

# The Effect of Dismissal Threat on Auditor Independence\*

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**ABSTRACT:** This study investigates whether the dismissal threat posed by the client jeopardizes auditor independence, where auditor independence is surrogated by the auditor's propensity to issue a going concern opinion on a financially distressed client. We use an auditor switch model to predict the unobserved switches clients would have made had they received an opposite audit opinion, and then measure the unobserved switch probability as a proxy for the dismissal threat. This study identifies two types of strategic response that may result from dismissal threats. One type is the client's coercing the auditor to issue a clean instead of a going-concern opinion. The other type of dismissal threat is that posed by clients who request a shared opinion (involving other auditors) in lieu of a going concern opinion. We argue that whether auditors surrender their independence to these two dismissal threats depends heavily on the professional responsibility and potential future failure costs. The results show that the probability of a financially distressed company's receiving a going concern opinion increases with the likelihood of dismissal to coerce clean opinions. However, the probability of a financially distressed company's receiving a going concern opinion decreases with the likelihood of dismissal to coerce shared opinions. The difference between these two inappropriate audit opinions lies mainly in perceived disutility. Hence, market-based incentives, such as loss of reputation and litigation costs, including the perceived probability of being sued, are essential to preserve auditor independence.

**Keywords:** Dismissal threat, Auditor switch, Audit opinion, Auditor independence

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\* The authors appreciate helpful comments from two anonymous referees, as well as the suggestions offered by Dan Simunic and seminar participants at Taiwan NSC Outstanding Scholar Series, 2004 Accounting Theory and Practice Conference in Taiwan, 2005 Chinese Accounting Professors' Association Meeting in Beijing, and 2006 Auditing Section Midyear Conference of the American Accounting Association. We also thank Taiwan NSC for research funding.

## I. INTRODUCTION

This paper examines empirically whether threats to dismiss the incumbent auditor decrease the likelihood of a financially distressed company's receiving a going concern opinion. Unfavorable auditor reports have the potential to create adverse consequences, such as suppressing stock prices and making it difficult to raise capital; therefore, management may pressure auditors against issuing unfavorable audit opinions. While independent auditing is essential to efficient capital markets, auditors bear great pressure from the business operations of audit firms under the condition of increasing audit market competition. Therefore, the investing public, financial statement users, and regulators will all be concerned as to whether auditors are susceptible to dismissal threats and sometimes sacrifice their independence to issue favorable audit opinions.

This paper identifies a going-concern opinion as an unfavorable opinion and classifies favorable audit opinions into standard unqualified and unqualified with modified wording (involving other auditors). The going-concern opinion decision is one of the most difficult and ambiguous audit tasks auditors face (Carcello and Neal 2000). Auditor independence is especially important where the difficulty and ambiguity in audit opinion decisions render an auditor vulnerable to management pressure. With respect to the unqualified with modified wording (also called a shared opinion), the auditing standards give auditors the discretion to decide whether to assume responsibility for the work of other auditors. The decision to assume or not to assume responsibility has significant legal as well as professional consequences. In a report with references, the principal auditor does not intend to assume any legal responsibility for the work of the other auditors (SAS 64 AU 543). The question whether principal auditors compromise their independence because of different professional responsibilities involved warrants further study.

Heavy investments in foreign countries and recognizing fictitious overseas revenues, coupled with shared auditor opinions, characterize current scandals in Taiwan, such as Procomp, Infodisc, etc.<sup>1</sup> In 2004, Procomp was sued to remedy injured investors for an amount over NT\$ 5 billion, approximately US\$ 150 million, because of fraudulent financial statements. Besides lawsuits, the Financial Supervisory Commission took disciplinary action against the auditors of Procomp by enforcing a 2-year suspension of practice according to the Taiwan Securities and Exchange Law. This was partly based on the charge against auditors of Procomp of not having collected sufficient and competent audit evidence on reported investment income from fully owned subsidiaries (Taiwan Commercial Times 2004.7.16).

A massive financial scandal involving Italy's largest food company, Parmalat, has underscored the fact that corporate fraud is a common issue. In December 2003, it was discovered that Parmalat had been using more than EU\$ 10 billion of nonexistent assets

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<sup>1</sup> Since some of Taiwan's listed companies inflate their income from overseas long-term investments, Taiwan Stock Exchange (TSE) and Greta Securities Market (GSM) have begun to require the principal auditor to issue a clean opinion to an IPO client, even with the presence of other auditors. If the principal auditor issues a shared opinion, TSE and GSM will reject the application to go listed (Taiwan Economic Daily News 2003.2.17).

to offset more than a decade's worth of liabilities through a network of offshore and foreign finance companies. Deloitte & Touche replaced Parmalat's auditor Grant Thornton in 1999 because of a provision in Italian law, which mandates change of audit firms every nine years. However, Parmalat continued to retain Grant Thornton as its auditor for its Cayman Islands subsidiary, Bonlat, which was not subject to Italian law and was allegedly where the missing assets were located. Although Deloitte & Touche was the first to scrutinize the nonexistent accounts, it gave a shared opinion to Parmalat.<sup>2</sup>

This study examines two types of undue favorableness in audit opinions that may result from dismissal threats. Specifically, management may threaten to dismiss the incumbent auditor and coerce him or her to issue (1) a clean instead of a going-concern opinion, or (2) a shared in lieu of a going-concern opinion. We test for dismissal threats by predicting the unobserved switches management would have made had they received opposite audit opinions. Can management successfully engage in dismissal threats? The effectiveness of the management's dismissal threat, nevertheless, depends on the auditor's trade-offs between the benefits of retaining clients and the costs of sacrificing independence. We do not test if auditors surrender their independence to different types of dismissal threats imposed by *different* clients. In contrast, we test the effects of different types of dismissal threats imposed by the *same* client. Therefore, the benefits of retaining the client are the same for both types of dismissal threat. The difference between these two dismissal threats lies in the cost of sacrificing independence: one is full responsibility; the other is divided.

Shared opinions, which imply responsibility divided among auditors, pose another question for auditors to ward off legal liability in law. Bonner et al. (1998) provide evidence that the judges' and juries' reasoning process concerning auditors' responsibility for detecting fraud might not be the same as the auditors own considerations. They find that auditors are more likely to be sued when the financial statement frauds are of a common variety or when the frauds arise from fictitious transactions. Their analysis rules out various accounting and auditing explanations for the results. Namely, given that litigations occur, auditors may still become defendants in lawsuits no matter what opinions they issue. Even so, from fear of legal liability, they may issue modified audit reports. Carcello and Palmrose (1994) find that, while modifying a client's audit report may not be sufficient to protect auditors from the legal liability, such disclosures reduce the likelihood of litigation. Hence, though shared opinions might not entirely dismiss the principal auditor's responsibility for other auditors' work in the event of a lawsuit or SEC action; they are likely to affect auditors' behavior based on the perception created by auditing standards.

Our results reveal that the probability of issuing a going-concern opinion increases in spite of the client's dismissal threat to coerce clean opinions. In contrast, the auditor reduces his or her propensity to issue a going-concern opinion when the client threatens to dismiss the auditor for issuing a going concern opinion in lieu of a shared opinion. Overall, these findings suggest that whether or not auditors surrender their independence to dismissal threats is closely related to the divisibility of professional responsibility.

In the literature concerning the association between auditor switch and audit opinion,

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<sup>2</sup> See O'Rourke (2004) for more details regarding Parmalat.

two lines of inquiry are closely related to the present study. One is the analytical research on the effect of dismissal threat on audit opinion, such as Magee and Tseng (1990), Dye (1991), and Teoh (1992). The other is the empirical research on the effect of auditor switches on audit opinion, such as Krishnan (1994) and Krishnan et al. (1996). The results of the analytical research show that there is a positive relation between dismissal threat and clean opinion, though this remains unsupported by the empirical research. Krishnan et al. (1996) find that clients with high switch probabilities are less likely to receive clean opinions, suggesting that the audit opinion is not affected by a switch threat. However, "dismissal threat" and "switch probability" are different concepts. Prior researchers ignored the possibility that companies receiving clean opinions would have made auditor switches more often had they not received clean opinions. Hence, dismissal threat is a concept of conditional probability, different from the pure switch probability. It is too early to conclude that dismissal threat is futile because of the measurement error resulting from using switch probability as a proxy variable of dismissal threat. The methodology of this study improves on existing research by considering the switch that clients would have made had they received an opposite audit opinion.

The next section reviews the related literature and develops hypotheses. Section 3 describes the methodology employed to test the dismissal threat argument, while section 4 explains how the data were collected and variables measured. Section 5 presents empirical results and the final section concludes the study.

## **II. DISMISSAL THREATS AND AUDITOR'S GOING-CONCERN OPINION**

Unfavorable audit opinions adversely affect clients. For example, prior research associates modified audit opinions with stock price declines (Jones 1996; Chow and Rice 1982; Firth 1978), lower earnings response coefficients (Choi and Jeter 1992), having applications of security offerings returned, and difficulty in raising debt capital (Firth 1980). By switching auditors, Teoh (1992) identifies two ways management might avoid unfavorable audit opinions. First, management can threaten the incumbent auditor to switch to a new auditor. The fear of losing the client can compromise the incumbent's independence. Second, management may switch if it believes a new auditor is more likely than the incumbent to give a clean opinion. Lennox (2000) calls the first method, the switch threat argument; the second, the opinion-shopping argument, which is previously examined by Lennox (2000). This paper focuses on the switch threat argument.<sup>3</sup>

### **Dismissal Threats to Coerce Clean Opinions Rather Than Going-Concern Opinions**

Previous research has identified two economic incentives facing auditors when evaluating the reporting alternatives concerning a company's ability to continue as a going-concern. First, the cost incurred by auditors in issuing a going-concern opinion is

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<sup>3</sup> Magee and Tseng (1990) show that the following condition is one of the necessary conditions for a reduction in auditor independence: the client must benefit from the preferred reporting strategy even after an auditor switch. Lennox (2000) finds companies do successfully engage in opinion shopping and therefore Lennox's result may be used as our maintained hypothesis.

the possibility of losing the client and related future quasi-rents. Second, the cost incurred by auditors in issuing a clean opinion is the potential costs of litigation and reputation loss. Several papers have analyzed the economic trade-offs facing the auditor that arise in the going-concern decision, using different proxies. Krishnan and Krishnan (1996) indicate that auditor litigation risk and the relative importance of the client in the auditor's portfolio are factors in the audit opinion decision. Geiger and Raghunandan (2002) argue that not signaling significant concerns regarding the client's ability to continue as a going concern, prior to the filing of bankruptcy, is likely to be construed as an audit failure by those outside the accounting profession. In this situation, auditors may suffer litigation costs as the target of injured investors claiming losses; therefore, the disutility of issuing an inappropriate opinion would be great. Magee and Tseng (1990) show that no compromise of independence will occur when the auditor regards expected disutility as extremely large. Reynolds and Francis (2001) conclude that reputation protection and litigation avoidance are sufficient to override the possible impairment of objectivity resulting from economic dependence. DeFond et al. (2002) conclude that market-based incentives, such as loss of reputation and litigation costs, predominate over the expected benefits from compromising auditor independence. All of these studies focus on the audit opinion trade off between a going-concern opinion and a clean opinion. Accordingly, we develop hypothesis 1 as follows.

H1: The probability of financially distressed companies' receiving going-concern opinions increases with the likelihood of dismissal to coerce clean opinions.

### **Dismissal Threats to Coerce Shared Opinions Rather Than Going-Concern Opinions**

As for circumstances under which clients accept shared opinions but do not accept going-concern opinions, the incentive to compromise independence might be stronger because auditors do not have to bear full responsibility when they fail to qualify a going-concern assumption. In other words, *ceteris paribus*, the lower the expected disutility of issuing an inappropriate opinion is, the more likely that the auditor surrenders to the dismissal threat. Specifically, in the consideration of the costs of sacrificing independence, principal auditors might think they have referred to other auditors in the audit report and therefore divided responsibility for the audit work. The principal and other auditor are responsible for their own report and work respectively in the event of a lawsuit or SEC action. Furthermore, principal auditors may believe they have completed their audit work with due care and their results will not be perceived as an audit failure, even if clients subsequently experience financial distress that relate to audit work covered by other auditors. Thus, it is perceived that the negligence of other auditors causes less harm to the principal auditor's reputation. In sum, the principal auditor has less expected disutility for issuing a shared opinion than for issuing a clean opinion for clients who deserve a going-concern opinion. Hence, principal auditors are more likely to compromise their independence and to issue shared opinions instead of going-concern opinions to their clients. Hypothesis 2 is developed as follows.

H2: The probability of financially distressed companies' receiving going-concern opinions decreases with the likelihood of dismissal to coerce shared opinions.

### III. METHODOLOGY FOR DISMISSAL THREAT ARGUMENT

In the present investigation, we have adapted the analogy of Lennox's (2000) opinion-shopping variable to our dismissal threats variable. In the scenario of a dismissal threat imposed by the client, auditors are more likely to be dismissed if they are inclined to issue an unfavorable audit opinion. On the contrary, auditors are not dismissed if they promise their client to issue a favorable opinion. Hence, the difference in auditor switching probability had the auditor issued opposite opinions can be used to as a proxy variable for dismissal threats and expressed in notation as follows:

$$[pr(S=1|Q=1) - pr(S=1|Q=0)] > 0$$

where  $pr$  is the probability,  $Q=1$  (0) stands for the unfavorable (favorable) opinion, and  $S=1$  means auditor switch, 0 otherwise.

To estimate the dismissal threat variable, we construct an auditor switch model.

$$S_{t+1}^* = \theta X + \theta_1 OA_t + \theta_2 GC_t + u \quad (1)$$

$$S_{t+1} = 1 \quad \text{if } S_{t+1}^* > 0,$$

$$S_{t+1} = 0 \quad \text{if } S_{t+1}^* \leq 0$$

where the error term,  $u$  is assumed to be normally distributed with mean zero and variance  $\sigma_u^2$ .  $S^*$  stands for the latent variable of propensity to switch auditors.  $X$  controls for other determinants of auditor switch. Two dummy variables (i.e.  $OA$  and  $GC$ ) are used to capture the audit opinion effect.  $OA=1$  ( $GC=1$ ) means a shared (going-concern) opinion, 0 otherwise.

The clean opinion is reflected by both  $OA$  and  $GC$  coded as 0. Hence, auditors are dismissed in period  $t+1$  with probability  $pr(S_{t+1}|X, OA_t=0 \text{ and } GC_t=0)$  if they issue a clean opinion in period  $t$ . As to the switching probability conditional on a going-concern opinion, we define  $pr(S_{t+1}|X, GC_t=1)$  to accommodate multiple qualifications, which occur frequently in audit practice. From the probability  $pr(S_{t+1}|X, GC_t=1)$ , we can represent both single (i.e.  $OA=0, GC=1$ ) and multiple qualification (i.e.  $OA=1, GC=1$ ) situations. Therefore, when the client prefers a clean to a going-concern opinion, the dismissal threat ( $THREAT^{GC\_Clean}$ ) can be defined as

$$[pr(S_{t+1}|X, GC_t=1) - pr(S_{t+1}|X, OA_t=0, GC_t=0)]$$

In situations where a client coerces a shared instead of a going-concern opinion, the dismissal threat ( $THREAT^{GC\_OA}$ ) may be defined as

$$[pr(S_{t+1}|X, OA_t=1, GC_t=1) - pr(S_{t+1}|X, OA_t=1, GC_t=0)]$$

This means that, in the multiple qualifications circumstance, the shared opinion has been agreed upon by the client and the auditor, while the going-concern modification opens the door to argument between the client and the auditor.

Both  $THREAT^{GC\_Clean}$  and  $THREAT^{GC\_OA}$  are estimated by Equation (1) and included in the three-level ordered logistic auditor report model as follows:

$$QUAL^* = \gamma Y + \gamma_1 THREAT^{GC\_Clean} + \gamma_2 THREAT^{GC\_OA} + v \quad (2)$$

$$QUAL = 2 \text{ if } QUAL^* > \mu_1,$$

$$QUAL = 1 \text{ if } QUAL^* \leq \mu_1,$$

$$QUAL = 0 \text{ if } QUAL^* \leq 0,$$

where the error term,  $v$  is assumed to be normally distributed with mean zero and variance  $\sigma_v^2$  and  $E(u, v)=0$ . The latent variable ( $QUAL^*$ ) in Equation (2) represents the auditor's judgment of the client's financial condition. The remaining explanatory variables ( $Y$ ) control for other determinants of audit opinions. The auditor applies threshold values,  $\mu_1$ , in determining the modified audit opinion. The auditor's choice of opinions are clean ( $QUAL=0$ ), shared ( $QUAL=1$ ), and going concern ( $QUAL=2$ ) when  $QUAL^*$  falls in the ranges of ( $< 0$ ), ( $0, \mu_1$ ) and ( $> \mu_1$ ), respectively.

The variable  $THREAT^{GC\_Clean}$  is used to test H1; accordingly, we expect the coefficient on  $THREAT^{GC\_Clean}$  is positive ( $\gamma_1 > 0$ ). As for H2, we predict the coefficient on  $THREAT^{GC\_OA}$  is negative ( $\gamma_2 < 0$ ).

#### IV. THE SAMPLE AND VARIABLE MEASUREMENT

##### Sample and Data

###### Data

We apply this test to listed companies in Taiwan and establish the research period from 1999-2001. Since some variable measurements employ data from year  $t-2$  to  $t+2$ , our data collection period covers 1997-2003. All the variables used to construct our empirical analysis are retrieved from the Taiwan Economic Journal (TEJ) database.

###### Sample Selection

Our sample is composed of publicly traded corporations listed on TSE and GSM, excluding financial institutions. To avoid the same company being classified into both switch and non-switch samples, companies in the non-switch sample are required to have kept (i.e., not switched) auditors for at least 3 consecutive years, the exact duration of the research period. In addition, we exclude insolvent companies that are judicially declared a special arrangement by TSE, since an auditor's reporting discretion declines when a company has filed for bankruptcy (Carcello and Neal 2000). Furthermore, we do not include litigation qualifications because liability for lawsuits is not recorded in the financial statements (Krishnan and Krishnan 1996). Following this procedure, our sample is reduced to 1,926 companies-year combinations.

Auditors do not generally issue going-concern opinions for non-stressed companies that suddenly fail (McKeown et al. 1991). Therefore, from the preliminary sample we determine those companies that were potentially financially distressed. As in prior research, we define a company as stressed if it exhibits at least one of the following financial stress signals: (1) negative working capital in year  $t$ , (2) a bottom line loss in any of the 3 years prior to year  $t$ , and (3) negative operating cash flows in the consecutive 3 years prior to year  $t$ . After deleting non-stressed companies, we also exclude companies with insufficient data for estimating Equation (1). Therefore, our final sample for Model

(1) includes 791 companies-years. Owing to adding the lag variable of audit opinion in Equation (2), the final sample for Equation (2) is further reduced to 607 companies-years. Table 1 presents the details of our sample selection procedure.

**Table 1: Sample Selection Criteria**

<b>Sample selection for Equation (1)</b>	
Initial sample: industrial firms for 1999-2001	2,147
Less: Companies not retaining auditors at least 3 years in the non-switch sample	( 145)
Insolvent	( 67)
Litigation qualification	( 9)
Preliminary sample	1,926
Less: Non-stressed firms	(1,062)
Insufficient data for Equation (1)	( 73)
Final sample for Equation (1)	791
Breaking down as:	
Non-switcher <sup>a</sup>	760
Switcher <sup>b</sup>	31
<b>Sample selection for Equation (2)</b>	
Original sample from Equation (1)	791
Less: Insufficient data for Equation (2)	( 184)
Final sample for Equation (2)	607
Breaking down as:	
Clean opinions	344
Shared opinions	239
Going concern opinions	24

<sup>a</sup> Companies in the non-switch sample are required to have kept auditors for at least 3 consecutive years (financial institutions and service companies excluded).

<sup>b</sup> Companies in the switch sample are required to dismiss their auditors in year  $t+1$  (financial institutions and service companies excluded).

## Variable Measurement

### *Auditor Switch (S)*

A dummy switch ( $S$ ) has been set to one if a company changes its auditor in the year following the issuance of the opinion, zero otherwise. By comparing both the audit firm and the individual auditors in the current year with that in the following year, we identify the auditor switch.<sup>4</sup> Therefore, any one of following conditions shall not be coded as a switch: (1) same audit firm but different individual auditors, (2) audit firm merges, (3) same individual auditors who have joined a new audit firm, and (4) audit firm name changes.

<sup>4</sup> The switching status of each company is verified by examining other sources such as the website information on Market Observation Post System in Taiwan.



**Auditor Report (*QUAL*, *OA*, *GC*)**

The auditor report (*QUAL*) is the dependent variable in Equation (2). *QUAL* is coded as zero for clean opinions, one for shared opinions, and two for going-concern opinions.<sup>5, 6</sup> Multiple qualifications arising in conjunction with the going-concern opinion are included in the going-concern opinions category. Two opinion dummies (i.e. *OA* and *GC*) are designated as independent variables in Equation (1) due to the three-level *QUAL*. *OA*, shared opinion, is 1 when *QUAL*=1, zero otherwise. *GC*, a going-concern opinion, is 1 when *QUAL*=2, zero otherwise.

**Control Variables (*X*) Included in the Auditor Switch Model**

In addition to auditor reports of interest, we control for the effects of other factors likely to affect a client's decision to dismiss its auditor: (1) changes in client characteristics, (2) characteristics of the incumbent auditor, (3) financial distress, and (4) miscellaneous, which are designated as year dummies (*YEARj*).

**(1) Client Changes**

We expect a positive relation between auditor switch and each of the following variables that reflect changing auditee characteristics. Johnson and Lys (1990) argue that audit firms achieve competitive advantages through specialization, and that clients purchase audit services from the least cost supplier. Client-auditor realignments thus represent efficient responses to changes in client operations and activities over time. Following the model used by Johnson and Lys, four variables are used as proxies for expansion, profitability, financing and audit risk: changes in asset growth (*|GROWCH|*), changes in cash flow (*|CFOCH|*), changes in financing (*|FINCH|*), and changes in times-interest-earned (*|TIECH|*), respectively. *|GROWCH|* is constructed by the absolute value of the difference obtained from subtracting the pre-switch two-year average assets growth rate from the post-switch average growth rate. The absolute value is used since the primary focus is on whether the client changes its auditor, not the direction of auditor changes. Similarly, the variable, *|CFOCH|*, is the absolute value of change in two-year average operating cash flows (deflated by total assets) before and after an auditor switch. *|FINCH|* is measured by the absolute difference of two-year mean proceeds from external financing before and after the switch, where external financing is measured by the proceeds from newly-issued equity and debt (public or private), divided by total assets. We construct *|TIECH|* from the absolute difference between the two year mean times-interests-earned (*TIE*) before and after the switch. *TIE* is defined as earnings before interests and taxes divided by interest expenditure. We winsorize both the upper and lower 5% of *TIE* because *TIE* is inflated by minor interest expenditures.

A change in top management is often associated with a change in auditors.<sup>7</sup> A new

<sup>5</sup> In prior auditor report research, an audit opinion was classified as 'modified' for material uncertainties and going-concern problems depending on the severity of qualifications. In Taiwan, as most material uncertainties involve litigation, which cannot be predicted by financial variables, we eliminate the litigation category as has been done by prior research (e.g. Krishnan and Krishnan 1996).

<sup>6</sup> In line with previous research (e.g., Krishnan 1994; Jeter and Shaw 1995), consistency exceptions for voluntary and mandatory accounting changes are one cause for a modified auditor report, but they are included in the clean opinion category because the auditor has little discretion in such matters.

<sup>7</sup> See Chow and Rice (1982), Williams (1988), and Carcello and Neal (2003).

manager may change auditors in order to obtain a fresh perspective on the company's financial results, or because he or she had positive experience with another audit firm (Carcello and Neal 2003). In Taiwan, both the chairman of the board and the chief executive officer (CEO) are charged with the execution of the company's decisions. Therefore, we set dummy variable *MGTCH* to 1 if both chairman and CEO changed in the year the auditor was dismissed or in the previous year and 0 otherwise.

## (2) Incumbent Auditor Characteristics

Following Krishnan et al. (1996), we use *IMS* and *BIG5* to represent auditor-related factors and predict a negative relation between these auditor-related factors and auditor switch. The auditor's industry market share (*IMS*) is measured as the percentage of the log of total assets that the auditor audits for all companies in the client's industry<sup>8</sup>. The auditor's industry market share can reflect audit expertise and can also proxy for reputation effect. The greater the auditor's market-share in the client's industry, the less likely the client is to dismiss its auditor (Krishnan et al. 1996). Previous studies have used the Big 5 auditing firms to proxy for both auditor quality and reputation effects. A client is less likely to switch from a Big 5 (Krishnan et al. 1996). Therefore, variable *BIG5* takes the value of one for the member firms of Big 5 in Taiwan, zero otherwise.

## (3) Financial Distress

Previous studies (e.g., Schwartz and Menon 1985; Krishnan and Stephens 1995) have suggested that financially distressed companies may be more likely than healthy companies to change auditors. The motivation for such a change could be a need for different services, an inability to pay audit fees or disagreements with the incumbent auditor over accounting policies or disclosures. We use a 2-year consecutive net loss (*LOSS2*) to represent financial distress and predict a positive sign for this variable.

## **Control Variables (Y) Included in the Auditor Report Model**

Besides the threat variables of interest, the choice of independent variables in the auditor report model is classified into four categories: (1) contrary factors, (2) mitigating factors, (3) auditor characteristics (quality and tenure), and (4) miscellaneous.

### **(1) Contrary factors**

Prior studies have found that the greater the client's financial distress, the greater the probability of receiving modified auditor reports (Carcello and Neal 2000; Geiger and Raghunandan 2002). We use dummy variable *DISTRESS* to identify whether the entity has declared insolvency in the subsequent year.<sup>9</sup> We expect a positive relationship between *DISTRESS* and the receipt of a going concern opinion.

Mutchler et al. (1997) find that debt covenant violations are positively associated with the probability of receiving a going-concern opinion. We include leverage variable *LEV* to capture proximity to covenant violations because firms close to violation are

<sup>8</sup> Each company's industry comes from TEJ's classification of companies into industries, which is based on the TSE version SIC and adjusted by primary products.

<sup>9</sup> Dopuch et al. (1987) consider whether a loss was reported (*LOSS*) in measuring a client's financial health. In contrast, we use *LOSS* as one of several financial stress signals mentioned earlier in section 4.1.2. To avoid multicollinearity, we use the *DISTRESS* variable, which reflects the ex post event of being classified as insolvent, as a proxy for the auditor's ex ante perception that the client's financial condition is deteriorating. The variable's validity depends on whether one can reasonably assume that the auditor is aware of the client's financial condition at the time of issuing the report.

likely to have high leverage (Beneish and Press 1993), and predict a positive sign. *LEV* is measured by total liabilities over total assets at the end of the year.

Following Dopuch et al. (1987), we also include the ratio of receivables and inventories to assets (*RIA*) to capture high-risk accounts, which call for greater caution and exercise of independent auditor judgment. *RIA* is expected to have a positive association with a going concern opinion.

## **(2) Mitigating factors**

We include several factors that are likely to mitigate the probability of receiving a going concern opinion and expect the sign on the coefficients for each mitigating factor to be negative. Client size is generally positively associated with its financial health, which in turn decreases with the likelihood of its receiving qualified opinion (Dopuch et al. 1987; Francis and Krishnan 1999). Furthermore, large companies have more negotiating power in the event of financial difficulties and hence are more likely to avoid bankruptcy (Reynolds and Francis 2001, DeFond et al. 2002). Client size (*SIZE*) is measured as a log of total assets.

Two other mitigating factors in our model include *FASTSALE* and *FFINANCE* because SAS No.59 specifies managerial actions that mitigate the effect of contrary factors, including plans to sell assets, issue new financing or refinance existing debt, and increase ownership equity. Using methodology similar to that of Reynolds and Francis (2001), we examine the subsequent fiscal year financial statements to identify sales of assets or the issuance of new debt or equity. *FASTSALE* is the sum of the proceeds from selling investment and fixed asset in year  $t+1$ , scaled by total assets in year  $t$ . *FFINANCE* is measured by the issuance of new debt or equity (public or private) in year  $t+1$ , divided by total assets in year  $t$ .

## **(3) Auditor characteristics**

We include an industry specialist dummy variable (*SPEC*) to control for the impact auditor quality could have on the exercise of independent judgment. High-quality auditors have a greater investment in technology to detect errors and irregularities and are therefore more likely to issue a qualified opinion (Krishnan and Krishnan 1996; Craswell et al. 2002). We expect the sign on the coefficient for *SPEC* to be positive. According to Craswell et al. (1995), we identify the industry specialist if the auditor's market share is greater than 20% in the client's industry with at least 30 companies.<sup>10</sup>

We measure auditor tenure (*TENURE*) as the number of consecutive years that the client has retained the auditor.<sup>11</sup> The longer the auditor tenure, the more complacent the auditor becomes and the less independent the auditor's judgment is (Jeter and Shaw 1995; Geiger and Raghunandan 2002; Craswell et al. 2002). It is also the case, however, that over the years an auditor develops in-depth knowledge of the client's business, which is crucial in performing an effective audit, and thus is more likely to be vigilant in exercising independent auditor judgment (Geiger and Raghunandan 2002; Craswell et al. 2002). Therefore, the sign on the coefficient for *TENURE* could be either positive or

<sup>10</sup> Craswell et al. (1995) used the thresholds of 10% and 20%, respectively, to identify an industry specialist. We chose 20% because both mean and median of *IMS* are greater than 10% (see Table 2).

<sup>11</sup> We truncate auditor tenure at 12 years because of data limitation. Moreover, truncation can reduce the effect of extreme values for clients that have retained their auditors for many years (Carcello and Neal 2003).

negative.

#### (4) Miscellaneous

The remaining control variables are prior year audit opinion (*PRIOROP*), time listed (*AGE*), and indicator variables for year *j* (*YEARj*). *PRIOROP* captures the effect of persistence in audit reporting and is expected to have a positive sign. *AGE* controls firm maturity and is measured as log of the number of years the company has been publicly traded. Finally, *YEARj* control for any year-specific effects. As with Francis and Krishnan (1999), no directional signs are predicted for *AGE* and *YEARj*.

## V. RESULTS

### The Empirical Results for the Auditor Switch Model

#### *Descriptive Statistics*

Table 2 presents descriptive statistics on the full sample, switch subsample, and non-switch subsample for the variables used in our auditor switch model (i.e. Equation (1)).<sup>12</sup> The mean and median values of *|GROWCH|* in the full sample are 0.168 and 0.104, respectively, indicating the asymmetry of the sample distribution given the absolute value function used in the calculation of this variable. With respect to the differences tests between switch and non-switch samples, clients are more likely to switch auditors when clients have larger changes in profitability (*|CFOCH|*), have incidence of changes in top management (*MGTCH*), and incur financial distress (*LOSS2*). There was no significant relation between auditor dismissals and change in external financing (*|FINCH|*), auditor industry-market share (*IMS*), and Big 5 (*BIG5*). As for *|TIECH|*, the t-test for the difference in mean values was statistically significant; however, this was not the case for the Wilcoxon rank sum test, suggesting the possibility of extreme values. Additional analyses are presented in section 5.3 that control for the effect of outliers.

As for audit opinions, *OA* accounts for 37.0% of the full sample. In z tests for differences in means for *OA* between switch and non-switch samples, the results show that there is no support for *OA* increasing the propensity of clients to switch auditors. *GC* accounts for only 3.8% of the full sample, suggesting uncommon audit opinions. There are marginally statistically significant differences in *GC* between companies that switch auditors and the comparison group, a result that is consistent with auditors losing clients if they issue unfavorable audit opinions.

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<sup>12</sup> The median analysis for dummy variables is not tabulated but is available upon request.

**Table 2: Descriptive Statistics for the Variables in Auditor Switch Model**

	Full Sample N=791		Non-switcher N=760		Switcher N=30		Test for difference	
	Mean (Median)	Std. Dev.	Mean (Median)	Std. Dev.	Mean (Median)	Std. Dev.	t Value (Z Value)	Pr>  t  (Pr>  Z  )
/GROWCH/	0.168 (0.104)	21.471	0.162 (0.104)	18.608	0.298 (0.139)	56.543	1.330 (1.685)	0.192 (0.092 <sup>*</sup> )
/CFOCH/	0.062 (0.041)	0.078	0.060 (0.041)	0.072	0.115 (0.062)	0.171	1.760 (1.664)	0.088 <sup>*</sup> (0.096 <sup>*</sup> )
/FINCH/	0.051 (0.020)	0.080	0.051 (0.020)	0.079	0.055 (0.018)	0.103	0.180 (-0.317)	0.855 (0.751)
/TIECH/	35.374 (3.645)	119.623	36.406 (3.698)	121.760	10.082 (2.505)	32.430	-3.600 (-1.139)	0.001 <sup>***</sup> (0.255 <sup>***</sup> )
MGTCH	0.076	0.265	0.067	0.250	0.290	0.461	4.597	<.000 <sup>***</sup>
IMS	0.162 (0.162)	0.081	0.163 (0.167)	0.081	0.141 (0.128)	0.081	-1.470 (-1.515)	0.143 (0.130)
BIG5	0.779	0.415	0.780	0.414	0.742	0.445	-0.500	0.615
LOSS2	0.277	0.448	0.264	0.441	0.581	0.502	3.853	0.000 <sup>***</sup>
OA	0.370	0.483	0.366	0.482	0.484	0.508	1.330	0.183
GC	0.038	0.191	0.036	0.185	0.097	0.301	1.748	0.081 <sup>*</sup>

<sup>\*</sup>, <sup>\*\*</sup>, and <sup>\*\*\*</sup> indicate significance at  $p < 0.10$ ,  $0.05$ , and  $0.01$ , respectively.

N stands for number of observation.

Tests for differences in the means between non-switcher and switcher are based on t-statistics (z-statistics) for continuous (dummy) variables. Nonparametric tests for differences in location are based on the Wilcoxon rank sum test.

Year  $t+1$  is the year of auditor switch.

/GROWCH/= absolute difference between two-year average asset growth before and after switch

/CFOCH/= absolute difference between two-year average cash flows before and after switch

/FINCH/= absolute difference between two-year average financing proceeds before and after switch

/TIECH/= absolute difference between two-year average times-interests-earned before and after switch

MGTCH= 1 if both chairman and CEO changed in the year of auditor switch or in the previous year, 0 otherwise.

IMS= incumbent auditor's market share within the client's industry

BIG5= 1 if member firms of BIG 5 in Taiwan, zero otherwise.

LOSS2= 1 if consecutive 2 years bottom line loss, zero otherwise.

OA= 1 if shared opinion, zero otherwise.

GC= 1 if going-concern opinions, zero otherwise.

### Logit Analysis

Table 3 reports the results from a binary logit analysis of the auditor switch model used to estimate the dismissal threat variables. The overall model is highly significant ( $p < 0.000$ ), and pseudo- $R^2$  is 17.5 percent.<sup>13</sup> Hosmer and Lemeshow's (1989) test of goodness-of-fit cannot reject the null hypothesis of a well-fitted model ( $p$ -value=0.453).<sup>14</sup>

<sup>13</sup> The explanatory power of Johnson and Lys (1990) and Carcello and Neal (2003) models are 20.1% (p.293) and 11% (p.109), respectively. Our model's explanatory power is comparable with prior studies.

<sup>14</sup> In order to diagnose the problem of multicollinearity, the auditor switch model was also estimated using OLS regression to derive variance inflation factors (VIF). All VIF are less than 1.70, indicating that multicollinearity is not a problem in the model estimation.

**Table 3: Results for Logistic Regression of Auditor Switch on Auditor Reports**

$$S_{t+1}^* = \theta X + \theta_1 OA_t + \theta_2 GC_t + u \quad (1)$$

$$S_{t+1} = 1 \text{ if } S_{t+1}^* > 0,$$

$$S_{t+1} = 0 \text{ if } S_{t+1}^* \leq 0$$

	Predicted Relation	Estimated Coefficients	$\chi^2$	$\text{Pr} > \chi^2$
Intercept		-4.190	41.118	<.000***
Clients Changes				
/ <i>GROWCH</i> /	+	0.017	3.328	0.068*
/ <i>CFOCH</i> /	+	1.531	0.644	0.422
/ <i>FINCH</i> /	+	-0.384	0.030	0.862
/ <i>TIECH</i> /	+	-0.005	0.585	0.444
<i>MGTCH</i>	+	1.232	6.517	0.011**
Auditor characteristics				
<i>IMS</i>	—	-3.656	1.164	0.281
<i>BIG5</i>	—	0.316	0.265	0.607
Financial Distress: <i>LOSS2</i>	+	1.414	11.233	0.001***
Year Dummies: <i>YEARj</i>	?	included		
Auditor Report				
<i>OA</i>	+	0.654	2.529	0.112
<i>GC</i>	+	0.467	0.391	0.532
LR statistic			39.894	<.000***
Hosmer and Lemeshow's (1989) test of goodness-of-fit			7.808	0.453
Pseudo $R^2$		17.5%		

\*, \*\*, and \*\*\* indicate significance at  $p < 10\%$ ,  $5\%$ , and  $1\%$ , respectively.

Year  $t+1$  is the year of auditor switch.

Number of observations: 791.

/*GROWCH*/= absolute difference between two-year average asset growth before and after switch

/*CFOCH*/= absolute difference between two-year average cash flows before and after switch

/*FINCH*/= absolute difference between two-year average financing proceeds before and after switch

/*TIECH*/= absolute difference between two-year average times-interests-earned before and after switch

*MGTCH*= 1 if both chairman and CEO changed in the year of auditor switch or in the previous year, 0 otherwise.

*IMS*= incumbent auditor's market share within the client's industry

*BIG5*= 1 if member firms of BIG 5 in Taiwan, zero otherwise.

*LOSS2*= 1 if consecutive 2 years bottom line loss, zero otherwise.

*OA*= 1 if shared opinion, zero otherwise.

*GC*= 1 if going-concern opinions, zero otherwise.

*YEARj*= year dummies,  $j=0,1$ . For example, *YEAR1*=1 if sample year=2001, 0 otherwise.

Among the control variables,  $|GROWCH|$ ,  $MGTCH$ , and  $LOSS2$  have significant coefficients in the expected direction. Namely, companies are more likely to switch auditors when they have greater changes in firm growth, have incidence of changes in top management, or incur financial distress.

With respect to the audit opinion variables, we find that both  $OA$  and  $GC$  have positive signs, as expected, but are insignificant. Possibly, as DeAngelo (1982) notes, qualification avoidance is not an important motivation to change auditors. On the other hand, it is also likely that the threat of a switch is followed by the issuance of a clean opinion, whereupon the client decides not to switch, causing no statistically significant relationship to exist between switching and modified auditor reports. The latter explanation is highly related to our hypotheses. Hypothesis testing allows us to analyze empirically which explanation is the most plausible.

## The Empirical Results of the Auditor Report Model

### *Descriptive Statistics*

Table 4 reports descriptive statistics on the full sample, clean opinion subsample, and modified audit opinion (hereafter,  $MAO$ ) subsample for the variables used in our auditor report model (i.e. Equation (2)). As for control variables in Equation (2), the  $MAO$  subsample is significantly different than the clean opinion subsample in the following dimensions: they are more likely to have incidence of subsequent insolvency ( $DISTRESS$ ), have a higher leverage ( $LEV$ ), are larger in size ( $SIZE$ ), have longer auditor tenure ( $TENURE$ ), are more likely to have received a prior year  $MAO$ , and have listed for a longer time ( $AGE$ ).

With respect to the experiment variables, the mean value of  $THREAT^{GC\_Clean}$  in the full sample is 0.029, indicating that the dismissal probability conditional on a going concern opinion is 2.9% higher than the probability conditional on a clean opinion.<sup>15</sup> The test statistics for  $THREAT^{GC\_Clean}$  show there are significant differences in dismissal threats between those receiving clean and modified opinions. Companies with modified opinions pose a higher dismissal threat than do those with clean opinions, suggesting that clients do not appear to succeed on  $THREAT^{GC\_Clean}$ .

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<sup>15</sup> The t-statistics for this mean value is 20.92 with p value < 0.0001; while the p value from the Wilcoxon test is also < 0.0001 (untabulated).

**Table 4: Descriptive Statistics for the Variables in Auditor Report Model**

	Full Sample N=607		QUAL=0 N=344		QUAL=1,2 N=239+24		Test for difference	
	Mean (Median)	Std. Dev.	Mean (Median)	Std. Dev.	Mean (Median)	Std. Dev.	t Value (Z Value)	Pr> t  (Pr> Z )
<i>DISTRESS</i>	0.127	0.333	0.102	0.303	0.160	0.367	2.124	0.034 **
<i>LEV</i>	0.479 (0.483)	0.176	0.455 (0.462)	0.170	0.510 (0.505)	0.179	3.840 (3.500)	0.000 *** (0.001 **)
<i>RIV</i>	0.268 (0.212)	0.200	0.274 (0.224)	0.194	0.260 (0.193)	0.207	-0.850 (-1.717)	0.397 (0.086 *)
<i>SIZE</i>	15.424 (15.346)	1.191	15.237 (15.094)	1.185	15.668 (15.593)	1.155	4.490 (5.200)	<.000 *** (<.000 **)
<i>FASTSALE</i>	0.018 (0.005)	0.039	0.017 (0.004)	0.045	0.019 (0.007)	0.031	0.460 (2.168)	0.643 (0.030 **)
<i>FFINANCE</i>	0.066 (0.026)	0.118	0.074 (0.027)	0.134	0.056 (0.025)	0.091	-1.980 (-0.736)	0.048 ** (0.462 )
<i>SPEC</i>	0.224	0.417	0.233	0.423	0.213	0.410	-0.574	0.566
<i>TENURE</i>	7.591 (9)	3.124	7.343 (8)	3.071	7.916 (10)	3.167	2.250 (2.471)	0.025 ** (0.014 **)
<i>PRIOROP</i>	0.356	0.519	0.076	0.265	0.722	0.541	15.542	<.000 ***
<i>AGE</i>	1.579 (1.641)	1.194	1.362 (1.362)	1.199	1.862 (2.041)	1.127	5.230 (5.932)	<.000 *** (<.000 **)
<i>THREAT<sup>GC_Clean</sup></i>	0.029 (0.020)	0.035	0.015 (0.009)	0.016	0.048 (0.031)	0.043	11.980 (14.740)	<.000 *** (<.000 **)
<i>THREAT<sup>GC_OA</sup></i>	0.027 (0.017)	0.022	0.025 (0.016)	0.022	0.028 (0.018)	0.023	1.670 (1.984)	0.096 * (0.047 **)

\*, \*\*, and \*\*\* indicate significance at  $p < 10\%$ ,  $5\%$ , and  $1\%$ , respectively.

Tests for differences in the means between  $QUAL=0$  and  $QUAL>0$  are based on t-statistics (z-statistics) for continuous (dummy) variables. Nonparametric tests for differences in location are based on the Wilcoxon rank sum test.

N stands for number of observations. Where  $N = \# + \#$ , # before (after) "+" represent the sample size of  $QUAL=1(2)$

*QUAL*= 0 if a clean opinion, 1 if a shared opinion, 2 if a going concern opinion.

*DISTRESS* = 1 if clients are insolvent in the subsequent year, 0 otherwise.

*LEV*= total liability over total asset at the end of period

*RIA*= ratio of receivables and inventories to assets

*SIZE*= client size, measured by the log value of total assets.

*FASTSALE*= future asset sale, measured by the proceeds from asset sales, deflated by total assets.

*FFINANCE*= future finance, measured by the issuance of new debt or equity, deflated by total assets.

*SPEC*= 1 if auditor is an industry specialist, 0 otherwise.

*TENURE*= auditor tenure

*PRIOROP*= audit opinion in the prior year.

*AGE*= log of the number of years listed

*THREAT<sup>GC\_Clean</sup>*= dismissal threats when clients prefer clean opinions to going-concern opinions

*THREAT<sup>GC\_OA</sup>*= dismissal threats when clients prefer shared opinions to going-concern opinions

In order to further explore the two *THREAT* variables, we present the descriptive statistics from various sample partitions. Chung and Kallapur (2003) argue that  $P_{fire}$ , the probability of a firm's firing its auditor for reporting the breach, is higher for clients with



stronger incentives to manage earnings, or those with weaker corporate governance structures. In addition,  $P_{fire}$  could be lower if the client depends on the auditor for expertise. We use leverage (*LEV*) and changes in asset growth (*|GROWCH|*) to control for client incentives to manage earnings. The strength of corporate governance is proxied by whether the chairman and CEO positions are separate (*CEOCHAIR*), and whether the client has 5% blockholders (*BLOCK*). Auditor expertise is proxied by whether he or she is an industry specialist (*SPEC*). For each continuous variable, we divide the sample into two groups by the median of the variable concerned. For indicator variables, such as *CEOCHAIR*, we divide the sample into two groups. Table 5 presents descriptive statistics on the two *THREAT* variables for various sample partitions.

**Table 5: Descriptive Statistics for *THREAT* Variables for Sample Partitions**

<b>Panel A: <i>THREAT</i><sup>GC_Clean</sup></b>										
Partition	Small group			Large group			Test for Difference			
Variables	N	Mean	Median	N	Mean	Median	t Value	Pr> t	Z Value	Pr> Z
Proxies for Client Incentives										
LEV	303	2.46%	1.44%	304	3.44%	2.47%	-3.52	0.00***	-5.34	<.00***
GROWCH	303	2.82%	1.99%	304	3.07%	2.14%	-0.90	0.37	-3.03	0.00***
Proxies for Corporate Governance										
CEOCHAIR	438	2.90%	1.85%	169	3.06%	2.19%	-0.54	0.59	-1.07	0.28
BLOCK	455	3.11%	2.24%	118	2.50%	1.47%	1.73	0.08*	2.83	0.00***
Proxies for Client Dependence on Auditor										
SPEC	471	3.11%	2.16%	136	2.39%	1.70%	2.56	0.01***	2.77	0.01***
<b>Panel B: <i>THREAT</i><sup>GC_OA</sup></b>										
Partition	Small group			Large group			Test for Difference			
Variables	N	Mean	Median	N	Mean	Median	t Value	Pr> t	Z Value	Pr> Z
Proxies for Client Incentives										
LEV	303	2.21%	1.48%	304	3.13%	1.89%	-5.21	<.00***	-5.74	<.00***
GROWCH	303	2.43%	1.43%	304	2.91%	1.81%	-2.70	0.01***	-4.93	<.00***
Proxies for Corporate Governance										
CEOCHAIR	438	2.66%	1.67%	169	2.71%	1.79%	-0.26	0.79	-0.69	0.49
BLOCK	455	2.77%	1.75%	118	2.40%	1.59%	1.59	0.11	1.82	0.07*
Proxies for Client Dependence on Auditor										
SPEC	471	2.76%	1.73%	136	2.35%	1.47%	2.07	0.04**	2.47	0.01***

\*, \*\*, and \*\*\* indicate significance at  $p < 0.10$ ,  $0.05$ , and  $0.01$ , respectively.

N stands for number of observations.

Tests for differences in the means between small and large group are based on t-statistics (z-statistics) for continuous (dummy) variables. Nonparametric tests for differences in location are based on the Wilcoxon rank sum test.

Small group means continuous (dummy) partition variables is below median (equal to zero). On the contrary, large group means continuous (dummy) partition variables is above median (equal to 1).

*THREAT*<sup>GC\_Clean</sup> = dismissal threats when clients prefer clean opinions to going-concern opinions

*THREAT*<sup>GC\_OA</sup> = dismissal threats when clients prefer shared opinions to going-concern opinions

*SIZE* = client size, measured by the log value of total assets.

*LEV* = total liability over total asset at the end of period

*|GROWCH|* = changes in asset growth

*CEOCHAIR* = 1 if CEO is also the chairman of the board, 0 otherwise.

*BLOCK* = 1 if client has 5% block-holders, 0 otherwise.

*SPEC* = 1 if auditor is an industry specialist, 0 otherwise.

*TENURE* = auditor tenure

As expected, the difference in means between the two groups is statistically significant in sample partition by measures of incentive to manage earnings and client dependence on auditor. For corporate governance factors, the medians of  $THREAT^{GC\_Clean}$  and  $THREAT^{GC\_OA}$  for firms with 5% blockholders appear to be significantly greater than for firms without 5% blockholders. As for *CEOCHAIR*, we have the expected sign, but not significant. Overall, our *THREAT* variables are greater in subsamples of clients that have higher incentives to manage earnings, weaker corporate governance structures, and are less dependent on auditors, consistent with Chung and Kallapur's (2003) argument.

#### **Logit analysis for auditor reporting**

Table 6 reports the results for ordered logit analysis of the auditor switch model. The overall model is significant (LR statistics have p-value less than 0.000). Pseudo  $R^2$  is 60.1%.<sup>16</sup> The highly significant positive coefficient on  $THREAT^{GC\_Clean}$  is as predicted in H1. For the sample of potentially distressed companies, the auditor is more likely to issue a going-concern opinion to a client who threatens to dismiss in order to get a clean opinion, after controlling for contrary factors, mitigating factors, auditor characteristics and miscellaneous. The result is consistent with the argument that the expected disutility of issuing an inappropriate opinion is sufficiently large to protect auditor independence.

The coefficient for  $THREAT^{GC\_OA}$  in Equation (2) is negative and significant ( $p < 0.000$ ), lending a support to H2. In situations with shared legal and professional responsibility and thus lower auditors' expected disutility of sacrificing independence, auditors may easily surrender to dismissal threats and lower the propensity of issuing a going-concern opinion.

In sum, the tests of H1 and H2 indicate that responsibility divisibility is the key factor when an auditor decides whether or not to surrender professional independence to dismissal threats. When the auditor has to assume full responsibility for a wrongly issued clean opinion, he or she is more likely to issue a going-concern opinion to a potentially distressed client. On the contrary, when the auditor can divide the professional responsibility with other auditors, he or she is less likely to issue a going-concern opinion to a potentially distressed client.

<sup>16</sup> We also estimate the equation (2) using OLS regression to derive VIF to assess potential collinearity. None of the VIFs are greater than 3.14, indicating that multicollinearity is not a concern in the auditor report model estimation.

**Table 6: Results for Ordered Logistic Regression of Auditor Report on Dismissal Threats**

$$QUAL^* = \gamma Y + \gamma_1 THREAT^{GC\_Clean} + \gamma_2 THREAT^{GC\_OA} + \nu \quad (2)$$

$$QUAL = 2 \text{ if } QUAL^* > \mu_1,$$

$$QUAL = 1 \text{ if } QUAL^* \leq \mu_1,$$

$$QUAL = 0 \text{ if } QUAL^* \leq 0,$$

	Predicted Relation	Estimated Coefficients	$\chi^2$	Pr> $\chi^2$
Intercept 2		-8.766	27.219	<.000***
Intercept 1		-3.729	5.330	0.021**
Experimental Variables				
$THREAT^{GC\_Clean}$	+	52.807	83.421	<.000***
$THREAT^{GC\_OA}$	—	-69.686	43.615	<.000***
Control Variables (Y)				
<i>DISTRESS</i>	+	1.190	10.315	0.001***
<i>LEV</i>	+	1.969	7.066	0.008***
<i>RIA</i>	+	0.850	2.223	0.136
<i>SIZE</i>	—	0.065	0.365	0.546
<i>FASTSALE</i>	—	-1.184	0.121	0.729
<i>FFINANCE</i>	—	-2.386	3.813	0.051*
<i>SPEC</i>	—	0.326	1.630	0.202
<i>TENURE</i>	?	0.060	2.243	0.134
<i>PRIOROP</i>	+	2.412	102.725	<.000***
<i>AGE</i>	?	0.059	0.225	0.635
<i>YEARj</i>	?	included		
LR statistic			400.947	<.000***
Pseudo R <sup>2</sup>		60.1%		

\*, \*\*, and \*\*\* indicate significance at p < 10%, 5%, and 1%, respectively.

Number of observations: 607.

*QUAL*= 0 if a clean opinion, 1 if a shared opinion, 2 if a going concern opinion.

$THREAT^{GC\_Clean}$ = dismissal threats when clients prefer clean opinions to going-concern opinions

$THREAT^{GC\_OA}$ = dismissal threats when clients prefer shared opinions to going-concern opinions

*DISTRESS*= 1 if clients are insolvent in the subsequent year, 0 otherwise.

*LEV*= total liability over total asset at the end of period

*RIA*= ratio of receivables and inventories to assets

*SIZE*= client size, measured by the log value of total assets.

*FASTSALE*= future asset sale, measured by the proceeds from asset sales, deflated by total assets.

*FFINANCE*= future finance, measured by the issuance of new debt or equity, deflated by total assets.

*SPEC*= 1 if auditor is an industry specialist, 0 otherwise.

*TENURE*= auditor tenure

*AGE*= log of the number of years listed.

*PRIOROP*= audit opinion in the prior year.

*YEARj*= year dummies, j=0,1. For example, YEAR1=1 if sample year=2001, 0 otherwise.

The control variables, *DISTRESS*, *LEV*, *FFINANCE*, and *PRIOROP* have significant coefficients in the expected direction. Companies are more likely to receive a going concern report if they are financially distressed or with debt default. Future issuance of debt or equity reduces the likelihood of receiving a going concern report. Finally, companies are likely to receive a going concern report because of the persistence in audit opinions.

### Sensitivity Analysis

Additional analyses are reported in this section to assure that our results are not caused by measurement errors and model misspecification.

Alternative measurement of *|TIECH|*. As mentioned in Section 5.1.1, earlier descriptive analyses suggest that *|TIECH|* might contain extreme values. In order to avoid outlier effects, we dichotomize this variable and set *|TIECH|* as 1 if  $|TIECH| \geq \text{median}$  and zero otherwise. When we rerun Equation (1) with the new *|TIECH|*, the coefficient on the new *|TIECH|* variable remains insignificant. Using the new results from Equation (1) to re-estimate both the  $THREAT^{GC\_Clean}$  and  $THREAT^{GC\_OA}$  in Equation (2), the coefficients on the two *THREAT* variables are still significant in the expected direction. Therefore, we conclude the results in Table 6 are robust with respect to the extreme values of *|TIECH|*.

Adding market variables as control variables. The audit opinion prediction model of Dopuch et al. (1987) includes financial and market variables. Equation (2) does not include market variable due to sample size consideration. Nevertheless, when we add *RET-MRET* (companies return minus market return) and *BETA* to the model, the coefficients for *RET-MRET* and *BETA* are insignificant, and the two *THREAT* variables are significant in expected direction as shown in Table 6.

Adopting the control variables of Bell and Tabor (1991). Bell and Tabor (1991) develop a model to predict modified audit opinion by using financial statement variables. We replace the control variables originating from the Dopuch et al. (1987) model such as *DISTRESS*, *LEV*, *RIA*, and *AGE* with four control variables from Bell and Tabor (1991): rate of change in ROE, rate of change in the ratio of inventory to net sales, rate of change in the ratio of receivables to inventory, and rate of change in the ratio of current assets to current liabilities. When we rerun Equation (2) with new control variables, none of the new control variables are significant, and the results of the hypotheses tests are still significant in the expected direction. Additional analyses from the complete Dopuch et al. (1987) model and the Bell and Tabor (1991) model further assure that our results are not caused by model misspecification.

First-time qualification. We eliminate prior qualifications to capture first-time qualifiers and rerun the ordered logistic regression of auditor report. As predicted, there exist significant associations between the two *THREAT* variables and propensity to qualify.

## VI. CONCLUSION

The Public Oversight Board's Panel on Audit Effectiveness (POB 2000, 109) notes that independence is fundamental to the reliability of auditor's report. This study investigates whether dismissal threats imposed by clients jeopardize auditor independence

and result in auditors' decreased propensity to issue going-concern opinions to financially distressed clients. We identify two types of dismissal threats imposed by the same client. One is the client threatens to dismiss the incumbent auditor unless the auditor issues a clean opinion in place of a going-concern opinion. The other is the client steps down from a clean opinion to a shared opinion but still rejects a going-concern opinion. These two types of dismissal threats come from the same client and therefore offer the same benefits to the auditor if he or she chooses to please the client. However, the two types of corresponding misconduct have different cost impacts on the auditor if he or she chooses to please the client. Possibly due to professional responsibility divisibility, the auditor has less expected cost for issuing a shared opinion than for issuing a clean opinion when he or she fails to qualify the going-concern assumption. Therefore, we expect that these two dismissal threats have different impacts on the auditor's reporting behavior.

Our result shows that the probability of a stressed client receiving a going-concern opinion increases when the client prefers a clean opinion. On the other hand, the result shows that the auditor decreases the propensity of issuing a going-concern opinion when he or she faces a client who is willing to receive a shared opinion. Overall, the results suggest that auditors are susceptible to dismissal threats if they have lower expected costs of issuing an inappropriate audit opinion. Since this study focuses on the effect of dismissal threats on auditor independence without formally discussing the strategic interaction between the auditor and his/ her client, future researches could extend our study by examining the strategic interaction between the auditor and management.

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# 更換威脅對會計師獨立性之影響

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**摘要：**鑒於不利的審計意見會對公司產生一些負面後果(如股價下跌和不易募集資金等)，管理當局便萌生對會計師施加壓力之誘因。Carcello and Neal (2000)認為撤換會計師是公司對會計師施加壓力之方法之一，因此，本文目的在探討更換威脅對會計師獨立性之影響，亦即，當受查客戶不願收到不利的審計意見而以撤換會計師為由脅迫現任簽證會計師時，受查客戶是否可成功地取得較有利的審計意見。

本文共探討二種審計意見類型的更換威脅，分別為客戶(1)不願意收到「繼續經營疑慮」審計意見而威脅會計師出具無保留意見，以及(2)不願意收到「繼續經營疑慮」而威脅會計師出具「提及其他會計師」之審計意見。受查客戶施加的更換威脅是否能成功，取決要素在於會計師留任客戶的經濟利益是否大於犧牲獨立性的成本(Teoh 1992; Krishnan et al. 1996; DeFond et al. 2002)。由於本文並非探討不同客戶對會計師施加不同的更換威脅，而係探討同一客戶對會計師施加二種更換威脅，因此會計師面對二種更換威脅，留任客戶的經濟利益皆相同，不同的是會計師所認知的犧牲獨立性的成本。

在第一種更換威脅的情境下，會計師於受查客戶破產前未能揭露有關繼續經營疑慮問題，反而出具無保留意見，往往會被媒體和社會大眾等審計專業以外的人士認定為審計失敗(Geiger and Raghunandan 2002)，此時會計師成眾矢之的，易成為遭受損失的投資人求償索賠的對象。此外，會計師考量到在無保留意見的情境下，需由自己對投資大眾負完全法律責任，無法分攤予他人。所以，在應揭露繼續經營疑慮問題卻出具無保留意見的情況下，會計師的反效用期望值甚大。將審計意見區分成「繼續經營疑慮」與「無保留」二級，Reynolds and Francis (2001)之實證結果發現客戶規模與繼續經營疑慮審計意見成正相關，因而結論指出會計師聲譽保護效果大於對客戶之經濟依賴性效果。改以非審計公費衡量對客戶之經濟依賴性，DeFond et al.



(2002)並未發現非審計公費與繼續經營疑慮審計意見具顯著負向關聯性，因而結論指出市場基礎誘因(主要為聲譽損失與訴訟成本)是維護會計師獨立性之基石。據此，本文發展假說一如下：

假說一：當更換威脅係來自客戶偏好無保留意見而不願查核報告被附加繼續經營疑慮之保留事項時，會計師出具不利審計意見的機率較高。

相對地，在第二種更換威脅之情境下，針對客戶可以接受「提及其他會計師」卻無法接受「繼續經營疑慮」之審計意見情況，主查會計師考量到倘若客戶的繼續經營問題係隱藏在轉投資收益上，而轉投資收益屬其他會計師的查核範圍，自己已經在查核報告上揭示共享責任，因而與其他會計師各自按自己查核的範圍負法律責任，毋須承擔其他會計師的法律責任。再者，主查會計師可能認為自己已在所屬查核範圍內善盡審計責任，即使日後客戶爆發財務困難，可諉過於其他會計師，較不會因其他會計師的審計過失而被認為自己的審計失敗，因此主觀認為對聲譽的斷傷不大。所以，相較於前述第一種更換威脅，會計師所認知的反效用期望值變小，較易屈從客戶施加的更換威脅，損害超然獨立性。<sup>17</sup>據此，發展假說二如下：

假說二：當更換威脅係來自客戶偏好提及其他會計師之意見而不願查核報告被附加繼續經營疑慮之保留事項時，主查會計師出具不利審計意見的機率較低。

本研究對「更換威脅」之衡量方法，乃是自 Lennox (2000)的審計意見購買行為類推(analogize)而來。延伸 Lennox (2000)的論點至更換威脅情境：若出具不利審計意見將遭撤換，因此「更換威脅」變數為不利審計意見下被受查客戶撤換的機率，與有利審計意見下被撤換的機率二者之差異，以符號表之如下：

$$[pr(S = 1|Q = 1, X) - pr(S = 1|Q = 0, X)] > 0$$

其中  $pr$  為機率， $S=1$  (0)代表更換(不更換)會計師， $Q=1$  為不利審計意見， $X$  為影響更換會計師之公司特性。

欲估計更換威脅變數，必須先建構會計師更換模型。茲將模型列示如下：

<sup>17</sup> 在法理上，「提及其他會計師」之審計意見是否可構成會計師免責之要件，由於並未有相關案例，本文無法論斷，且此已超出本文研究範圍。然而，Carcello and Palmrose (1994)發現修正式審計意見雖無法完全保護會計師免除法律責任，但卻可減低會計師被告的機率，此之證據正與本文主張「提及其他會計師」審計意見會影響會計師對犧牲獨立性成本之認知不謀而合。

$$S_{t+1}^* = \theta X + \theta_1 OA_t + \theta_2 GC_t + u \quad (1)$$

$$S_{t+1} = 1 \quad \text{if } S_{t+1}^* > 0,$$

$$S_{t+1} = 0 \quad \text{if } S_{t+1}^* \leq 0$$

其中  $S^*$  代表更換會計師之傾向， $OA=1$  代表提及其他會計師意見， $GC=1$  代表繼續經營疑慮意見， $t+1$  為更換會計師年度。

根據式(1)，即可估計「繼續經營疑慮」到「無保留」意見之更換威脅變數( $THREAT^{GC-Clean}$ ):  $[pr(\hat{S}_{t+1}|X, GC_t = 1) - pr(\hat{S}_{t+1}|X, OA_t = 0, GC_t = 0)]$ ，以及「繼續經營疑慮」到「提及其他會計師」之更換威脅變數( $THREAT^{GC-OA}$ ):  $[pr(\hat{S}_{t+1}|X, OA_t = 1, GC_t = 1) - pr(\hat{S}_{t+1}|X, OA_t = 1, GC_t = 0)]$ 。更換威脅與審計意見關聯性的實證模式則如式(2)所示：

$$QUAL_t^* = \gamma Y + \gamma_1 THREAT^{GC-Clean}_t + \gamma_2 THREAT^{GC-OA}_t + v \quad (2)$$

$$QUAL_t = 2 \quad \text{if } QUAL_t^* > \mu_1,$$

$$QUAL_t = 1 \quad \text{if } 0 < QUAL_t^* \leq \mu_1,$$

$$QUAL_t = 0 \quad \text{if } QUAL_t^* \leq 0$$

其中  $QUAL^*$  為會計師出具審計意見之傾向， $\mu_1$  為會計師出具「繼續經營疑慮」審計意見之重大性門檻，。

根據假說 1，會計師堅守超然獨立性，預期  $\gamma_1 > 0$ ，代表受查客戶從事「由繼續經營疑慮改為無保留意見之更換威脅」行為失敗。相對地，根據假說 2，會計師降低超然獨立性，預期  $\gamma_2 < 0$ ，代表受查客戶成功地從事「由繼續經營疑慮改為提及其他會計師意見之更換威脅」行為。

本文係以 1999-2001 年一般產業上市櫃公司為研究對象，基於會計師並不會對非財務困難公司但卻突然宣告倒閉者簽發繼續經營疑慮之審計意見 (McKeown et al. 1991)，因此參照前人研究，乃將樣本侷陷在潛在財務困難公司。為避免同一樣本公司既被歸類為更換會計師公司，又於後續年度扮演未更換會計師樣本之情況，乃要求未更換會計師樣本需至少連續三年未曾更換會計師。此外，當公司已經申請破產，會計師審計意見決策之裁量權即有所受限 (Carcello and Neal 2000)，因此刪掉當年度屬全額交割股者。再者，財務報表變數無法預測有關訴訟的審計保留事項 (Krishnan and Krishnan 1996)，乃再刪除。最後則是刪除資料不全的觀察值。經過上述篩選過程，共得 607 公司\_年觀察值。

實證結果顯示，當更換威脅係肇因於公司不願收到「繼續經營疑慮」類

型審計意見而希望收到無保留意見時，會計師簽發不利審計意見的機率不僅沒有降低，反而增加，顯示更換威脅失敗。相對地，當更換威脅係肇因於公司不願收到「繼續經營疑慮」類型之審計意見而希望收到「提及其他會計師」時，會計師簽發不利審計意見的機率降低，顯示更換威脅成功。二種不適當審計意見類型的差異在於認知的反效用期望值(如聲譽損失與訴訟成本，含會計師認知其被告之機率)不同，由此可知出具不適當審計意見的反效用期望值是維持會計師獨立性的關鍵要素。

**關鍵詞：**更換威脅、更換會計師、審計意見、會計師獨立性