

## **The relationship between an audit committee chair change and audit fees**

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Note: This paper is based on Izhar Haq's unpublished dissertation *Role of the audit committee chair in the financial reporting process*.

### **ABSTRACT**

This study uses corporate directorship data from 2008 and 2009 along with 2009 financial data to examine the relationship between an audit committee chair change and external audit fees right after the financial crisis of 2007/2008. The results suggest that a change in the audit committee chair is positively associated with higher audit fees. This correlation holds whether the new chair is already a member of the board of directors or is new to the board. The results are consistent with the notion that audit fees are higher when there is greater scrutiny of the audit work such as when there is a change in the audit committee chair.

Keywords: audit committee chair change, audit fees, board of directors

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## INTRODUCTION

The audit committee of a publically traded company is responsible for selecting the external audit firm, receiving and reviewing audit results, and overseeing the financial reporting process. Oversight is a complex function that includes reviewing financial statements and ensuring that accounting estimates and implementation of accounting principles are reasonable. This requires that audit committees examine complex accounting issues in order to address disagreements between management and the external auditors related to the implementation of accounting principles or adjustments. Audit committees are also responsible for remediating any fraudulent or illegal activities committed by management that are identified by the financial audit. Due to spectacular failures (e.g. Enron and WorldCom), the oversight function has received significant attention in recent years from both the media and regulatory bodies. Oversight of the financial reporting process is perhaps the most important function of the audit committee (Haq, 2015).

Although the Securities and Exchange Commission (SEC) first encouraged the concept of the audit committee in 1940 as a result of the McKesson and Robbins case (Barr & Galpeer, 1987; Dennis, 2005; Zeff, 2003), it was not until the 1970s that audit committees became common in U.S. corporations (AICPA, 1978). In 1972 the SEC restated its interest in publicly traded companies establishing audit committees composed of independent directors in Accounting Series Release No. 123. In 1977 the New York Stock Exchange established a listing requirement mandating a standing audit committee, and then the American Institute of Certified Public Accountants called on all other stock exchanges in the United States to require an audit committee.

While audit committees were common in publically traded companies during the 1970s and 1980s, there were no established standards for the composition and responsibilities of the audit committee. The Blue Ribbon Committee (1999) on Improving the Effectiveness of Corporate Audit Committees was established in 1998 due to concerns raised by SEC Chair Levitt. The major stock exchanges adopted the Blue Ribbon Committee's recommendations for improving audit committee effectiveness in 1999. Congress passed the Sarbanes-Oxley Act (SOX) in 2002 which requires the SEC to establish rules prohibiting the listing of companies that are not in compliance with audit committee standards. The standards require that each committee member must be independent and makes the audit committee directly responsible for the appointment, compensation, and oversight of the external auditors.

Since best practice standards for audit committees have only been in existence for approximately twenty years, it is not surprising that accounting research into audit committees does not go much further back than 1996. Audit committee effectiveness can be assessed along the following four dimensions: composition, authority, resources, and diligence (DeZoort, Hermanson, Archambeault, & Reed, 2002). Earlier research is concentrated on composition and diligence due to the public availability of data. Much of the research on audit committee composition is focused on the independence (Vicknair, Hickman, & Carnes, 1993) and financial expertise of the audit committee members (DeFond, Hann, & Hu, 2005). More recent studies focus on other composition issues such as tenure (Sharma & Iselin, 2012) and "busy boarding" by audit committee members (Ferris, Jagannathan, & Pritchard, 2003). The role of the audit committee chair has not received much research attention which is surprising given the extensive focus on the board of directors' chair.

This paper extends the literature on audit committees by examining the impact of a change in the audit committee chair on external audit fees. The study posits that an audit committee chair change has a significant impact on the oversight role through the chair's involvement with management and the external auditors during the audit. It is expected that a new audit committee chair may demand a more extensive audit which would result in higher audit fees.

The paper is organized as follows. Prior research is discussed in Section 2. Section 3 states the hypothesis, Section 4 explains the model and makes predictions, and Section 5 describes the sample data. The results and suggestions for future research are discussed in Section 6. Finally, Section 7 contains the research conclusions.

## **PRIOR RESEARCH**

### **Audit Committee Composition**

During the last thirty years, audit committee responsibilities have increased. The original responsibility of the audit committee was to serve as liaison between the company's board of directors and the external auditors. The Foreign Corrupt Practices Act of 1977 added the responsibility of ensuring that the company has an effective system of internal controls. The SOX (2002) requires that all audit committee members must be independent and made the audit committee responsible for the appointment, compensation, and oversight of the external auditors. Upon adopting the final rule for implementing independent audit committees, the U.S. Securities and Exchange Commission (2003) commented:

The rule implements the requirements of Section 10A(m)(1) of the Securities Exchange Act of 1934, as added by Section 301 of the Sarbanes-Oxley Act of 2002.

Under the rule, listed issuers must be in compliance with the new listing rules by the earlier of their first annual shareholders meeting after January 15, 2004, or October 31, 2004. (Summary, para. 1)

Thus, the establishment of an independent audit committee and its expanded role for domestically traded/listed public companies was required by law and had to be implemented no later than October 31, 2004. With the independent audit committee's expanded authority and responsibility, the importance of the chair's role also increased. The chair acts as the catalyst for accountability and compliance by corporate management. The SEC (2003) further states:

By effectively carrying out its functions and responsibilities, the audit committee helps to ensure that management properly develops and adheres to a sound system of internal controls, that procedures are in place to objectively assess management's practices and internal controls, and that the outside auditors, through their own review, objectively assess the company's financial reporting practices. (Background and Overview of the New Rule and Amendments, para. 3)

The chair of this enhanced audit committee is responsible for monitoring and assessing the health of the company and anticipating issues which may negatively impact the interests of all stakeholders.

As the responsibility of the audit committee has expanded, research has examined the audit committee's effectiveness and composition. DeZoort et al. (2002) examine audit committee effectiveness using the following four dimensions: composition, authority, resources, and diligence. Much research exists on composition due to publicly available data, such as the

independence of audit committee members (Abbott, Parker, Peters, & Raghunandan, 2003a; Beasley, 1996; McMullen & Raghunandan, 1996; Raghunandan & Rama, 2007; Vicknair et al., 1993; Wright, 1996), audit committee size (Beasley, 1996; Rittenberg & Noir, 1993; Wright, 1996), prior experience of audit committee members (DeZoort, 1998), financial expertise (DeFond et al., 2005; Krishnan & Lee, 2009), and “busy boarding” (Barua, Rama, & Sharma, 2010). Felício, Ivashkovskaya, Rodrigues, and Stepanova (2014) examine banks and find that governance factors such as the directors' age, insider appointed members, and affiliated committees influence bank performance. Other research examines the effect of audit committee members' legal expertise on financial reporting quality (Krishnan, Su, & Zhang, 2011) and investor's perception of reported earnings when companies with interlocking audit committee members are audited by the same audit firm (Chen, Chou, Duh, & Lin, 2014).

### **Association between Audit Committee Composition and Audit Fees**

The use of audit fees as a proxy for measuring the quality of the financial statements dates back to Simunic (1980) who identifies a number of audit quality characteristics including size, complexity, riskiness, and audit fee. The assumption that continues to be used is that an active and diligent audit committee would demand a higher quality audit, which would increase the cost of the audit due to requiring more experienced staff and more billable hours in the audit engagement. Given that SOX makes the audit committee responsible for the selection and compensation of the audit committee, it is likely that characteristics of the audit committee will be associated with audit fees. This relationship likely existed before SOX since the audit committee was already an important component of the corporate governance mechanism and an important element in the overall client risk assessment by the external auditor.

Prior studies have found a positive relationship between audit committee characteristics and external audit fees. Carcello, Hermanson, Neal, and Riley Jr. (2002) examine the association between governance mechanisms and audit fees and find that a more independent, diligent, and expert board demands a higher quality audit which results in a higher audit fee. Abbott et al. (2003a) find that audit committees composed only of members who are independent and have financial expertise are more likely to demand an increased scope of auditing services which results in higher audit fees. In a related study, Abbott, Parker, Peters, and Raghunandan (2003b) examine the association between audit committee characteristics and the relative magnitude of fees for non-audit services paid to incumbent auditors. Their results indicate that the non-audit fee ratio is lower in companies that have audit committees with only independent directors and higher meeting frequency. Goodwin-Stewart and Kent (2006) examine firms listed on the Australian Stock Exchange and find that audit committee expertise is associated with higher audit fees.

### **Change in Audit Committee Chair**

Results from prior research suggest that audit fees are influenced by characteristics of the audit committee. Audit committees are tasked with oversight of the financial reporting process, and Krishnan and Visvanathan (2010) find that audit committee's accounting expertise enhances many aspects of the financial reporting process. The audit committee is also responsible for defining the scope of the audit and for reviewing and resolving disputes between management

and the external auditors. Abbott et al. (2003a) find that independence and activity have a significant negative association with the occurrence of restatements.

In their extensive review of audit committees, Carcello, Hermanson, and Ye (2011) note the following:

However, very little research separately examines the role of the audit committee chair in facilitating effective audit committee performance (Bédard and Gendron 2010). Given the role of the audit committee chair in driving the agenda, the meeting packet, the conduct of the meeting, and interactions between meetings, this is an unfortunate oversight. We believe that examining the role of the audit committee chair, including the chair's behaviors, characteristics, and personality traits, in ensuring audit committee effectiveness is worthy of future study. (p. 26)

Recent research has found a relationship between an audit committee chair change and financial reporting quality (Tanyi and Smith, 2015), audit quality (Haq, Lang, & Xu, 2017a), and earnings quality (Haq, Lang, & Xu, 2017b). Given that the audit committee chair sets the committee's agenda, it follows that a change in the audit chair may change the scope of the audit and relationship with the external auditor. These changes may lead to a change in the audit fees. Thus, a natural extension of the existing literature is to examine the effect of a change in the audit committee chair on audit fees.

## HYPOTHESIS

Prior research suggests that audit fees are influenced by audit committee characteristics because of the significant role played by the audit committee in the financial reporting process. However, such prior studies have primarily focused on audit committee independence, financial expertise, and diligence. As noted by Carcello et al. (2011), the audit committee chair plays an important role in the monitoring of corporate financial reporting. Hence, it is likely that a change in the audit committee chair will be associated a change in the external auditor's fees. One argument is that the appointment of a new audit committee chair could increase the auditor's assessment of inherent risk. This could lead to more effort (to reduce the detection risk) and thus lead to higher audit fees. Alternatively, a new audit committee chair could demand a higher level of assurance, which also would lead to higher audit fees. Conversely, if the new audit committee chair believes that the audit fees are "excessive" then there could be a demand to reduce audit fees. This paper tests whether the appointment of a new audit committee chair leads a change in audit fees. In the null, the research question (RQ) is as follows:

**RQ:** Is there an association between a change in the audit committee chair and audit fees?

## MODEL AND PREDICTIONS

The model is designed to test the research question about the relationship between a change in the audit committee chair and audit fees using the following two multiple regression equations (Haq, 2015):

$$(1) \text{LAFEE} = \beta_0 + \beta_1 * \text{LNTA} + \beta_2 * \text{RECINV} + \beta_3 * \text{FOREIGN} + \beta_4 * \text{SQRTSEG} + \beta_5 * \text{LIQ} + \beta_6 * \text{LOSS} + \beta_7 * \text{LEV} + \beta_8 * \text{BIG4} + \beta_9 * \text{GC} + \beta_{10} * \text{INITIAL} + \beta_{11} * \text{ICW} + \beta_{12} * \text{ACCC} + \varepsilon$$

$$(2) \text{LAFEE} = \beta_0 + \beta_1 * \text{LNTA} + \beta_2 * \text{RECINV} + \beta_3 * \text{FOREIGN} + \beta_4 * \text{SQRTSEG} + \beta_5 * \text{LIQ} + \beta_6 * \text{LOSS} + \beta_7 * \text{LEV} + \beta_8 * \text{BIG4} + \beta_9 * \text{GC} + \beta_{10} * \text{INITIAL} + \beta_{11} * \text{ICW} + \beta_{12} * \text{BD} + \beta_{13} * \text{NM} + \varepsilon$$

The variables are defined as follows:

LAFEE	= Natural logarithm of audit fees;
LNTA	= Natural logarithm of total assets;
RECINV	= Inventory plus accounts receivable as a proportion of total assets;
FOREIGN	= 1 if the company has FOREIGN operations, 0 otherwise;
SQRTSEG	= Square root of the number of segments;
LIQ	= Ratio of current assets to current liabilities;
LOSS	= 1 if the company has a LOSS before extraordinary items, 0 otherwise;
LEV	= Ratio of total liabilities to total assets;
BIG4	= 1 if the auditor is a Big 4 audit firm, 0 otherwise;
GC	= 1 if the firm receives a going concern opinion, 0 otherwise;
INITIAL	= 1 if the audit engagement is the first year audit, 0 otherwise;
ICW	= 1 if the firm has a material internal control weakness, 0 otherwise;
ACCC (Eqn. 1)	= 1 if there was a change in the Audit Committee Chair, 0 otherwise;
BD (Eqn. 2)	= 1 if the new audit committee chair was previously a board member, 0 otherwise;
NM (Eqn. 2)	= 1 if the new audit committee chair was not previously a member of the board, 0 otherwise;

The dependent variable (*LAFEE*) is the natural log of audit fees, which is consistent with prior research in the auditing literature. Typically, the regression estimates the dependent variable using a number of measures that are hypothesized to relate to audit fees.

The natural log of total assets (*LNTA*) is used as a proxy for firm size. Prior Research going all the way back to Simunic (1980) has found a strong correlation between total assets and audit fees because larger firms require greater time and effort to audit due to the size and scope of their business operations. Therefore, it is predicted that the coefficient of *LNTA* will be positive.

Inventory and accounts receivables as a proportion of total assets (*RECINV*), the existence of foreign operations (*FOREIGN*), and the square root of the number of business segments (*SQRTSEG*) are included in the model because they are measures of firm complexity which impacts audit fees. All three of these control variables are predicted to have a positive coefficient.

The following five variables control for client risk: current ratio (*LIQ*), net loss before extraordinary items (*LOSS*), financial leverage (*LEV*), going concern opinion (*GC*), and internal control weakness (*ICW*). The coefficients of these five variables are all expected to be positive.

*BIG4* is included in the model because prior research has found that the largest international public accounting firms charge a premium for their audit services. *BIG4* is predicted have a positive coefficient.

Prior research has found that audit fees are discounted in the first year (*INITIAL*) of an audit engagement (Simon & Frances, 1988; Whisenant, Sankaraguruswamy, & Raghunandan, 2003). Therefore, *INITIAL* is predicted to have a negative coefficient.

The remaining variables in the equations directly relate to the research question. In Equation 1, the change in the audit committee chair variable (*ACCC*) indicates whether or not a



change in the audit committee chair has occurred. ACCC is predicted to be positive. The effect of an audit committee chair change based on whether or not the new chair was previously on the board or not is examined in Equation 2. The prior role variables are board member (*BD*) and not a member of the board (*NM*). Both variables are predicted to be positive. This additional test is conducted since the new chair's familiarity with the oversight process and the external auditor may impact the scope of the audit that the new chair desires.

## **SAMPLE DATA**

### **Sample Selection**

The initial sample of 3,417 companies is obtained from the 2009 Corporate Library Company Data file. Foreign companies (173), companies with a fiscal year-end other than December 31 (809), and companies in the financial, insurance, or real estate sector (603) are eliminated from the sample. This results in 1,832 companies for which Corporate Library Directors Data information is available. An additional 70 firms are eliminated due to missing financial data in the Compustat database and 33 more are eliminated due to missing audit related data (name of the audit firm, audit fees, audit opinion, or internal control opinion) in the Audit Analytics database. This results in a final sample size of 1,729 companies.

The 2009 and 2008 Corporate Library Directors Data files are used to identify 339 firms that have a new audit committee chair in 2009. The 2008 role of the new audit committee chair is identified as either a board member or not a member of the board. Details of the sample data are presented in Table 1 (Appendix).

### **Descriptive Statistics**

Table 2 (Appendix) provides the descriptive statistics for the variables used in the regression model. The mean of company audit fees is \$2.597 million and the median is \$1.300 million. The mean and median of total assets are \$512 million and \$77 million, respectively. Both of these distributions appear to be highly skewed due to size of the sample companies, so consistent with prior studies the natural logarithm is used to transform both audit fees and total assets. The mean and median of the ratio of inventory plus accounts receivable to total assets is 0.21 and 0.17, respectively. The companies in the sample data have about 2 segments on average, consistent with data from prior studies. The current ratio mean and median are 2.56 and 1.81, respectively. Slightly more than half of the companies have foreign operations. Approximately 5 percent of the companies have a going concern modified audit opinion, and about 3 percent of the companies have an internal control weakness. Given that the sample includes a significant number of large companies, it is not surprising that over 84% are audited by a Big 4 accounting firm. Less than 5 percent of the companies in the sample have a new external auditor. Almost 20 percent of the companies have a new audit committee chair in 2009 with about 58 percent of those individuals not being a board member in 2008.

## RESULTS

### Regression Results

The regression results are presented in Table 3 (Appendix). Equation 1 results, using *LAFEE* as the dependent variable and *ACCC* as the variable of interest, are presented in the first three columns of Table 3. The overall regression model is significant ( $p < 0.001$ ) and the model explains about 74 percent of the variation in audit fees. The *ACCC* variable is significant ( $p = 0.002$ ) and positively related to audit fees as predicted.

The Equation 2 results, using *LAFEE* as a dependent variable and *BD* and *NM* as the variables of interest, are similar to Equation 1. These results are presented in the last three columns of Table 3. *BD* is significant ( $p = 0.005$ ) and *NM* is marginally significant ( $p = 0.061$ ). Both variables are positively related to audit fees as predicted.

All of the control variables in both models, with the exception of *LIQ*, *GC*, and *INITIAL*, are significant. The coefficient signs of all control variables are positive which is as predicted with the exception of *LIQ* which was predicted to be negative.

These results indicate that audit fees are higher when an audit committee has a new chair regardless of the new chair's prior involvement with the company's board (board member or not a member of the board). A new audit committee chair is associated with an audit fee increase of about 11 percent.

### Discussion

Many empirical studies have shown that there is a relationship between audit committee characteristics and higher audit fees (Abbott et al., 2003a; Goodwin-Stewart & Kent, 2006; Hoitash, Hoitash, & Bedard, 2008). However, these studies did not specifically examine the relationship between an audit committee chair change and audit fees. This study specifically examines the impact of a chair change on audit fees and finds a statistically significant relationship.

There are a number of reasons why a company can have a change in the audit committee chair that are not related to any issues with an audit or the financial reports. For example, the audit committee chair could change because of retirement, part of a regular rotation, or the individual may no longer have the ability or time to serve as chair. This paper does not focus on the reason for the change. Instead, it examines the effect that an audit committee chair change has on external audit fees. A new audit committee chair likely would scrutinize the audit reports and have questions for the external auditors in order to become familiar with the reports and processes related to the financial reporting process. The increased work required by the external auditors due to the new audit committee chair might result in higher audit fees. This expectation is consistent with prior research (Carcello et al., 2002).

The results indicate that a statistically significant, positive association does exist between an audit committee chair change and audit fees. The prior role of the new audit committee chair is also found to positively affect audit fees. The magnitude and significance of the audit chair change is larger when the new audit chair is already a board member compared to when the new chair was not already on the board. This result is somewhat surprising as a current board member would be more familiar with the audit and financial reports than a non-board member.



## Study Limitations and Future Research

While this study finds a relationship between a chair change and audit fees, it is limited by using only 2009 data which immediately follows the financial crisis of 2007/2008. One possible extension is to expand the sample to include more years of data in order to test whether the relationship between an audit committee chair change and audit fees remains valid over time. Another extension is to examine whether the audit chair change has an impact on audit fees over multiple years or only for a single year. Future research might also attempt to determine if the reason for the change in the audit committee chair is significant. A change in the audit committee chair could also be used to evaluate other measures of financial reporting quality such as audit report lag, restatements, and earnings management. Finally, an examination of changes in audit committee chair responsibilities due to new laws or regulations may also be of interest.

## CONCLUSION

The role of the audit committee in a publicly traded company has continually evolved from its beginning when the concept of an audit committee was encouraged by the SEC in 1940 following the McKesson and Robbins case. Audit committee changes continued during the late 1990s when the former SEC Chairman called for greater audit committee independence. Subsequently, these and other changes were formally codified into law when the SOX was enacted in 2002 and implementing regulations were promulgated.

Given the changes in the composition and responsibilities of the audit committee, significant empirical research exists related to audit committee characteristics. Specifically, prior studies have examined the effects of variations in audit committee composition on both the audit process and on various audit-related outcomes. A number of prior studies have examined characteristics such as financial expertise, gender, composition, age, number of meetings, and backgrounds of audit committee members. However, limited literature exists that examines the impact of the audit committee chair on the quality of the financial statement process and the associated audit fees.

This paper contributes to the existing literature by examining the impact of a change in the audit committee chair on audit fees. The results suggest that a change in the chair is associated with higher audit fees in the year of the change whether or not the new chair is an already a board member. These findings provide an empirical basis supporting the idea that a change in the audit committee chair increases the audit committee oversight function, which results in higher audit fees. It appears that the audit chair committee change can be viewed as a positive event that would likely lead to an audit with more scope, which in turn could positively impact confidence in the quality of the financial statements. This study's results are consistent with prior research findings that greater oversight and review by the audit committee results in higher audit fees.

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**APPENDIX****Table 1**

Sample Data

2009 firms with an audit committee chair change (Corporate Library Company Data File)	3,417
Less:	
Foreign companies	(173)
Fiscal year-end not 12/31 (outside of 12/25-1/6)	(809)
Financial, insurance, and real estate companies	<u>(603)</u>
US Companies with FYE of 12/31 excluding Fin, Ins, RE Co.	1,832
Less:	
Missing Audit Analytics data	(33)
Missing Compustat data	<u>(70)</u>
2009 firms with an audit committee chair change with Compustat data	1,729
Less:	
Audit committee chairs in 2009 that were also audit chairs in 2008	<u>(1,390)</u>
Firms with an audit committee chair in 2009 that was not the chair in 2008	<u>339</u>
Prior role of 2009 audit committee chairs that were not the chair in 2008	
Board member in 2008	145
Not on the board in 2008	<u>194</u>
Audit committee chairs in 2009 that were not audit chairs in 2008	<u>339</u>

**Table 2**  
Descriptive Statistics for the Audit Fee Model

<u>Variable</u>	<u>Mean</u>	<u>Standard deviation</u>	<u>25<sup>th</sup> percentile</u>	<u>Median</u>	<u>75<sup>th</sup> percentile</u>
LAFEE	14.15	1.04	13.45	14.08	14.77
LNTA	18.30	1.80	16.98	18.16	19.52
RECINV	0.21	0.17	0.07	0.17	0.30
FOREIGN	0.55	0.50	0.00	1.00	1.00
SQRTSEG	1.41	0.51	1.00	1.00	1.73
LIQ	2.56	2.52	1.13	1.81	2.97
LOSS	0.38	0.49	0.00	0.00	1.00
LEV	0.59	0.42	0.35	0.56	0.74
BIG4	0.85	0.36	1.00	1.00	1.00
GC	0.05	0.21	0.00	0.00	0.00
INITIAL	0.05	0.21	0.00	0.00	0.00
ICW	0.03	0.17	0.00	0.00	0.00
ACCC	0.19	0.39	0.00	0.00	0.00
BD	0.08	0.27	0.00	0.00	0.00
NM	0.11	0.31	0.00	0.00	0.00

Variable Definitions:

- LAFEE = Natural logarithm of audit fees;  
LNTA = Natural logarithm of total assets;  
RECINV = Inventory plus accounts receivable as a proportion of total assets;  
FOREIGN = 1 if company has FOREIGN operations, 0 otherwise;  
SQRTSEG = Square root of the number of segments;  
LIQ = Ratio of current assets to current liabilities;  
LOSS = 1 if company has a LOSS before extraordinary items, 0 otherwise;  
LEV = Ratio of total liabilities to total assets;  
BIG4 = 1 if the auditor is a Big 4 audit firm, 0 otherwise;  
GC = 1 if the firm receives a going concern opinion, 0 otherwise;  
INITIAL = 1 if the audit engagement is the first year audit, 0 otherwise;  
ICW = 1 if the firm has a material internal control weakness (disclosed pursuant to SOX 404), 0 otherwise;  
ACCC = 1 if there was a change in the Audit Committee Chair, 0 otherwise;  
BD = 1 if new audit committee chair was previously a board member, 0 otherwise;  
NM = 1 if new audit committee chair was previously not a member of the board, 0 otherwise



**Table 3**

Regression Results for the Audit Fee Model: Equation 1 and Equation 2

Variable	Equation 1			Equation 2		
	Coefficient	T-statistic	p-value	Coefficient	T-statistic	p-value
LAFEE	5.667	34.11	<0.001	5.68	34.01	<0.001
LNTA	0.408	44.95	<0.001	0.408	44.76	<0.001
RECINV	0.355	4.47	<0.001	0.352	4.43	<0.001
FOREIGN	0.495	17.96	<0.001	0.493	17.89	<0.001
SQRTSEG	0.144	5.33	<0.001	0.142	5.29	<0.001
LIQ	0.004	0.75	0.454	0.004	0.75	0.456
LOSS	0.062	2.22	0.027	0.063	2.26	0.024
LEV	0.189	5.40	<0.001	0.190	5.41	<0.001
BIG4	0.334	8.68	<0.001	0.331	8.58	<0.001
GC	0.069	1.04	0.301	0.069	1.02	0.306
INITIAL	0.009	0.14	0.890	0.007	0.11	0.913
ICW	0.401	5.28	<0.001	0.403	5.30	<0.001
ACCC	0.103	3.12	0.002			
BD				0.132	2.79	0.005
NM				0.080	1.87	0.061

n = 1,729 for both models

Adjusted R<sup>2</sup> = 0.741 for model 1 and model 2

Note: p-values are tailed.

Variables are defined in Table 2.