distress. Gaver and Paterson (2007) confirm these results for loss-reserving practices of U.S. insurance companies: Big 6 auditors are found to allow less accounting discretion for clients that are more important to the local audit offices. As the characteristics of Big 5 and non-Big 5 audit firms differ, Hunt and Lulseged (2003) investigate the relation between economic dependence and auditor decision making for non-Big 5 auditors. In line with Reynolds and Francis (2001), they find that larger clients have lower levels of earnings management than smaller clients and that larger financially distressed clients are more likely to obtain a going-concern opinion than smaller clients in financial distress. Also Chung and Kallapur (2003) use client importance at the office level to investigate the impairment of auditor independence for Big 5 clients. However, they find no significant effect of the relative importance of a client on the absolute value of abnormal accruals. The study by Li (2009) compares the effect of client importance measured at the office level on auditor reporting decisions before and after SOX. She finds that client importance has no effect on the likelihood of giving a going-concern opinion to financially distressed clients before the enactment of SOX. However, more important clients have a higher probability of obtaining a going-concern opinion after SOX. In sum, these studies indicate that Big N as well non-Big N auditors do not favor larger clients in their office client portfolio over smaller clients. So, these studies fail to find evidence that auditors give up independence to avoid losing an important client in their portfolio.

However, auditors' incentives to compromise independence depend on the expected benefits of retaining an important client in their portfolio. Hence, not only

the amount at stake, but also the likelihood that the client will dismiss the auditor after an unfavorable audit has to be taken into account. Thus, whether auditors withstand the pressure from clients to allow more earnings management or to issue a favorable opinion depends on both the economic dependence of the auditor on the client and the dependence of the client on the auditor. The dependence of the client on the auditor influences the probability that the client will dismiss the incumbent auditor (Shockley 1982). The studies mentioned above using client importance as a proxy for the expected client loss of an auditor only take into account the relative size of the loss an auditor may face. Hence, they assume that the likelihood that a client will dismiss the incumbent auditor after an unfavorable audit opinion is constant throughout the sample.

Different client and auditor characteristics may influence the dependence of a client on a particular auditor, and thus the likelihood that the auditor is dismissed. A long-standing relationship between the auditor and the client or the fact that the auditor has very specific expertise may increase the value of the auditor for the client, and make it less likely that the client will fire the auditor (Goldman and Barlev 1974; Shockley 1982; Chung and Kallapur 2003). On the other hand, strong competition between auditors may make it easier for the client to dismiss the incumbent auditor (Shockley 1981; Farmer et al. 1987; Lord 1992). Thus, apart from the amount at stake, the auditor's impairment of independence may also depend on the likelihood that a client will dismiss the auditor when there has been a disagreement between both parties.

To our knowledge, Chung and Kallapur (2003) is the only empirical study indicating that the probability that an auditor is dismissed after reporting an unfavorable audit may affect the impairment of independence. However, they

investigate the effect of client importance on independence impairment across different subsamples for which the characteristics that influence the probability to be fired, such as the need for auditor expertise, differ. Hence, they do not examine the direct effect of the auditor's probability to be dismissed on the impairment of independence. Furthermore, they find no effect of client importance on independence impairment, which is not surprising given that they use U.S. listed companies. After all, the U.S. is a high litigious environment and using listed companies further increases the auditor's risk.

Prior literature shows that in settings with a high litigation risk, such as the U.S., the high litigation risk deters auditors from giving up their independence (Lennox 1999; Willenborg 1999; Khurana and Raman 2004; Chen et al. 2010). Therefore, in this study we investigate the influence of the auditor's risk to be dismissed on the impairment of independence in a low litigious environment. In such a setting, the costs for the auditor of giving up his independence are low (Hope and Langli 2010). For the same reason, we focus on private companies. These companies are widely regarded as having a lower reputation risk for auditors than public clients (e.g., Clatworthy and Peel 2007; Johnstone and Bedard 2003; Bell et al. 2002; Lys and Watts 1994). The use of private firms in a low litigious country is thus an ideal setting to investigate whether auditors have a higher likelihood of giving up their independence when their probability of being dismissed is high.

A limited number of studies focus on private clients in low litigious settings to investigate whether auditors give up independence for more important clients in their portfolio. A working paper by Chi et al. (2010), for example, investigates auditor independence in Taiwan, where auditor litigation risk is much lower compared to the U.S. They fail to find evidence for the fact that audit partners compromise their

independence for important clients. Note, however, that this is the first study that measures client importance at the audit partner level, which is recently argued to be the best level to measure client importance. The study of Vanstraelen (2002) examines the relation between auditors' economic incentives and the propensity to issue a going-concern opinion in Belgium. More specific, she hypothesizes and finds that auditors have a lower propensity to issue a going-concern opinion to clients that pay higher fees or when the auditor has suffered client losses in the preceding year. This suggests that auditors do not act independently in these situations. Hope and Langli (2010) study auditor independence using a sample of Norwegian private firms. They find no evidence that high fee revenues lead to a lower propensity to issue going-concern or modified audit opinions. So auditors of private firms in Norway do not seem to compromise their independence because of high fees. A working paper by Willekens and Bruynseels (2009) confirms the result of Hope and Langli (2010) for a sample of private Belgian firms. They conclude that an increase in abnormal fees decreases the amount of earnings management.

So, the majority of these studies show that client importance *an sich* does not lead to the impairment of auditor independence even when the auditor's litigation and reputation risk is low. However, it is conceivable that auditors are more likely to compromise their independence when the auditor's risk to be dismissed by a client is high.

Vanstraelen (2000) investigates whether auditors are more likely to issue a clean audit opinion in the last year of the mandate compared to the previous years and this in the hope to renew their mandate. However, for a sample of Belgian private companies between 1992 and 1996, she finds that auditors are more willing to issue a clean audit opinion in first two years of the mandate than in the last year of the

mandate. The results further show that this effect is driven by financially distressed companies. Higher switching rates for financially distressed firms as well as the high proportion of clients of small non-Big 4 audit firms may explain this result.

Following Reynolds and Francis (2001), Chung and Kallapur (2003) and Chi et al. (2010), we focus on Big 4 audit firms. As Big 4 auditors have more homogeneous clients than non-Big 4 auditors, focusing on Big 4 clients may reduce the auditor selection bias (Francis and Lennox 2010). Furthermore, non-Big 4 audit partners often have only a few clients in their portfolio.² This makes it hard to compare client importance in the portfolios of Big 4 and non-Big 4 partners. Moreover, as Big 4 firms have on average more and bigger clients, they have an important reputation to preserve (Hunt and Lulseged 2007). As they value their reputation, it might be that they do not give up their independence even if the related risks are very low.

Thus, it is *a priori* not clear whether Big 4 audit partners will impair their independence in a low litigious environment when the risk of being dismissed by a private client is high. Therefore, we want to investigate whether (1) the probability that a client dismisses the incumbent auditor has an impact on the auditor's impairment of independence. Furthermore, we will test whether (2) this association is conditional on the importance of the client in the audit partner's client portfolio. It could be that auditors only give up their independence when the risk that an important client in their portfolio changes auditors is high. Therefore, we want to investigate whether the association between likelihood that the client dismisses the auditor and the auditor's independence is conditional on the importance of a client in the auditor's client portfolio.

² In Belgium, 25% of the non-Big 4 audit partners in our original sample have less than 6 audit mandates in 2006.

DATA AND SAMPLE SELECTION

We test our research questions based on a sample of Belgian private companies for the year 2006. As fee data was not disclosed publicly until 2007, we use proprietary fee data made available by the Belgian Institute of Registered Auditors (IBR/IRB) to calculate our client importance measure. We focus on 2006 as this is the most recent year for which this private database is complete and thus contains all fees paid by listed and private companies to Belgian auditors. Our initial database contains 12,931 companies with available fee data. We merge this database with the Bel-First database of Bureau Van Dijk from which we obtain all financial statement information.³ As we focus on private companies, we drop all listed firms. Consistent with prior research, we exclude financial institutions (SIC-codes 6000 to 6999).

In line with prior studies, we use two proxies for auditor independence: the propensity to issue a going-concern opinion for financially distressed clients and the level of abnormal accruals reported in the financial statements.

For our first proxy, going-concern opinions, we only select those firms that face financial difficulties. Following prior studies, we define financially distressed firms as firms that report either negative earnings or negative operating cash flows (e.g., Reynolds and Francis 2001; DeFond et al. 2002; Carey and Simnett 2006). Accordingly, we remove 8,377 observations that do not meet these criteria, resulting in a sample of 2,757 financially distressed firms. As our dependent variable indicates whether a client obtains a clean or a going-concern opinion, we further exclude 818 observations that have a non-going-concern audit qualification. Note however that the

³ The Bel-First database contains financial statement information for all public and private Belgian companies.

going-concern opinion is not one of the five legal types of audit reports in Belgium. In other words, a going-concern remark can be reported in different types of audit opinions, such as unqualified opinions with an explanatory paragraph or qualified opinions. We thus hand-collected this information. We further restrict our study to clients of Big 4 auditors (Reynolds and Francis 2001; Craswell et al. 2002; Chung and Kallapur 2003; Lim and Tan 2008; Chi et al. 2010). Accordingly, we remove 678 observations that are not audited by Big 4 auditors. We further lose 407 observations due to missing values, leaving a final sample of 854 observations to test the going-concern model.

For the model with abnormal accruals as proxy for independence impairment, we lose 1,675 observations due to the estimation of the Modified Jones (1991) model. Besides observations with missing values, we remove all observations classified in an industry (2 digit SIC) with less than ten observations. We also exclude 3,998 observations that are not audited by a Big 4 auditor. Finally, we eliminate observations with missing values, resulting in a final sample of 4,112 observations. We winsorize the continuous variables used in the regression models at the top and bottom 1%. Table 1 presents the sample selection procedure.

(Insert Table 1 about here)

RESEARCH DESIGN

Model with Going-Concern Opinions

We investigate our research questions first by modeling the auditor's likelihood of issuing a going-concern opinion to financially distressed clients (DeFond et al. 2002; Vanstraelen 2002; Geiger and Rama 2003; Basioudis et al. 2008; Hope and Langli 2010). The dependent variable, GC, is an indicator variable which is equal to 1 if the auditor issues a going-concern opinion to the client and 0 otherwise.

$$\begin{aligned} GC = & \beta_0 + \beta_1 \text{MANDATE} + \beta_2 \text{CLIMP} + \beta_3 \text{MANDATE*CLIMP} + \beta_4 \text{LNTA} \\ & + \beta_5 \text{FINLEV} + \beta_6 \text{CHFINLEV} + \beta_7 \text{LNAGE} + \beta_8 \text{ROA} + \beta_9 \text{OCF} + \beta_{10} \\ & \text{INVESTMENT} + \beta_{11} \text{PBANK} + \beta_{12} \text{GCPYR} + \sum \beta_k \text{IND}_k + \varepsilon \end{aligned}$$

Test variables

In Belgium auditors are appointed for a period of three years which can be subsequently extended without limitation with additional three-year periods. So, after three years the contract between the auditor and the client has to be renegotiated. This regulation makes auditor switches in the first and the second year of an auditor's mandate almost impossible. As predicting client-initiated auditor switches based on publicly available data is unreliable, this three-year mandate allows us to distinguish between years where the probability that the client dismisses the auditor is larger (third year of mandate) and years where the probability that the client dismisses the auditor is equal to zero (first and second year of mandate).

As we want to test whether auditors are more likely to issue a clean opinion instead of a going-concern opinion in the third year of the engagement in order to be re-appointed for the next three-year mandate, the test variable MANDATE obtains a

value 1 if the auditor is in the third year of the mandate, and 0 if the auditor is in the first or second year of the mandate.

The variable CLIMP measures the relative importance of a client in an audit partner's client portfolio and thus proxies for the economic dependence of the partner on the client. We use a partner-level instead of a firm- or office-level measure of client importance as the economic impact of a larger client is more important for the particular partner than for the entire audit firm or the local office (Chi et al. 2010). Furthermore, the engagement partner is responsible for administering the audit and determining the appropriate type of audit report to be issued (Ferguson et al. 2003). Investigating the individual partner level might thus result in a better understanding of auditor behavior (DeFond and Francis 2005). Also the regulatory boards of the European Union (EU) acknowledge the importance of the engagement partner in the audit process: the amended 8th Directive (2006) obliges firms to disclose the identities of the engagement partner(s) responsible for the audit.

In Belgium, the engagement partner(s) ha(ve)s to sign the audit report. As audit reports are made publicly available together with the financial statements for listed and private companies, we have access to the name(s) of the partner(s). We measure client importance as the fee paid by a particular client to his audit partner over the sum of all fees, from listed as well as private companies, paid to that audit partner. If two partners signed the audit report, we calculate the average client importance.

Despite the fact that Hope and Langli (2010) find no significant association between client importance and going-concern opinions for private financially distressed firms in a low litigious environment, we refrain from making any prediction

with regard to the sign of our client importance variable as our proxy is measured on the audit partner. Chen et al. (2010) show that the level of analysis influences the result.

To investigate whether auditors are more likely to compromise independence for more important clients in the portfolio than for less important clients if the probability to be dismissed is high, we add an interaction between MANDATE and CLIMP in our model.

Control variables

Consistent with prior research (e.g., Heninger 2001; Reynolds and Francis 2001; DeFond et al. 2002; Geiger and Rama 2003; Basioudis et al. 2008; Li 2009; Hope and Langli 2010; Chen et al. 2010), we control for other factors that are likely to affect auditors' probability of issuing a going-concern opinion. We control for the size of the auditee by including the natural logarithm of total assets (LNTA). As larger firms have more negotiation power in the event of financial difficulties and are more likely to avoid bankruptcy, we expect a negative sign for LNTA. Mutchler et al. (1997) find that debt covenant violation is positively associated with the probability of obtaining a going-concern opinion. We include the amount of financial debt divided by total assets (FINLEV) because leverage captures the fact that firms with more debt are more likely to violate debt covenants. Changes in the amount of financial debt (CHFINLEV) controls for the fact that increases in leverage bring the firms closer to covenant violation (Beneish and Press 1993). As younger firms have a higher probability of going bankrupt, we add the natural logarithm of the age of the auditee (LNAGE). Also poor performing companies have a higher likelihood of going bankrupt. Therefore, we control for return on assets (ROA) and cash flow from

operations scaled by lagged total assets (OCF). We add the sum of cash and investment securities divided by total assets (INVESTMENT) which captures the ability to raise cash quickly. We expect a negative sign for this variable as a large amount of liquidities can avoid bankruptcy. We further control for the probability of bankruptcy based on the Altman Z-score (1968) (ZSCORE). We calculate the adjusted formula for private firms.⁴ As poorer financial health increases the likelihood of obtaining a going-concern opinion, we expect a negative sign for the variable. Companies that received a going-concern audit opinion in the previous year are more likely to receive one this year. We include an indicator variable GCPRYR in the model and expect to find a positive coefficient to control for this. Finally, to control for potential industry-specific effects, we include industry indicator variables.

Model with Abnormal Accruals

In a second set of regressions, we use the absolute value of abnormal accruals, positive abnormal accruals and negative abnormal accruals as proxies for auditor independence. We estimate the following regression model:

$$\begin{aligned}
 \text{ABNACCR} = & \beta_0 + \beta_1 \text{MANDATE} + \beta_2 \text{CLIMP} + \beta_3 \text{MANDATE} * \text{CLIMP} + \beta_4 \\
 & \text{LNTA} + \beta_5 \text{FINLEV} + \beta_6 \text{OCF} + \beta_7 \text{SALESGR} + \beta_8 \text{CR} + \beta_9 \text{LOSS} + \beta_{10} \\
 & \text{TAXPRYR} + \sum \beta_k \text{IND}_k + \varepsilon
 \end{aligned}$$

⁴ The following calculation is used to arrive at the Z-score for private firms: $Z = 0.717 * (\text{Working Capital} / \text{Total Assets}) + 0.847 * (\text{Retained Earnings} / \text{Total Assets}) + 3.107 * (\text{Earnings before Interest and Taxes} / \text{Total Assets}) + 0.420 * (\text{Market Value of Equity} / \text{Book Value of Total Debt}) + 0.998 * (\text{Sales} / \text{Total Assets})$ (Altman1968).

Dependent variable

We use the Modified Jones model (1991) to estimate the abnormal accruals.

We estimate the model cross-sectionally by industry (two-digit SIC code) for 2006:

$$\frac{TotAccr_{it}}{TotAss_{it-1}} = \beta_0 \frac{1}{TotAss_{it-1}} + \beta_1 \frac{\Delta Rev_{it} - \Delta Rec_{it}}{TotAss_{it-1}} + \beta_2 \frac{PPE_{it}}{TotAss_{it-1}} + \varepsilon_{it}$$

With: TotAccr = total accruals,⁵

TotAss = total assets,

ΔRev = change in revenues,

ΔRec = change in net receivables,

PPE = gross property, plant and equipment.

We estimate this model for a sample of 19,006 private Belgian companies that have to file their annual report with the National Bank of Belgium. The residuals of this model represent the abnormal accruals component, which is our proxy for auditor independence. To estimate the abnormal accruals, we require at least ten observations in each industry (2 digit SIC). The abnormal accruals are winsorized at -1 and +1 to mitigate the effect of outliers (Francis and Yu 2009).

Test variables

Our variables of interest MANDATE, CLIMP and the interaction between MANDATE and CLIMP are as defined above.

⁵ Total accruals (TotAccr_{it}) for firm i in year t are calculated as follows: TotAccr_{it} = $\Delta CurrentAssets_{it} - \Delta CurrentLiabilities_{it} - \Delta Cash_{it} + \Delta ShTDebt_{it} - Depreciation_{it}$ Where: $\Delta CurrentAssets_{it}$ = change in current assets, $\Delta CurrentLiabilities_{it}$ = change in current liabilities, $\Delta Cash_{it}$ = change in cash and cash equivalents, $\Delta ShTDebt_{it}$ = change in debt included in current liabilities, $Depreciation_{it}$ = depreciation and amortization expense.

Control variables

Following prior research, we include several control variables in the model (e.g., Reynolds and Francis 2001; Ashbaugh et al. 2003; Lim and Tan 2008; Dutilleux and Willekens 2009; Gul et al. 2009; Chi et al. 2010). We control for the size of the auditee by including the natural logarithm of total assets (LNTA). As larger firms have smaller accruals, we expect a negative sign for LNTA. Bank financing is an important source of external financing for private firms and as debt covenants provide incentives for earnings management, we add financial leverage (FINLEV) to our model. We include operating cash flow (OCF) to control for the operating risk of the company. In line with prior research we expect a negative sign for OCF (Dechow et al. 1995, Young et al. 1999). We further control for the positive effect of sales growth on accruals (SALESGR). The current ratio (CR) controls for the firm's liquidity. Companies with liquidity problems may try to conceal their bad condition to avoid violating debt covenants. As firms increase earnings to minimize reported losses, we include an indicator variable for losses (LOSS). In Belgium, the financial statements are also used for tax reasons. Hence, companies may try to manage their earnings down to minimize taxes. Therefore, we control for the fact whether a company paid taxes in previous year or not (TAXPRYR). As firms that paid taxes in the previous year are more likely to pay taxes in the current year, we expect more downwards earnings management for these companies (Hung 2001; Vander Bauwhede and Willekens 2004). Finally, we include industry dummies to control for industry effects on earnings management. All continuous variables are winsorized at the 1st and 99th percentile. Table 2 presents an overview of all variables.

(Insert Table 2 about here)

RESULTS

Results for Going-Concern Model

Descriptive Statistics and Univariate Results

Table 3 presents the descriptive statistics for our sample of financially distressed companies in 2006. It shows that half of the sample firms received a going-concern opinion. This is much higher than the reported nine per cent in prior studies based on U.S. listed firms (DeFond et al. 2002; Reynolds and Francis 2000). On average 32 per cent of the companies have an auditor in the last year of his mandate. A client represents on average 1.8 per cent of the audit partner's portfolio. Financial leverage and the change in financial leverage make up respectively 37.5 per cent and 42.1 per cent of total assets. The variables ROA, OCF and ZSCORE indicate that our sample firms are in a weak financial position.

(Insert Table 3 about here)

Table 4 classifies the variables by opinion type, going-concern or clean opinion, and presents univariate test of differences in means across these subsamples. The results show that financially distressed companies with an auditor in the last year of his mandate have a higher likelihood of obtaining a clean audit opinion ($t = 1.67$). Also more important clients in the audit partner's portfolio are more likely to obtain a clean opinion instead of a going-concern opinion ($t = 2.57$). These univariate results give a first indication that auditors may impair their independence when the likelihood of being dismissed is larger and for more important clients in the portfolio. As expected, we find that larger ($t = 3.94$) and older firms ($t = 5.13$) have a higher probability of obtaining a clean opinion. Companies receiving a going-concern

opinion have higher financial leverage ($t = -3.30$) and larger increases in this leverage ($t = -2.35$). Furthermore, companies with higher returns on assets ($t = 5.84$), higher operating cash flows ($t = 4.08$) and higher Z-scores ($t = 7.76$) are on average more likely to obtain a clean audit opinion. Finally, companies that received a going-concern opinion in the previous year are more likely to receive one in the current year ($t = -24.61$).

(Insert Table 4 about here)

The Pearson correlations between all variables included in the model are presented in Table 5. We find a negative correlation between MANDATE and GC (-0.06) and between CLIMP and GC (-0.09). The largest correlation is, as expected, between this and prior year's going-concern opinion (0.64).

(Insert Table 5 about here)

Multivariate Results

Table 6 reports the results of the multivariate regression model. The model is significant and has a pseudo R^2 of 39.5 per cent.

We do not find a significant association between the year of mandate of the auditor and the propensity to issue a going-concern opinion for financially distressed clients ($p = 0.954$). Thus, auditors do not report more favorably when they are in the third year of the engagement with a particular client. Also the variable CLIMP has no significant effect on the likelihood of giving a going-concern opinion ($p = 0.332$). This suggests that audit partners do not impair their independence for economically more important clients in their portfolio. This is in line with the results of Hope and

Langli (2010). Furthermore, the interaction term between the year of mandate and our client importance measure is not significant ($p = 0.832$). More important clients are not more likely to obtain a clean opinion when their auditor is in the final year of the mandate than less important clients.

The results further show that the likelihood of a company to obtain a going-concern opinion is significantly positive related to the change in leverage ($p = 0.013$) and the company's going-concern opinion in the previous year ($p = 0.000$). We find a significant negative effect of the age of the company ($p = 0.092$), return on assets ($p = 0.005$) and the Z-score ($p = 0.044$). These results are in line with our expectations. However, the propensity to obtain a going-concern opinion is not significantly influenced by size ($p = 0.890$), financial leverage ($p = 0.623$), operating cash flow ($p = 0.321$) and liquidity ($p = 0.227$).

(Insert Table 6 about here)

Results for Model with Abnormal Accruals

Descriptive Statistics

Table 7 contains the descriptive statistics for the variables used in our model with the absolute value of abnormal accruals as dependent variable. The absolute value of abnormal accruals is on average 0.246. About one third of the observations have an auditor which is in the last year of his mandate and a client represents on average 2.2 per cent of the audit partner's portfolio. Financial leverage makes up 16 per cent of total assets. Operating cash flows are on average 14 per cent of lagged total assets. The average current ratio is 2.36. This shows that the sample firms have

on average a good liquidity position. About 22 per cent of the firms included in our sample reports a loss and 66 per cent of the firms paid taxes in the previous year.

(Insert Table 7 about here)

The correlations among the variables, reported in Table 8, show that the year of mandate is positively correlated with the absolute value of absolute abnormal accruals (0.05). Client importance, on the other hand, is negatively correlated with the absolute value of abnormal accruals (-0.07). This seems to suggest that auditors accept higher levels of abnormal accruals when they are in the last year of their mandate. However, they are less likely to allow aggressive earnings management for important clients in the portfolio.

(Insert Table 8 about here)

Multivariate Results

Table 9 provides the results of the regression estimations with the absolute value of abnormal accruals, positive abnormal accruals and the absolute value of negative abnormal accruals. All models are significant and the adjusted R^2 is around 40 per cent in all models, which is in line with other earnings management studies using Belgian data (Willekens and Bruynseels 2010; Dutillieux and Willekens 2009).

We report the regression results for the model with the absolute value of abnormal accruals as dependent variable in column 1. The results show that the absolute values of abnormal accruals are significantly higher when the auditor is in the last year of the mandate than when he is in the first or second year ($p = 0.014$).

This higher level of abnormal accruals may suggest that auditors impair independence in the last year of the mandate in order to renew the contracts with their clients. As shown below, this association is primarily driven by negative abnormal accruals.

The level of abnormal accruals is not significantly affected by the importance of a client in the audit partner's portfolio ($p = 0.552$). This indicates that auditors do not treat their most important clients more favorably. Furthermore, we also find no significant effect of the interaction between MANDATE and CLIMP ($p = 0.181$). Note that all control variables are statistically significant and in line with prior earnings management studies (e.g., Reynolds and Francis 2001; Chi et al. 2010; Dutillieux and Willekens 2009; Willekens and Bruynseels 2010).

We next partition our sample based on the sign of the abnormal accruals. Column 2 of Table 9 shows the results of the model estimated for the subsample of firms reporting positive abnormal accruals. We find no association between MANDATE and the level of positive abnormal accruals ($p = 0.509$). This indicates that income-increasing earnings management is not influenced by the year of mandate. Also the variable CLIMP ($p = 0.700$) and the interaction between MANDATE and CLIMP ($p = 0.533$) have no significant effect on the amount of positive abnormal accruals. These results indicate that auditors do not allow more income-increasing earnings management for more important clients in their portfolio even when the auditor is in the last year of his mandate.

Column 3 of Table 9 reports the results of the model estimated on the subsample of the negative abnormal accruals. Note that we use the absolute value of the negative abnormal accruals as dependent variable. The variable MANDATE is positively and significantly associated with the level of negative abnormal accruals ($p = 0.001$). This indicates that auditors allow more negative abnormal accruals in the

last year of their mandate which may suggest that they impair independence in the last year of the mandate in order to retain clients. However, CLIMP ($p = 0.142$) and MANDATE*CLIMP ($p = 0.142$) have no significant effect on the level of negative abnormal accruals.

(Insert Table 9 about here)

SENSITIVITY CHECKS

We conduct a number of additional analyses to assess the robustness of our findings. First, we investigate whether our finding that auditors do not give up their independence by issuing a clean instead of a going-concern opinion is not driven by companies with a very high risk of facing bankruptcy. Therefore, we delete the ten per cent firms with the highest bankruptcy risk, measured by Altman's (1986) Z-score. However, also for this sample of moderately distressed firms we do not find that auditors impair their independence (Hope and Langli 2010).

Seconds, we use audit opinions other than going-concern opinions as proxy for auditor independence. We run an ordered logistic regression with the dependent variable coded from 0 to 3 for clean, unqualified with explanatory paragraph, qualified, and disclaimer/adverse opinion, respectively (Chen et al. 2010). Untabulated results indicate that the auditor's likelihood of being dismissed by a client and the importance of a client in the partner's portfolio do not affect the probability of giving a clean opinion.

Third, we use an alternative measure for abnormal accruals. Following Kothari et al. (2005), we use performance-adjusted abnormal accruals using prior-year return on assets. However, our results are not influenced by using this alternative proxy.

Furthermore, we rerun the model with abnormal accruals winsorized at the 1st and 99th percentile (Francis and Yu 2009). These results are only marginally significant.

CONCLUSION

Studies on auditor independence investigate whether auditors have a higher likelihood of impairing independence for relative important clients in their portfolio (e.g., Reynolds and Francis 2001; Chung and Kallapur 2003). However, auditors' incentives to impair independence depend on the expected benefits of retaining a client in the portfolio. Hence, not only the amount at stake but also the likelihood that the auditor will be dismissed by his client has to be taken into account. Therefore, we investigate (1) whether the likelihood that the client will to end the cooperation with the auditor affects the auditor's propensity to compromise independence and (2) whether this relation is influenced by the importance of the client in the auditor's portfolio.

Based on a sample of private Belgian firms in 2006, we find that the likelihood of an auditor of being dismissed has no significant effect on the propensity of issuing a going-concern opinion for financially distressed clients. Furthermore, more important clients are not more likely to obtain a clean opinion when their auditor is in the final year of the mandate than less important clients. However, we find evidence for the fact that auditors accept higher levels of abnormal accruals when they have a higher likelihood of being dismissed. Further investigation indicates that this result is driven by observations with negative abnormal accruals. Thus auditors allow more income-decreasing earnings management if they have a higher likelihood of being dismissed. As the financial statements are also used for tax reasons, this means that auditors will not curb tax minimizing practices if their likelihood of being fired is

high. The importance of a client in the partner's portfolio does not affect this association.

We contribute to the literature in a number of ways. First, we contribute to the literature on auditor independence by emphasizing the importance of expected client losses. In this study, we investigate whether auditors' impairment of independence is affected by their likelihood of being dismissed by a particular client. This factor is assumed to be constant in prior studies (e.g., Reynolds and Francis 2001; DeFond et al. 2002). Second, we add to the limited research on audit quality measured at the individual partner level (e.g., Ferguson et al. 2003; Chi et al. 2010; Zerni 2010). Third, our results based on the three-year audit engagement in Belgium may contribute to the debate on voluntary or mandatory audit partner rotation. Finally, as we investigate a low-litigious setting, we contribute to the auditing literature on the effect of country-specific institutions on auditing practices and audit quality (Magan 2008; Francis and Wang 2008).

The results of our study are subject to a number of limitations. First, as Francis and Wang (2008) indicate that country characteristics influence the provided audit quality in a particular country, our findings do not necessarily generalize to other countries. Second, data limitations prevent us from controlling for auditor tenure and report lag. However, given the extensive set of control variables included in our models, we do not consider the possibility of omitted variables a serious threat to our conclusions.

REFERENCES

- Aerts, K. 2002. *Taken en aansprakelijkheden van commissarissen en bedrijfsrevisoren*. Brussel, Larcier.
- Altman, E. 1968. Financial ratios, discriminant analysis and prediction of corporate bankruptcy. *Journal of Finance* 23: 589– 609.
- Ashbaugh, H., R. LaFond, and B. Mayhew. 2003. Do non-audit services compromise auditor independence? Further evidence. *The Accounting Review* 78(3): 611-640.
- Basioudis, I.G., E. Papakonstantinou, and M.A. Geiger. 2006. Audit Fees, Non-Audit Fees, and Auditor Going-Concern Reporting Decisions in the United Kingdom. *Working paper*, Aston University and University of Richmond.
- Beck, P. J., T. J. Frecka, and I. Solomon. 1988. A model of the market for MAS and audit services: Knowledge spillovers and auditor-auditee bonding. *Journal of Accounting Literature* 7: 50-64.
- Bell, T., J. Bedard, K. Johnstone, E. Smith. 2002. KRistSM: A computerized decision aid for client acceptance and continuance risk assessments. *Auditing: A Journal of Practice and Theory* 21(2): 97-113.
- Beneish, D., and E. Press. 1993. Costs of technical default. *The Accounting Review* 68: 233-257.
- Branson, J., and D. Breesch. 2004. Referral as a determining factor for changing auditors in the Belgian audit market: An empirical study. *The International Journal of Accounting* 39: 307-326.
- Carey, P., and R. Simnett. 2006. Audit Partner Tenure and Audit Quality. *The Accounting Review* 81(3): 653-676.
- Chen, S., S. Sun, and D. Wu. 2010. Client importance, institutional improvements, and audit quality in China: an office and individual auditor level analysis. *The Accounting Review* 85(1): 127-158.
- Chi, W., E. Douthett, and L. Lei. 2010. Client Importance and Auditor Independence: A Partner-Level Analysis. *Working Paper*.
- Choi, J.H., J.B. Kim, and Y. Zang. 2006. The association between audit quality and abnormal audit fees. *Working paper*, Seoul National University, Hong Kong Polytechnic University, and Singapore Management University.
- Chung, H., and S. Kallapur. 2003. Client importance, nonaudit services, and abnormal accruals. *The Accounting Review* 78(4): 931-956.
- Clatworthy, M.A., and M.J. Peel. 2007. The effect of corporate status on external audit fees: Evidence from the U.K. *Journal of Finance and Accounting* 34(1&2): 169-201.

- Craswell, A.T., D.J. Stokes, and J. Laughton. 2002. Auditor independence and fee dependence. *Journal of Accounting and Economics* 33(2): 253-275.
- DeAngelo, L. 1981. Auditor size and audit quality. *Journal of Accounting and Economics* 3(3): 183-199.
- Dechow, P., R. Sloan, and A. Sweeney. 1995. Detecting earnings management. *The Accounting Review* 70(2): 193-225.
- DeFond, M.L., K. Raghunadan, and K.R. Subramanyam. 2002. Do non-audit service fees impair auditor independence? Evidence from going-concern audit opinions. *Journal of Accounting Research* 40(4): 1247-1274.
- DeFond, M., and J. Francis. 2005. Audit Research after Sarbanes-Oxley. 2005. *Auditing: A Journal of Practice and Theory. Supplement 24*: 5-30.
- DeFond, M., J. Francis, and X. Hu. 2008. The geography of auditor independence and SEC enforcement. *Working paper*, University of Missouri-Columbia.
- Dutillieux, W., and M. Willekens. 2009. The impact of SOX on earnings quality outside the U.S.: Evidence from Belgian subsidiaries of U.S. listed companies. *Working paper*, Katholieke Universiteit Leuven.
- Dye, R. 1991. Informationally motivated audit replacement. *Journal of Accounting and Economics* 14(4): 347-374.
- Farmer, T., L. Rittenberg, and G. Trompeter. 1987. An investigation of the impact of economic and organisational factors in auditor independence. *Auditing: A Journal of Practice and Theory* 7: 1-14.
- Ferguson, J., J. Francis, and D. Stokes. 2003. The Effects of Firm-Wide and Office-Level Industry Expertise on Audit Pricing. *The Accounting Review* 78(2): 429-448.
- Francis, J., and B. Ke. 2003. Do fees paid to auditors increase a company's likelihood of meeting analysts' earnings forecasts? *Working Paper*, University Of Missouri and Penn State University.
- Francis, J., and D. Wang. 2008. The joint effect of investor protection and Big 4 auditors on earnings quality around the world. *Contemporary Accounting Research* 25(1): 157-191.
- Francis, J. and M. Yu. 2009. Big 4 office size and audit quality. *The Accounting Review* 84(5): 1521-1552.
- Frankel, R., M. Johnson, and K. Nelson. 2002. The relation between auditors' fees for nonaudit services and earnings quality. *The Accounting Review* 77: 77-104.
- Francis, J., C. Lennox, and Z. Wang. 2010. Selection Models in Accounting Research. *Working paper*.

- Gaver, J., and J. Paterson. 2007. The influence of large clients on office-level auditor oversight: evidence from the property-casualty insurance industry. *Journal of Accounting and Economics* 43(2-3): 299-320.
- Geiger, M.A., and D.V. Rama. 2003. Audit fees, nonaudit fees, and auditor reporting on stressed companies. *Auditing: A Journal of Practice and Theory* 22(2): 53-69.
- Goldman, A., and B. Barlev. 1974. The Auditor-Firm Conflict of Interests: Its Implications for Independence. *The Accounting Review* 49(4): 707-718.
- Gul, F., S. Fung, and B. Jaggi. 2009. Earnings quality: Some evidence on the role of auditor tenure and auditors' industry expertise. *Journal of Accounting and Economics* 47(3): 265-287.
- Heninger, W. 2001. The association between auditor litigation and abnormal accruals. *The Accounting Review* 76(1): 111-126.
- Hope, O.K., and J.C. Langli. 2010. Auditor independence in a private firms and low litigation risk setting. *The Accounting Review* 85(2): 573-605.
- Hung, M. 2001. Accounting standards and value of relevance of financial statements: an international analysis. *Journal of Accounting and Economics* 30(3): 401-420.
- Hunt, A.K., and A. Lulseged. 2007. Client importance and non-Big 5 auditors' reporting decisions. *Journal of Accounting and Public Policy* 26: 212-248.
- Johnstone, K.M., and J.C. Bedard. 2003. Risk management in client acceptance decisions. *Journal of Accounting Research* 78(4): 1003-1025.
- Kinney, W., and R. Libby. 2002. Discussion of: The relation between auditors' fees for nonaudit services and earnings management. *The Accounting Review* 77: 107-114.
- Khurana, I., and K. Raman. 2004. Litigation risk and financial reporting credibility of Big 4 vs. non-Big 4 audits: Evidence from Anglo-American countries. *The Accounting Review* 79: 473-495.
- Lennox, C.S. 1999. Non-audit fees, disclosure and audit quality. *European Accounting Review* 8(2): 239-52.
- Li, C. 2009. Does client importance affect auditor independence at the office level? Empirical evidence from going-concern opinions. *Contemporary Accounting Research* 26(1): 201-230.
- Lim, C.-Y., and H.-T. Tan. 2008. Non-audit service fees and audit quality: the impact of auditor specialization. *Journal of Accounting Research* 46(1): 199-246.
- Lord, T. 1992. Pressure: A Methodological Consideration for Behavioral Research in Auditing. *Auditing: A Journal of Practice and Theory*: 89-108.

Lys, T., and R. Watts. 1994. Lawsuits against Auditors. *Journal of Accounting Research* 32: 65-93.

Magee, R.P., and M.C. Tseng. 1990. Audit pricing and independence. *The Accounting Review* 65(2): 315-336.

Magnan, M. 2008. Discussion of audit pricing, legal liability regimes, and Big 4 premiums: Theory and cross country evidence. *Contemporary Accounting Research* 25(1): 101-108.

Mutchler, J., W. Hopwood, and J. McKeown. 1997. The influence of contrary information and mitigating factors in audit opinion decisions on bankrupt companies. *Journal of Accounting Research* 35: 295-310.

Reynolds, J.K., and J. Francis. 2001. Does size matter? The influence of large clients on office-level auditor reporting decisions. *Journal of Accounting and Economics* 30: 375-400.

Reynolds, K, D. Deis, and J. Francis. 2004. Professional service fees and auditor objectivity. *Auditing: A Journal of Practice and Theory* 23(1): 29-52.

Shockley, R. 1981. Perceptions of audit independence: an empirical analysis. *The Accounting Review* 56(4): 785-800.

Shockley, R. 1982. Perceptions of audit independence: a conceptual model. *Journal of Accounting, Auditing and Finance* 5(2): 126-13.

Vander Bauwhede, H., M. Willekens, and A. Gaeremynck. 2003. Audit size, public ownership, and firms' discretionary accruals management. *The international Journal of Accounting* 38: 1-22.

Vander Bauwhede, H., and M. Willekens. 2004. Evidence on (the lack of) audit-quality differentiation in the private client segment of the Belgian audit market. *European Accounting Review* 13(3): 501-522.

Vanstraelen, A. 2000. Impact of renewable long-term audit mandates on audit quality. *The European Accounting Review* 9(3): 419-442.

Vanstraelen, A. 2002. Auditor economic incentives and going-concern opinions in a limited litigious Continental European business environment: empirical evidence from Belgium. *Accounting and Business Research* 32(3): 171-186.

Watts, R. L., and J. L. Zimmerman. 1981. The markets for independence and independent auditors. *Working paper*, University of Rochester.

Willekens, M., and A. Gaeremynck. 2005. *Prijzetting in de Belgische auditmarkt. (Price setting in the Belgian audit market.)* Instituut der Bedrijfsrevisoren (Belgian Institute of Registered Auditors) & die Keure.

Willekens, M., and L. Bruynseels. 2009. Audit demand and private company financial

reporting quality. *Working paper*, K.U.Leuven and Tilburg University.

Willenborg, M. 1999. Empirical analysis of the economic demand for auditing in the initial public offering market. *Journal of Accounting Research* 37: 225-238.

Ye, P., E. Carson, and R. Simnett, 2011. Threats to Auditor Independence: The Impact of Relationship and Economic Bonds. *Auditing: A Journal of Practice and Theory* forthcoming.

Zerni, M. 2010. Audit Partner Specialization and Audit Fees. 2010. *Working Paper*, University of Vaasa.

TABLE 1: Sample selection**Model 1: Going-concern opinions**

Initial sample with available fee data (2006)	<u>12,931</u>
- Listed companies	-86
- Financial and insurance companies (SIC 6000-6999)	-1,711
- Observations without negative earnings or operating cash flow	-8,377
- Observations with no clean or going-concern opinion	-818
- Non-Big 4 clients	-678
- Observations with missing values	-407
Final sample	<u>854</u>

Model 2: Abnormal accruals

Initial sample with available fee data (2006)	<u>12,931</u>
- Listed companies	-86
- Financial and insurance companies (SIC 6000-6999)	-1,711
- Observations without estimation of abnormal accruals	-1,675
- Non-Big 4 clients	-3,998
- Observations with missing values	-1,349
Final sample	<u>4,112</u>
Of which: Observations with positive abnormal accruals	2,302
Observations with positive abnormal accruals	1,810

TABLE 2: Variables definitions

VARIABLE	DEFINITION
<i>DEPENDENT VARIABLES</i>	
GC	Indicator variable equal to 1 for firms with a going-concern audit opinion, and 0 otherwise.
ABNACCR	Abnormal accruals as estimated by the Modified Jones (1991) model, measured in absolute, positive and negative values.
<i>TEST VARIABLES</i>	
MANDATE	Indicator variable equal to 1 when the auditor is in the 3 rd year of the mandate, and 0 otherwise.
CLIMP	Fees paid by a particular client over the sum of fees paid by all clients in that audit partner's client portfolio.
<i>CONTROL VARIABLES</i>	
LNTA	Natural logarithm of total assets.
FINLEV	Financial debt over total assets.
CHFINLEV	Change in financial leverage from t-1 to t.
LNAGE	Natural logarithm of the firm's age in years.
ROA	Return on assets.
OCF	Operating cash flow scaled by lagged total assets.
INVESTMENT	Sum of cash and investment securities divided by total assets.
ZSCORE	Altman's (1968) Z-score.
GCPRYR	Indicator variable equal to 1 if company has received a going-concern opinion in the previous year, and 0 otherwise.
SALESGR	Growth rate of net sales over the previous year.
CR	Current ratio.
LOSS	Indicator variable equal to 1 when the company reported a loss, and 0 otherwise.
TAXPRYR	Indicator variable equal to 1 when the company paid taxes in the previous year, and 0 otherwise.
IND	Industry-fixed effects based on two-digit SIC code.

TABLE 3: Descriptive statistics for the going-concern model

Variables	Mean	Median	Min	25%	75%	Max
GC	0.507	1	0	0	1	1
MANDATE	0.327	0	0	0	1	1
CLIMP	0.018	0.008	0.001	0.003	0.019	0.268
LNTA	15.345	15.372	9.105	13.941	16.753	20.264
FINLEV	0.375	0.038	0	0	0.408	7.980
CHFINLEV	0.421	0	-1	-0.087	0.057	19.705
LNAGE	2.685	2.833	0	2.079	3.401	4.762
ROA	-13.697	-2.795	-348.64	-13.07	0.24	24.27
OCF	-0.111	-0.002	-4.899	-0.080	0.045	0.278
INVESTMENT	0.133	0.037	0	0.006	0.146	0.997
ZSCORE	1.171	1.132	-11.078	0.006	2.401	16.565
GCPYR	0.423	0	0	0	1	1

This table presents the descriptive statistics of our variables based on 854 observations of financially distressed firms. For variables definitions, see Table 2.

TABLE 4: Tests of differences in means by opinion type

Variables	Clean opinion	Going-concern opinion	T-test
MANDATE	0.354	0.300	1.673*
CLIMP	0.021	0.015	2.565**
LNTA	15.641	15.058	3.937***
FINLEV	0.261	0.486	-3.297***
CHFINLEV	0.202	0.634	-2.352**
LNAGE	2.850	2.525	5.125***
ROA	-6.031	-21.151	5.841***
OCF	-0.035	-0.185	4.078***
INVESTMENT	0.138	0.128	0.670
ZSCORE	2.304	0.069	7.756***
GCPYR	0.100	0.737	-24.613***
N	421	433	

This table presents the t-tests for differences in means between financially distressed firms with a clean and with a going-concern opinion. For variable definitions, see Table 2. *, **, *** indicate significance at the 10, 5 and 1 per cent (two-tailed), respectively.

TABLE 5: Correlations for the going-concern model

	GC	MANDATE	CLIMP	LNTA	FINLEV	CHFINLEV	LNAGE	ROA	OCF	INVEST	ZSCORE	GCPRYR
GC	1.000											
MANDATE	-0.057*	1.000										
CLIMP	-0.088**	-0.001	1.000									
LNTA	-0.134***	-0.039	0.402***	1.000								
FINLEV	0.112***	0.004	-0.017	-0.113***	1.000							
CHFINLEV	0.080**	-0.003	0.131***	0.0192	0.205***	1.000						
LNAGE	-0.173***	0.022	0.114***	0.124***	-0.001	-0.037	1.000					
ROA	-0.196***	0.031	0.053	0.251***	-0.231***	-0.003	0.127***	1.000				
OCF	-0.138***	0.018	0.061*	0.356***	-0.477***	-0.143***	0.094**	0.545***	1.000			
INVEST	-0.023	0.026	-0.072**	-0.436***	0.024	-0.022	-0.053	-0.137***	-0.289***	1.000		
ZSCORE	-0.257***	0.074**	0.022	0.137***	-0.398***	-0.098**	0.094**	0.387***	0.386***	0.029	1.000	
GCPRYR	0.645***	-0.070**	-0.074**	-0.165***	0.128***	0.038	-0.141***	-0.171***	-0.152***	0.014	-0.259***	1.000

This table presents the pairwise Pearson correlation coefficients between the variables used in the going-concern model. For variable definitions, see Table 2. *, **, *** indicate significance at the 10, 5 and 1 per cent (two-tailed), respectively.

TABLE 6: Logistic regression results for the going-concern model

Variables	Coeff.	p-value
Intercept	-17.405	0.000***
MANDATE	-0.014	0.954
CLIMP	-3.699	0.332
MANDATE*CLIMP	-1.372	0.832
LNTA	-0.008	0.890
FINLEV	-0.067	0.623
CHFINLEV	0.102	0.013**
LNAGE	-0.180	0.092*
ROA	-0.015	0.005***
OCF	0.282	0.321
INVESTMENT	-0.620	0.227
ZSCORE	-0.058	0.044**
GCPRYR	3.279	0.000***
IND	included	
N	854	
Pseudo R ²	0.395	

This table presents the results of the logistic regression model with going-concern as dependent variable. For variable definitions, see Table 2. *, **, *** indicate significance at the 10, 5 and 1 per cent (two-tailed), respectively.

TABLE 7: Descriptive statistics for the model with the absolute value of abnormal accruals

Variables	Mean	Median	Min	25%	75%	Max
ABSVABNACCR	0.246	0.126	0.000	0.052	0.315	1
MANDATE	0.335	0	0	0	1	1
CLIMP	0.022	0.010	0.001	0.005	0.022	0.292
LNTA	16.043	15.960	10.715	14.902	17.156	20.622
FINLEV	0.161	0.007	0	0	0.230	1.896
OCF	0.144	0.116	-0.610	0.045	0.219	1.102
SALESGR	0.130	0.057	-0.919	-0.041	0.165	4.790
CR	2.360	1.31	0	0.98	2.07	42.77
LOSS	0.220	0	0	0	0	1
TAXPRYR	0.661	1	0	0	1	1

This table presents the descriptive statistics of our variables based on 4,112 observations. For variable definitions, see Table 2.

TABLE 8: Correlations for the model with the absolute value of abnormal accruals

	ABSVABN ACCR	MANDATE	CLIMP	LNTA	FINLEV	OCF	SALESGR	CR	LOSS	TAXPRYR
ABSVABNACCR	1.000									
MANDATE	0.052***	1.000								
CLIMP	-0.070***	0.010	1.000							
LNTA	-0.163***	0.024	0.390***	1.000						
FINLEV	0.058***	0.014	0.041**	0.129***	1.000					
OCF	0.069***	0.006	-0.008	0.037**	-0.146***	1.000				
SALESGR	0.054***	0.017	-0.037**	0.020	-0.027*	0.123***	1.000			
CR	0.070***	0.020	-0.035**	-0.010	-0.103***	0.068***	0.032**	1.000		
LOSS	0.070***	-0.018	-0.014	-0.087***	0.208***	-0.466***	-0.032**	-0.061***	1.000	
TAXPRYR	-0.101***	-0.005	0.008	0.124***	-0.222***	0.228***	-0.047**	-0.001	-0.306***	1.000

This table presents the pairwise Pearson correlation coefficients between the variables used in the model with abnormal accruals. For variable definitions, see Table 2. *, **, *** indicate significance at the 10, 5 and 1 per cent (two-tailed), respectively.

TABLE 9: Logistic regression results for the model with the absolute value of abnormal accruals

Variables	(1) Model with absolute value of abnormal accruals		(2) Model with positive abnormal accruals		(3) Model with the absolute value of negative abnormal accruals	
	Coeff.	p-value	Coeff.	p-value	Coeff.	p-value
Intercept	0.553	0.000 ^{***}	0.276	0.030 ^{**}	0.793	0.000 ^{***}
MANDATE	0.021	0.014 ^{**}	0.007	0.509	0.043	0.001 ^{***}
CLIMP	0.074	0.552	-0.059	0.700	0.303	0.142
MANDATE*CLIMP	-0.257	0.181	-0.151	0.533	-0.445	0.142
LNTA	-0.025	0.000 ^{***}	-0.017	0.000 ^{***}	-0.034	0.000 ^{***}
FINLEV	0.067	0.000 ^{***}	0.060	0.001 ^{***}	0.075	0.000 ^{***}
OCF	0.183	0.000 ^{***}	0.317	0.000 ^{***}	0.021	0.496
SALESGR	0.023	0.000 ^{***}	0.014	0.080 [*]	0.030	0.000 ^{***}
CR	0.005	0.000 ^{***}	0.006	0.000 ^{***}	0.001	0.327
LOSS	0.065	0.000 ^{***}	0.071	0.000 ^{***}	0.043	0.003 ^{***}
TAXPRYR	-0.036	0.000 ^{***}	-0.043	0.000 ^{***}	-0.019	0.142
IND	included		Included		Included	
N	4,112		2,302		1,810	
Adjusted R ²	0.426		0.4705		0.4144	

This table presents the results of the OLS regression model with the absolute value of abnormal accruals as the dependent variable. For variable definitions, see Table 2. *, **, *** indicate significance at the 10, 5 and 1 per cent (two-tailed), respectively.