

Litigation Risk Factors As Identified By Malpractice Insurance Carriers

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Abstract

We examine the application forms of the major insurance companies to identify risk factors associated with non-Big 5 CPA firm litigation. We find considerable agreement among insurers as to the client-specific and firm-specific information they request. Moreover, the information requested by insurers confirms several client-specific risk factors found significant in prior research, and introduces several firm-specific risk factors that should be examined in the future.

Introduction

Audit litigation is a topic of great interest to both the academic and practitioner community. Numerous pieces have appeared in practitioner publications exposing the extent of the litigation and providing suggestions as to how to avoid litigation (e.g., Geoghan, 1998; Rigos, 1999; Beasley, 1999). Audit litigation has also received extensive coverage in academic journals (see Latham and Linville, 1998 and Palmrose, 1997 for further discussion). Utilizing publicly available information, accounting researchers have found several client-specific and firm-specific risk factors to be significantly associated with audit litigation. Unfortunately, many cases against auditors are privately settled out of court, and the lack of publicly available data on the loss history of audit litigation has hindered this research. Moreover, the generalizability of litigation research is limited primarily to Big 5 CPA firms, since they perform the majority of audits of publicly traded companies (the data source for the studies).

The purpose of this paper is to identify client-specific and firm-specific risk factors insurance providers have associated with CPA firm litigation by examining the malpractice insurance application forms of the major insurance providers. We assume this information is costly to provide, collect, and analyze and therefore insurers will only request information that is useful to them in establishing the risk of insuring the applicant. Insurance providers are potentially a rich source of information about the cost of claims against auditors, since they frequently pay the claims. However, as reported by Hays (1998), secrecy is a common practice in the insurance industry and thus the insurance companies have been reluctant to share this information directly with accounting researchers citing proprietary concerns. Yet, some understanding of the insurer's identification of risk factors can be gleaned from these application forms. Once these factors are isolated, we compare the risk factors assumed to be important to insurers to the risk factors identified as significant in audit litigation research to understand the similarities and differences between the two sets of risk factors.

Readers with comments or questions are encouraged to contact the authors via email.

We find that insurance providers request client-specific information about industry affiliation, publicly traded status, and financial distress, but are notably less interested in a host of other financial performance variables that have been tested and found significant by accounting researchers. Specifically, insurers do not request information about stock price volatility, stock price performance, or management fraud. With respect to CPA firm-specific risk factors, insurers request considerably more information than has been examined by accounting researchers. Insurers request information on organizational structure, history, services, jurisdiction, litigation, related party involvement, and fiduciary responsibilities, in addition to firm size and major clients (which are the two major firm-specific risk factors identified in the research literature). Finally, based on our findings, we argue that the merits of the litigation facing auditors matter, in the sense that there are factors controllable by CPA firms that will reduce litigation risk. Future research should consider these factors.

The paper is organized as follows. The next section discusses why insurance application forms can provide researchers with information. Section three provides details about our procedures and describes the commonly requested information. Section four compares the commonly requested information to the findings in academic research. Section five discusses the question of “do merits matter?” The paper concludes with a summary and suggestions for future research.

Insurers as an Information Source

One means available to practitioners to limit their litigation risk is malpractice insurance. By paying a small certain sum in advance, the insured obtains protection from more uncertain costs that may be incurred in the future. In such a fashion, the insured can limit the risk of suffering a large catastrophic loss.

The insurer collects the premium based on the perceived risk imposed by the insured. If the premiums collected exceed the costs required to be paid by the insurer, an underwriting profit is obtained.¹ The insurer’s objective is to set the premiums at a high enough level to cover expected average claims and allow for a reasonable profit. Setting a premium too low threatens the underwriting profits while setting a premium too high may prevent the issuance of the policy and the loss of the potential client to a rival.

To establish the proper premium, the insurer must estimate the expected claims to be made by the policyholders. Each policy issued imposes a risk on the insurer for the potential claims that are ultimately paid by the insurer. To estimate the risk that each policy imposes, the insurer must examine each applicant carefully. Based upon their actuarial experience, each insurance company has identified certain factors that are associated with claims. The primary source of information about the insured is the insurance application form. On this form, the insured provides the information necessary for the insurer to determine insurability and to set the proper premium.² Because the preparation of information is costly to the applicant and the storage and processing of the information are costly to the insurer, it is assumed that only information necessary to determine insurability and premiums is collected.

Based on the above discussions, a simple insurance premium model could be expressed as:

- Insurance premiums = f (policy parameters, risk)
- Policy parameters = f (aggregate dollar limit, types of risks covered, deductible)
- Risk = f (client-specific factors, firm-specific factors)

Schultz and Gustavson (1978) were the first accounting researchers to explore insurers' knowledge of audit litigation risk. They used Brunswik's Lens Model to relate actuaries' perceptions of the exposure of an accounting firm to litigation and five conditions common to audit engagements. The five conditions examined were the client's financial condition, the client's size, the accounting firm's size, the accounting firm's policy concerning audit rotation, and the relative amount of write-up work done by the accounting firm. The only variable actuaries unanimously agreed on as important was weak financial condition of the client. Schultz and Gustavson's study was hindered by the actuaries' experiences including a paucity of available data on loss history of audit cases, a short history of writing liability insurance for accounting firms, and no public log of cases won, lost, or settled out of court. Over twenty years have passed since their study, eliminating many of these hindrances.

Procedure

We analyze several malpractice insurance application forms to determine the factors associated with claims. We obtained the malpractice insurance application forms from eight major carriers of malpractice insurance for accountants: CPA Mutual, CNA, Zurich-American, Coregis/Westport, Design Professionals, Safeco, Preferred National, and Camico. These carriers underwrite virtually all of the non-Big 5 accounting malpractice policies. The forms range from three to seven pages in length with twenty-seven to thirty-six questions. Required responses range from a simple "yes" or "no" answer to detailed responses with instructions to use additional pages if necessary.

Table 1 lists the policy and risk factors requested by insurers in the left-hand column, with the insurance provider listed across the top. In addition to coverage and deductible questions, there is considerable agreement in insurers' requests for several client-specific characteristics and firm-specific characteristics. All insurers ask for industry-specific information (percentage of billings by client type and financial institutions) and publicly traded information (percentage of clients registered with the SEC). Also, seven out of eight insurers requested the names of clients registered with the SEC, and six insurers asked about client financial difficulties.

Moreover, there was considerable agreement among insurers regarding firm-specific characteristics requested. All insurers requested information on firm size (list of proprietors/employees and gross revenues), history (establishment date, predecessor firms, denials of insurance), services (list of services provided and percent of all services), organization (engagement letter policy, existence of peer review, continuing professional education), location, litigation (professional sanctions, existing claims, fee collection policy), and fiduciary responsibilities (decision-making authority for others and investment advice given). In addition, most insurers requested information on independence, organizational form, and related party involvement.

Certain questions have a clear administrative function while others have the ability to determine the litigation risk of the applicant. We assembled these questions and other questions frequently asked into a composite application form that is available from the authors. This composite application form should provide insight into the wording of the information request.

Comparisons with the Literature

Accounting research has examined numerous client-specific and accounting firm-specific variables for their effect on litigation risk. For a review of the literature, see Latham and Linville (1998) and Palmrose (1997).

Table 1
Frequency of Information Requested by Insurers
Insurance Company

<u>Characteristic</u>	CPA		Zurich-			Pref			Total
	Mutual	CNA	Am	Coregis	A/pls+	Safeco	Nat'l	Camico	
Coverage	X	X	X	X	X		X	X	7
Deductible	X	X	X	X	X		X	X	7
Client-Specific Characteristics									
Industry: percentage of billings by client type	X	X	X	X	X	X	X	X	8
Industry: financial institutions	X	X	X	X	X	X	X	X	8
Publicly Traded: SEC clients	X		X	X	X	X	X	X	7
Publicly Traded: % of clients SEC	X	X	X	X	X	X	X	X	8
Financial Statement Information:									
Client Financial Difficulties	X		X	X	X	X	X		6
Firm-Specific Characteristics									
Size: List of proprietors/employees	X	X	X	X	X	X	X	X	8
Size: Gross revenues	X	X	X	X	X	X	X	X	8
Independence: Largest Clients	X	X	X		X	X	X	X	7
History: Establishment date	X	X	X	X	X	X	X	X	8
History: Predecessor firms	X	X	X	X	X	X	X	X	8
History: Denials of insurance, other	X	X	X	X	X	X	X	X	8
Services: list of services provided	X	X	X	X	X	X	X	X	8
Services: percent of all services	X	X	X	X	X	X	X	X	8
Organization: Form	X	X	X				X	X	5
Organization: Engagement letter/policy	X	X	X	X	X	X	X	X	8

Organization: Peer review and CPE	X	X	X	X	X	X	X	X	8
Organization: Conflict of interest avoidance system		X	X						2
Location (including county)	X	X	X	X	X	X	X	X	8
Litigation: Professional sanctions	X	X	X	X	X	X	X	X	8
Litigation: Existing claims	X	X	X	X	X	X	X	X	8
Litigation: Sue for fees	X	X	X	X	X	X	X	X	8
Related party involvement	X	X	X	X	X	X	X		7
Fiduciary: Decision making authority for others	X	X	X	X	X	X	X	X	8
Fiduciary: Delegate services to other firms	X		X		X	X	X	X	6
Fiduciary: Bonded for fiduciary responsibilities	X		X						2
Fiduciary: Investment advice	X	X	X	X	X	X	X	X	8

Client-Specific Factors

Table 2 compares client-specific variables tested by accounting researchers with information requested by the major insurance carriers. Related accounting studies are referenced with each factor, as is the percentage of insurers requesting each insurance form factor. There are several notable similarities and differences. Both accounting research and insurers consider client industry characteristics in evaluating litigation risk. Accounting research indicates certain industries have high litigation rates including finance, insurance, real estate (St. Pierre and Anderson, 1984; Palmrose, 1988) manufacturing, (St. Pierre and Anderson, 1984; Palmrose, 1988; and Stice, 1991), and high technology (Palmrose, 1988; Francis et al., 1994a, 1994b, and 1998). All major insurance carriers request industry information regarding percentage of billings for each type of client. Moreover, all insurers request specific information regarding financial institutions.

Accounting researchers and insurers also agree on the importance of the publicly traded status of clients in assessing litigation risk. St. Pierre and Anderson (1984) and Palmrose (1988) find that publicly traded companies have higher incidence of litigation. All insurers examined request the percentage of audit billings from clients who are registrants with the SEC, and the total revenues from SEC clients. The professional literature (AICPA, 1995) suggests higher litigation rates surround Initial Public Offerings. Similarly, the practitioner literature frequently cites IPO status as a major risk factor of audit litigation (see Simunic and Stein, 1996). Conversely, Bonner et al. (1998) found no significant association between IPOs and fraud litigation, when IPOs were within three years of the fraud. No insurer requested client information specific to IPOs.

Table 2
Client-Specific Factors Associated with Audit Litigation

Accounting Research Factor	Study*	Insurance Form Factor	% of Insurers
Industry Affiliation		Industry	
Finance	1, 4	Financial institutions	100%
Insurance	1, 4	Percentage of billings by client type	100%
Real estate	1, 4		
Manufacturing	1, 4, 5		
High tech	4, 7, 8, 11		
Publicly Traded		Publicly Traded	
Public vs. non-public	1, 4	SEC clients	88%
Initial Public Offering	10, 13	Percent of clients SEC	100%
Financial Statement Information		Financial Statement Information	
Bankruptcy or significant client loss, especially when a surprise	1, 2, 3, 5, 6, 9, 12, 13	Client Financial Difficulties	75%
Accrual and asset size	7, 8, 9, 11		
Asset structure	5		
Market value of stock	5		
High dividend payments	8		
High systematic risk	8		
Higher operating leverage	11		
Management Fraud	1, 3, 6, 13	Not addressed	0%
Stock Price Volatility/Stock Returns	7, 8, 9	Not addressed	0%

* Study:

- | | | | |
|-----------------------------------|---------------------------------|--------------------------------|--------------------------|
| 1. St. Pierre and Anderson (1984) | 5. Stice (1991) | 9. Lys and Watts (1994) | 13. Bonner et al. (1998) |
| 2. Kellogg (1984) | 6. Carcello and Palmrose (1994) | 10. Simunic and Stein (1996) | |
| 3. Palmrose (1987) | 7. Francis et al. (1994a) | 11. Francis et al. (1998) | |
| 4. Palmrose (1988) | 8. Francis et al. (1994b) | 12. Summers and Sweeney (1998) | |

Accounting researchers have extensively examined the relationship between client financial statement information and audit litigation. For example, Lys and Watts (1994) alone examined 12 financial variables, with five significant in univariate tests and four significant in a multivariate test. The most frequently documented financial variable associated with litigation is probability of bankruptcy (or financial distress) (Bonner et al., 1998; Summers and Sweeney, 1998; Francis et al., 1998; Lys and Watts, 1994; Carcello and Palmrose, 1994; Stice, 1991; Palmrose, 1987; St. Pierre and Anderson, 1984; Kellogg, 1984). Likewise, most insurance providers request information on client financial difficulties.

With the exception of financial difficulties, however, it is in the area of financial statement information that accounting researchers and insurers diverge. Insurers request no other client-specific financial statement information. Researchers, on the other hand, have found several financial statement

variables to be associated with litigation risk, including size (Francis et al., 1994a, 1994b, 1998), asset structure and market value of stock (Stice, 1991), accrual and asset size (Lys and Watts, 1994), higher dividend payments and higher systematic risk (Francis et al., 1994b), and higher operating leverage (Francis et al., 1998).

Several accounting researchers have examined the existence of fraudulent financial reporting as a significant factor in audit litigation (Carcello and Palmrose, 1994; Palmrose, 1987; St. Pierre and Anderson, 1984). The specific type of fraud is important since a higher incidence of audit litigation occurs when the fraud involves fictitious transactions on the financial statements than when a fraud is designated as more common (Bonner et al., 1998). There are no questions in any of the insurance application forms regarding client fraud (e.g., "Do you have any clients that were the subject of Accounting and Auditing Enforcement Releases (AAERs) by the SEC?")

Accounting researchers have examined the association between stock performance and litigation. Kellogg (1984) finds that class-action lawsuits were initiated after stock price declines. Stice (1991) finds that stock price volatility was associated with audit litigation. However, Lys and Watts (1994) and Francis et al. (1994a, 1994b) do not find a significant association between stock returns and litigation, nor between returns volatility and litigation. Insurers do not ask any information regarding stock price volatility or stock price returns of clients.

In sum, the information requested by insurance providers seems to confirm the importance of certain variables found by accounting researchers to be associated with audit litigation, including industry affiliation, publicly traded status, and financial difficulties. Moreover, these client-specific risk factors appear generalizable to non-Big 5 CPA firms. Conversely, insurers seem unconcerned about several client characteristics examined by accounting researchers, including most financial statement variables, management fraud, stock return volatility and stock performance, and IPO status. Therefore, we conclude that for non-Big 5 CPA firms, these client characteristics may not be significant. It could be argued that financial information and stock price information is publicly available and could be obtained indirectly by insurers, but this argument faces two major limitations. First, financial information of clients is only available on publicly traded clients. Second, insurers request only the largest clients' names, not allowing for an indirect portfolio analysis of all clients by insurers.

Firm-Specific Factors

While accounting researchers have examined the association of numerous client-specific characteristics to audit litigation, there is a paucity of research examining auditor characteristics and related litigation. Latham and Linville (1998) argue that, "[s]ince more is known about client characteristics associated with litigation than auditor characteristics, more research of the latter type is needed." Our examination of malpractice insurance application forms indicates that insurers request considerable firm-specific information beyond what is currently identified through accounting research. Table 3 provides a comparison of the firm-specific characteristics from accounting research and insurance forms, along with the related study references and percentage of insurers requesting the characteristic.

Palmrose (1988) addressed audit-firm quality under the assumption that higher/lower quality auditors are involved in less/more audit litigation. She found that Big 8 auditors are significantly less likely to be defendants in litigation than the eight largest non-Big 8 firms. Similarly, Bonner et al. (1998) found in one of two tests that Big 6 auditors were less likely than non-Big 6 auditors to be involved in audit litigation related to fraud. Conversely, Schultz and Gustavson (1978) interviewing actuaries found considerable evidential support suggesting a positive relationship between increased risk and the size of the accounting firm. All insurers examined requested two measures of firm size: a list of proprietors and

Table 3
Firm-Specific Factors Associated with Audit Litigation

Accounting Research Factor	Study*	Insurance Form Factor	% of Insurers
Size		Size	
Big 8/Big 6: less litigation	2, 6	List of proprietors/employees	100%
Risk associated with size	1	Gross revenues	100%
Independence: Client's proportion of audit firm's total revenue		Independence: Largest clients (client's proportion might potentially be calculated)	88%
Significant (Lys and Watts 1994)	5		
Not significant (Stice 1991)	3		
Qualified Opinion	4, 5	Not addressed	0%
Not addressed	N/A	History	
		Establishment date	100%
		Predecessor firms	100%
		Denials of insurance, other history	100%
Not addressed	N/A	Services provided	
		List of services	100%
		Percent of all services	100%
6. Not addressed	N/A	Organization	
		Form	63%
		Engagement letter and policy	100%
		Peer review and CPE	100%
		Conflict of interest avoidance system	25%
7. Not addressed	N/A	Location (including county)	100%
Not addressed	N/A	Litigation	
		Professional sanctions	100%
		Existing claims	100%
		Sue for fees	100%
Not addressed	N/A	Related party involvement	88%
Not addressed	N/A	Fiduciary responsibilities	
		Decision making authority for others	100%
		Delegate services to other firms	75%
		Bonded	25%
		Investment advice	100%

* Study:

1. Schultz and Gustavson (1978)

3. Stice (1991)

5. Lys and Watts (1994)

2. Palmrose (1988)

4. Carcello and Palmrose (1994)

6. Bonner, Palmrose, and Young (1998)

employees and gross revenues. No indication was made regarding the positive or negative relationship such information would have on risk.

Using the proportion of the audit firm's revenues represented by the client's fee as a proxy for independence, Lys and Watts (1994) find that auditors of companies involved in litigation are less independent than auditors of control companies.³ Stice (1991) finds similar results, though not significant, using a slightly different proxy. All but one of the insurers examined request information about the firm's largest clients, potentially to examine the independence of the firm from its largest clients.

Qualified opinions from auditors are positively associated with litigation (Carcello and Palmrose, 1994; Lys and Watts, 1994), even though going-concern qualified opinions from auditors serve to mitigate the saliency of claims against the auditor in the event of client bankruptcy (Carcello and Palmrose, 1994). Insurers do not request data regarding firms' clients who receive qualifications. However, they do request client financial distress information, which quite plausibly contains the explanatory information in the qualified opinion. This explanation is consistent with the finding of Lys and Watts (1994) that the qualified opinion was not significantly associated with litigation in the multivariate model that also included a variable for the probability of bankruptcy.

Accounting research has not identified any other firm-specific variables in addition to audit quality (as proxied by size) and independence (as proxied by proportional revenue) that are associated with litigation risk. This is not without an effort, however. For example, Lys and Watts (1994) tested audit structure, industry specialization, variance of client size, auditor size, and audit tenure. None of these variables achieved significance in either univariate or multivariate tests.

Insurers, on the other hand, request several additional firm-specific characteristics to assess litigation risk. These characteristics include the history of the firm, services provided, organization, location, litigation, related party information, and fiduciary responsibilities (see Table 3). Questions about the firm's history include the establishment date of the firm, predecessor firms, denials of insurance, and other historical events about the firm and its successor firms. Firms are also required to include a list of services provided and the percentage each service contributes to the overall business of the firm. Questions about organization include organizational form, internal controls such as engagement letters, peer review and continuing professional education policies, and conflict of interest avoidance systems.

Specific details about exact firm location, including the name of the residing county, indicate an interest in jurisdiction. Other litigation information requested includes any professional sanctions against the firm or its employees, and the existence of any current claims against the firm. Also, information is requested regarding whether the firm has ever sued a client for fees.

In addition to any proxies insurers might use to assess independence, they specifically request information concerning related party involvement. Finally, insurers consistently ask for a list of fiduciary responsibilities of the firm, including decision-making authority for others, delegation of services to other firms, whether the firm is bonded, and whether investment advice is given.

Together, the firm-specific variables requested by insurers encompass the majority of characteristics examined by accounting researchers, while at the same time requesting a considerable amount of additional information not yet empirically tested by accounting researchers. Insurers regularly request CPA firm size and major client information, confirming the importance of these two commonly identified firm-specific risk factors, suggesting their importance to non-Big 5 CPA firms as well. In addition, insurers can request the information much more directly, without the restrictions faced by many researchers, who are forced to construct proxies for many variables out of publicly available information.

As such, it is not unreasonable to surmise that insurance companies' actuaries may have developed significantly more powerful models of audit litigation risk than have been developed to date among accounting researchers.

Do the Merits Matter?

There has been considerable discussion in recent years about whether or not the merits matter in litigation affecting the accounting profession (e.g., Alexander, 1991; Marino and Marino, 1994; Carcello and Palmrose, 1994; Palmrose, 1994). The position of the Big 5 is that "the principal causes of the accounting profession's liability problems are unwarranted litigation and coerced settlements" (Statement of Position, Arthur Anderson & Co. et al., 1992, p. 1).

For audit litigation to be meritorious, Kinney (1993) argues there should be a decline in investment value resulting from substandard audited financial statements, with the absence of other causes of decline. Palmrose (1997) uses Kinney's framework for meritorious litigation to examine existing literature to address the question, "Do the merits matter?" (Palmrose 1997). She summarizes the research by stating that both the determinants of lawsuits against independent auditors and the determinants of outcomes provides few insights on the role of merits.

Kinney's (1993) model addresses meritorious litigation strictly from the standpoint of substandard audited financial statements. There is a sense in which the question, "Do the merits matter?" is much broader than what is captured in Kinney's (1993) model. More broadly, the question could be expressed as "whether or not there are factors that audit firms can control that reduce their exposure to litigation?". Our examination of insurance application forms addresses this broader issue by providing considerable evidence as to the possible meritorious nature of audit litigation. First, given that information is costly to collect, only substantive information will be collected. To the extent that information is collected beyond coverage and deductible, these items must have 'merit' in determining litigation risk. We find that insurers collect considerable amounts of both firm-specific and client-specific information and that the specific information collected is remarkably consistent across insurance providers. We conclude that insurers have determined that these items are associated with litigation.

Second, many insurance providers offer a significant reduction in premiums to firms who educate partners and staff about potential litigation pitfalls. If merits do not matter (i.e., litigation is a random occurrence), insurers would not incur the cost of educating the insured, nor would they reduce the premiums of the educated firms. Insurers have suggestions because their experience identifies factors associated with litigation.

In sum, while arguments presented here suggest that in general merits do matter, we do not conclude that merits matter as much as perhaps they should, nor that all lawsuits against auditors are meritorious. These are empirical questions worthy of considerable future research. Our analysis of variables collected by insurance providers identifies several firm-specific and client-specific characteristics that should be included in future models.

Summary

This study examines the information sought by insurers when a CPA firm applies for professional liability insurance and then compares the items requested to the risk factors identified by research. As such, the present study is both confirmatory and exploratory in nature, and extends the generalizability of research to non-Big 5 firms. We find a substantial correspondence between the insurers and the researchers on client-specific risk factors. The notable exceptions are management fraud issues, IPO-

status, and stock price information for publicly traded companies. Insurers do not request information on any of these items. We also find a strong interest by the insurer in CPA firm-specific risk factors that have not yet been fully examined in the literature perhaps due to the difficulty in collecting this data in the typical markets-based data banks. In general, insurers seem to focus much more on the firm's policies than on the firm's client base.

We found general consensus on the information being requested by insurers suggesting that a standard set of risk factors have been identified. In the cases where information is not uniformly requested across insurers, several possible explanations exist. First, in some cases, the information is available from public sources. Second, the information that could have been provided by an omitted question may be obtained from correlated data already collected. In such cases the insurer would only need to request one of the items. Finally, despite the apparent agreement on the value of some information, insurers may have different opinions on the value of other information.

The present paper's findings have ramifications to accounting litigation research. When there is correspondence between the factors accounting researchers deem important and the factors that insurers deem important, current litigation research has some verification from the insurance industry. When there is not correspondence between these factors, academic researchers should question why. We contend that insurers' requests for information on CPA firms, and the reduction in premiums associated with insurer-sponsored litigation education, indicate that there are at least some factors that accounting firms can control that reduce their exposure to litigation. In a broad sense, this contention is related to the commonly asked litigation question, "Do the merits matter?" Current accounting theory and related litigation models should consider the variables introduced in this study, since econometrically, a spurious result is possible if there is a correlated omitted variable (Kennedy 1985). In such a case, it may be falsely concluded that the statistical significance of a variable included in the model indicates an association with litigation risk, when in fact, the true association with litigation risk exists with the omitted variable. The reported statistical significance may be due to the shared variation in the two variables.

Limitations to the current study should be noted. The insurance application forms are the only source of information we use to assess litigation risk factors that insurers deem important.⁴ The insurer may request further information from the applicant prior to the issuance of the policy that this study did not capture. Further, while each information item requested by the insurer is assumed to be important, its relative importance is not known. Finally, the insurers analyzed in this paper represent a sizeable portion of the accountant's professional liability market, but do not insure the largest CPA firms. Risk factors for the Big 5 CPA firms and other large CPA firms may differ from the factors for smaller CPA firms. □

Suggestions for Future Research

Further research is needed to examine the significance of litigation risk factors identified in this study. Specifically, relatively little research attention has focused on the effects of firm-specific policies, yet the insurers appear to be concerned about these factors. A pricing model of insurance premiums needs to be developed and tested for accountant's professional liability insurance. This would establish the relative importance of the various factors requested by insurers. Finally, the insurers are actively promoting loss prevention seminars for their policyholders and often offer a premium reduction for those that attend. Have these seminars been effective in reducing litigation problems? What is being taught in these seminars? How much would insurers' suggested actions change the practice of the common CPA firm?

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Endnotes

1. The insurer may also invest the excess premiums. Most insurance companies maintain large portfolios of investments as reserves to be paid in the event of a legitimate claim. The profits from these investments are often a large component of the insurance company's overall profits.
2. To avoid a moral hazard problem, the insurance application form is prepared under the penalty of perjuries. In addition, the insurance company can cancel a policy or deny payment of a claim if the application includes erroneous information.
3. The finding that the client's proportion of audit firm's total revenue is significant may not be particularly informative, given how it is specified. A client that makes up a larger portion of firm revenue may be more likely to result in litigation, yet still be a less litigious client per dollar of revenue than the smaller client. The more relevant question is whether the client that provides, say ten percent of the revenue, is responsible for more than ten percent of the litigation of the firm.
4. During the collection of the insurance application forms, we had conversations with several insurance executives and actuaries. Many of their comments have been incorporated in this paper.

References

1. Alexander, J., "Do the Merits Matter? A Study of Settlements in Security Class Actions," *Stanford Law Review* (February), 497-598, 1991.
2. AICPA, *Audit Risk Alert—1995/96: General Update on Economic, Accounting, and Auditing Matters*, New York, NY, AICPA, 1995.
3. Arthur Andersen & Co., Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG Peat Marwick and Price Waterhouse, *The Liability Crisis in the United States: Impact on the Accounting Profession, A Statement Of Position*, Aug. 6, 1992.
4. Beasley, M., "Auditor Responsibilities Related To The Year 2000 Issue," *The CPA Journal* (April) 69 (4), 48-51, 1999.
5. Bonner, S., Z. Palmrose, and S. Young, "Fraud Type and Auditor Litigation: An Analysis of SEC Accounting and Auditing Enforcement Releases," *The Accounting Review* (October), 503-532, 1998.
6. Carcello, J., and Z. Palmrose, "Auditor Litigation and Modified Reporting on Bankrupt Clients," *Journal of Accounting Research* 32 (Supplement), 1-30, 1994.
7. Francis, J., D. Philbrick, and K. Schipper, "Shareholder Litigation and Corporate Disclosure," *Journal of Accounting Research* 32, 137-164, 1994a.
8. _____, "Determinants and Outcomes in Class Action Securities Litigation," University of Chicago working paper, 1994b.
9. _____, "Earnings Surprises and Litigation Risk," *Journal of Financial Statement Analysis* (Winter), 15-27, 1998.
10. Geoghan, P., "Stay Out of Court," *Journal of Accountancy* (September) 186 (3), 77-81, 1998.
11. Hays, D., "Program Insurers Say Secrecy is the Key," *National Underwriter* (February) 102 (6), 9, 28, 1998.
12. Kellogg, R., "Accounting Activities, Security Prices, and Class Action Lawsuits," *Journal of Accounting and Economics* (December), 185-204, 1984.
13. Kennedy, P., *A Guide to Econometrics*, The MIT Press, Cambridge, MA, 1985.
14. Kinney, J., Jr., "Auditors' Liability: Opportunities for Research," *Journal of Economics &*

- Management Strategy* (June), 349-360, 1993.
15. Latham, C. K., and M. Linville, "A Review of the Literature in Audit Litigation," *Journal of Accounting Literature* 17, 175-213, 1998.
 16. Lys, T., and R. Watts, "Lawsuits Against Auditors," *Journal of Accounting Research* 32 (Supplement), 65-93, 1994.
 17. Marino, S., and R. Marino, "An Empirical Study of Recent Securities Class Action Settlements Involving Accountants, Attorneys, And Underwriters," *Securities Regulation Law Journal* 22 (Summer), 115-174, 1994.
 18. Palmrose, Z., "Litigation and Independent Auditors: The Role of Business Failures and Management Fraud," *Auditing: A Journal of Practice and Theory* (Spring), 90-103, 1987.
 19. _____, "An Analysis of Auditor Litigation and Audit Service Quality," *The Accounting Review* (January), 55-73, 1988.
 20. _____, "The Joint and Several Liability Debate: An Empirical Investigation of Audit-Related Litigation," *Stanford Journal of Law, Business and Finance* (Fall), 53-74, 1994.
 21. _____, "Audit Litigation Research: Do the Merits Matter? An Assessment and Directions for Future Research," *Journal of Accounting and Public Policy* 16, 355-378, 1997.
 22. Rigos, J., "Statute of Limitations: A Primer," *Journal of Accountancy* (July) 188 (1), 24-5, 1999.
 23. Schultz, J. and S. Gustavson, "Actuaries' Perceptions of Variables Affecting the Independent Auditor's Legal Liability," *The Accounting Review* (July), 626-641, 1978.
 24. Simunic, D., and M. Stein., "The Impact of Litigation Risk on Audit Pricing: A Review of the Economics and the Evidence," *Auditing: A Journal of Practice and Theory* 15 (Supplement), 119-134, 1996.
 25. St. Pierre, K., and J. Anderson, "An Analysis of the Factors Associated With Lawsuits Against Public Accountants," *The Accounting Review* (April), 242-263, 1984.
 26. Stice, J., "Using Financial and Market Information To Identify Pre-Engagement Factors Associated With Lawsuits Against Auditors," *The Accounting Review* (July), 516-533, 1991.
 27. Summers, S. and J. Sweeney, "Fraudulently Misstated Financial Statements and Insider Trading: An Empirical Analysis," *The Accounting Review* (January), 131-146, 1998.

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