EMPIRICAL EVIDENCE ON AUDITORS' LEGAL LIABILITY CAP AND AUDIT QUALITY

Fatima A. Alali*

Abstract

The study examines the relationship between auditor legal liability cap and audit quality. Using a matched sample of 298 firm-year observations over the period 2001-2007, I provide evidence that limiting or reducing auditor's legal liability caps against clients as disclosed in the engagement letters is associated positively and significantly with audit fees, a measure of audit quality. This study also finds that liability firms are either very large or very small in size measured by total assets. Liability firms are less profitable, highly leveraged, audited by Big 4 auditors and are concentrated in the services, manufacturing, computer, and pharmaceutical industries. The results documented herein have important implications in the debate over auditor's legal liability reforms.

INTRODUCTION

A recent study by Dickey (2008) examines proposals for liability "caps" for auditors and proposes other ideas for mitigating the risk of loss of one of the Big 4 auditors. He provides that the demise of Arthur Andersen in 2002 is a lesson about where a single audit failure can lead. Critics of legal liability, Dickey (2008) indicates, allege that the government should not intervene

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* California State University Fullerton.

to save an auditor who has done a substandard audit but market forces should determine which auditor would survive. Advocate of legal liability, on the other hand, argue that the loss of one of the Big 4 auditors may lead to too few qualified auditors to serve the need of investors especially in a global competitive market. Dickey (2008, p4) indicates that "the populist need to "punish" accounting firms involved in financial frauds must be balanced against the realistic needs of the capital markets".

In 2008, the Committee on Capital Market Regulations, also known as the "Paulson Committee", identified the U.S. regulatory and litigation systems as one of the important causes of the decline in the U.S. capital markets (LaCroix 2008). Many speculated that the Paulson Committee would propose a litigation reform through capping liability or creating a safe harbor for auditors, as it had in its Interim Report. However, the final report was moderately and cautiously worded, (LaCroix 2008). Similarly, in 2007, the European Commission had a staff working paper to examine whether a liability reform is needed in European countries (LaCroix 2007). Both the Paulson Committee and the European Commissions' initiatives are motivated by concerns that losing one of the remaining Big 4 audit firms that is capable of auditing the largest companies would be harmful to the investors (LaCroix 2007). Latham and Linville (1998) indicate that the calls for auditor legal liability reform have been around since the late 1970s. Arens et al. (2008) indicate that lawsuits against auditors are often without merit.

Dickey (2008) shows that although there are many proposals for capping auditor's legal liability, there is no clear consensus across the different lobbying parties and Congress in the U.S. even though the European Union (EU) may adapt a liability restricting rules rather soon. He suggests continuous dialogue over liability reform. This study provides evidence on the relationship between auditors legal liability cap "limits" and audit quality. Although prior research has examined the relationship between auditor legal liability and audit quality (Choi et al. 2008; Francis and Wang 2008; Lee and Mande 2003; Schwartz 1998), due to

data unavailability, companies receiving auditor liability cap or ceiling have not been examined yet.

This study empirically tests whether including liability cap provisions in the engagement letters is associated with lower audit quality. Using a matched-sample of 298 firm-year observations over the period 2001-2007, there is a positive and significant association between disclosing auditor's liability cap and audit fees (where audit fees is a measure of audit quality).   After controlling for client risk factors, liability firms are positively and significantly related to audit fees, indicating that liability caps may not provide incentives on the part of the auditor to compromise on audit quality.

The study contributes to the debate over auditor's legal liability reforms by providing direct evidence on the relationship between auditor legal liability cap "limits" and audit quality. The most common source of lawsuits against auditors is from clients, (Arens et al. 2008). Dickey (2008) presents different proposals for auditor's legal liability reforms. However, practical observation indicates that auditors attempt to limit their potential liability to their clients in the engagement letters. For example, the author observes that auditors use such wordings such as: "agreement is subject to alternative resolution procedures and an exclusion of punitive damages".

Louwers et al. (2008, p610) state "a strict interpretation of this language indicates that the client is barred from bringing a suit against the auditor and would need to seek redress through mediation and arbitration. Further, it suggests that auditors would be liable only for compensatory damages and not the much more costly punitive damages". Louwers et al. also provide that although capping auditor's liability to clients has not been tested in legal settings; some negative publicity over these agreements have led auditors to exclude language related to "exclusion of punitive damages" in their engagement letters but still include language related to "alternative dispute resolution". In addition, Arens et al. (2008) indicate that although the amounts are small relative to third party lawsuits against the auditors and do not receive the same

publicity, limiting auditor's liability against clients causes as much reputation damage due to the perception of lower audit quality. Moreover, the study expands on research in this area by using hand-collected data on auditor's legal liability caps as opposed to proxies used in other studies such as actual litigation cases against auditors.

The study is organized as follows. The next section presents the literature review and hypothesis development. This is followed by a section describing data collection and research design and a section presenting the results of the study. The final section provides conclusions and limitations of the study.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Prior literature on the relationship between auditor's liability cap and audit quality is very scarce due to unavailability of data. However, prior studies do examine the relationship between audit quality and legal liability regimes and how changes in auditor's legal liability laws affect audit quality. Prior studies show a positive relationship between client litigation risk proxies and audit fees, (Simunic 1980; Pratt and Stice 1994; Carcello et al. 1995; Simunic and Stein 1996; Choi et al. 2008). These studies proxy for client litigation risk by leverage, low operating performance, occurrence of net loss in the past one to three years, levels of inventory and accounts receivable, existence of going concern opinion or ineffective internal control, and whether the client is in highly litigious industry (Choi et al. 2008). Prior studies show that legal liability regime affect auditor's behavior. For example, Balachandran and Nagarajan (1987) show that liability regimes (strict liability versus negligence) affect the level of due care chosen by the auditor. However, they show that this level of due care is moderated by the auditor's perception of the client's financial condition.

On the other hand, Schwartz (1998) argues that prior studies overstate the association between effort level and legal liability exposure that assume negligence regime with clear due

care rules. She shows that if courts did refer to the auditing standards to establish auditor's liability, auditor's commitment to auditing standards could not have been as credible. As such, Schwartz (1998) concludes that in a regime that auditing standards are used to determine negligence is not the same if a regime defines due care clearly or under strict liability rule.

Empirical studies also examine the relationship between auditor legal liability and audit quality. Thoman (1996) shows that increasing auditor's liability exposure is associated with an increase in audit effort or in a more conservative reporting. In an experimental setting, Yu (2001) examines whether changes in auditor's legal liability affect a client's investment decisions. Yu (2001) shows that when auditor's liability increases from low to medium, a client's new investments increase significantly and that when auditor liability increases from medium to high, client's new investments decrease significantly. They suggest that "adequate" auditor liability is needed to encourage or discourage new firm's investments. A similar study by Koch and Schunk (2009) also concludes that the effect of risk and ambiguity differ in different liability regimes and liability regimes as such should consider these risk and ambiguity provided.

De and Sen (2002) show that increased legal liability is associated with increased auditor's effort and audit accuracy but that increased legal liability reduces the demand for high quality audits (in part) because of the higher audit costs. Similarly, Lee and Mande (2003) examine the effect of changes in the legal environment in the post the Private Securities Litigation Reform Act of 1995 (PSLRA) on earnings management. They argue that because PSLRA reduced auditor's liability exposure from joint and several to proportionate liability, income-increasing accruals increased for Big 6 audit clients, and thus suggesting that the PSLRA reduced audit quality. In addition, Cahan and Zhang (2006) examine whether successor auditors required ex-Andersen clients to report more conservatively. They support their claims and interpret their results, as successor auditors perceived ex-

Anderson clients to be associated with higher litigation risk than their other clients.

Using multi-country data, Choi et al. (2008) develop a theory and provide empirical tests on how the legal regime of a country affects audit pricing and how audit pricing change as the legal regime changes across countries. They show that audit fees increase in countries where laws are strictly enforced, suggesting that auditors charge higher audit fees if they are more likely to bear legal liability in such countries. They show that this audit fees increase is more pronounced for Big 4 than non-Big 4 auditors. When there is a shift from weak to strong liability regimes, the spread in audit fees between Big 4 and non-Big 4 auditors narrows by higher increases in audit fees by non-Big 4 to compensate for the additional potential liability. Similarly, Francis and Wang (2008) examine the differences between Big 4 and non-Big 4 auditors in different legal liability regimes. Unlike Choi et al. (2008), they show the earnings quality of Big 4 clients increases in stricter legal regimes while earnings quality of non-Big 4 clients is unaffected. They use earnings quality as a measure of audit quality. They conclude that because non-Big 4 auditors have less to lose than Big 4 auditor, the quality of their audits will not change as legal regimes shift from weak to strong.

More recently, Irving et al. (2009) examine the relationship between liability cap provisions reported by Big N auditors and audit quality. Their results, using 157 firms over the period 2002-2006, show a significant negative relationship suggesting "the insurance view" of auditor's liability cap. Moreover, similar to this study, Irving et al. (2009) shows that liability caps are used when clients are riskier. Moreover, they show that Big 4 auditors retain their risky clients instead of dropping them, by executing liability cap provisions even though these clients are riskier than non-Big N clients. They indicate that auditor's liability cap may alter supply and concentration of audit services in the market.

Prior studies provide some evidence that increasing auditor's legal liability may provide incentives for the auditor to exert more effort, or improve audit quality. However, no published

study yet (to the best of the author's knowledge), has examined the effect of audit liability cap provisions on audit quality. As such, this study examines the relationship between auditor liability cap provisions as contracted for in the engagement letters and audit quality.

I hypothesize that auditors reduce their legal liability exposure by different measures including obtaining legal liability insurance or protecting themselves by including a liability cap provision in the engagement letter. This means that this liability cap will reduce an auditor's legal liability to clients. Thus, audit quality as measured by audit fees may decrease as a result of reduction in auditor's legal liability after controlling for the type of auditor and client specific risk. This implies a negative relationship between liability cap and audit quality. This negative relationship can be explained as in a competitive market, the extent to which a client provides concessions to auditors to reduce the auditor's liability, an auditor can reduce audit fees. Moreover, liability cap provisions may have negative publicity on many auditors; and, as a result, some auditors has removed or modified some of liability cap provisions (Louwers et al. 2008.) That is, a positive relationship between legal liability cap provisions and audit fees will indicate that auditors do not compromise on audit fees (and therefore audit efforts and audit quality). As such, limiting an auditor's liability to clients may not imply that auditors would compromise audit quality. This is because lawsuits against auditors brought by third parties are larger in amount and cause more reputation damage to the auditors than lawsuits brought by the clients, (Arens et al. 2008). Therefore, although limiting an auditor's liability to clients may lead to reduction in audit quality, the auditor's liability to a third party may compensate for reduction in audit quality and thus not affect audit quality or even positively affect audit quality. Another alternative explanation is that in a less competitive market, clients that grant auditor's liability concessions are associated with more bargaining power on the side of the auditor arguing for increased third party litigation risk and as such the auditor charges higher audit fees.

Thus, the hypothesis *H1* is not directional and is empirically tested to determine the direction of the relationship between liability cap provisions and audit quality. Therefore, *H1* is stated in the null form as follows:

H1: There is no relationship between liability cap provisions and audit fees.

DATA COLLECTION AND RESEARCH DESIGN

Data Collection

I obtain an initial sample of 207 firm-year observations that were disclosed in proxy statements provisions limiting auditor's legal liability. I use Lexis-Nexis Academic to look up SEC reports filed in the Edgar database. I use keywords such as:" alternative resolution disputes procedures", "limit or exclude punitive damages", "indemnify and hold harmless" or "limit or exclude punitive damages and other various provisions".

For example, Martin Marietta Materials, Inc. in their proxy statement DEF 14A filed April 10, 2006 for the 2006 meeting that was held on May 23, 2006 stated:

"Ernst & Young LLP served as the Corporation's independent auditors for 2005 and audited the consolidated financial statements of the Corporation for the year ended December 31, 2005 and the effectiveness of the Corporation's internal control over financial reporting as of December 31, 2005. In connection with the audit of the Corporation's 2005 financial statements, the Corporation entered into an engagement letter with Ernst & Young LLP that set forth the terms by which Ernst & Young LLP would perform audit services for the Corporation. *That agreement is subject to alternative dispute resolution procedures and an exclusion of punitive damages*." *italics added.*

Another example is Ryder System, Inc. In their SEC filings dated February 21, 2007, they stated:

"KPMG, our former auditors, have audited the consolidated balance sheet of Ryder System, Inc. and subsidiaries, as of December 31, 2005, and the related consolidated statements of earnings, shareholders' equity and cash flows for each of the years in the two-year period ended December 31, 2005, and the related consolidated financial statement schedule insofar as it relates to those years, included in our annual report on Form 10-K for the year ended December 31, 2006. *We have agreed to indemnify and hold KPMG harmless against and from any and all legal costs and expenses incurred by KPMG* in successful defense of any legal action or proceeding that arises as a result of KPMG's consent to the incorporation by reference of its audit report on the Company's past financial statements ..." *italics added.*

The search is done over the period January 21-March 12 2009. The SEC filings were searched to cover periods January 1, 1999- February 24, 2009. I selected this period to ensure that audit fee data are disclosed and are publicly available. This search resulted in the 207 firm-year observations. Of this sample, I retain only public firms that have all necessary Compustat Industrial data. I then merge the sample into Audit Analytics and delete firm-years for which audit fees are not available. These merging procedures reduced the initial sample to 149 firm-year observations for which relevant data is available. I call the test sample the "liability firms" sample. A matched control sample is constructed, using industry, fiscal year and firm size for which financial accounting and audit fee data are available. This resulted in a total sample of 298 firm-year observations covering the period 2001-2007. Table 1 provides the sample distribution by year and by legal liability cap provisions disclosed.

Table 1, panel A shows that liability-firm observations are distributed across the years under study with years 2005-2007 being more representative. Panel B shows liability firms by industry. Liability firms are more concentrated in high litigation risk industries; e.g. manufacturing, computers, services, and pharmaceuticals. Liability firms in these industries represent about 64.43 percent of the sample. Panel C presents the sample

distribution by type of liability cap disclosed. Liability firms (80 firms) disclosed in their proxy statements five different types of liability caps totaling 299 firm-year incidences. Both "alternative resolution disputes" and "limited or excluded punitive damages" provisions present about 47 percent of this total. Liability firms also disclosed nine incidences of "other provisions" with "alternative resolution disputes" and "limit or exclude punitive damages" provisions. There were nine incidences in which liability firms disclosed: "indemnify and hold harmless". Only one liability firm disclosed a provision indicating that "indemnify and hold harmless" also included language "did not extend to third parties". Liability firms disclosed, on average, 3.74 provisions per firm, and 42.7 provisions per year.

Panel D shows liability cap provisions by quintiles of total assets of liability firms. About 27 percent of total liability cap provisions are disclosed by large firms in the first top quintiles of the sample. Smaller firms in the bottom three quintiles disclosed on average 60 percent of total liability cap provisions. This difference may indicate that small or very large firms are perceived by auditors to be riskier, and therefore a liability cap provision is included in the engagement letter to protect the auditor's from the increased litigation risk. Panel E shows liability cap provisions by Big 4 and non-Big 4 auditors. Interestingly, 281 firm-year observations of liability cap provisions contracted for are by Big 4 auditors (about 94 percent) and only 18 firm-year observations of liability cap provisions involved non-Big 4 auditors (about 6 percent). Looking through the data, two of the Big 4; KPMG and Ernst and Young, drive this result. These statistics suggest that liability firms are historically in high litigious industries, audited by Big 4 and are either the smallest or largest firms.

Table 1
Sample Distribution
Panel A: Liability firms and control firms samples' distribution over 2001-2007

	Year		Total

LIABD	2001	2002	2003	2004	2005	2006	2007	
1	2	2	2	5	45	51	42	149
0	2	2	2	5	45	51	42	149
Total	4	4	4	10	90	102	84	298

Panel B: Liability firms by industry following Whisenant et al. (2003)

	SIC Industry Code	No. of liability firm-year obs.	% of liability firm-year obs.
Services	7000- 8999 excluding 7370-7379	28	18.79%
Durables Manufacturing	3000- 3999 excluding 3570-3579, 3670-3679	25	16.78%
Computers	7370-7379, 3570-3579, 3670-3679	24	16.11%
Pharmaceuticals	2830 - 2836	19	12.75%
Transportation	4000 – 4899	14	9.40%
Retail	5000 - 5999	8	5.37%
Financial & Insurance	6000- 6411	7	4.70%
Real estate	6500 - 6999	7	4.70%
Textile & printing/publishing	2200- 2799	6	4.03%
Utilities	4900 – 4999	5	3.36%
Extractive	2900-2999, 1300-1399	3	2.01%
Mining & construction	1000-1999 excluding 1300-1399	2	1.34%
Food	2000 – 2111	1	0.67%
Other	000-0999, 9000-9999	0	0.00%
Chemicals	2800-2824, 2840-2899	0	0.00%
Total		149	100.00%

Panel C: Liability cap provisions distribution by disclosed type

	No. of liability cap firm-year obs.	% reported by liability cap firm-year obs.

Alternative resolution disputes	140	46.82%
Limit or exclude punitive damage	140	46.82%
Indemnify and hold harmless	9	3.01%
Other provisions	9	3.01%
Does not extend to 3rd parties	1	0.33%
Total	**299**	**100.00%**
Average per 80 liability firm over 2001-2007	**3.7375**	

Panel D: Liability cap provisions distribution by total assets in quintiles

Quintiles	Total Assets (in millions)	No. of liability cap firm-year obs.	% reported by liability cap firm-year obs.
1	4.253-164.815	59	19.73%
2	165.0-512.843	57	19.06%
3	513.0-1356.528	63	21.07%
4	1357.0-3787	40	13.38%
5	>3787	80	26.76%
Total		**299**	**100.00%**

Panel E: Liability cap provisions by auditor

	Big 4	Non-Big 4
Alternative resolution disputes	131	9
Limit or exclude punitive damage	131	9
Indemnify and hold harmless	9	0
Other provisions	9	0
Does not extend to 3rd parties	1	0
Total	**281**	**18**

Research Design

The general audit fee model used in prior studies represents audit fees as a function of client size, client complexity, client risk and audit quality (Simunic 1980; Francis 1984; Craswell et al. 1995). Following prior research (Choi et al. 2008; Simunic 1980; Francis 1984; and Craswell et al. 1995), audit fees are used as a measure of audit quality. I control for client-specific fee determinants and estimate the following model:

$$FEE = \beta_0 + \beta_1 \, LIABD + \beta_2 \, SIZE + \beta_3 \, BUSSEG + \beta_4 GEOSEG + \beta_5 INVREC + \beta_6 LEV + \beta_7 ROA + \beta_8 BIG4 + \beta_9 LOSS + \beta_{10} OPINION + \beta_{11} SEC404 + \beta_{12} \, ICOP + \varepsilon$$
(1)

Where:

FEE:	natural logarithm of audit fees paid to the auditor
SIZE:	natural logarithm of total assets (Compustat data item 6)
BUSSEG:	natural logarithm of the number of business segments reported on the Compustat Segment Data File.
GEOSEG:	natural logarithm of the number of geographic segments reported on the Compustat Segment Data File.
INVREC:	ratio of the dollar value of inventory (item 3) plus the dollar value of accounts receivables (item 2) to total assets (item 6)
LEV:	sum of short-term debt (item 34) and long-term debt (item 9) to total assets (item 6)
ROA:	ratio of operating income after depreciation (item 178) to average total assets (item 6)
BIG4:	indicator variable equals to 1 if the firm's auditor is a Big 4, and 0 otherwise.
LOSS:	indicator variable that is equal to 1 if the firm reports negative income in any of the previous three years, and 0 otherwise

OPINION: indicator variable equal to 1 if the firm receives a going concern opinion, and 0 otherwise. A going concern is obtained from Audit Analytics going concern data set.

SEC404:   indicator variable that is equal to 1 if a firm is subject to Section 404 of SOX, 0 otherwise

ICOP: indicator variable equals to 1 if the firm receives an ineffective internal control opinion, and 0 otherwise. Internal control opinion is obtained from Audit Analytics Section 404 internal control data set.

LIABD: indicator variable equals to 1 if the firm disclosed in the engagement letter disclosed a liability cap provisions, and 0 otherwise. This item is hand-collected from proxy statements.

Audit fees are expected to be positively associated with firm size, complexity and risk. As in Simunic (1984), Choi and Wong (2007) and Choi et al. (2008), I include SIZE, INVREC, BUSSEG and GEOSEG to proxy for client size and client complexity. Following Simunic (1980), and Choi et al. (2008), I include LOSS, ROA and LEV to control for firm-specific litigation risk. A positive coefficient is expected on SIZE, INVREC, BUSSEG, GEOSEG, LOSS and LEV and a negative coefficient is expected on ROA. This is because as a firm becomes larger, more complex, diversified and geographically spread, and more leveraged, auditor may be required to exert more audit effort/ work, and thus leading to higher audit fees (Choi et al. 2008). To control for the increase in audit fees for firms, which are subject to Section 404 of Sarbanes Oxley, I include an indicator variable that is equal to 1 if a firm has reported under Section 404 in a particular year.

Prior research (e.g. Simunic 1980; Francis 1984; Craswell et al. 1995; Whisenant et al. 2003; Raghunandan and Rama 2006) also finds firms that receive going concern opinions or ineffective opinions on their internal controls over financial reporting are riskier than other firms. Thus, I also include OPINION and ICOP

to control for going concern opinion and ineffective internal control opinion, respectively. Positive coefficients on OPINION and ICOP variables are expected. In the reported tests, I also include year indicator variables to control for year-specific effects on audit fees. To control for the industry effects, I create indicator variables following Whisenant et al. (2003) as presented in the Table 1. However, due to small sample size and to allow for statistical estimation, one industry risk variable is created to control for the firms in high litigation industries. Following Francis et al. (1994), RISK Indicator is equal to 1 if a firm in one of the following SIC industry codes: 2833-2836, 8731-8734, 3570-3577, 7370-7374, 3600-3674, 5200-5961.

A negative coefficient on LIABD would indicate that liability firms have lower audit fees, and therefore auditor may compromise on audit quality when they know a priori that they are protected against inadequate audits in lawsuits against clients. On the other hand, a positive coefficient on LIABD would indicate that liability firms are associated with higher audit fees, thus suggesting that by including liability cap provisions in the engagement letters, auditors do not compromise on audit quality.

RESULTS
Descriptive Statistics

Table 2 reports the sample descriptive statistics for the model variables. The average audit fees are $2,453,936. The average client size measured by total assets is $6,323.60 million. The average natural log of audit fees (FEE) is 13.97. Furthermore, the average income scaled by total assets (ROA) is -4.92 percent, with average number of business segments 1.4 and geographic segments of 1.2. The average leverage of the sample firms is 52.76 percent and average accounts receivable and inventory is 17.76 percent. There are 29.19 percent of sample firms that incurred losses and 3.36 percent received a going concern opinion. By definition, 50 percent of the sample is categorized as liability firms. Big 4 auditors audit about 91 percent of the firms and about 96 percent of the sample is subject to Section 404 or is an

accelerated filer. About 5 percent of the sample received an adverse opinion (ineffective internal controls) on internal controls over financial reporting. The sample is, therefore, diverse in terms of total assets size, but it is dominated by accelerated filers that are less profitable, with high inventory and accounts receivable levels, with ineffective internal controls and that were audited by Big 4 auditors.

Table 2
Descriptive Statistics (N = 298)

	Mean	Std Dev	25th Pctl	Median	75th Pctl
Test Variable					
LIABD	0.5	0.5008	0	0.5	1
Control Variables					
AUDIT FEES	2453936	3662058	528000	1095290	254000
TOTAL					
ASSETS	6313.6000	22624.340	243.134	786.6985	3746.600
FEE	13.9748	1.2330	13.17685	13.9065	14.7477
SIZE	6.7484	1.9877	5.493613	6.6678	8.2286
BUSSEG	1.4128	0.7630	1.098612	1.3863	1.9459
GEOSEG	1.2538	0.9331	0	1.3863	1.9459
INVREC	0.1776	0.1707	0.0490	0.1299	0.2546
LEV	0.5276	0.3201	0.3029	0.4989	0.7071
ROA	-0.0492	0.3079	-0.0236	0.0423	0.0865
BIG4	0.9094	0.2875	1	1	1
LOSS	0.2919	0.4554	0	0	1
OPINION	0.0336	0.1804	0	0	0
SEC404	0.9597	0.4245	1	1	1
ICOP	0.0503	0.2190	0	0	0
RISK Indicator	0.3356	0.4730	0	0	0

LIABD: indicator variable equals to 1 if the firm disclosed in the engagement letter disclosed a liability cap provisions, and 0 otherwise. This item is hand-collected from proxy statements, FEE: natural

logarithm of audit fees paid to the auditor, SIZE: natural logarithm of total assets (Compustat data item 6), BUSSEG: natural logarithm of the number of business segments reported on the Compustat Segment Data File, GEOSEG: natural logarithm of the number of geographic segments reported on the Compustat Segment Data File, INVREC: ratio of the dollar value of inventory (item 3) plus the dollar value of accounts receivables (item 2) to total assets (item 6), LEV: sum of short-term debt (item 34) and long-term debt (item 9) to total assets (item 6), ROA: ratio of operating income after depreciation (item 178) to average total assets (item 6), BIG4: indicator variable equals to 1 if the firm's auditor is a Big 4, and 0 otherwise, LOSS: indicator variable that is equal to 1 if the firm reports negative income in any of the previous three years, and 0 otherwise, OPINION: indicator variable equal to 1 if the firm receives a going concern opinion, and 0 otherwise. A going concern is obtained from audit analytics going concern data item, SEC404:indicator variable that is equal to 1 if a firm is subject to Section 404 of SOX, 0 otherwise, ICOP: indicator variable equals to 1 if the firm receives an ineffective internal control opinion, and 0 otherwise. Internal control opinion is obtained from Audit Analytics Section 404 internal control data item. RISK indicator is equal to 1 if a firm in one of the following SIC industry codes: 2833-2836, 8731-8734, 3570-3577, 7370-7374, 3600-3674, 5200-5961, Francis et al. (1994).

Table 3 shows the descriptive statistics for liability firms and control firms. Total audit fees and FEE are significantly larger for liability firms than for the control sample. Liability firms are insignificantly larger in total assets than the control sample and are with a lower number of geographic and business segments (the differences are not statistically significant). Liability firms are significantly less profitable than for the control firms and are less likely to be accelerated filers and are more likely to be audited by a Big 4 auditor. Liability firms are also significantly highly leveraged than the control sample. These statistics show that on average liability firms pay higher audit fees, vary in size, are less geographically spread, are audited by the Big 4, and are less profitable than the matched control sample.

Table 3
Descriptive Statistics by Liability Firms and Control Firms

Variable	Liability Firms (N=149)					Control Firms (N=149)				
	Mean	Std Dev	Median	25th Pctl	75th Pctl	Mean	Std Dev	Median	25th Pctl	75th Pctl
AUDIT FEES TOTAL	2668664	3456013	1397010	579946	2662600	2239207**	3856823	908166	487265	2190620
ASSETS	6574.02	23409.11	789.053	243.134	4541.59	6053.18	21887.36	784.344	248.263	3152.04
FEE	14.1001	1.2559	14.1498	13.2707	14.7948	13.8495*	1.2008	13.7192	13.0966	14.5997
INVREC	0.1656	0.1593	0.1204	0.0584	0.2156	0.1895	0.1812	0.1408	0.0425	0.2775
ROA	-0.0454	0.2544	0.0346	-0.0236	0.0644	-0.05312*	0.3542	0.0540	-0.0159	0.1013
SIZE	6.8198	1.9735	6.6708	5.4936	8.4210	6.6769	2.0058	6.6648	5.5145	8.0558
BUSSEG	1.3441	0.8235	1.3863	0.6931	1.9459	1.4815	0.6932	1.3863	1.0986	1.9459
GEOSEG	1.2522	0.9104	1.3863	0	1.94591	1.2554	0.9584	1.3863	0.6931	1.9459

BIG4	0.9396	0.2390	1	1	1	0.8792**	0.327	1	1	1
SEC404	0.9396	0.3531	1	1	1	0.9799**	0.4859	1	1	1
LEV	0.4916	0.2929	0.4797	0.2916	0.7249	0.4533**	0.3451	0.5198	0.3113	0.6911
OPINION	0.0336	0.1807	0	0	0	0.0336	0.1807	0	0	0
ICOP	0.0336	0.1807	0	0	0	0.0671	0.2511	0	0	0

All variables are defined in Table 2.
 ***,** , *   indicates significance at 1%, 5% and 10% levels, respectively.

Table 4 presents Pearson and Spearman correlation matrices. I find a significant positive correlation between log of audit fees (FEE) and liability firms indicator (LIABD) and a significant positive correlation between FEE and the BIG4 variable. There are positive insignificant correlations between LIABD and size and between LIABD and leverage. Liability firms are positively and significantly correlated with BIG4. Therefore, the results show that on average, liability firms are larger, less profitable and are audited by Big 4. There is also significant positive correlation between the log of audit fee variable FEE and SIZE, BUSSEG, GEOSEG, INVREC, LEV, BIG4, OPINION, and ICOP at p-value =0.05 or better. In addition, there is significant negative correlation between FEE and ROA. I also find that SIZE is negatively and significantly correlated with LOSS and OPINION and positively and significantly correlated with ROA, LEV, INVREC, GEOSEG and BIG4.

Table 4
Spearman's (lower triangle) and Pearson's (upper triangle) Correlation Matrix

	LIABD	AUDIT FEES	TOTAL ASSETS	FEE	SIZE	BUSSEG	GEOSEG	INVREC	LEV	ROA	BIG4	LOSS	OPINION	SEC404	ICOP
LIABD	1.000	0.05873*	0.012	0.10178*	0.036	-0.090	-0.002	-0.070	-0.060	0.013	0.10521*	0.066	0.000	-0.048	-0.077
AUDIT FEES	0.127***	1.000	0.724***	0.77842***	0.65939***	-0.042	0.18256***	0.090	0.16352***	0.19162***	0.16664***	-0.15907***	-0.036	0.028	0.037
TOTAL ASSETS	0.032	0.77735***	1.000	0.43723***	0.54136***	-0.187***	0.030	-0.031	0.045	0.10916*	0.082	-0.146***	-0.051	0.015	-0.035
FEE	0.12729**	1.000	0.77735***	1.000	0.81081***	0.027	0.31032***	0.09838*	0.19095*	0.34828*	0.38293*	-0.248***	-0.12711**	0.07897**	0.1047*
SIZE	0.032	0.77735***	1.000	0.77735***	1.000	0.023	0.28246***	-0.008	0.14996***	0.5335***	0.41175***	-0.462***	-0.264***	0.058	0.029
BUSSEG	-0.079	0.056	0.087	0.056	0.087	1.000	0.234	0.1118**	0.16238***	0.11803**	0.031	-0.080	-0.035	0.029	0.069
GEOSEG	0.011	0.33867***	0.30136***	0.33867***	0.30136***	0.24427***	1.000	0.26002***	-0.084	0.3476***	0.019	-0.245***	-0.137**	0.1956***	0.1358**
INVREC	-0.044	0.21694***	0.066	0.21694***	0.066	0.17029***	0.36368***	1.000	0.054	0.23243***	-0.162***	-0.226***	-0.044	0.17988***	-0.025
LEV	0.031	0.25349***	0.29228***	0.25349***	0.29228***	0.20199***	-0.059	0.090	1.000	-0.145**	0.12359**	0.0996*	0.30524***	-0.083	-0.045
ROA	-0.122**	-0.26785***	0.43012***	-0.2678***	0.43012***	0.056	0.2886***	0.34474***	-0.144***	1.000	0.25563***	-0.652***	-0.486***	0.16743***	0.094
BIG4	0.10521*	0.32751***	0.34701***	0.32751***	0.34701***	0.054	0.018	-0.104*	0.16314***	0.11667**	1.000	-0.132**	-0.071	-0.140**	0.073
LOSS	0.066	0.258***	-0.473***	0.258***	0.473***	-0.101*	-0.236***	-0.274***	-0.034	-0.787***	-0.132**	1.000	0.2902***	-0.148***	-0.047
OPINION	0.000	-0.118**	-0.243***	-0.118**	-0.243***	-0.046	-0.132**	-0.042	0.16138***	-0.283***	-0.071	0.2902***	1.000	-0.070	-0.043
SEC404	-0.045	0.082	0.072	0.082	0.072	0.045	0.20872***	0.19005***	-0.034	0.19518***	-0.134**	-0.153***	-0.074	1.000	0.058
ICOP	-0.077	0.11107**	0.026	0.11107**	0.026	0.079	0.14247***	-0.003	-0.032	0.055	0.073	-0.047	-0.043	0.059	1.000

All variables are defined in Table 2.
***, **, * indicates significance at 1%, 5% and 10% levels, respectively.

Multiple OLS Regression Results

       Table 5 present the results of estimation of Equation (1) of FEE on LIABD and control variables. I find a significant positive coefficient of LIABD (p-value=0.01) indicating that liability firms that disclosed liability cap provisions are associated with higher audit fees than other firms in the sample. This result supports the claims that capping auditor's liability (to clients) may not be associated with lower audit quality. Therefore the null *H1* is rejected and the direction of the relationship is positive. Moreover, I find that larger firms (SIZE) are positively and significantly related to audit fees. GEOSEG is positive and significant (p-value = 0.01), INVREC is positive and significant (p-value=0.01), indicating that larger firms with complex geographically spread operations and inherently high risk due to higher levels of inventory and accounts receivable pay higher audit fees. Moreover, the coefficient of ROA is negative and significant at p-value = 0.05 and the coefficient of LOSS is positive and significant indicating that less profitable firms pay higher audit fees. This indicates that the less the profitable the firm is, the higher the audit fees are. The coefficient of BIG4 is positive and significant (p-value – 0.01) confirming the correlation results above. The coefficient of ICOP is positive and significant (p-value= 0.01) indicating that firms with ineffective internal controls over financial reporting pay higher audit fees. The coefficients of LEV, OPINION and SEC404 are positive but insignificant.

Table 5
Multiple OLS Regression Results

$FEE = \beta_0 + \beta_1 \text{ LIABD} + \beta_2 \text{ SIZE} + \beta_3 \text{ BUSSEG} + \beta_4 \text{GEOSEG} + \beta_5 \text{INVREC} + \beta_6 \text{LEV} + \beta_7 \text{ROA} + \beta_8 \text{BIG4} + \beta_9 \text{LOSS} + \beta_{10} \text{OPINION} + \beta_{11} \text{SEC404} + \beta_{12} \text{ ICOP} + \varepsilon$

	Coeff.	t Value	Pr > |t|
Intercept	8.66456	20.91	<.0001
LIABD	**0.18572**	**2.43**	**0.0107**
SIZE	0.53778	19.88	<.0001

BUSSEG	0.04722	0.83	0.4076
GEOSEG	0.11398	2.32	0.0209
INVREC	1.00535	4.04	<.0001
LEV	0.09748	0.71	0.4810
ROA	-0.42836	-2.17	0.0305
BIG4	0.41193	2.71	0.0072
LOSS	0.36606	3.21	0.0015
OPINION	0.21954	0.87	0.3873
SEC404	0.11230	1.2	0.2325
ICOP	0.49378	2.82	0.0052
RISK Indicator	0.06389	0.67	0.5060
Year Indicators	Included		
N		298	
Adj. R-Sq.		72.66%	
F value (Pr > F)		42.55 (<0.0001)	

All variables are defined in Table 2.
Bold text indicates variable of interest.

Additional Tests

Palmrose et al. (2004) show that audit fees increase when a client reports a fraud, irregularities or misrepresentations. I therefore investigate if any of the firms in the sample were involved in fraud, irregularities or misrepresentation. I find none of the companies has reported such frauds or irregularities. Whisenant et al. (2003) show that audit fees are an increasing function of client restatements in the current year. I obtain restatement data and reasons of restatements from Audit Analytics. The main results also hold if I include an indicator variable and if a client restated its net income or assets for other than accounting principle changes or adoption of new standards during the current fiscal year (Whisenant et al. 2003). Although the coefficient of LIABD stays

significantly positive (not reported) at conventional levels (p-value =0.02), the restatement variable is positive but insignificant. This result can be explained by the fact that only 1.68 percent of the sample (5 firm-year observations) have reported restatements.

SUMMARY AND CONCLUSIONS

The study examines the relationship between auditor liability cap provisions as contracted for in the engagement letters and audit quality, after controlling for client characteristics. I use a matched test-control sample of 298 firm-year observations of public companies that disclose auditor liability cap provisions in their proxy statements over the period 2001-2007. Descriptive findings show that liability firms vary in terms of size, are highly leveraged, less profitable, audited by Big 4 and are concentrated in high litigation industries. More importantly, I find a positive and significant relationship between firms that disclosed liability cap provisions and audit fees. The results indicate that an auditor may not compromise on audit quality when the legal liability exposure is limited or capped. Because all firms in my sample are publicly traded, this result may indicate that capping liability in potential lawsuits from clients do not comprise audit quality because the auditor still may have to face potential legal liability in case of audit failure in lawsuits brought by third parties.

Although this study provides evidence on the relationship between auditor legal liability cap provisions and audit quality, the study does not test directly the relationship between liability cap provisions in lawsuits from third parties and audit quality. As a result, it is possible that legal liability reforms may have different impacts on the auditor's liability to third parties. This conjecture, however, may not be empirically testable due to unavailability of legal/contractual evidence indicating that such practice may even exist.

The study contributes to the debates over auditor's legal liability reforms and it extends research on auditor's legal liability, litigation and financial statement reliability and audit quality. The study shows that capping or limiting auditor's liability is positively

and significantly related to audit quality. The study also provides that liability cap provisions are associated with high-risk clients. However, the study has one main limitation. The sample size is small and therefore it may lack external validity, so that documented results may not be generalizable to the population of legal liability firms. It is also debatable whether the results of the study can be generalized to the effect of liability cap provisions on third parties and whether such provisions affect audit quality.

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