



## Review of Accounting and Finance

The contextual nature of the association between managerial ability and audit fees

Yutao Li, Yan Luo,

### Article information:

To cite this document:

Yutao Li, Yan Luo, (2017) "The contextual nature of the association between managerial ability and audit fees", Review of Accounting and Finance, Vol. 16 Issue: 1, pp.2-20, doi: 10.1108/RAF-01-2016-0012

Permanent link to this document:

<http://dx.doi.org/10.1108/RAF-01-2016-0012>

Downloaded on: 03 May 2017, At: 04:33 (PT)

References: this document contains references to 28 other documents.

To copy this document: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)

The fulltext of this document has been downloaded 228 times since 2017\*

### Users who downloaded this article also downloaded:

(2017), "Effect of audit and compensation committee membership overlap on audit fees", Asian Review of Accounting, Vol. 25 Iss 1 pp. 34-57 <http://dx.doi.org/10.1108/ARA-12-2014-0128>

(2017), "The impact of Big 4 consulting on audit reporting lag and restatements", Managerial Auditing Journal, Vol. 32 Iss 1 pp. 19-49 <http://dx.doi.org/10.1108/MAJ-02-2016-1321>



Access to this document was granted through an Emerald subscription provided by emerald-srm:374341 []

### For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit [www.emeraldinsight.com/authors](http://www.emeraldinsight.com/authors) for more information.

### About Emerald [www.emeraldinsight.com](http://www.emeraldinsight.com)

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

\*Related content and download information correct at time of download.

# The contextual nature of the association between managerial ability and audit fees

Yutao Li

*Department of Management – Accounting, University of Lethbridge,  
Lethbridge, Canada, and*

Yan Luo

*Charles W. Lamden School of Accountancy, San Diego State University,  
San Diego, California, USA*

Received 27 January 2016  
Revised 15 March 2016  
9 May 2016  
24 June 2016  
Accepted 6 July 2016

## Abstract

**Purpose** – This study examines whether auditors' pricing decisions on managerial ability are affected by auditor litigation risk (financial distress or financial crisis), auditor's familiarity with their client or regulatory changes in the post-Sarbanes–Oxley Act of 2002 (SOX) era.

**Design/methodology/approach** – Building on the extant audit fee literature, this study constructs an audit fee determinants model to examine how context affects auditors' pricing of managerial ability.

**Findings** – Auditors offer a larger fee discount to more able client management teams when auditors face lower litigation risks or are more familiar with the client. Furthermore, managerial ability has a more pronounced effect on audit fees in the post-SOX era when managers are mandated to play more active roles in financial reporting (i.e. certification of financial statements required by SOX 302).

**Research limitations/implications** – Based on the audit risk model (Simunic, 1980), [Krishnan and Wang \(2015\)](#) show that the managerial ability of an audit client is relevant and important to auditors' pricing decisions. This study demonstrates that managerial ability exhibits a non-linear relationship with audit fees and contextual factors, such as litigation risk, and that auditors' familiarity with managers can alter the negative association between audit fees and managerial ability. This study extends Krishnan and Wang's study by offering additional insights into auditors' use of soft information such as managerial ability. Furthermore, the findings add to the literature on the impact of SOX on audit fees by suggesting that SOX has not only increased overall audit fees ([Ghosh and Pawlewicz, 2009](#); [Huang et al., 2009](#)), it has also increased auditors' price sensitivity to soft information (e.g. managerial ability).

**Practical implications** – This study provides insights for audit firms and client companies who are interested in understanding audit fee-pricing decisions. The findings also suggest that auditors need to be sensitive and responsive to various contextual factors when making pricing decisions.

**Originality/value** – Previous studies have not addressed the non-linear relationship between audit fees and soft information about managerial ability.

**Keywords** Litigation, SOX, Audit fees, Pricing, Familiarity, Managerial ability

**Paper type** Research paper

## 1. Introduction

[Simunic's \(1980\)](#) seminal audit risk model, which has been strongly supported by empirical studies in the recent three decades (see the audit fee literature reviewed in [Hay et al., 2006](#)), suggests that audit fees are determined by auditors' efforts in response to their assessments



of audit risks. [Krishnan and Wang \(2015\)](#) argue that managerial ability mitigates auditors' engagement risk through two channels: by improving earnings quality and/or by reducing the risk of a client's business failure. This risk reduction can result in lower audit fees. In their study, Krishnan and Wang provide empirical evidence that auditors do incorporate soft information about managers' ability into audit pricing, where managerial ability is defined as a management team's ability to transform corporate resources into revenues, and it can be measured by the managerial ability score recently developed by [Demerjian \*et al.\* \(2012\)](#).

This study examines the non-linear relationship between audit fees and managerial ability and argues that managerial ability might affect the perceived audit risk differently in various contexts. For example, when client firms face higher litigation risk, would managers' ability still reduce the perceived audit risk? When auditors are less familiar with clients, would they still grant a discount to a more able management team? These are interesting and important questions because the US principle-based auditing standards only provide general guidelines on how soft information, such as managerial ability, should be incorporated into risk assessment, audit planning, and pricing models (see Generally Accepted Auditing Standards AU 12.10, 12.13; AU 312.60 in [AICPA, 2006](#); [PCAOB, 2010](#)), leaving the incorporation of soft information into pricing decisions largely at the auditors' discretion. Hence, understanding how contexts modify and how managerial ability is priced is important in accounting research, as suggested by [Libby and Luft \(1993\)](#).

Extending Krishnan and Wang's work, this study focuses on the contextual nature of the association between managerial ability and audit fees and examines the contexts in which managerial ability is likely to have a more or less pronounced effect on audit fees. This study tests the moderating effects of the following three contextual factors on the association between managerial ability and audit fees: auditor litigation risk, familiarity of auditors with their clients and changes in the US regulatory environment. First, when a client is in financial difficulty and auditors face higher litigation risk, auditors may be less willing to offer a fee discount to the client, even one with more able managers. Second, auditors are likely to put more weight on managerial ability if they are more familiar with the client and, due to a long auditor-client relationship, have more confidence in managers' ability to transform corporate resources into revenues. Third, managerial ability may have a more pronounced effect on audit fees in the post-Sarbanes-Oxley Act of 2002 (SOX) era, as under this regime managers take more active roles in financial reporting (e.g. certification of financial statements is mandated in SOX 302). Collectively, these hypotheses predict that managerial ability is likely to have a more pronounced effect on audit fees in less litigious contexts, in longer auditor-client relationships and in the post-SOX era.

Our empirical tests of the impact of these contextual factors on the associations between managerial ability and audit fees examine the interactive effect between managerial ability and proxies for litigation risk and auditors' familiarity with their clients. Going concern status, operating losses and the 2008 financial crisis are proxies for litigation risk, and auditor tenure is a proxy for auditors' familiarity with clients. To investigate the effect of regulatory changes on auditors' pricing of managerial ability, this study examines whether the price discounts given by auditors change in the post-SOX period. The analysis of a sample of 41,812 firm-year observations representing 6,378 unique firms for the 2001 to 2012 period shows that managerial ability plays a more significant role in audit pricing when auditors face a lower litigation risk, are more familiar with their client through a long-term auditor-client relationship and in the post-SOX era[1].

Our findings support the notion that auditors' pricing decisions are strongly influenced by contextual factors and that such contextual features must be considered in studies of the determinants of audit fees. Furthermore, by identifying the particular contexts in which

managerial ability has a stronger or weaker effect on audit fees, this study provides further evidence for the association between managerial ability and audit fees documented in [Krishnan and Wang \(2015\)](#). Our findings also add to the literature on the impact of SOX on audit fees by suggesting that SOX not only increases overall audit fees ([Ghosh and Pawlewicz, 2009](#); [Huang et al., 2009](#)), but also increases auditors' price sensitivity to soft information (e.g. managerial ability). For practitioners, our findings suggest that it is important for auditors to be sensitive and responsive to these contextual features during fee negotiations.

The rest of this paper is organized as follows. The next section develops the hypotheses. This is followed by a discussion of the sample selection and research methods. The results are presented in the following section. This paper ends with a discussion of the findings and conclusions.

## 2. Literature review and hypotheses development

Based on the audit risk model ([Simunic, 1980](#)), [Krishnan and Wang \(2015\)](#) document that the managerial ability of an audit client is relevant and important to auditors' pricing decisions, because managerial ability reduces audit engagement risk by improving earnings quality and/or by reducing the risk of business failure. In addition to the audit risk model, the analytical and behavioral models for negotiation ([Antle and Nalebuff, 1991](#); [Gibbins et al., 2001](#); [Salterio, 2012](#)) suggest that auditors' pricing of audit risk factors is an outcome of auditor and client negotiation, and that contextual features affect auditors' incentives to compromise in the fee negotiation (i.e. to offer a fee discount for factors that lower audit risk). The combination of the audit risk and negotiation models provides the framework for this study. In particular, the audit risk model examines the *direction and magnitude* of the impact of audit risk factors on audit fees, whereas the negotiation model identifies how the contextual factors influence the *sensitivity* of auditors to risk factors in their fee negotiations. This study examines the contextual factors that potentially affect auditors' pricing of managerial ability to gain a better understanding of the effect of managerial ability on auditing fees.

The first step is to investigate the moderating effect of litigation risk on the relationship between audit fees and managerial ability. Litigation risk increases with deteriorating operational performance or financial distress, which is also one of the major reasons for lawsuits against auditors ([Carcello and Palmrose, 1994](#); [Lys and Watts, 1994](#); [Krishnan and Krishnan, 1997](#)) and "provides plaintiffs with an incentive, i.e. the incurrence of losses, to attempt to recover from whoever has the 'deepest pocket', such as the auditors" ([Stice, 1991](#), p. 521). Moreover, both a client's deteriorating operational performance and financial distress increase the risk of material misstatement, leading to restatement and even audit failures ([Kinney and McDaniel, 1989](#); [Kreutzfeldt and Wallace, 1986](#); [Lys and Watts, 1994](#)), and restatement is another major reason for lawsuits against auditors ([Lin et al., 2013](#))[2].

A macroeconomic downturn may also heighten litigation risk and affect companies' operations and financial reporting, which in turn affect auditors' incentives to offer a fee discount. Previously identified audit risks may become more significant or new risks may arise in an economic downturn (e.g. credit risk and liquidity risk). For example, the uncertainties in the market and economy during a recession may raise more questions about the valuation, impairment or recoverability of certain assets and the completeness or valuation of certain liabilities reflected in financial statements ([PCAOB, 2008, 2011](#)).

Based on these arguments, the prediction is that auditors are less willing to offer a fee discount for better managerial ability to firms experiencing financial difficulty or operating in challenging economic environments for two reasons. First, client's financial distress or challenging macroeconomic conditions increase auditors' litigation risk, because auditors

would have greater difficulty defending against lawsuits by investors and creditors when a client fails financially (Raghunandan and Rama, 1995) or when audit failure (i.e. failure to modify audit opinion when there is material misstatement) is identified by regulators (see Accounting and Auditing Enforcement Releases by USA Securities and Exchange Commission, SEC hereafter). Second, the concern over management's inability to mitigate financial distress caused by poor operational performance or an economic downturn may lower the auditor's confidence in the managers' ability to transform corporate resources into revenues and profitability. Together, these hypotheses predict that managerial ability is likely to have a less pronounced effect on audit pricing in the more litigious environments caused by financial distress in a company's operations or by an economic downturn. Stated in an alternate form, the litigation risk hypotheses are as follows:

- H1a.* The negative association between managerial ability and audit fees is likely to be weaker for clients receiving a going concern opinion than for clients not receiving a going concern opinion.
- H1b.* The negative association between managerial ability and audit fees is likely to be weaker for clients incurring an operational loss than for clients not incurring an operational loss.
- H1c.* The negative association between managerial ability and audit fees is likely to be weaker in the aftermath of a financial crisis than before a financial crisis.

Our second hypothesis investigates the moderating effect of auditors' familiarity with their clients on the association between managerial ability and audit fees. A long-term auditor-client relationship increases client-specific knowledge including knowledge of managers' ability (Knapp, 1991; Johnson *et al.*, 2002). Hence, auditors in a long-term client relationship are in a better position to understand and assess management ability, resulting in stronger incentives to offer a fee discount to clients with higher managerial ability. Stated in alternative form, the familiarity hypothesis is as follows:

- H2.* The longer an auditor-client relationship, the stronger the negative association between managerial ability and audit fee.

The passage of SOX has dramatically changed the regulatory environment for management and auditors (e.g. public oversight by PCAOB). First, a company's principal executive and financial officers are required by SOX Section 302 to certify their company's financial statements. Under such expanded responsibility for financial reporting, managerial ability may have a stronger effect on engagement risk and this may be priced in audit fees to a great extent in the post-SOX era. Second, as audits are more complex in the post-SOX era (Kim *et al.*, 2014; Jha and Chen, 2015), the incremental value of soft information (such as managerial ability) is likely to be greater than in relatively simple auditing environments (e.g. pre-SOX era) (Jha and Chen, 2015). Therefore, there should be a stronger negative association between managerial ability and audit fees in the post-SOX era. Accordingly, it is likely that managerial ability will have a more pronounced effect on audit pricing in the post-SOX era. Stated in alternative form, the SOX hypothesis is as follows:

- H3.* The negative association between managerial ability and audit fees is likely to be stronger in the post-SOX era than in the pre-SOX era.

### 3. Research methods

This study examines whether the effect of managerial ability on audit fees varies with litigation risk, auditor-client familiarity or regulatory environment. To test the hypotheses,

the following regression of the audit fee determinants model, pooled over the entire sample period (2001-2012), is estimated[3]:

$$\begin{aligned}
 LOGAF_{i,t} = & \alpha_0 + \alpha_1 MA\_RANK_{i,t} + \alpha_2 CONTEXT_{i,t} \\
 & + \alpha_3 MA\_RANK_{i,t} \times CONTEXT_{i,t} + \alpha_4 LEV_{i,t} + \alpha_5 EVOL_{i,t} + \alpha_6 GC_{i,t} \\
 & + \alpha_7 LITIGATION_{i,t} + \alpha_8 ROA_{i,t} + \alpha_9 LOSS_{i,t} + \alpha_{10} MTB_{i,t} + \alpha_{11} RS_{i,t} \\
 & + \alpha_{12} SIZE_{i,t} + \alpha_{13} RECIVN_{i,t} + \alpha_{14} BUSSEG_{i,t} + \alpha_{15} GEOSSEG_{i,t} + \alpha_{16} LAG_{i,t} \\
 & + \alpha_{17} TANG_{i,t} + \alpha_{18} SI_{i,t} + \alpha_{19} BIGN_{i,t} + \alpha_{20} BUSY_{i,t} + Year\ Fixed\ Effect \\
 & + Industry\ Fixed\ Effect + \varepsilon
 \end{aligned} \quad (1)$$

where the dependent variable *LOGAF* denotes the natural logarithm of audit fees. Following Demerjian *et al.* (2012), a variable, *MA\_RANK*, which is the decile rank of managerial ability score by year and industry, is used to make the management score more comparable across time and industry. Based on Krishnan and Wang (2015), the sign for  $\alpha_1$  should be negative. That is, better managerial ability, as it lowers engagement risk, will be associated with lower audit fees. *CONTEXT* is the placeholder for the proxies for litigation risk, auditors' familiarity with their clients and regulatory changes in SOX.

Three variables are used to proxy for firms' litigation risk. The first variable, *GC*, is set to one if the firm receives a going concern opinion, and zero otherwise. The second indicator variable, *LOSS*, is set to one if net income is negative, and zero otherwise. The third indicator variable, *CRISIS*, is set to one for firm-year observations from the 2008-2009 period, and zero for observations from the 2005-2006 period. The interaction term between managerial ability (*MA\_RANK*) and litigation risk (*GC*, *LOSS*, *CRISIS*) is the variable of interest in equation (1). *H1* predicts a positive coefficient on the interaction term, suggesting that the fear of litigation risk will weaken an auditor's incentive for offering a fee discount to clients with more able management teams.

To test the familiarity hypothesis, auditor tenure is used to proxy for an auditor's familiarity with the client, where auditor tenure is the number of years the auditor has been retained by the client. The auditor-client relationship is designated as long tenure if the auditor tenure is greater than the sample median. *LTENURE* is set to one if a sample firm is audited by a long-tenure auditor, and zero otherwise. The variable of interest is the interaction term between *MA\_RANK* and *LTENURE*; *H2* predicts a negative coefficient on this variable, indicating that auditors offer a greater fee discount for managerial ability when they have had a business relationship with the client for multiple years.

The SOX effect hypothesis is tested by partitioning the sample using an indicator variable, *SOX*, which is set to one if the firm-year observation is from the 2004-2005 period, and zero if the firm-year observation is from the 2001-2002 period. According to the hypothesis,  $\alpha_3$  will be significantly negative, as the regulatory changes implemented in the post-SOX period significantly increase auditors' reliance on managerial ability in the determination of auditing fees.

Many determinants of audit fees have been identified in previous studies (Hay *et al.*, 2006); they are controlled for in this study[4]. First, eight proxies are used to control for audit risk: leverage ratio, defined as the total long-term debt over total assets (*LEV*); standard deviation of quarterly earnings before extraordinary items scaled by total assets for the 12 quarters before the current fiscal year (*EVOL*); going concern reservation, set equal to one if the auditee received a going concern opinion in the current fiscal year, and zero otherwise (*GC*); industry-related exposure to litigation, captured by an indicator variable set equal to one if the client's primary Standard Industrial Classification (SIC) code is one of the following:

2,833-2,836; 3,570-3,577; 3,600-3,674; 5,200-5,961; or 7,370-7,374; and zero otherwise (*LITIGATION*); return on assets, defined as net income divided by total assets (*ROA*); current year's loss, set equal to one if the firm reported a loss in the current year, and zero otherwise (*LOSS*); the auditee's growth potential, measured by market-to-book ratio (*MTB*); and restatement, set equal to one if the firm restates its financial statement in the year, and zero otherwise (*RS*).

Second, audit complexity is captured in eight ways:

- (1) auditee size, given by the natural logarithm of the firm's total assets (*SIZE*);
- (2) the sum of total receivables and total inventory divided by average total assets (*RECINV*);
- (3) the number of business segments (*BUSSEG*) in the firm;
- (4) the number of geographic segments (*GEOSEG*) in the firm;
- (5) the reporting lag (*LAG*), defined as the number of days between the fiscal year-end and the auditor's report signing date;
- (6) the proportion of total assets made up of tangible assets – property, plant, and equipment (*TANG*);
- (7) special items (*SI*), defined as a dummy variable equal to one if the firm has non-zero, non-missing special items, and zero otherwise; and
- (8) SOX-accelerated filer status (*ACC\_FILER*), defined as an indicator variable equal to one if the firm is an accelerated filer and thus is mandated to have its internal control audited, and zero otherwise.

Third, two indicator variables are controlled for: *Big N*, defined as a dummy variable equal to one if the firm retains a *Big N* auditor, and zero otherwise; and *BUSY*, set to one if the firm's fiscal year end is December, and zero otherwise.

Based on prior research, *LOGAF* is expected to be positively related to *LEV*, *EVOL*, *GC*, *LITIGATION*, *LOSS*, *MTB*, *RS*, *SIZE*, *RECINV*, *BUSSEG*, *GEOSEG*, *LAG*, *SI*, *BIGN* and *BUSY*, but negatively associated with *ROA* and *TANG*. As the sample firms (discussed in the next section) are drawn from many industries over multiple years, both *Year* and *Industry* fixed effects are controlled. The former group consists of 12 indicator variables set to one if an observation comes from the fiscal years 2001-2012, and zero otherwise. The latter group includes seven indicator variables set to one if the first digit of the firm's SIC code is 1, 2, 3, 4, 5, 7 or 8, and zero otherwise. All of the variable definitions and measurements are summarized in the [Appendix](#).

#### 4. Data and sample selection

SEC rules requiring the disclosure of audit fees are effective for proxies filed on or after February 5, 2001 ([SEC, 2001](#)). Audit fees, audit opinions, incidence of financial restatements and audit firm identification data for the 2001-2012 period are obtained from Audit Analytics. Firms' accounting and financial data are obtained from the annual Compustat database. Managerial ability data is obtained from [Demerjian et al. \(2012\)](#)[5]. [Table I](#) summarizes the sample selection procedures.

The descriptive statistics for the variables are reported in [Table II](#). The mean audit fees and total assets are US\$433 thousand and US\$178 m, respectively. In the sample, about 70 per cent of the firm-year observations are accelerated filers and half of the sample firms are audited by *Big N* auditors. About 43 per cent of the companies incur operational losses and



10 per cent of the firm-year observations receive going concern opinions. The correlation matrix is reported in [Table III](#).

### 5. Results

The results for the tests of the effects of litigation risk on auditors' pricing of managerial ability are reported in [Table IV](#). Panels A-C present the results for the regression using going concern opinions (*GC*), operating losses (*LOSS*) and financial crisis (*CRISIS*) as proxies for heightened litigation risk, respectively. In general, the results are consistent with *H1*. Specifically, in Panel A, the sample is first split into two subgroups according to whether a firm receives a going concern opinion, and then the effect of managerial ability on audit fees

**Table I.**  
Sample selection

	No. of firm – year observations	No. of unique firms
Audit Analytics: audit fees 2001-2012	150,372	24,672
Merge with Compustat	88,791	12,701
Merge with <i>MA_RANK</i> sample	55,256	8,523
Removing financial and regulated firms (SIC1 = 6 or SIC1 = 4)	50,171	7,721
Require all regression variables available	41,812	6,378

Variable	Mean	SD	p25	p50	p75
<i>LOGAF</i>	12.980	1.526	11.868	12.964	14.039
<i>MA_SCORE</i>	0.543	0.282	0.300	0.500	0.800
<i>ROA</i>	-0.219	1.034	-0.130	0.019	0.074
<i>LEV</i>	0.302	0.704	0.006	0.153	0.336
<i>LOSS</i>	0.427	0.495	0	0	1
<i>SIZE</i>	5.184	2.542	3.522	5.257	6.912
<i>MTB</i>	2.540	7.771	0.960	1.834	3.365
<i>BUSSEG</i>	1.616	0.694	1.386	1.386	2.303
<i>GEOSEG</i>	1.599	0.976	1.099	1.609	2.303
<i>EVOL</i>	0.120	0.458	0.010	0.023	0.061
<i>RECIINV</i>	0.275	0.205	0.112	0.240	0.394
<i>TANG</i>	0.232	0.225	0.061	0.151	0.330
<i>LIT</i>	0.410	0.492	0	0	1
<i>SI</i>	0.624	0.484	0	1	1
<i>BUSY</i>	0.670	0.470	0	1	1
<i>LAG</i>	118.706	73.118	88	103	119
<i>BIG4</i>	0.456	0.498	0	0	1
<i>BIG5</i>	0.513	0.500	0	1	1
<i>RS</i>	0.128	0.334	0	0	0
<i>GC</i>	0.105	0.306	0	0	0
<i>ACC_FILER</i>	0.706	0.455	0	1	1
<i>SPE</i>	0.242	0.428	0	0	0
<i>TENURE</i>	9.340	7.695	4	7	12

**Notes:** This table presents the descriptive statistics for the variables used in the main regressions; this table presents the distributions of the variables; the sample spans the 2001-2012 period and excludes financial and regulated industries; all continuous variables are winsorized at their 1 and 99 percentiles; variable definitions are presented in the [Appendix](#)

**Table II.**  
Descriptive statistics

	LOGAF	2	3	4	5	6	7	8	9	10
2	<i>MA_SCORE</i>	1								
3	<i>ROA</i>	0.045***	1							
4	<i>LEV</i>	0.034***	-0.604***	1						
5	<i>LOSS</i>	-0.256***	-0.340	0.1796	1					
6	<i>SIZE</i>	0.860***	0.450***	-0.2965	-0.4304	1				
7	<i>MTB</i>	0.031***	0.115***	-0.1353	-0.0414	0.0449	1			
8	<i>BUSSEG</i>	0.195***	0.110***	-0.0719	-0.1372	0.2134	0.0036	1		
9	<i>GEOSEG</i>	0.436***	0.233***	-0.1694	-0.2162	0.4181	0.0022	0.2249	1	
10	<i>EYOL</i>	-0.266***	-0.548***	0.3719	0.1997	-0.3615	-0.0397	-0.0959	-0.2101	1
11	<i>REGINV</i>	-0.050***	0.080***	-0.0329	-0.1831	-0.068	-0.0238	0.0692	0.0885	-0.0372
12	<i>TANG</i>	0.054***	0.064***	0.0528	-0.0843	0.2037	-0.0268	-0.0094	-0.0505	-0.0522
13	<i>LIT</i>	-0.063***	-0.069***	-0.0244	0.1518	-0.1174	0.0256	-0.0835	-0.0209	0.0301
14	<i>SI</i>	0.297***	0.014***	0.0121	0.0637	0.2407	-0.0303	0.0609	0.1477	-0.0384
15	<i>BUSY</i>	0.068***	-0.013***	0.0324	0.0425	0.0549	0.0154	-0.0185	0.0063	0.0271
16	<i>LAG</i>	-0.170***	-0.095***	0.0647	0.1472	-0.1864	-0.0308	-0.0365	-0.0684	0.0753
17	<i>BIG4</i>	0.379***	0.166***	-0.1172	-0.1705	0.4023	0.0231	0.0727	0.2299	-0.162
18	<i>BIG5</i>	0.325***	0.168***	-0.1284	-0.1351	0.3699	0.0215	0.0532	0.1607	-0.1738
19	<i>RS</i>	-0.013**	0.020***	-0.0139	-0.0013	0.0011	0.0055	0.0454	0.0105	-0.0179
20	<i>GC</i>	-0.335***	-0.484***	0.414	0.3432	-0.4701	-0.0955	-0.1331	-0.2647	0.3808
21	<i>ACC_FILER</i>	0.450***	0.147***	-0.1042	-0.251	0.4798	0.0472	0.0914	0.1958	-0.1197
22	<i>SPE</i>	0.158***	0.079***	-0.0333	-0.1312	0.1553	-0.0086	0.0846	0.0771	-0.0714
23	<i>TENURE</i>	0.431***	0.129***	-0.0754	-0.1731	0.3407	0.0108	0.0482	0.1618	-0.1275

**Notes:** This table presents the descriptive statistics for the variables used in the main regressions; this table presents the correlation analysis; the sample spans the 2001-2012 period and excludes financial and regulated industries; all continuous variables are winsorized at their 1 and 99 percentiles; variable definitions are presented in the Appendix; \*, \*\*, \*\*\* denote significance at the 10, 5, and 1% level respectively

**Table III.**  
Correlation analysis

Table III.

	11	12	13	14	15	16	17	18	19	20	21	22
2												
3												
4												
5												
6												
7												
8												
9												
10	1											
11												
12		-0.2556										
13		-0.1529	-0.2621									
14		-0.0829	-0.0071	1								
15		-0.1282	0.0642	-0.0447	1							
16		-0.0183	-0.0142	0.0354	-0.0039	1						
17		-0.0676	0.0661	-0.0064	0.0357	-0.0785	1					
18		-0.0668	0.0591	0.0254	0.0321	-0.0753	0.2019	1				
19		0.0069	0.0003	-0.02	0.0155	-0.0441	0.0063	-0.0114	1			
20		-0.0518	-0.0138	0.0252	-0.0149	0.1242	-0.2042	-0.2193	-0.0274	1		
21		-0.0866	0.0559	-0.0197	0.1238	-0.1267	0.2239	0.24	0.0132	-0.2139	1	
22		0.1548	-0.0174	-0.15	0.0405	-0.0451	0.0616	0.0544	-0.0082	-0.0715	0.0498	1
23		-0.0467	-0.0022	-0.0087	0.1072	-0.1739	0.1848	0.1686	-0.0589	-0.1562	0.2036	0.0651

VARIABLES	(1) GC = 1	(2) GC = 0	(3) GC_MA
<i>Panel A: Going concern opinions and pricing of managerial ability</i>			
MA_RANK	0.084* (1.774)	-0.127*** (-5.727)	-0.116*** (-5.256)
GC			0.170*** (5.857)
GC_MA			0.139*** (2.822)
ROA	-0.066*** (-9.531)	-0.167*** (-9.078)	-0.091*** (-13.309)
LEV	0.070*** (8.028)	0.113*** (4.856)	0.087*** (10.049)
LOSS	0.019 (0.411)	0.120*** (10.138)	0.127*** (11.561)
SIZE	0.438*** (44.876)	0.520*** (113.350)	0.509*** (119.528)
MTB	-0.000 (-0.414)	0.002*** (3.410)	0.001** (2.554)
BUSSEG	-0.002 (-0.079)	-0.000 (-0.043)	0.001 (0.155)
GEOSEG	0.111*** (6.082)	0.106*** (12.682)	0.107*** (13.502)
EVOL	-0.058*** (-3.829)	-0.003 (-0.120)	-0.044*** (-3.261)
RECINV	-0.221*** (-3.327)	0.314*** (7.364)	0.194*** (5.178)
TANG	-0.259*** (-4.204)	-0.547*** (-11.900)	-0.498*** (-12.280)
LITIGATION	0.108** (2.306)	0.023 (0.952)	0.031 (1.346)
SI	0.112*** (4.829)	0.178*** (18.111)	0.175*** (18.916)
BUSY	0.098*** (2.832)	0.122*** (7.561)	0.126*** (8.244)
LOGLAG	0.066*** (2.658)	0.051*** (3.245)	0.054*** (3.884)
BIG4	0.272*** (6.247)	0.125*** (9.084)	0.136*** (10.109)
BIG5	0.269*** (6.234)	0.073*** (5.283)	0.087*** (6.394)
RS	-0.016 (-0.475)	0.039*** (3.758)	0.031*** (3.090)
ACC_FILER	0.124*** (4.218)	0.108*** (6.241)	0.115*** (7.293)
SPE	0.104*** (2.373)	0.154*** (10.640)	0.158*** (11.231)
LOGTENURE	0.017 (0.742)	0.080*** (8.969)	0.074*** (8.583)
Constant	9.359*** (29.814)	9.174*** (52.065)	9.311*** (56.441)
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Observations	4,387	37,425	41,812
Adjusted R-square	0.729	0.822	0.832
<i>Panel B: Loss and pricing of managerial ability</i>			
	LOSS = 1	LOSS = 0	LOSS_MA
MA_RANK	0.047* (1.720)	-0.222*** (-8.045)	-0.198*** (-7.415)
LOSS			0.012 (0.565)
LOSS_MA			0.224*** (6.643)
ROA	-0.085*** (-11.951)	-0.204** (-2.302)	-0.090*** (-13.198)
LEV	0.066*** (7.546)	0.178*** (6.925)	0.086*** (10.033)
SIZE	0.475*** (84.458)	0.529*** (99.439)	0.509*** (120.283)
MTB	0.001 (0.928)	0.003*** (3.241)	0.001*** (2.665)
BUSSEG	0.007 (0.493)	-0.002 (-0.184)	0.001 (0.087)
GEOSEG	0.096*** (9.654)	0.110*** (10.663)	0.106*** (13.399)
EVOL	-0.061*** (-4.377)	0.022 (0.587)	-0.043*** (-3.192)
RECINV	0.088* (1.928)	0.288*** (5.487)	0.186*** (4.939)
TANG	-0.267*** (-5.720)	-0.722*** (-13.095)	-0.501*** (-12.331)
LITIGATION	0.058** (2.038)	0.018 (0.611)	0.031 (1.353)
SI	0.144*** (11.005)	0.182*** (15.447)	0.175*** (18.925)
BUSY	0.117*** (5.696)	0.124*** (6.727)	0.126*** (8.252)
LOGLAG	0.078*** (4.487)	0.032 (1.596)	0.054*** (3.842)
BIG4	0.163*** (8.822)	0.115*** (7.126)	0.137*** (10.148)
BIG5	0.128*** (6.874)	0.071*** (4.392)	0.088*** (6.439)
RS	0.039** (2.553)	0.027** (2.143)	0.032*** (3.117)
GC	0.177*** (9.358)	0.287*** (5.636)	0.237*** (12.806)
			(continued)

**Table IV.**  
Loss, going concern  
opinions, financial  
crisis and pricing of  
managerial ability

VARIABLES	(1) GC = 1	(2) GC = 0	(3) GC_MA
<i>ACC_FILER</i>	0.126*** (6.838)	0.115*** (5.225)	0.114*** (7.247)
<i>SPE</i>	0.168*** (7.892)	0.147*** (9.090)	0.158*** (11.205)
<i>LOGTENURE</i>	0.068*** (5.747)	0.071*** (6.744)	0.073*** (8.484)
Constant	9.477*** (55.522)	8.537*** (40.732)	9.370*** (57.048)
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Observations	17,856	23,956	41,812
Adjusted <i>R</i> -square	0.782	0.839	0.832
<i>Panel C: Financial crisis and pricing of managerial ability</i>			
	CRISIS = 1	CRISIS = 0	CRISIS_MA
<i>MA_RANK</i>	-0.068*** (-2.070)	-0.132*** (-3.786)	-0.132*** (-3.870)
<i>CRISIS</i>			-0.105*** (-4.578)
<i>CRISIS_MA</i>			0.069* (1.860)
<i>ROA</i>	-0.090*** (-6.627)	-0.082*** (-6.589)	-0.086*** (-9.161)
<i>LEV</i>	0.090*** (5.907)	0.105*** (6.735)	0.098*** (8.603)
<i>LOSS</i>	0.132*** (7.081)	0.167*** (7.100)	0.144*** (9.235)
<i>SIZE</i>	0.501*** (78.909)	0.544*** (87.185)	0.524*** (98.732)
<i>MTB</i>	-0.001 (-0.930)	0.002* (1.664)	0.000 (0.562)
<i>BUSSEGE</i>	-0.003 (-0.209)	-0.012 (-0.850)	-0.007 (-0.660)
<i>GEOSEG</i>	0.116*** (10.382)	0.098*** (8.200)	0.106*** (10.758)
<i>EVOL</i>	-0.037 (-1.317)	-0.054** (-2.512)	-0.049*** (-2.740)
<i>RECVIN</i>	0.094 (1.535)	0.128*** (2.035)	0.113** (2.203)
<i>TANG</i>	-0.582*** (-9.804)	-0.617*** (-9.515)	-0.591*** (-11.366)
<i>LITIGATION</i>	0.018 (0.574)	0.032 (0.969)	0.028 (1.000)
<i>SI</i>	0.174*** (9.652)	0.190*** (10.266)	0.182*** (13.385)
<i>BUSY</i>	0.084*** (3.499)	0.080*** (3.385)	0.083*** (4.197)
<i>LOGLAG</i>	0.037 (1.297)	0.037 (1.254)	0.041* (1.791)
<i>BIG4</i>	0.137*** (6.640)	0.118*** (5.336)	0.126*** (6.990)
<i>BIG5</i>	0.136*** (6.753)	0.080*** (3.741)	0.106*** (6.069)
<i>RS</i>	-0.003 (-0.132)	0.058*** (2.771)	0.033** (1.978)
<i>GC</i>	0.190*** (5.314)	0.210*** (5.651)	0.201*** (7.557)
<i>ACC_FILER</i>	0.183*** (7.119)	0.173*** (6.980)	0.172*** (8.139)
<i>SPE</i>	0.125*** (5.304)	0.172*** (6.950)	0.149*** (7.704)
<i>LOGTENURE</i>	0.051*** (3.443)	0.071*** (4.806)	0.063*** (5.317)
Constant	9.594*** (34.414)	9.157*** (30.250)	9.404*** (43.566)
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Observations	7,122	7,771	14,893
Adjusted <i>R</i> -square	0.846	0.823	0.832

**Notes:** This table presents the regression results on the differential effects of managerial ability on auditing pricing for firms with and without going concern opinions (Panel A), for firms with and without losses (Panel B), and for firms in the 2008-2009 financial crisis and before the financial crisis (2005-2006) (Panel C); the dependent variable is natural logarithm of audit fees; the variable of interest is *MA\_RANK*, the decile rank (by industry and by year) of managerial ability score obtained from demerjian, lev, McVay (2012); in Panel A, Column (1) presents the estimation results for the sample with going concern opinions and Column (2) presents the estimation results for the sample without going concern opinions; Column (3) presents the estimation results with the inclusion of an interaction term between *MA\_RANK* and *GC*, *GC\_MA*; in Panel B, Column (1) presents the estimation results for the sample with loss and Column (2) presents the estimation results for the sample without loss; Column (3) presents the estimation results with the inclusion of an interaction term between *LOSS*, *LOSS\_MA*; in Panel C, Column (1) presents the estimation results for the sample in the financial crisis years, Column (2) for the sample for the sample in the non-financial crisis years; Column (3) presents the estimation results with the inclusion of interaction term between *CRISIS* and *MA\_RANK*, *CRISIS\_MA*; definitions of other variables are provided in the Appendix; standard errors are corrected for heteroskedasticity and clustered at the firm level; \*, \*\*, \*\*\* denote significance at the 10, 5, and 1% level respectively

Table IV.

is tested for the two subsamples separately (Columns (1) and (2)). The results show that for client firms receiving going concern opinions (Column (1)), the coefficient on *MA\_RANK* is positive and significant at the 10 per cent level (coefficient = 0.084; *t*-statistics = 1.774), suggesting that instead of offering a discount, auditors charge a fee premium to going concern firms with more able managers. In contrast, for firms not receiving going concern opinions (Column (2)), the significant negative coefficient on *MA\_RANK* (coefficient = -0.127; *t*-statistics = -5.127) suggests that firms with more able managers do receive a fee discount. Column (3) presents the results of using an interaction term between *MA\_RANK* and *GC* (*MA\_GC*) to detect the differential effects of litigation risk (proxied by going concern opinion) on the relationship between audit fees and managerial ability. Consistent with the subsample analyses presented in Columns (1) and (2), the coefficient on *MA\_RANK* is negative and statistically significant at the 1 per cent level (coefficient = -0.116; *t*-statistics = -5.256), suggesting that among firms not receiving going concern opinions, auditors are willing to offer a fee discount to firms with stronger management teams. The coefficient on *GC\_MA* is positive and significant (coefficient = 0.139, *t*-statistics = 2.822), indicating that the discount offered to the able managers of firms that have not received going concern opinions is actually reversed for firms with going concerns. The combined coefficient on *MA\_RANK* and *GC\_MA* is 0.0263, but not statistically significantly different from zero (*t*-statistics = 0.99). Therefore, the results in Column (3) suggest that going concerns firms with able managers do not receive a fee discount or a fee premium. Consistent with prior studies (Krishnan and Sengupta, 2011), the coefficient on *GC* is positive and statistically significant at the 1 per cent level, suggesting that firms receiving going concern opinions pay higher auditing fees. The coefficients on the other determinants of audit fees are generally consistent with the extant literature.

The results produced by using *LOSS* as a proxy for litigation risk (Panel B) are consistent with the results obtained by using going concern as the proxy: auditors charge a fee premium for loss firms with strong management ability, but offer a fee discount for non-loss firms with strong management teams. However, in Column (3) the combined coefficient *MA\_RANK* and *LOSS\_MA* is not statistically significantly different from zero (*t* = 0.51), consistent with our results using going concern as a measure of litigation risk. That is, loss firms with more able management do not receive a fee discount or a fee premium.

Panel C presents the results obtained from using financial crisis as a proxy for litigation risk. The negative coefficient on *MA\_RANK* (coefficient = -0.132, *t*-statistic = -3.786) in Column (2) suggests that during the non-financial crisis period, managerial ability is favorably valued by auditors; firms with one standard deviation higher managerial ability are charged about 3 per cent less in audit fees, holding everything else at their mean values[6]. During the financial crisis period (Column (1)), the coefficient on *MA\_RANK* is smaller (coefficient = -0.068) than that in the non-financial crisis period, which translates to a smaller fee discount for firms with a one standard deviation increase in managerial ability (about 1.9 per cent)[7]. The coefficient on the interaction term *CRISIS\_MA* is positive and statistically significant (coefficient = 0.069; *t*-statistics = 1.860), which is also consistent with the results in Columns (1) and (2). The combined coefficient on *MA\_RANK* and *CRISIS\_MA* is -0.063 (*t*-statistics = -2.00), suggesting that firms with higher managerial ability still receive a fee discount in the crisis period, although of a smaller magnitude than that in the non-crisis period.

Table V reports the results of testing the effects of auditor familiarity on the relationship between auditing fees and managerial ability. Columns (1) and (2) present the results for the subsample of firms with long auditor tenure (*LTENURE* = 1) and short auditor tenure (*LTENURE* = 0), respectively, where *LTENURE* equals 1 if the number of years the auditor

RAF  
16,1

14

VARIABLES	(1) LTENURE = 1	(2) LTENURE = 0	(3) LTENURE_MA
<i>MA_RANK</i>	-0.146*** (-5.457)	-0.043 (-1.580)	-0.053** (-1.990)
<i>LTENURE</i>			0.095*** (4.698)
<i>LTENURE_MA</i>			-0.084*** (-2.648)
<i>ROA</i>	-0.093*** (-9.410)	-0.083*** (-9.800)	-0.091*** (-13.438)
<i>LEV</i>	0.083*** (6.970)	0.104*** (9.511)	0.092*** (10.733)
<i>LOSS</i>	0.126*** (8.909)	0.124*** (8.034)	0.125*** (11.361)
<i>SIZE</i>	0.517*** (100.116)	0.497*** (84.866)	0.511*** (120.284)
<i>MTB</i>	0.001** (1.981)	0.001** (2.032)	0.001*** (2.579)
<i>BUSSEG</i>	-0.004 (-0.352)	0.015 (1.105)	0.003 (0.337)
<i>GEOSEG</i>	0.118*** (11.291)	0.096*** (9.868)	0.107*** (13.489)
<i>EVOL</i>	-0.061*** (-3.493)	-0.029 (-1.544)	-0.041*** (-3.027)
<i>RECINV</i>	0.283*** (5.583)	0.129*** (2.765)	0.194*** (5.182)
<i>TANG</i>	-0.528*** (-10.143)	-0.459*** (-9.092)	-0.504*** (-12.423)
<i>LITIGATION</i>	0.047 (1.597)	0.003 (0.104)	0.026 (1.143)
<i>SI</i>	0.172*** (14.090)	0.175*** (13.897)	0.175*** (18.947)
<i>BUSY</i>	0.137*** (7.368)	0.094*** (4.676)	0.123*** (8.072)
<i>LOGLAG</i>	0.075*** (4.194)	0.042** (2.220)	0.045*** (3.219)
<i>BIG4</i>	0.130*** (7.650)	0.145*** (7.884)	0.140*** (10.401)
<i>BIG5</i>	0.114*** (6.655)	0.073*** (4.103)	0.092*** (6.694)
<i>RS</i>	-0.001 (-0.069)	0.071*** (4.701)	0.030*** (2.996)
<i>GC</i>	0.239*** (8.929)	0.232*** (9.920)	0.240*** (13.007)
<i>ACC_FILER</i>	0.108*** (5.160)	0.115*** (6.114)	0.114*** (7.272)
<i>SPE</i>	0.136*** (8.340)	0.187*** (8.872)	0.164*** (11.648)
<i>LOGTENURE</i>	0.040** (2.177)	0.208*** (13.556)	
Constant	8.512*** (34.220)	9.114*** (53.927)	9.433*** (56.998)
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Observations	22,678	19,134	41,812
Adjusted <i>R</i> -square	0.868	0.769	0.831

**Notes:** This table presents the regression results on the effects of managerial ability on auditing pricing for samples with long and short auditor tenure; the dependent variable is natural logarithm of audit fees; the variable of interest is *MA\_RANK*, the decile rank (by industry and by year) of managerial ability score obtained from demerjian, lev, McVay (2012); Column (1) presents the estimation results for the sample with long auditor tenure and Column (2) presents the estimation results for the sample with short auditor tenure, where long tenure (*LTENURE*) equals one if the number of years the firm has retained the auditor is greater than the sample median, otherwise zero; Column (3) presents the estimation results with the inclusion of an interaction term between *MA\_RANK* and *LTENURE*, *LTENURE\_MA*; definitions of other variables are provided in the Appendix; standard errors are corrected for heteroskedasticity and clustered at the firm level; \*, \*\*, \*\*\* denote significance at the 10, 5, and 1% level respectively

**Table V.**  
Auditor tenure and  
pricing of managerial  
ability

was engaged by the client is greater than the sample median and 0 otherwise. As predicted, the results show that managerial ability is only priced when auditor tenure is long but not when auditor tenure is short. Specifically, when *LTENURE* = 0, the coefficient on *MA\_RANK* is negative but not statistically different from 0; when *LTENURE* = 1, the coefficient on *MA\_RANK* is negative and statistically significant at the 1 per cent level (coefficient = -0.146; *t*-statistics = -5.457). Column (3) presents the results of combining the long- and short- tenure samples together and examining the differential effects of auditor tenure on the relationship between audit fees and managerial ability. Consistent with prior studies (Hay *et al.*, 2006), our results suggest that *LTENURE* is significantly and positively

associated with audit fees[8]. As predicted in *H2*, the negative and significant coefficient on the interaction term *LTENURE\_MA* (coefficient =  $-0.084$ ; *t*-statistics =  $-2.648$ ) suggests that auditors offer a greater fee discount to firms with strong management teams when the auditors have been retained for a longer period of time. Hence, the familiarity hypothesis is supported; auditors offer a fee discount to firms with stronger managerial ability when the auditors are more familiar with their clients.

Table VI reports the results of analyzing the effect of SOX on the relationship between managerial ability and audit fees. Column (1) presents the results for the pre-SOX period. The insignificant coefficient on *MA\_RANK* suggests that managerial ability is not priced in the pre-SOX period. In contrast, in the post-SOX period, the coefficient on *MA\_RANK* is

VARIABLES	(1) 2001-2002	(2) 2004-2005	(3) SOX_MA
<i>MA_RANK</i>	-0.006 (-0.174)	-0.144*** (-4.026)	-0.026 (-0.782)
<i>SOX</i>			0.743*** (28.560)
<i>SOX_MA</i>			-0.138*** (-3.289)
<i>ROA</i>	-0.113*** (-5.490)	-0.085*** (-7.539)	-0.083*** (-8.222)
<i>LEV</i>	0.134*** (5.630)	0.103*** (6.937)	0.106*** (7.825)
<i>LOSS</i>	0.128*** (6.549)	0.146*** (6.254)	0.115*** (7.141)
<i>SIZE</i>	0.462*** (72.199)	0.542*** (86.615)	0.504*** (99.075)
<i>MTB</i>	0.002* (1.649)	0.001 (0.994)	0.001 (1.611)
<i>BUSSEG</i>	0.037** (2.500)	-0.007 (-0.520)	0.014 (1.209)
<i>GEOSEG</i>	0.120*** (10.938)	0.099*** (8.263)	0.109*** (11.641)
<i>EVOL</i>	0.060 (1.470)	-0.018 (-0.920)	-0.022 (-1.167)
<i>RECINV</i>	0.342*** (5.968)	0.110* (1.841)	0.202*** (4.382)
<i>TANG</i>	-0.224*** (-3.952)	-0.694*** (-11.115)	-0.446*** (-9.144)
<i>LITIGATION</i>	0.048 (1.517)	0.022 (0.662)	0.040 (1.485)
<i>SI</i>	0.152*** (8.825)	0.195*** (10.740)	0.177*** (13.443)
<i>BUSY</i>	0.128*** (6.338)	0.202*** (8.429)	0.168*** (9.245)
<i>LOGLAG</i>	0.046** (2.378)	0.014 (0.472)	0.053*** (3.065)
<i>BIG4</i>	0.123*** (7.040)	0.127*** (5.922)	0.145*** (9.346)
<i>BIG5</i>	-0.020 (-1.093)	0.074*** (3.465)	0.037** (2.291)
<i>RS</i>	0.092*** (4.737)	0.038* (1.795)	0.068*** (4.995)
<i>GC</i>	0.271*** (8.563)	0.227*** (6.431)	0.271*** (10.783)
<i>ACC_FILER</i>	-0.037* (-1.809)	0.170*** (7.092)	0.068*** (3.802)
<i>SPE</i>	0.146*** (6.867)	0.177*** (7.294)	0.161*** (9.072)
<i>LOGTENURE</i>	0.104*** (8.265)	0.086*** (6.075)	0.092*** (8.690)
Constant	8.629*** (45.718)	8.972*** (27.953)	8.267*** (39.180)
Industry fixed effects	Yes	Yes	Yes
Year fixed effects	No	No	No
Observations	7,789	8,139	15,928
Adjusted <i>R</i> -square	0.748	0.815	0.792

**Notes:** This table presents the regression results on the effects of managerial ability on auditing pricing before and after 2003 when SOX was enacted; the dependent variable is natural logarithm of audit fees; the variable of interest is *MA\_RANK*, the decile rank (by industry and by year) of managerial ability score obtained from demerjian, lev, McVay (2012); Column (1) presents the estimation results for the pre-SOX years 2001-2002, while Column (2) presents the estimation results for the post-SOX years 2004-2005; Column (3) presents the estimation results with the inclusion of an interaction term between *MA\_RANK* and *SOX*, *SOX\_MA*; definitions of other variables are provided in the Appendix; standard errors are corrected for heteroskedasticity and clustered at the firm level; \*, \*\*, \*\*\* denote significance at the 10, 5, and 1% level respectively

**Table VI.** SOX and pricing of managerial ability



negative and statistically significant at the 1 per cent level (coefficient =  $-0.144$ ;  $t$ -statistics =  $-4.026$ ), suggesting that in the post-SOX period, auditors pay more attention to managerial ability and offer a fee discount to firms with strong managerial ability. Column (3) shows the results of combining the two subsamples; an interaction term is used to test the effect of SOX on the relationship between managerial ability and audit fees. The insignificant coefficient on *MA\_RANK* suggests that during the pre-SOX period, no fee discount is offered to firms with strong managerial ability; the significant and negative coefficient on *SOX\_MA* (coefficient =  $-0.138$ ;  $t$ -statistics =  $-3.289$ ) suggests that fee discounts are offered to firms with strong managerial ability in the post-SOX era, consistent with *H3*. Hence, the evidence suggests that managerial ability has a greater impact on audit fees in the post-SOX era.

## 6. Discussion and conclusions

Overall, the results suggest that managerial ability has a more significant impact on audit fees when auditors face lower litigation risk, know the client better due to a longer auditor-client relationship and in the post-SOX era. Collectively, the results further support the notion that auditors are cognizant of the risks embedded in managerial ability and incorporate this risk into their pricing decisions. The analysis of these contextual factors suggests that auditors' decisions to factor managerial ability into audit fees are affected by the context of the audit fee negotiation. Our study not only contributes to the academic understanding of this issue, it has practical implications for the auditing profession. Our results demonstrate that the fee discount granted to firms with able managers is contextual, and thus auditors should consider contextual factors in auditing planning and auditing pricing. We admit that one limitation of this type of archival research is that the data are not generated in a controlled experiment, and measurement errors or other factors could affect the reliability of our conclusions about the effect of contextual factors on audit fees. Future research could utilize experimental research method in a controlled experiment to triangulate and corroborate our findings on the contextual nature of the association between managerial ability and audit fees.

## Notes

1. We focus on a smaller sample (i.e., firm years from 2001-2002 and 2004-2005) in the tests of the effects of regulatory changes on the relationship between audit fees and managerial ability. We also focus on a smaller sample (i.e., firm years from 2005-2006 and 2008-2009) to tests the effects of a financial crisis on the relationship between audit fees and managerial ability.
2. For example, Kinney and McDaniel (1989, p. 74) note that "managements of firms in weak financial condition are more likely to window dress in an attempt to disguise what may be temporary difficulties". Also, Kreutzfeldt and Wallace (1986) find that companies with liquidity or profitability problems have significantly more errors in their financial statements than do other companies.
3. All of the continuous variables in equation (1) are winsorized at the top and bottom one percentile of their respective distributions to mitigate the impact of extreme values on the parameter estimates.
4. Unless otherwise indicated, all of the continuous control variables are measured at the end of current fiscal year (Year  $t$ ) and the indicator variables refer to the applicable status of the firm in the current fiscal year.
5. Data on managerial ability are available at: <http://faculty.washington.edu/smcvay/abilitydata.html>
6. This percentage is calculated as follows:  $1 - \text{exponential}[0.282 * (-0.131)]$ , where 0.282 is the standard deviation of managerial ability and  $-0.132$  is the coefficient on *MA\_RANK* in Column (1) of Panel C.

7. This percentage is calculated as follows:  $1 - \text{exponential}[0.282 * (-0.068)]$ , where 0.282 is the standard deviation of managerial ability and  $-0.068$  is the coefficient on *MA\_RANK* in Column (2) of Panel C.
8. Hay *et al.* (2006) note that the positive significant association between audit fees and audit tenure is consistent with the common reasons cited for a client to change auditor: to obtain a reduced fee or more efficient service from a new audit firm.

## References

- AICPA (2006), *AU Section 312 Audit Risk and Materiality in Conducting an Audit*, American Institute of Certified Public Accountants, Washington, DC.
- Antle, R. and Nalebuff, B. (1991), "Conservatism and auditor-client negotiations", *Journal of Accounting Research*, Vol. 29 No. 1, pp. 31-54.
- Carcello, J.V. and Palmrose, Z.V. (1994), "Auditor litigation and modified reporting on bankrupt clients", *Journal of Accounting Research*, Vol. 32 No. 1, pp. 1-30.
- Demerjian, P., Lev, B. and McVay, S. (2012), "Quantifying managerial ability: a new measure and validity tests", *Management Science*, Vol. 58 No. 7, pp. 1229-1248.
- Ghosh, A. and Pawlewicz, R. (2009), "The impact of regulation on auditor fees: evidence from the Sarbanes-Oxley Act", *Auditing: A Journal of Practice and Theory*, Vol. 28 No. 2, pp. 171-197.
- Gibbins, M., Salterio, S.E. and Webb, A. (2001), "Evidence about auditor-client management negotiation concerning client's financial reporting", *Journal of Accounting Research*, Vol. 39 No. 3, pp. 535-563.
- Hay, D.C., Knechel, W.R. and Wong, N. (2006), "Audit fees: a meta-analysis of the effect of supply and demand attributes", *Contemporary Accounting Research*, Vol. 23 No. 1, pp. 141-191.
- Huang, H.W., Raghunandan, K. and Rama, D. (2009), "Audit fees for initial audit engagements before and after SOX", *Auditing: A Journal of Practice & Theory*, Vol. 28 No. 1, pp. 171-190.
- Jha, A. and Chen, Y. (2015), "Audit fees and social capital", *The Accounting Review*, Vol. 90 No. 2, pp. 611-639.
- Johnson, V.E., Khurana, I.K. and Reynolds, J.K. (2002), "Audit-firm tenure and the quality of financial reports", *Contemporary Accounting Research*, Vol. 19 No. 4, pp. 637-660.
- Kim, Y., Li, H. and Li, S. (2014), "CEO equity incentives and audit fees", *Contemporary Accounting Research*, Vol. 32 No. 2, pp. 608-638.
- Kinney, W.R. and McDaniel, L.S. (1989), "Characteristics of firms correcting previously reported quarterly earnings", *Journal of Accounting and Economics*, Vol. 11 No. 1, pp. 71-93.
- Knapp, M.C. (1991), "Factors that audit committee members use as surrogates for audit quality", *Auditing: A Journal of Practice & Theory*, Vol. 10 No. 1, pp. 35-52.
- Kreutzfeldt, R.W. and Wallace, W.A. (1986), "Error characteristics in audit populations-their profile and relationship to environmental-factors", *Auditing: A Journal of Practice & Theory*, Vol. 6 No. 1, pp. 20-43.
- Krishnan, G.V. and Sengupta, P. (2011), "How do auditors perceive recognized vs disclosed lease and pension obligations? Evidence from fees and going concern opinions", *International Journal of Auditing*, Vol. 15 No. 3, pp. 127-149.
- Krishnan, G.V. and Wang, C. (2015), "The relation between managerial ability and audit fees and going concern opinions", *Auditing: A Journal of Practice and Theory*, Vol. 34 No. 3, pp. 139-160.
- Krishnan, J. and Krishnan, J. (1997), "Litigation risk and auditor resignations", *The Accounting Review*, Vol. 72 No. 4, pp. 539-560.
- Libby, R. and Luft, J. (1993), "Determinants of judgment performance in accounting settings: ability, knowledge, motivation, and environment", *Accounting, Organizations and Society*, Vol. 18 No. 5, pp. 425-450.

- Lin, C., Officer, M.S., Wang, R. and Zou, H. (2013), "Directors' and officers' liability insurance and loan spreads", *Journal of Financial Economics*, Vol. 110 No. 3, pp. 37-60.
- Lys, T. and Watts, R.L. (1994), "Lawsuits against auditors", *Journal of Accounting Research*, Vol. 32 No. 3, pp. 65-93.
- PCAOB (2008), "Audit considerations in the current economic environment", Staff Audit Practice Alert No. 3, Public Company Accounting Oversight Board, Washington, DC.
- PCAOB (2010), "Identifying and assessing risks of material misstatement", AU Section 12, Public Company Accounting Oversight Board, Washington, DC.
- PCAOB (2011), "Assessing and responding to risk in the current economic environment", Staff Audit Practice Alert No. 9, Public Company Accounting Oversight Board, Washington, DC.
- Raghunandan, K. and Rama, D.V. (1995), "Audit reports for companies in financial distress: before and after SAS No. 59", *Auditing: A Journal of Practice & Theory*, Vol. 14 No. 1, pp. 50-63.
- Salterio, S.E. (2012), "Fifteen years in the trenches: auditor-client negotiations exposed and explored", *Accounting & Finance*, Vol. 52 No. S1, pp. 233-286.
- SEC (2001), *Final Rule: Revision of the Commission's Auditor Independence Requirements*, Washington, DC.
- Simunic, D.A. (1980), "The pricing of audit services: theory and evidence", *Journal of Accounting Research*, Vol. 18 No. 1, pp. 161-190.
- Stice, J.D. (1991), "Using financial and market information to identify pre-engagement factors associated with lawsuits against auditors", *The Accounting Review*, Vol. 66 No. 3, pp. 516-533.

Variable name	Variable definition
<i>MA_RANK</i>	The deciles rank (by industry and year) of managerial ability score from Demerjian <i>et al.</i> (2012)
<i>LOGAF</i>	The logarithm of audit fees
<i>GC</i>	An indicator variable that set to 1 if a sample firm receives a qualified going-concern opinion report, and 0 otherwise
<i>LOSS</i>	An indicator variable that set to 1 if net income (NI) is negative, and 0 otherwise
<i>CRISIS</i>	An indicator variable equaling to one for observations from year 2008-2009 and zero for observations from 2005-2006
<i>LTENURE</i>	An indicator variable equals one if auditor tenure is greater than sample median and zero otherwise
<i>SOX</i>	An indicator variable equals one if firm year is 2004- 2005 and zero if firm year is 2001-2002
<i>GC_MA</i>	An interaction term between <i>GC</i> and
<i>LOSS_MA</i>	An interaction term between <i>LOSS</i> and
<i>CRISIS_MA</i>	An interaction term between <i>CRISIS</i> and <i>MA_RANK</i>
<i>LTENURE_MA</i>	An interaction term between <i>LTENURE</i> and <i>MA_RANK</i>
<i>SOX_MA</i>	An interaction term between <i>SOX</i> and <i>MA_RANK</i>
<i>ACC_FILER</i>	An indicator variable equal to one if the firm is an accelerated filer and thus is mandated to have its internal control audited, and zero otherwise
<i>BIGN</i>	An indicator variable that set to 1 if a sample firm is audited by one of the Big 5 (4) auditors before (after) year 2002, and 0 otherwise
<i>BUSY</i>	An indicator variable that set to 1 if a firm's fiscal year-end month is December, and 0 otherwise
<i>BUSSEG</i>	Natural logarithm of 1 plus the number of business segments
<i>EVOL</i>	Standard deviation of quarterly earnings before extraordinary items scaled by total assets for the 12 quarters before the current fiscal year
<i>GEOSEG</i>	Natural logarithm of 1 plus the number of the geographic segments
<i>LAG</i>	The number of days between the fiscal year-end and the auditor's report signing date
<i>LEV</i>	Total debt (DLTT + DLC) divided by total assets (AT)
<i>LITIGATION</i>	An indicator variable that set to 1 if a firm's SIC code is 2833-2836, 3570-3577, 3600-3674, 5200-5961, or 7370-7374, and 0 otherwise
<i>MTB</i>	Market-to-book ratio calculated as (CSHO × PRCC_F)/CEQ
<i>ROA</i>	Net income (NI) divided by average total assets (AT)
<i>RECINV</i>	The sum of total receivables (RECT) and total inventory (INVT), divided by total assets (AT)
<i>RS</i>	An indicator variable equals one if the firm restates its financial statement in the year and zero otherwise
<i>SI</i>	Special items, defined as a dummy variable equal to one if the firm has non-zero, non-missing special items (SPI) and zero otherwise. Data are obtained from Compustat fundamental annual files
<i>SIZE</i>	The logarithm of average total assets (AT)
<i>SPE</i>	Auditor industry specialist, define as a dummy variable equal to one if the firm's auditor is industry specialist and zero otherwise. Industry specialist is the auditor with the largest market share by auditing fees in the SIC4 industry
<i>TANG</i>	Tangibility, defined as property, plant and equipment (PPENT)/total assets (AT). Data are obtained from Compustat fundamental annual files
<i>TENURE</i>	The number of years the firm retained its current auditor

---

RAF  
16,1

**About the authors**

Yutao Li (PhD) is an Assistant Professor in the Faculty of Management at the University of Lethbridge, Canada. She received her PhD in accounting from the University of Waterloo, Canada. Her research examines the impact of corporate disclosure policy and regulation on firms' information environment and the usefulness of accounting information in credit markets.

Yan Luo (PhD, CPA) is an Assistant Professor in Charles W. Lamden School of Accountancy at San Diego State University. She received her MSc and PhD in Accounting from Queen's University, Canada. Her research interests include corporate governance, financial reporting quality, and auditing. Yan Luo is the corresponding author and can be contacted at: [yluo@mail.sdsu.edu](mailto:yluo@mail.sdsu.edu)

20

---

---

For instructions on how to order reprints of this article, please visit our website:

[www.emeraldgroupublishing.com/licensing/reprints.htm](http://www.emeraldgroupublishing.com/licensing/reprints.htm)

Or contact us for further details: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)