

6-14-2011

Essays On Audit Report Lag

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

ESSAYS ON AUDIT REPORT LAG

A dissertation submitted in partial fulfillment of the

requirements for the degree of

DOCTOR OF PHILOSOPHY

in

BUSINESS ADMINISTRATION

by

Paul N. Tanyi

2011

To: Dean Joyce J. Elam
College of Business Administration

This dissertation, written by Paul N. Tanyi, and entitled Essays on Audit Report Lag, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Date of Defense: June 14, 2011

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DEDICATION

I would like to dedicate this dissertation to the memory of my late mother Dorothy Oneke Agbor and my late brother Nkongho Tanyi. May their souls rest in perfect peace!

ACKNOWLEDGMENTS

I would like to thank the members of my committee for their time, support and guidance: Drs. Abhijit Barua, Suchismita Mishra, Kannan Raghunandan, and Dasaratha Rama. I would like to express my gratitude to my co-major professors: Dr. Kannan Raghunandan and Dr. Dasaratha Rama for their gentle support, useful comments, and tireless supervision.

ABSTRACT OF THE DISSERTATION
ESSAYS ON AUDIT REPORT LAG

by

Paul N. Tanyi

Florida International University, 2011

Miami, Florida

Professor Kannan Raghunandan, Co-Major Professor

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Audit reporting lag continues to remain an issue of significant interest to regulators, financial statement users, public companies, and auditors. The SEC has recently acted to reduce the deadline for filing annual and quarterly financial statements. Such focus on audit reporting lag arises because, as noted by the Financial Accounting Standards Board, relevance and reliability are the two primary qualities of accounting information; and, to be relevant, information has to be timely.

In my dissertation, I examine three issues related to the audit report lag. The first essay focuses on the association between audit report lag and the meeting or beating of earnings benchmarks. I do not find any association between audit report lag and just meeting or beating earnings benchmarks. However, I find that longer audit report lag is negatively associated with the probability of using discretionary accruals to meet or beat earnings benchmarks. We can infer from these results that audit effort, for which audit report lag is a proxy, reduces earnings management.

The second part of my dissertation examines the association between types of auditor changes and audit report lag. I find that the resignation of an auditor is associated

longer audit report lag compared to the dismissal of an auditor. I also find a significant positive association between the disclosure of a reportable event and audit report lag.

The third part of my dissertation investigates the association between senior executive changes and audit report lag. I find that audit report lag is longer when client firms have a new CEO or CFO. Further, I find that audit report lag is longer when the new executive is someone from outside the firm. These results provide empirical evidence about the importance of senior management in the financial reporting process.

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I. INTRODUCTION

The timeliness of 10-K filings has recently been of interest to regulators and accounting researchers. Section 409 of the 2002 Sarbanes-Oxley Act is titled “Real Time Disclosures” and states as follows:

Section 13 of the Securities Exchange Act of 1934 (15 U.S.C. 78m), as amended by this Act, is amended by adding at the end the following:

“(l) Real Time Issuer Disclosures.--Each issuer reporting under section 13(a) or 15(d) shall disclose to the public on a rapid and current basis such additional information concerning material changes in the financial condition or operations of the issuer, in plain English, which may include trend and qualitative information and graphic presentations, as the Commission determines, by rule, is necessary or useful for the protection of investors and in the public interest.”

Later, the SEC implemented new rules related to the deadlines for the filing of annual and quarterly reports by registrants. The deadline for annual reporting on Form 10-K for accelerated filers was reduced from 90 to 75 days in 2003, and from 75 days to 60 days in 2006.

Regulators and others have argued that reducing the filing deadline increases the timeliness of the availability of financial statement information to investors. However, the reduced 10-K filing deadline imposes significant pressure on management and auditors. In this new regime auditors face the dilemma of completing the audit quicker in order to meet the filing deadline. The major accounting firms and companies have argued that other changes in financial reporting and disclosures, corporate governance, and auditing standards might make it difficult to meet the new shorter deadlines while maintaining an acceptable level of audit quality (Krishnan and Yang 2008). Therefore, the new requirement might compromise audit quality and hence the reliability of

accounting information. So, it is a question of relevance versus reliability, which are two primary qualities of accounting information.

The time it takes the auditor to complete the audit is called the audit report lag, and it is usually measured as the number of days from the fiscal year-end date to the date of the signature of audit opinion. Audit report lag is very important as it influences the timing of the filing of the 10-K with the SEC.

My dissertation examines three issues related to audit report lag. The first part of my dissertation examines the association between audit report lag and barely meeting or beating earnings benchmarks. While several studies have examined the determinants of audit report lag, there is little by way of empirical evidence on the association between earnings management and audit report lag. This is very important in light of the SEC's recent efforts to reduce the 10-K filing lag for (some) public clients from 90 days in 2002 to 60 days in 2006. The shorter reporting lag might reduce the reliability of accounting information as management can now exercise more discretion over earnings, and auditors might not have adequate time to undertake extensive and substantive testing of evidence due to the significant pressure to complete the audit quicker.

Several studies have shown that there is a "kink" in the distribution of earnings; that is, only a small proportion of firms report earnings just missing an earnings benchmark while a disproportionately large number of firms report earnings just meeting or beating an earnings benchmark (Hayn 1995; Burgstahler and Dichev 1997; Degeorge et al. 1999). These studies attribute this anomaly to earnings management. The three types of earnings benchmarks include barely meeting or beating analyst forecast of

earnings per share, trying to avoid earnings decrease from the previous year, and reporting small profits.

Using a sample of 2,764 firms with financial statement and auditor related data in 2008 and 2009, I do not find any significant association between audit report lag and meeting or beating the three earnings benchmarks. However, I find a significant negative association between audit report lag and using discretionary accruals to meet or beat earnings benchmark. These results still hold even after controlling for the endogeneity of audit report lag. These findings show that longer audit report lag reduces the probability of companies engaging in accruals management to meet or beat earnings benchmarks.

The second part of my dissertation investigates the effect of the type of auditor changes on audit report lag. The role of independent auditing is to attest that management has fairly applied the GAAP principles in the financial statements. However, because the interpretation of GAAP sometimes requires professional judgment, management and auditors can hold legitimate but divergent views regarding its application (Magee and Tseng, 1990). This means that audited financial statements are ultimately the outcome of negotiations between management and the external auditor (Antle and Nalebuff, 1991; Dye, 1991). While most auditor-client negotiations sometimes end in an amicable compromise, Dye (1991) show that the disagreements involved in some negotiations could lead to an auditor's resignation from the engagement. Concerns over the frequency of auditor changes have resulted in increased disclosure requirements for registrants that have an auditor change.

Using a sample 602 firms that changed their auditors in 2008 and 2009, I find a significant positive association between the resignation of an auditor and the audit report

lag compared to dismissal clients. Prior research has shown that resignations are more likely to be associated with indicators of risk than dismissals (Menon and Williams 1991, Defond et al. 1997, Krishnan and Krishnan 1997, Wells and Loudder 1997, Shu 2000, Rama and Read 2006). Therefore, the new auditor will exercise more effort with clients of auditor resignations.

I also find a significant positive association between the disclosure of a reportable event and audit report lag. That is, firms that disclosed a reportable event during an auditor change are perceived as inherently risky by the auditor. This inherent risk might pose future potential liability for the incumbent auditor. Hence the auditor exercises extra care in conducting the audit by collecting more evidence. This ultimately leads to a longer audit report lag.

The third part of my dissertation examines the association between executive change and audit report lag. Prior studies provide evidence of new CEOs undertaking earnings management to reduce income in the year of CEO change, with abnormal and extraordinary items being the primary tool through which this is achieved (Wells 2002). I find that there is significant positive association between audit report lag and CEO or CFO changes. This suggests that auditors respond to CEO or CFO changes by taking longer to complete the audit.

Several studies also suggest that senior executives who are outsiders are more likely to change firm policies and business strategy (Hemlich 1974), and also more likely to engage in earnings management (Pourciau 1993) than insiders. Therefore, we should expect auditors response to an insider's appoint to be different from that of an outsider. I

find that there is significant negative association between audit report lag and the hiring of an insider CEO or CFO versus hiring an outsider.

The remainder of this dissertation is organized as follows: Chapter II discusses audit report lag and meeting or beating earnings benchmarks. Chapter III provides empirical tests on the association audit report lag and types of auditor changes. This is followed by chapter IV, which investigates the association between executive changes and audit report lag. The dissertation concludes with a summary and discussion.

II. AUDIT REPORT LAG AND MEETING OR BEATING EARNINGS BENCHMARKS

Motivation

Reported earnings are the joint product of negotiation between the company management and the auditor (Antle and Nalebuff 1991). An audit failure occurs when auditors fail to detect and report accounting misstatements. Auditors have an incentive to exercise due diligence to minimize managerial discretion over earnings management. The presence of earnings management or accounting misstatements could be very costly for both investors and auditors. Investors will inefficiently allocate their limited resources due to poor information, and auditors can subsequently be sued by investors for audit failure (Heninger 2001).

Several studies have argued that firms manage earnings to meet or beat earnings benchmarks (Hayn 1995; Burgstahler and Dichev 1997; Degeorge et al. 1999). However, very little has been done to investigate whether audit effort reduces earnings management to meet or beat earnings benchmark.

If auditors are cognizant of management's efforts to engage in earnings management, then the auditor can be expected to increase the level of audit effort. This in turn would manifest in the form of increased audit report lag. In this part of my dissertation I test if this is indeed the case, using data from fiscal years 2008 and 2009.

The next section discusses the background and develops the hypothesis. This is followed by a description of method and data. After a discussion of results, the section ends with a summary.

Background

Prior Research on Audit Report Lag

Prior studies have examined the auditors' role in influencing the timeliness of audited reports and have investigated the determinants of audit report lags (Ashton et al. 1987, Ashton 1989, Newton and Ashton 1989, Kinney and McDaniel 1993, Bamber et al. 1993, and Schwartz and Soo 1996, Henderson and Kaplan 2000, Knechel and Payne 2001). While the above referenced studies examine audit reporting in the pre-SOX period, at least two published studies have investigated audit report lag in the post-SOX period (Ettredge et al. 2006, Krishnan and Yang 2009).

Ashton et al. (1987) is one of the first studies to examine the determinants of audit report lag. Ashton et al. (1987) collected data from questionnaires mailed to managing partners of U.S. offices of Peat, Marwick, Mitchell & Co. on audit engagements in 1982. They find that firms with good internal controls and the performance interim audit work are associated with shorter audit report lag. However, public traded companies, December 31 fiscal year-end firms, and firms with qualified audit opinion tend to have longer audit report lag.

Williams and Dirsmith (1988) examine the effect of audit technology on auditor efficiency in completing the audit the audit engagement. They selected 679 companies with financial statement and earnings announcement data from Compustat and IBES respectively. The independent variable employed in their analysis is the relative degree of structure versus judgment of a CPA firm's audit technology. They find that firms that employ a structured audit approach tend to have shorter earnings announcement lag.

Ashton et al. (1989) investigate determinants of audit report lag for Canadian public companies. Their sample includes 465 companies listed on the Toronto Stock Exchange between 1977 and 1982. They find that auditor type (Big N), reporting of loss, the presence of extra-ordinary items on the income statement, and the reporting of a contingency significantly affect audit report lag.

Bamber et al. (1993) study the association between audit technology and determinant of audit report lag. Audit technology is defined as using an unstructured audit versus a structured audit during the audit engagement. They find that for a sample of firms spanning the period 1983 to 1985, firms that employed structured audit approach tend to have shorter audit report lag.

Schwartz and Soo (1996) examine the timing of auditor change in relation to firm's fiscal year-end and the subsequent audit report lag with the incoming auditor. Their sample includes 502 firms that reported auditor changes between 1988 and 1993. They find that firms that switch auditors earlier (later) in the fiscal year tend to have shorter (longer) audit report lag. They argue that switching auditors earlier in the fiscal year gives the incoming auditor sufficient time to become familiar with the new client, and this will eventually lead to a shorter audit report lag.

Knechel and Payne (2001) examine three other uninvestigated factors that might potentially influence audit report lag. The factors include audit effort measured by the number of actual hours invested in the engagement, the allocation of the audit team members by rank, and the provision of non-audit services. Using a database of 226 audit engagement clients, they find a positive significant association between audit effort, the

use of inexperienced audit staff and audit report lag. However, the provision of non-audit services is negatively associated with audit report lag due to benefits from synergy.

Other studies have examined the impact of SOX on audit report lag (Ettredge et al. 2006, Krishnan and Yang 2009). Ettredge et al (2006) investigate the impact of internal control quality on audit delay following the passage of the Sarbanes-Oxley Act in 2002. Their sample includes 2,344 firms that reported internal control quality in 2004. They find a significant increase in audit report lag with the passage of SOX. They also find that firms who reported material weakness in internal control had significantly longer audit report lag.

Krishnan and Yang (2009) investigate the trend in audit report lag pre and post the passage of the Sarbanes-Oxley act. They find that audit report lags increased significantly for the two year period 2001 to 2002 prior to the passage of SOX and the year 2003 to 2006 subsequent to introduction of the accelerated filing requirement.

Meeting or Beat Earnings Benchmark: A Proxy for Earnings Management

Several studies have shown that there is a “kink” in the distribution of earnings; that is, only a small proportion of firms report small earnings decreases (or small losses) while a disproportionately large number of firms report small earnings increases (or small profit) (Hayn 1995; Burgstahler and Dichev 1997; Degeorge et al. 1999). The “kink” is identified as an anomaly in the distribution of earnings around three benchmarks; the first benchmark is to report a profit i.e., firms trying to avoid losses. The second benchmark is the firm’s prior year earnings per share; the anomaly here is that very few firms will have small decrease in earnings per share when compared to the prior year while many firms

will have a small increase in earnings per share. The third benchmark is the analysts' forecast of earnings: a disproportionately large number of firms either just meet or barely beat the analysts' forecasts.

Hayn (1995) examines the effect of reporting a loss on the return-earnings relationship. She observes in a chart showing the distribution of earnings per share scaled by price that there is a discontinuity right around zero. There is a concentration of firms just above zero, while there are fewer firms reporting small losses right below zero. The distribution of firms above and below the zero benchmark is different at 1 percent level of significance. She suggests that firms whose earnings might have fallen below the zero benchmark level are engaging in some form of earnings management to barely avoid reporting a loss.

Burgstahler and Dichev (1997) first investigate the prevalence of earnings management to avoid earnings decreases and losses. They find a high proportion of firms reporting a small profit, and very few firms reporting a small loss. This is consistent with Hayn (1995). They also further examine the method of earnings management to avoid losses, and they find an increase in the level of cash-flow around the zero earnings reference point. They argue that this is consistent with cash-flow manipulation to boost earnings.

Unlike Hayn (1995) and Burgstahler and Dichev (1997) who examine earnings management to meet just one type of benchmark, Dechow et al. (1999) investigate earnings management to meet or beat three benchmarks (avoid losses, earnings increases, and forecast). They find that for firms with earnings falling just short of the benchmark, earnings will be managed upward to meet or beat the threshold; and when earnings are

far above or below thresholds, earnings will be reined in making it possible to meet future thresholds.

Dechow et al. (2003) investigate whether the observed disproportionate distribution of small losses and small profit is associated with earnings management by examining discretionary accruals around the zero profit benchmark. They argue that if firms are using earnings management to avoid losses, then, firms that report small profit will have higher levels of discretionary accruals than firms reporting small losses. Overall, they could not find the association between discretionary accruals and firms trying avoid losses. Dechow et al. (2003) conclude that barely meeting or beating earnings benchmark might not necessarily indicate earnings management.

Incentives to Meet Earnings Benchmarks

Several studies have examined the incentives of firms to meet or beat earnings thresholds (Barth et al. 1999, Bartov et al. 2002, Kasznik and McNichols 2002, Lopez and Rees 2002, Skinner and Sloan 2002, Myers and Skinner 2002, Brown and Caylor 2005, Jiang, 2008). These studies argue that companies have an incentive to meet or beat earnings benchmarks because other parties concerned with the firms performance do care about earnings benchmarks. Such parties include equity and debt investors, suppliers, and even the employees.

Barth et al. (1999) investigate the market rewards for meeting or beating earnings benchmark (avoiding earnings decrease) by examining the price-earnings multiple of patterns of increasing earnings. The sample includes all firms on Compustat for the period 1982 to 1992 with data to estimate their model. They find that firms who

consistently exceeded previous years' earnings have higher price-earnings multiples after controlling for firm growth and risk. They also find a significant drop in the price-earnings multiple for firms that had a break in the increasing earnings pattern.

Matsunaga and Park (2001) examine the association between missing quarterly earnings benchmark and the CEO's annual bonus. They argue that if meeting or beating earnings benchmark is an important aspect of the firm's performance, then failure to meet the benchmark will likely have an "incremental" adverse effect on the CEO's compensation. Their sample includes 1324 firms with CEO compensation and financial statement related data. They find a significant negative effect on CEO annual cash bonus when firms fail to meet or beat analyst forecast consensus or the prior year earnings per share.

Similarly, Bartov et al. (2002), examine market reward to meeting or beating analyst forecast benchmark. Their sample includes 64,872 individual firm quarters obtained from the IBES database. They find that firms that consistently meet or beat analyst forecast earnings per share (EPS) estimate tend to have higher equity return premium. They also find that the equity premium persist for firms that use earnings management to meet or beat analyst forecasts.

Kaszniak and McNichols (2002) study whether the market rewards firms for meeting current period earnings expectations, and whether this reward reflects the implications of meeting expectations in the current period for future earnings or reflects a distinct market premium. They find that the twelve-month market-adjusted returns are significantly greater for firms meeting expectations after controlling for the information in the current year's earnings. They also find that after controlling for higher future

earnings, firms meeting expectations in one or two years do not receive a greater valuation than their fundamentals would suggest.

Rees and Lopez (2002) examine the stock price sensitivity between positive and negative forecast errors to determine whether the market differentially rewards firms for meeting or beating the analyst forecast than it punishes firms for failing to meet or beat analyst forecast. For a sample of firms that reported annual earnings between the years 1985 and 1995, they find that the market penalty for missing forecast is significantly greater than the market response to meeting or beating analyst forecast.

Brown and Caylor (2005) investigate the relative importance of the three earnings benchmark using quarterly earnings announcement data for the period 1985 to 2002. They find that prior to mid-90s, managers were more focus on avoiding quarterly earnings losses (reporting small profit) and earnings surprise (meeting or beating analyst forecast) to avoiding earning decreases. However, after the mid-90s, they find that managers were more focused on meeting or beating analyst forecast than on avoiding losses or earnings decreases. They attribute this temporal difference to changes in the market's reward for meeting or beating the different earnings benchmarks. Prior to the mid-90s firms that avoided losses or had positive earnings surprises had higher equity premium. After the mid-90s, firm that met or beat analyst forecast had the highest equity premium.

Jiang (2008) is the only study that has examined the effect of meeting or beating earnings benchmark on cost of debt. He finds that firms beating earnings benchmarks have a higher probability of receiving an increase in bond ratings and a smaller initial

bond yield spread. He also finds that trying to avoid losses is associated with the highest increase in bond rating and lowest bond spreads.

Overall, the evidence from prior research suggest that companies meet or beat earnings benchmarks because of market related incentives i.e., higher equity premium (Barth et al. 1999, Bartov et al. 2002, Kaznik and McNichols 2002, Lopez and Rees 2002), higher bonus compensation (Matsunaga and Park 2001), and lower cost of debt (Jiang 2008).

Auditing and Client's Earnings Management

Audited financial statements are the product of negotiations between the client's management and the auditor (Antle and Nalebuff 1991). External auditors have a stake in the financial reporting process as they provide assurance to investors and creditors that the firm's financial statements are fairly presented. Given the importance of auditors in the financial reporting process, there have been numerous lawsuits against auditors alleging audit failures resulting from financial restatement or other forms of accounting misstatements, and such lawsuits can be quite costly. Thus, auditors have an incentive to minimize managerial earnings management.

Heninger (2001) investigate the association between the litigation against the auditor and the level of discretionary accruals. He matches a sample of 62 firms that had litigations against the auditor and a sample of 62 firms that did not have any litigation against the auditor. He finds that there is a significant positive association between litigation against the auditor and the level of discretionary accruals.

Some studies have shown that auditors do respond to earnings management. Hirst (1994) experimentally investigates whether auditors are sensitive to management's incentive to manage earnings. The subjects in his experiment are 84 U.S. auditors; these auditors were provided with background material about an audit client with the level of inherent risk for each client manipulated. The subjects were presented with financial statements and background information about a publicly traded company, and they were asked to review the materials to estimate the probability that the net income of the company was overstated. Hirst (1994) finds that auditors were sensitive to management incentives to manage earnings.

Hackenbrack and Nelson (1996) examine the auditor's incentive to curtail management's reporting. They find that auditors respond to moderate engagement risk by permitting management's aggressive reporting choices and justified these choices with aggressive interpretations of accounting standards. However, when auditors face clients with high engagement risk, the auditors respond by requiring conservative reporting and justified their choice with conservative interpretations of accounting standards.

Francis and Krishnan (1999) argue that sometimes choices that managers make related to earnings management cannot easily and objectively be verified by auditors. This causes firms with high levels of accrual to pose more uncertainty for the auditor than firms with low levels of accruals. Therefore, auditors can respond to this inherent risk of earnings management for high-accrual firms by increasing the likelihood of issuing a going concern modified opinion to such firms. They find that for a sample of large public firms in the U.S., there is a significant positive association between the level of accruals and the likelihood of receiving a modified going concern opinion.

Bedard and Johnstone (2004) examine the effect of auditors' assessment of the earnings manipulation risk of the client on the auditors pre-planning and pricing decisions. They argue that if auditors perceive an engagement to be inherently risky, they have several pre-engagement choices to make. They can either increase the number planned audit hours involved or increase the audit fee premium to compensate for the additional risk. The authors obtained audit engagement data on 1,000 public clients of a particular audit firm. They find that auditors plan to increase the audit effort and billing rates for clients with higher earnings manipulation risk, and that corporate governance risk moderates the relationships between earnings manipulation risk and both audit effort and billing rates.

Caramanis and Lennox (2008) investigate whether audit effort has an effect on earnings management. Their sample includes the number of hours billed by auditors on 9,738 audits in Greece between the period 1994 and 2002. They find that when audit hours are low, abnormal accruals are more often positive than negative, positive abnormal accruals are larger, and companies are more likely to manage earnings upwards in order to meet or beat earnings benchmarks. This is the only study that has provided direct evidence of audit effort measured by number of billing hours and its influence on constraining earnings management. However, the results from this study cannot be directly transferred to the U.S. setting; the authors pointed out that "Greece is a good case study, not only because of the availability of data on audit hours, but also because earnings management is rampant there." In addition, unlike Greece, United States has one of the strongest investor protection systems in the world; while lawsuits against

external auditors are rare in Greece, external auditors in the U. S. have been sued frequently alleging failed audits.

Schelleman and Knechel (2010) examine whether risks associated with increased levels of accruals that might indicate earnings management affects the pricing and production of audit services. They obtained audit and financial statement data for a sample of 119 audit engagements from a Big 6 audit firm in Netherlands. They find that signed short-term accruals are associated with a significant increase in audit fees as well as total effort.

In summary, there is some evidence from prior studies that auditors adjust their planning decisions based on expectations about client risk. However, there is very little archival empirical evidence about the consequences of earnings management on auditors' decisions and actions. Some prior studies have shown an association between earnings management and audit fees and effort, but such studies are based on non-U.S. settings.

Hypotheses

In this study, I examine auditors' response to client earnings management using audit report lag as a proxy for audit effort. Audit report lag is measured as the number of days from the end of the fiscal year to the date of audit opinion signature. Knechel and Payne (2001) find a significant positive association between incremental audit effort (measured as the number of billing hours) and audit report lag, and suggest that the audit reporting lag is a good proxy for overall audit effort. If barely meeting or beating analyst forecast represents some form of earnings management (Hayn 1995; Burgstahler and

Dichev 1997; Degeorge et al. 1999), then, the auditor will likely respond by exercising increased diligence and more audit effort.

Dechow et al. (2003) suggest that firms that meet or beat earnings benchmark might not necessarily engage in earnings management. Meeting or beating earnings benchmark might be considered earnings management to the extent that the firm engages in an activity that manipulates earnings in a certain direction.

The above discussion leads to my first two hypotheses:

H₀₁: There is no association between audit reporting lag and meeting or just beating various earnings benchmarks.

H₀₂: There is no association between audit reporting lag and using accruals to meet or just beating various earnings benchmarks.

Method

Model

We examine whether there is an association between audit report lag and meeting or beating earnings benchmark by estimating the following logistic regression model:

$$Pr (BENCHMARK) = \alpha_0 + \alpha_1 * SQ_LAG_{it} + \alpha_2 * LNMKV_{it} + \alpha_3 * SHT_TEN_{it} + \alpha_4 * BIG4_{it} + \alpha_5 * ANALYST_{it} + \alpha_6 * FORSTD_{it} + \alpha_7 * LTGROWTH_{it} + \alpha_8 * LEVERAGE_{it} + \alpha_9 * CFO_TA + \alpha_{10} * BTM + \alpha_{11} * PROFIT_{it-1} + \alpha_{12} * YEAR_J + \alpha_{13} * IND_K + \varepsilon \dots \dots (1)$$

where:

BENCHMARK = 1 if the firm meets or beats an earnings benchmark, 0 otherwise;

<i>SQ_LAG</i>	=	square-root of the number of days from the fiscal year end date to the date of signature of audit opinion;
<i>LNMKVL</i>	=	the natural log of the market value of equity;
<i>SHT_TEN</i>	=	1 if the auditor has audited the client for less than four year, 0 otherwise;
<i>BIG4</i>	=	1 if Big Four auditor, 0 otherwise;
<i>ANALYST</i>	=	the number of analyst following the firm obtained from IBES;
<i>FORSTD</i>	=	the standard deviation of the forecasted earnings per shares by the analysts obtained from IBES;
<i>LTGROWTH</i>	=	is the analyst forecast of long-term earnings per share growth obtained from IBES;
<i>LEVERAGE</i>	=	total long-term debt divided by total assets;
<i>CFO_TA</i>	=	total cash-flow from operations scaled by total assets;
<i>BTM</i>	=	book value per share scaled by market price per share;
<i>PROFIT_{t-1}</i>	=	1 if the firm reported a profit in the previous year, 0 otherwise;
<i>YEAR</i>	=	year dummy variables; and
<i>IND</i>	=	2-digit SIC code industry dummy variables.

BENCHMARK is measured in three different ways: barely meeting or beating analyst forecast of earnings per share (*MBE*), have a small earnings increase (*SMALLINCREASE*), or barely avoiding a loss (*SMALLPROFIT*). Each of these dummy variables takes the value of 1 if the benchmark is met, and 0 otherwise.

The model includes other control variables that have been shown in prior studies to influence the probability of meeting or beating earnings benchmark. I include firm size (*LNMKVL*), number of analyst following the firms (*ANALYST*), and the standard deviation of the analysts' EPS forecast estimates (*FORSTD*) to control for the firm information environment. Prior studies have shown that firm with firms that are large in size, with higher analyst following, and smaller standard deviation of analyst forecast tend to have better information environment (Lys and Soo 1995, Brown 1997, Chevis et al. 2002).

Burgstahler and Dichev (1997) show that firms that report a profit in the previous year have more incentive to meet or beat earnings benchmarks in the current year. So, I control for firms that had a profit in the previous year (*PROFIT_{t-1}*).

Davis et al (2009) investigate the relationship between auditor tenure and the firm's ability to use accruals to meet or beat analyst forecast. They find that shorter tenure is associated with an increased likelihood of meeting or beating analyst forecast. I control for short auditor tenure (*SHT_TEN*) in the regression model. It has been established in many prior studies that Big 4 (*BIG4*) auditors have a reputation for higher audit quality. Therefore, there is less likelihood for clients of Big 4 auditors to engage in earnings management compared to clients of non-Big 4 auditors. I expect a negative coefficient for the Big 4 variable.

I include analyst forecast of the firm's long-term growth (*LTGROWH*) and book to market ratio (*BTM*). These are proxies for firm growth. High growth firms are more sensitive to failing to meet or beat an earnings benchmark (McVay et al. 2006, Skinner and Sloan 2002).

I control for the level of operating cash-flows. Dechow et al. (1995) show that the level of operating cash flows (*CFO_TA*) influence the magnitude of discretionary accruals. DeFond and Jiambalvo (1994) argue that companies with more leverage (*LEVERAGE*) have greater incentives to use accruals to increase their earnings due to debt covenant constraints, and predict that debt level should be positively correlated with discretionary accruals. Finally, I also control for year (*YEAR*) and industry (*IND*) dummy variables in the logistic regression model.

Dechow et al. (2003) argue that meeting or beating analyst forecast could be considered a form of earnings management to the extent firms actual engage in some activity (e.g. using accrual) to meet or beat analyst forecast. Hence, I create three additional variables as follows. Each of the three variables uses a combination of using positive discretionary accruals to achieve an earnings benchmark: to meet or beat analyst forecast of earnings per share (*MBE_ACC*), meet or beat previous year actual earnings per share (*S_INCREASE_ACC*), and to avoid a loss (*S_PROFIT_ACC*). I calculate the abnormal accruals, required for the above three variables, as follows.

Kothari et al. (2005), show that there is significant association between firm performance and the level of total accruals. I use the ordinary least-squares (OLS) regression to estimate the following performance-adjusted Cross-sectional Modified Jones model for the sample by fiscal year and two-digit industry SIC code (a minimum of ten observations required for firms in a two-digit industry SIC code be included in a year):

$$TAC = \beta_0*(1/TA_{t-1}) + \beta_1*(REVT_t - RECT_t)/(1/TA_{t-1}) + \beta_2*PPE_t/(1/TA_{t-1}) + \beta_3*ROA_{t-1}.....(2)$$

Where,

TAC = Total accruals calculated as net income minus cash-flow from operations,

TA_{t-1} = Lagged total assets,

$REVT_t - RECT_t$ = the difference between changes total sales revenue and changes in total accounts receivable,

PPE_t = net property plant and equipment, and

ROA_{t-1} = lagged return on asset calculated as lagged net income divided by lagged

Data

I start by obtaining a sample of firms from the Audit Analytics database with audit opinion data for both 2008 and 2009. To be included in the sample, a firm must meet the following criteria:

1. Must be a US company with an identifiable SIC code, and have a December 31 fiscal year end
2. Is not in the financial industry (SIC code 6000-6999)
3. Has complete financial statements data from Compustat Industrial-North America in 2008 and 2009 to estimate our model
4. Has analyst forecast data from IBES for both 2008 and 2009

As shown in Table 1, I begin with 7,269 US firms with fiscal year ending in December 31, and with audit opinion date in 2008 and 2009. I delete 2,936 firms with SIC codes 6000-6999 and another 280 firms with no identifiable SIC code. An additional 1,017

firms are deleted due to missing financial statement data from Compustat, while 272 firms do not have analyst forecast data from the IBES database. This yields a final sample of 2,764 firms with data to estimate our model in both 2008 and 2009.

Results

Descriptive Statistics

Table 2 presents the descriptive statistics of the variables used in the model. The proportions of firms that barely meet or beat analyst forecast of earnings per share (*MBE*), had a small earnings increase (*SMALLINCREASE*), or avoid a loss (*SMALLPROFIT*) are 0.178, 0.162, and 0.224 respectively. Comparing the three benchmarks, more firms in our sample are likely to just avoid a loss. This is consistent with Jiang (2008). However, the proportions of firms that used positive discretionary accruals to barely meet or beat analyst forecast earnings per share (*MBE_ACC*), to have a small earnings increase (*S_INCREASE_ACC*), or to avoid a loss (*S_PROFIT_ACC*) are 0.087, 0.074, and 0.070 respectively.

The mean (median) audit report lag (*LAG*) is 63.094 (60) for our sample. These values are similar to those reported by Krishnan and Yang (2009). The mean and the median market value of equity (*MKVL*) for firms in the sample are 3186.660 and 634.741 respectively. This indicates that our sample is skewed to the right. To correct for the skewness of the market value of equity, we transform the variable by obtaining the natural logarithm (*LNMKVL*).

The proportion of firms audited by the same auditor for less than four years (*SHT_TEN*) is 0.055. The proportion of firms audited by a Big 4 auditor is 0.839. The

mean and median number of analysts (*ANALYST*) following the firms in our sample is 9.914 and 8. The proportion of firms in the sample that reported a profit in the previous year is 0.754.

I test for multi-collinearity between the independent variables by examining the correlation matrix (not tabulated). I find that all of the bi-variate correlations are less than 0.50. I also find that the variance inflation factors for the variables in the regression model are all less than 1.35, indicating that multi-collinearity does not cause problems with our inferences.

Regression Results

All analyses are done using the logistic regression model. I report p-values based on robust standard errors (White 1980) to control for heteroscedasticity. I also control for year and firm fixed effects for each regression.

Table 3 presents the result of the three regressions of meeting or beating earnings benchmarks and audit report lag. The dependent variables for the three columns are barely meeting or beating analyst earnings per share forecast (*MBE*), reporting a small earnings increase (*SMALLINCREASE*), and trying to avoid a loss (*SMALLPROFIT*) respectively. All three regressions are significant at 1 percent. For all three regressions in Table 3, we find a significant positive association between firms meeting or beating an earnings benchmark with short tenure (*SHT_TEN*), number of analyst following (*ANALYST*), analyst forecast of firm's long-term growth (*LTGROWTH*), and firms that reported a profit in prior year (*PROFIT_{t-1}*). This is consistent with prior studies (Burgstahler and Dichev 1997, McVay et al. 2006, Davis et al 2009). We also find a

significant negative association between book to market ratio (*BTM*), standard deviation of analyst forecasts (*FORSTD*) and meeting or beating each of the earnings benchmark.

Interestingly, there is no significant association between the Big 4 (BIG4) variable and meeting or beating any of the earnings benchmark. Prior studies have shown that Big 4 auditors have a reputation for quality audit. Therefore, if barely meeting or beating earnings benchmarks represents earnings management, then we will expect a negative association between the Big 4 variable and meeting or beating earnings benchmarks.

The hypotheses in this study deal with the association between audit report lag and barely meeting or beating the various earnings benchmarks. In none of the three regressions is there any significant relation between audit report lag and meeting or beating any of the three benchmarks. One possible explanation could be that auditors exercise the same level of effort on clients that barely meet or beat earnings benchmark as well as clients that did not meet or beat an earnings benchmark.

In Table 4, I provide results from the regressions to test the association between audit report lag and using positive discretionary accruals to meet or beat an earnings benchmark. The dependent variables for each column are using a positive discretionary accrual to meet or beat analyst forecast of earnings per share (*MBE_ACC*), using a positive discretionary accrual to meet or beat previous year actual earnings per share (*S_INCREASE_ACC*), and using a positive discretionary accrual to avoid a loss (*S_PROFIT_ACC*). Each of the regression models is significant at 1 percent.

I find that clients of Big 4 auditors are less likely to use a positive discretionary accrual to meet or beat each of the earnings benchmarks. I also find a significant negative association between audit report lag and each of the three earnings benchmarks

MBE_ACC (coefficient=-0.060, p-value=0.012), *S_INCREASE_ACC* (coefficient=-0.026, p-value=0.009), *S_PROFIT_ACC* (coefficient=-0.093, p-value=0.003). This shows that audit effort through longer audit report lag reduces the probability of firms using discretionary accruals to barely meet or beat earnings benchmarks.

To further improve on the robustness of the tests, I further restrict the sample to include only firms that barely meet or beat each of the earnings benchmark by 1 cent. This is very important as the full sample includes firms that did not meet the earnings benchmark, firms that barely meet or beat the benchmark (meet or beat earnings benchmark by less than or equal to 1 cent), and firms that exceeded the earnings benchmark by 1 cent. If earnings management to achieve benchmarks is the question of interest, then arguably the sample should be restricted to the second group of firms.

Table 5 presents the results from regressions with the restricted sample of firms. I still find a significant negative association between audit report lag and using discretionary accruals to meet or beat an earnings benchmark. When audit report lag is long, firms that meet or beat an earnings benchmark will be less likely use accrual to do this.

I can infer from these analyses that auditors exercise the same level of effort whether a company barely meets or beat an earnings benchmark, or the firm does not meet the earnings benchmark. However, the higher audit effort proxied by longer audit report lag is associated a less likelihood of firms using discretionary accruals to meet or beat earnings benchmarks.

The Endogeneity of Audit Report Lag

Auditors can respond to the inherent risk of earnings management by exercising extra effort which can lead to longer audit report lag. Then, I could expect a positive relationship between audit report lag and earnings management. Also, higher audit effort can reduce earnings management.

To control for this endogeneity, I use a two-stage instrumental variable (IV) estimation. In the first stage, I estimate a model of audit report lag and I obtain the regression coefficients to get the predicted audit report lag. I use the following multiple regression model shown below to estimate the predicted audit report lag.

$$\begin{aligned}
 SQ_LAG &= \alpha_0 + \alpha_1 * LNTA + \alpha_2 * SQSEG + \alpha_3 * BIG4 + \alpha_4 * HIGHTECH + \\
 &\alpha_5 * HIGHLIT + \alpha_6 * HIGHGROWTH + \alpha_7 * FOREIGN + \alpha_8 * LOSS + \\
 &\alpha_9 * EXTRAORD + \alpha_{10} * FINCOND + \alpha_{11} * ACQUI + \alpha_{13} * GC + \alpha_{14} * ICW + \\
 &\varepsilon \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots (3)
 \end{aligned}$$

The variables are defined as follows:

- SQ_LAG* = the square-root of the number of days from fiscal year-end to the date of signature of opinion;
- LNTA* = the natural log of the firm's total assets;
- SQSEG* = the square-root of the number of business segments;
- BIG4* = 1 if BIG Four auditor, 0 otherwise;
- HIGHTECH* = 1 if the firm belongs to high-tech industries (3 digit SIC codes 283, 284, 357, 366, 367, 371, 382, 384, and 737), 0 otherwise

<i>HIGHLIT</i>	=	1 if the firm belongs to litigious industries (2 digit SIC codes; 28, 35, 36, 38, and 73), 0 otherwise;
<i>HIGHGROWTH</i>	=	1 if the firm belongs to high-growth industries (2 digit SIC codes 35, 45, 48, 49, 52, 57, 73, 78, and 80), 0 otherwise;
<i>FOREIGN</i>	=	1 if the firm had foreign operations, 0 otherwise;
<i>LOSS</i>	=	1 if the firm had negative income before extra-ordinary items, 0 otherwise;
<i>EXTRAORD</i>	=	1 if the firm had any extra-ordinary items in the income statement, 0 otherwise;
<i>FINCOND</i>	=	probability of bankruptcy estimated from Zmijewski's (1984) model for non-financial firms (calculated as of the end of the fiscal year);
<i>ACQUI</i>	=	1 if the firm had any mergers and acquisitions, 0 otherwise;
<i>GC</i>	=	1 if the firm received a going concern opinion, 0 otherwise;
		and
<i>ICW</i>	=	1 if the firm had any material weakness in internal controls, 0 otherwise.

Table 6 presents the results of regression model in equation 3. The predicted audit report lag is then used as the independent variable of interest in equation 1.

Table 7 presents the results of the regression examining the association between predicted audit report lag and meeting or beating earnings benchmark. I still do not find

any significant association between predicted audit report lag and meeting or beating any of the earnings benchmark.

In Table 8, I present the result testing the association between predicted audit report lag and using discretionary accrual to meet or beat earnings benchmarks. As before, I find a significant negative association between the predicted audit report lag and using discretionary accruals to meet or beat earnings benchmark. This is consistent with our initial results and confirms our expectation that audit effort measured by the audit report lag reduces the level of earnings management. The result is consistent even after I restrict our sample to include only firms that barely meet or beat an earnings benchmark. Table 9 shows that for firms that did barely meet or beat an earnings benchmark, there is a significant negative association between predicted audit report lag and using discretionary accruals to meet or beat earnings benchmarks.

Summary

Several studies have argued that firms manage earnings to meet or beat earnings benchmark (Hayn 1995; Burgstahler and Dichev 1997; Degeorge et al. 1999). However, very little has been done to investigate whether audit effort reduces earnings management to meet or beat earnings benchmark. Auditors have incentives to exercise extra audit effort to minimize managerial discretion over earnings management. Therefore, I will expect higher audit effort to lead to higher audit quality, and ultimately better quality financial statements.

In this study I examine the association between audit effort measured by audit report lag and the probability of meeting or beating earnings benchmark. I do not find any

association between audit report lag with just meeting or beating earnings benchmark. However, I do find a significant negative association between audit report lag and using discretionary accruals to meet or beat earnings benchmarks. My results are robust to controlling for the endogeneity of audit report lag. The findings of this study show that the level of the auditor's effort measured by audit report lag reduces management's discretion to use accruals to meet or beat earnings benchmarks.

III. AUDITOR CHANGES AND AUDIT REPORT LAG

Motivation

Auditor changes continue to be a subject of scrutiny from regulators. The interest of regulators is due to concerns that auditor changes are motivated by management's opportunism (Defond and Subramanyan 1998).

The Securities and Exchange Commission has required, since 1971, registrants to disclose information about auditor changes in a Form 8-K filed with the Commission. The Commission has noted that such disclosures are required to discourage public companies from changing their auditors to obtain more favorable accounting treatment from an auditor different than the incumbent auditor. The Commission requires public companies to disclose "whether in the eighteen months preceding such engagement there were any disagreements with the former principal accountant on any matter of accounting principles or practices, financial statement disclosure, or auditing procedure, which disagreements if not resolved to the satisfaction of the former accountant would have caused him to make reference in connection with his opinion to the subject matter of the disagreement" (SEC 1971).

Traditionally, a company changing its auditors is considered a signal that bad news is on the way (Knapp and Elikai 1988). Prior studies have shown that auditors are sensitive to many different conditions that increase their risk when conducting an audit (Schelleman and Knechel 2010). Francis and Krishnan (1999) argue that auditors can respond to the presence of such heightened risk in several ways, one of which is to increase audit effort.

Audit report lag or audit delay is the length of time from a company's fiscal year-end date to the audit report date. Knechel and Payne (2001) using a proprietary database on 226 audit engagements from an international audit firm, examine factors that are externally unobservable but closely reflect audit production. Their findings show that incremental audit effort is associated with audit report lag. Thus, audit report lag is a good proxy for audit effort.

It is likely that the audit effort will generally be higher in initial year audits. As discussed in more detail in the following section, I expect that audit report effort will be higher when the predecessor auditor has resigned from the engagement (instead of being dismissed by the client) and when there are disclosures about certain reportable events, such as an auditor-client disagreement. This increased audit effort will ultimately lead to an increase in audit report lag. Hence, I expect to see a positive association between audit report lag and (a) auditor resignation, and (b) the disclosure of reportable events.

I test my hypotheses using data from 602 auditor changes in 2008 and 2009. The findings of this study contribute in the literature on audit report lag and auditor changes by showing that the type of auditor change affects the perception of the incoming auditor and the nature of the audit engagement.

The remainder of this chapter is organized as follows: The next section discusses the background and prior research, and develops the hypotheses. This is followed by a discussion on the research method, the sample, and the results. The last section presents the summary and conclusions.

Background and Hypotheses

Auditor Changes

The SEC has long been interested in auditor changes. This is because of concerns that managers can dismiss auditors who do not go along with their wishes, and engage a new auditor who is presumably more willing to accede to client requests. This practice reduces the quality of audited financial information. Hence, the SEC has required that information about auditor changes be disclosed in Form 8-K filings with the Commission in a timely manner.

Several studies examined whether auditor changes are motivated by clients needing an unqualified audit opinion from a different auditor. Chow and Rice (1982) study whether opinion shopping is one of the primary reasons why firms switch auditors. They examine whether firms dismiss their auditors after receiving a qualified opinion. They collect financial statement data and audit opinion data on 141 firms for years 1973 and 1974. They find that though firms who receive qualified opinion tend to dismiss their auditors, these firms do not necessarily receive an unqualified opinion from the new auditor.

Schwartz and Menon (1985) examine why failing firms switch auditors in the years prior to a bankruptcy. They match a sample of 132 failing firms with 132 non-failing firms and find that failing firms tend to switch auditors, and that they switch auditors for a different category of auditors (non-Big 4 to Big 4). They could not find any evidence showing that failing firms change their auditors after receiving a qualified opinion (opinion shopping).

Smith (1986) examines whether disagreement between the client and the auditor on the type of opinion influences the dismissal of the auditor by the client. He collected audit opinion data on 39 firms that had auditor changes from 1977 to 1982. He finds a significant positive association between the auditor-client disagreement on the opinion type and the dismissal of the auditor by the client.

Some studies have examined whether clients demand for quality audit drives the need for an auditor change. Francis and Wilson (1988) examine the association between agency cost and the auditor differentiation. They argue that firm's agency cost drives the need for a particular type of auditor; firms with high agency will demand a high quality auditor while firms with low agency cost do not necessarily need a high quality auditor. Therefore auditor changes could be driven by a change in a firm's agency cost. Using a sample of 676 firms that had an auditor change between 1978 and 1985, they find a significant positive association between agency cost measured by the proportion of managerial ownership and the demand for high quality audit.

Johnson and Lys (1990) examine whether changes in the client's operations and activities are associated with the need for auditor-client realignments. Their sample comprises 600 firms that voluntarily changed auditors between 1973 and 1982. They find that changes in the client's financial condition and operations are significantly associated with auditor changes.

Menon and Williams (1991) examine auditor credibility and the choice of an auditor during an initial public offering (IPO). They argue that information symmetry problems will affect the choice of auditor hired by a client just before an IPO. Their

sample includes 1,320 firms that went public in 1985 and 1986. They find that firms tend to seek the services of a high quality auditor right before an IPO.

Several studies have investigated investors' perception of auditor change. These studies argue that because of the importance of external audit to the financial reporting quality of a firm, an auditor change could signal new information about the company to the investors. Nichols and Smith (1983) argue that a credible auditor plays an important role by restricting management's ability to manage earnings. Therefore, a change from a credible to non-credible auditor or vice-versa is expected to influence investors' perception about the company. For a sample of 51 firms that had an auditor change during the period 1973 to 1979, they find a significant (negative) positive market reaction for firms that switch from a non-Big 8 to Big 8 auditor (Big 8 to non-Big 8 auditor).

Klock (1995) investigates market reaction to auditor changes and factors that influence the market reaction. His sample includes 50 firms that had auditor changes between July 1, 1986 and July 1, 1987. He finds that agency cost, information levels, audit quality, and financial condition affects the market reaction to auditor changes.

Chang et al. (2010) examine whether investors' perception of auditor changes from Big 4 auditors to non-Big 4 auditors or vice versa have changed post-SOX. They argue that the implementation of the policies of SOX and Public Company Accounting Oversight Board (PCAOB) inspections have improved the overall quality of audits for most auditors including the non-Big 4 auditors. Therefore, it is likely that the pre-SOX results related to auditor changes across different auditor types may not hold in the post-SOX period. They find that for a sample of firms that switch auditor between 2003 and 2006, there is a significant positive market reaction for auditor changes from a Big 4 to a

non-Big 4 auditor when the non-Big 4 is known to provide quality audits. They attribute this to reflect companies seeking better services re-alignment rather than a lower audit fee, when an audit quality drop is less likely.

Other studies have provided empirical evidence to show that external auditors practice “low balling” in the initial years of the audit engagement. DeAngelo (1980) examines audit fees paid to the external auditor to investigate whether “low balling” affects auditor’s independence. She demonstrated analytically that “low balling” of audit fees does not influence auditors independence.

Simon and Francis (1988) investigate whether “low balling” occurs in initial audits. They analyzed audit fee data for 214 firms that changed auditors and 226 firms that did not change auditors between 1979 and 1984 in the U.S. They find on average a 24 percent discount in audit fees for the firms with auditor changes compared to firms with ongoing audits. However, the audit fees level returned to the “normal” fee level by the end of the fourth year.

Craswell and Francis (1999) examine whether the incentives to discount fees in the initial year of the audit might be different for auditors in countries where there is a public disclosure of audit fees. They find that for a sample of 1,468 publicly listed Australian firms, fee discounting only exist for initial audits where there is a change from a non-Big 8 auditor to a Big 8 auditor. They attribute this to “economic theories of discount pricing by sellers of higher priced, higher experienced goods as an inducement to purchase when uncertainty about product quality is resolved through buying the goods”.

Huang et al. (2009) hypothesize that initial year audit fee discounts will be less likely in the post-SOX period than in the pre-SOX period. They find that Big 4 clients receive initial year audit fee discounts of about 15 percent in 2001, consistent with results from prior studies that examine periods prior to SOX. However, Huang et al. (2009) find that in 2005-2006 Big 4 clients pay initial year audit fee premium of around 16 percent and that the Big 4 were less likely to serve as a successor after an auditor change in 2005-2006 than in 2001. They interpret the findings as indicating that concerns about initial year audit fee discounts are not supported by empirical evidence in the post-SOX period, and that the Big 4 auditors have become more conservative in the post-SOX period with respect to client acceptance and pricing decisions.

Auditor Dismissal versus Resignation

A change in auditors can be the result of either a dismissal by the company or an auditor resignation. Auditor resignations tend to be treated as more severe compared to auditor dismissals, and can be accompanied by a significant negative market reaction (Turner et al. 2005). The SEC views an auditor resignation differently than a dismissal, and investigates accordingly.

Krishnan and Krishnan (1997) investigate litigation risk against the auditor and auditor change. They argue that auditors consider the litigation risks of their client portfolios, and are careful in selecting new clients or withdrawing from high-risk clients. Therefore, an auditor resignation (as against a client dismissal of the auditor) is a signal that the client is risky. Using a matched sample of auditor resignations and another group

of clients that had an auditor dismissal, they find a significant association between auditor resignation and client litigation risk.

Well and Loudder (1997) examine market reaction to the 8-K announcement of an auditor change to test whether there is information in auditor resignations. Their sample includes 86 auditor resignation announcements between the period 1988 to 1991. They find a negative market reaction to the announcement of a resignation. Therefore, the announcement of a resignation is perceived as negative by investors.

Raghunandan and Rama (1999) examine the market for audit service for clients whose auditors resigned from the engagement. They argue that clients of auditors who resigned from the engagement could pose significant losses to the prospective auditors; hence, auditors will be more reluctant to take on these clients. They match a sample of 156 auditor resignation clients with 375 auditor dismissal clients, and find that Big 6 auditors were less likely to serve as successor auditors to the resignation clients compared to the dismissal clients.

Shu (2000) documents a significant negative market reaction to the announcement of an auditor resignation. She attributes this negative market reaction to auditors having private information about the firm. Therefore, an auditor resignation will potentially signal the clients' high litigation risk which eventually leads to a negative market reaction.

Whisenant et al. (2003) examine market reaction to types of auditor changes and show that the market perceives auditor changes involving auditor resignations as

negative. They also find a significant negative market reaction to disclosures of certain types of reportable events.

Griffin and Lont (2005) examined the impact of auditor dismissal and resignations on audit fees and whether clients pay more or less audit fees after an auditor change involving resignations compared to dismissal. They find a significant discount in audit fees for firms that dismissed their auditors supporting the discounting in audit fees hypothesis. However, they find that firms associated with auditor resignations tend to have higher audit fees in the first year with the new auditor. The authors suggest that this audit fee premium is due to the inherent risk associated with auditor resignations since the new auditor has to cope with greater than normal litigation risk and/or audit effort.

Rama and Read (2006) argue that the increase in litigation risk brought about by the passage of the Sarbanes-Oxley act caused auditors to be more conservative in their client acceptance and retention policy. They find that Big 4 audit firms resigned from more audit clients in 2003 than in 2001, and that the 2003 group of clients had significantly lower measures of financial stress.

Thus, a common finding is that resignations are more likely to be associated with indicators of risk than dismissals. Given this distinction between resignations and dismissals, prior studies have noted that auditor resignations should be examined separately from auditor dismissals (e.g., Krishnan and Krishnan 1997; Wells and Louder 1997). If auditor resignations are inherently more risky than client dismissals of the auditor, then it is likely that the response of the incoming auditors to these two groups of firms will be different.

This leads to the following hypothesis:

H₀₃: Audit report lag is higher when the predecessor auditor resigned, as opposed to being dismissed by the client.

Disclosure of Reportable Events

In 1988, the Securities and Exchange Commission (SEC) enacted Financial Reporting Release (FRR) No. 31 requiring firms during an auditor change should disclose certain reportable events. The reportable events relate to four different categories 1) disclosure of internal control related issues, 2) information that suggests that the auditor can no longer rely on management's representation, 3) information on the limitation of the audit scope, and 4) information that materially affect the fairness or reliability of previously issued financial statements.

Accounting researchers and regulators have argued that the disclosure of reportable events during an auditor change is very important as it helps the financial statement users in better understanding and evaluating the nature of the relationship between the client and the outgoing auditor. In addition, the incoming auditor will also benefit from such knowledge about reportable events. Information about the potential reasons for the auditor change might be a potentially useful source of information about risk factors and can give a better idea related to the probability of legal liability to the new auditor in the future.

Smith and Nichols (1982) investigate the information content of the disclosure of an auditor-client disagreement, and find a negative market reaction in the week of the

disclosure of the Form 8-K is filed with the SEC. This study was one of the first studies to provide evidence that the disclosure of an auditor-client disagreement (reportable event) provides information about the firm to investors.

Krishnan (2002) finds evidence that there is a significant negative market reaction to Form 8-K filings that do not include an auditor exhibit letter compared to concurrent Form 8-K filings that include the auditor's letter. Although her study focuses on market reaction to auditor exhibit letter, she finds evidence of negative market reaction to the disclosure of reportable events.

Hackenbrack and Hogan (2002) examine the relative informativeness of earnings announcements before and after the disclosure of an auditor-client disagreement for 802 auditor changes from late 1991 through the late 1997. They find that the average price response per unit of earnings surprise is lower subsequent to an auditor change for companies that switched for disagreement-related or fee-related reasons and higher for those that switched for service-related reasons. This provides evidence on the differential market response to the type of auditor-client disagreement.

Whisenant et al. (2003) examine 1,264 auditor changes over the period 1993 to 1996, and find that the disclosure of an auditor-client disagreement in the Form 8-K filings with the SEC is associated with a -2.75 percent three-day cumulative abnormal returns. Whisenant et al. (2003) also show that investors' reaction varies depending on the type of auditor-client disagreement.

The conclusion from these studies is that the disclosure of an auditor-client during an auditor change is informative and is perceived as providing significant adverse information about the future of the firm. However, no study has examined the incoming

<i>SQSEG</i>	=	the square-root of the number of business segments;
<i>BIG4</i>	=	1 if Big Four auditor, 0 otherwise;
<i>HIGHTECH</i>	=	1 if the firm belongs to high-tech industries (3 digit SIC codes 283, 284, 357, 366, 367, 371, 382, 384, and 737), 0 otherwise;
<i>HIGHLIT</i>	=	1 if the firm belongs to litigious industries (2 digit SIC codes 28, 35, 36, 38, and 73), 0 otherwise;
<i>HIGHGROWTH</i>	=	1 if the firm belongs to high-growth industries (2 digit SIC codes 35, 45, 48, 49, 52, 57, 73, 78, and 80), 0 otherwise;
<i>FOREIGN</i>	=	1 if the firm had foreign operations, 0 otherwise;
<i>LOSS</i>	=	1 if the firm had negative income before extra-ordinary items, 0 otherwise;
<i>EXTRAORD</i>	=	1 if the firm had any extra-ordinary items in the income statement, 0 otherwise;
<i>FINCOND</i>	=	probability of bankruptcy estimated from Zmijewski's (1984) model for non-financial firms (calculated as of the end of the fiscal year);
<i>ACQUI</i>	=	1 if the firm had any mergers and acquisitions, 0 otherwise;
<i>GC</i>	=	1 if the firm received a going concern opinion, 0 otherwise;
<i>ICW</i>	=	1 if the firm had any material weakness in internal controls, 0 otherwise;

- SQ_HIR_LAG* = the square-root of the number of days from the date of the dismissal of the outgoing auditor to the date of hiring of the new auditor;
- SQ_FYR_LAG* = the square-root of the number of days from the date of the hiring of the new auditor to the fiscal year end date;
- RESIGNED* = 1 if the outgoing auditor resigned, 0 otherwise; and
- REPORTABLE* = 1 if the Form 8-K filing disclosed any reportable events, 0 otherwise.

The control variables are selected based on prior research (Ashton et al. 1989; Bamber et al. 1993; Krishnan and Yang 2009). I control for the size of the client (*LNTA*) as prior research indicates larger clients can exercise significant influence on the auditor to complete the audit earlier (Ashton et al. 1989; Bamber et al. 1993); hence, I expect a negative association between client size and audit report lag. I control for client complexity with the number of business segments (*SQSEG*) and foreign operations (*FOREIGN*); the more complex a business is the longer is the associated audit report lag (Krishnan and Yang 2009). Ashton et al. (1989) also argue that larger audit firms (*BIG4*) would complete their audit in a more timely basis because of their resources and experience. Thus I expect a negative association between *BIG4* and audit report lag (*SQ_LAG*).

I control for the presence of extra-ordinary items (*EXTRAORD*), operating losses (*LOSS*), financial distress (*FINCOND*), disclosure of material weaknesses in internal

control (ICW), and firms receiving going concern opinions (GC) [Ashton et al. 1989; Bamber et al. 1993, Knechel and Payne 2001; Krishnan and Yang 2009] as these factors can increase audit risk. I include three industry dummy variables (*HIGHLIT*, *HIGHGROWTH*, and *HIGHTECH*) based on results from prior research (Krishnan and Yang 2009).

I control for the number of days it took to hire the new auditor from the date of dismissal/resignation of the outgoing auditor (*SQ_HIR_LAG*). An auditor's termination can alter investors' confidence in the reliability of the financial statements (Knapp and Elikai 1988). The client can reduce some of these concerns by simultaneously hiring a new auditor. The hiring of the new auditor might likely mitigate the degree to which investors' confidence is affected. The longer it takes to hire the new auditor might be perceived as an indication of an un-resolvable problem (Schwartz and Soo 1996). Therefore, I expect a positive association between audit report lag and the hiring lag of the new auditor (*SQ_HIR_LAG*).

I control for the number of days from the date of the hiring of the new auditor to client's fiscal year-end date (*SQ_FYR_LAG*). Hiring a new auditor earlier in the client's fiscal year-end, will allow a smooth transitioning in which the new auditor has sufficient time to perform the normal pre-engagement planning prior to client's fiscal year-end as well have a better understanding of the nature of the client's business. Schwartz and Soo (1996) find a decrease in the reporting lag in the year of change if the change took place earlier in the fiscal year.

RESIGNED and *REPORTABLE* are the variables of interest. Hypothesis three and four predict that the coefficients of these two variables will be positive and significant.

Data

The initial sample includes 7,268 US firms with December 31 fiscal year-end and with audit opinion data in the Audit Analytics database for 2008 and 2009. I excluded 2,936 firms in the financial industry (SIC codes 6000-6999). I also eliminate 1,017 firms with incomplete financial statement data in Compustat database in 2008 and 2009. I deleted 2,464 firms that did not change auditors in 2008 and 2009. Auditor change data was obtained from the Audit Analytics database. I excluded 250 firms that changed auditors either because of a merger or acquisition, client bankruptcy, or the auditor stopped providing external audit services to its public clients. The final sample includes 602 firms. Details of the sample development are presented in Table 10.

Results

Descriptive Statistics

Table 11 presents the results of the descriptive statistics of the variables used in the regression model. The mean (median) audit report lag (*LAG*) is 67.842 (64) days. The mean and the median total assets (*TASSETS*) are \$719.267 million and \$88.037 million, respectively. This indicates that the variable total asset (*TASSETS*) in the sample is high skewed to the right. To correct for this skewness, I use the natural log of the total assets (*LNTA*). The proportion of clients audited by an incoming Big 4 auditor (*BIG4*) is 0.342. Several studies (Ettredge et al. 2006, Chang et al. 2010) have shown that after the passage of the Sarbanes-Oxley Act in 2002, Clients tend to dismiss their auditors and hire non-Big 4 auditors.

The proportion of firms in the sample reporting a loss (*LOSS*) is 0.582. The proportion of firms with a going concern opinion is 0.153. The mean and median number of days (*SQ_HIR_LAG*) it took to hire the new auditor from the date dismissal or resignation of the outgoing auditor is 6.630 and 0 respectively. Though not presented in the table, 204 firms in the sample took more than 1 day to hire the new auditor from the date of the dismissal of the old auditor while 398 firms in the sample simultaneously dismissed and hired the new auditor on the same date. The mean and median number of days from the date of hiring the new auditor to the fiscal year-end (*SQ_HIR_LAG*) is 184.926 and 199 days respectively. The proportion of auditor change as a result of a resignation is 0.243. About 40.6 percent of firms in the sample disclosed a reportable event in their 8-K filing with the SEC.

I test for multi-collinearity between the independent variables by examining the correlation matrix (not tabulated). I find that all of the bi-variate correlations are less than 0.50. I also find that the variance inflation factors for the variables in the regression model are all less than 1.41, indicating that multi-collinearity does not cause problems with our inferences.

Table 12 presents the results of a univariate test of the difference in the mean and median between the group of firms that dismissed their auditors and the group of firms whose auditors resigned from the engagement. As shown in the table, firms whose auditors resigned from the audit engagement are more likely to (a) hire a non-Big 4 auditor (*BIG4*) as the new auditor, (b) report a loss (*LOSS*), (c) have a higher probability of bankruptcy (*FINCOND*), (d) receive a modified going concern opinion (*GC*), (e) have material weakness in internal control (*ICW*), (f) take a longer time to hire a new auditor

(*HIR_LAG*), and (g) disclose more reportable events (*REPORTABLE*). The univariate tests confirm the argument that auditor resignation clients turn to be more risky compared to auditor dismissals clients.

Table 13 presents the results of a univariate test of the difference in the mean and median between the group of firms that disclosed a reportable event and the group of firms who did not disclose a reportable event in the 8-K report. As shown, firms that disclosed a reportable event are more likely to (a) have material weakness in internal control (ICW), (b) a longer time to hire a new auditor (*HIR_LAG*), and (c) have the auditor resigning from the engagement (*RESIGNED*).

Regression Results

Panel 1 of Table 14 presents the results of the regression with audit report lag as the dependent variable and *RESIGNED* as the independent variable of interest. Overall, the regression model is significant with *F-value*=13.42 and $p < .001$; and the Adjusted R-Square is 31.9%.

There is a significant negative association between firm size (*LNTA*) and audit report lag, suggesting that larger clients can exercise significant influence over the auditor during the audit to complete the audit in a timely manner (Knechel and Payne 2001). Firms receiving a modified going concern opinion, material weakness in internal control are associated with significant longer audit report with the new auditor.

There is a significant negative association between *BIG4* and audit report lag, suggesting that Big 4 auditors have the resources and expertise to complete the audit faster than the non-Big 4 auditors. Firms that took longer to hire the new auditor from the

time of dismissal of the old auditor (*SQ_HIR_LAG*) tend to have significant longer audit report lag. This is because the longer hiring lag of the new auditor might indicate unresolved issues from the engagement with the old auditor. These unresolved issues might significantly influence the skepticism of the new incoming auditor. Firms that hire the new auditor earlier in the fiscal year (*SQ_FYR_LAG*) tend to have significant shorter audit report lag. This is consistent with the argument that hiring the new auditor earlier in the fiscal year, gives the incoming auditor enough time to become familiar with the nature of the firm's business environment and the financial reporting system thereby facilitating the learning curve of the new auditor.

I find a significant positive association ($p=0.001$) between the resignation (*RESIGNED*) of the outgoing auditor and audit report lag. This is consistent with the argument that the incoming auditor considers the resignation of the outgoing auditor as more severe compared to the dismissal of the outgoing auditor in terms of the potential future litigation risk associated with this audit. Hence, the new auditor will be very cautious by exercising more audit effort and substantive testing. This will subsequently lead to a longer audit report lag.

Panel 2 of Table 14 presents the results of the regression with audit report lag as the dependent variable and the disclosure of a reportable event (*REPORTABLE*) as the independent variable of interest. There is a significant positive association between audit report lag and disclosure of a reportable event in Form 8-K filings dealing with auditor changes. This is consistent with the argument that firms who disclose a reportable event tend to be perceived as risky by the incoming auditor. Hence, the auditor will exercise more effort in conducting the audit which eventually leads to a longer audit report lag.

Panel 3 of Table 14 presents the regression analysis with both *RESIGNED* and *REPORTABLE* as independent variables of interest in the same model. The results of this analysis are generally consistent with those in Panels 1 and 2 of Table 14.

Additional Analysis and Sensitivity Test

Whisenant et al. (2003) divided reportable events into two categories; 1) internal control, and 2) reliability related. Internal control reportable disclosures involve communications from the outgoing auditor that indicate internal controls are weak or non-existent while reliability reportable events occur when the outgoing auditor makes disclosures that cast doubt about management's representation or the scope of the audit. As an additional analysis, I partition the sample based on firms that did not disclose any reportable events, firms that reported a reliability related reportable event only, and firms that reported internal control issues related disclosures only. The results of this analysis are presented in Table 15. We find a significant positive association between audit report lag and firms that reported an internal control (*IC_ISSUE*) related reportable event. There is also a significant positive association between audit report lag and firms that reported a reliability (*RELIABLE*) related reportable event.

The results in Table 14 show that there is a significant positive association between resignation of the outgoing auditor and audit report lag of the new auditor. Also, there is a significant positive association between the disclosure of a reportable event and

the audit report lag of the new auditor. However, to improve on the robustness of my analysis, I did a change regression analysis.

The result of the change regression analysis is presented in Table 16. The change regression analysis captures the change in the individual firm's environment from the year prior to change to the year of the change. The results of such analyses are consistent with those in Table 14. There is a significant positive association between the change in audit report lag and the resignation of the new auditor. There is also a significant positive association between the change in audit report lag and the disclosure of a reportable event.

Summary

Auditors play an important role in the financial reporting process as financial statements used by investors are a joint product of the negotiation between the auditor and the client's management. The SEC has long been concerned about auditor changes, due to concerns that client management may put pressure on the auditor to obtain favorable accounting treatment. Due to such concerns, the SEC has instituted special reporting requirements, in the form of Form 8-K filings, when there is a change in the external auditor.

The SEC has also recently taken initiatives to reduce the reporting lag for annual and quarterly financial statements filed with the SEC. Spurred by SOX, the SEC has reduced the deadline for the filing of annual reports from 90 days to 60 (75) days for large accelerated (accelerated) filers.

Prior research suggests that information about auditor changes contained in Form 8-K filings are useful to financial statement users. Prior research also suggests that certain types of auditor changes are viewed as risky by auditors. Finally, prior research also documents that reporting lag is value relevant to investors. Yet, there is little research on the association between auditor changes and audit reporting lag.

In this chapter, I examine the association between audit report lag and (a) the type of auditor change (resignation or dismissal) and (b) disclosure of a reportable event. Prior research has shown that resignations are more likely to be associated with indicators of risk than dismissals. Therefore, the new auditor will exercise more effort with clients of auditor resignation. Consistent with such arguments, I find that there is a significant positive association between the resignation of the auditor compared to the dismissal of the auditor and audit report lag. I also hypothesize that firms that disclose a reportable event during an auditor change are perceived as inherently risky by the auditor. This inherent risk might pose future potential liability for the incumbent auditor. Hence the auditor might exercise extra care in conducting the audit by collecting more evidence and doing substantive tests; this will ultimately lead to a longer audit report lag. Consistent with my hypothesis, I find a significant positive association between the disclosure of a reportable event and audit report lag

III. EXECUTIVE CHANGES AND AUDIT REPORT LAG

Motivation

Individual executives can exert significant influence over strategic decisions, and directions taken by organizations. Many prior studies in management, discussed in more detail below, have shown that a new Chief Executive Officer, for instance, can have substantial say over the course taken by an organization. Thus, a changing of the guard at the top of an organization has a significant impact on the risks faced by an organization. Hence, the arrival of a new CEO can significantly change the business risk to the auditor; such increased risk in turn will manifest in the form of more work, and hence a longer audit report lag.

Prior research also suggests that incoming executives are prone to undertaking earnings management to reduce income in the year of a change, with abnormal accruals and extraordinary items being the primary vehicle through which this is achieved (Wells 2002). A change in senior management provides an incentive to bias earnings downward in the year of appointment and the year following, and attributing the poor performance to previous management as well as lowering the benchmark against which future performance may be evaluated (Wilson and Wang 2010). Such actions affect earnings quality and aggressive earnings management/lower earnings quality can result in materially misleading financial reports. This in turn increases the potential liability for the incumbent auditor. Given the potential future liability cost associated with earnings management and poor earnings quality for the external auditor around the period of an

executive change, it is likely that the auditor will do more work and rely less on representations by management; this also will result in increased audit report lag.

The impact of top level executives in the financial reporting process has been recognized by legislators and regulators. For example, Sections 302 and 404 of SOX require attestations by the CEO and CFO about disclosure controls and internal controls financial reporting, respectively. Yet, there is little empirical evidence in the auditing literature about the association between executive changes and auditors' decisions.

In this part of my dissertation, I examine the auditor's response to executive changes. Specifically, I examine if the audit report lag is higher following a change in the CEO or CFO positions. Using data from fiscal years 2008 and 2009, I find that there is a significant increase in audit report lag when there is a new CEO or CFO. This finding contributes to the research streams related to both audit report lag and to executive succession.

Background and Hypotheses

Executive Change, Firm Strategy and Performance

Senior executives tend to have a significant impact on firm behavior and performance. Prior studies have shown that senior executive changes are usually accompanied by significant changes in the environment of the firm such as the firm's corporate strategy (Greiner and Bhambri 1989), investments (Weisbach 1995), and financial performance (Denis and Denis, 1995; Huson, et al. 2004).

Greiner and Bhambi (1989) examine the impact of hiring a new CEO on the firm's corporate strategic directions. Using a case study, they find that the hiring of a new CEO is associated with the change of the firm's corporate strategy.

Virany et al. (1992) study senior executive as an important tool for organizational learning and organizational adaptation. They argue that new executives can alter the skills, knowledge and the interaction processes of the senior management team. The authors argue that this will ultimately change the direction of the firm. Using a sample of 59 minicomputer firms, they find that chief executive change is significantly associated with change in the firm strategy.

Prior studies also have examined changes in the degree of a firm's investment subsequent to an executive change. Weisbach (1995) focuses on the association between CEO change and firm's investment decisions. He examines a sample of 270 acquisitions from 1971 to 1982 and shows that CEO changes are significantly associated the acquirer selling-off a poorly performing acquisition. This result is consistent with the theory that when incumbent managers make acquisitions that are not in the shareholders' interest, these managers are resistant to selling investments that prove to be mistakes; the successor manager desires to sell assets to create losses that can be blamed on his predecessors.

Other studies have examined firm performance subsequent to senior executive changes. Senior executive changes are often triggered by poor performance as the Board of directors is compelled to dismiss the top management of the company in an effort to reverse deteriorating trends in the profit and try to restore a declining a share prices.

Denis and Denis (1995) examine the changes of the performance of a firm following the top management dismissal. They use a sample of 1,689 U.S. firms covered by Value Line who had top executive changes from 1985 to 1988. They find significant decrease in firm performance immediately after a forced executive change, and subsequent improvement in the performance of the firm in later period. They attribute this lower performance to write-offs and restructuring charges in the period of the executive change which ultimately lead to improvement of the firm's financial performance in future period.

Huson et al. (2004) study the association between CEO change and firm performance. Their sample consists of 1,344 CEO change firms from 1974 to 1992. They observe the changes in the firm performance prior to and after the CEO change. Their performance measures included return on assets and operating income per employee. They find a decline in firm performance prior to executive change and immediately after the CEO change. However, there is an improvement of the firm's performance in subsequent year after the CEO change.

Executive Change and Earnings Management

Earnings management refers to the deliberate intervention in the reporting process to bias earnings away from the direction which would have been reported given a neutral application of general accepted accounting standards (Wilson and Wang 2010). Several studies have examined and provide evidence of earnings management around executives' changes (particularly CEO and CFO changes).

Indirect evidence of earnings management during and after an executive change are provided by studies of write-downs (e.g. Wells 2002, Francis et al 1996, and Cotter et al. 1998). Direct evidence of earnings management subsequent to executive change is provided by DeAngelo (1988), who finds that in the period subsequent to a change, incoming top management take a ‘big bath’, which is evident from non-cash write-downs; the reasons for the write-downs are attributed to decisions made by outgoing management. The general consensus among these studies is that senior executives have an incentive to manage earnings during and right after the period of the change as the resulting poor performance from earnings management will be attributed to the decisions or choices made by prior senior management.

Strong and Meyer (1987) examine the effect of managerial incentives on asset write-downs. They match a sample of 120 firms that reported an asset write-down between January 1, 1981 and December 31, 1985 with a control sample of 120 firms that did not report a write-down during the same period. They find that firms that have a management change tend to have significantly higher asset write-downs.

Elliot and Shaw (1988) examine the underlying economic reasons, and the goals of management regarding financial disclosures such as assets write-downs. Their sample includes 305 firms with Compustat data from 1982 to 1985. Thirty nine percent of firms in their sample had management changes. They find a significant positive association between firms with management changes and assets write-downs. This is consistent with the view that incoming managers write-down assets in the year of the change and the subsequent to the change and attribute the need for the write to decisions made by prior management.

Pourciau (1993) examining evidence of earnings management associated with non-routine executive changes finds that incoming executives manage accruals in a way that decreases earnings in the year of the executive change. This is achieved as the incoming executive record large write-offs and special items in the year of the management change.

Cotter et al. (1998) study the magnitude of assets write-down for a sample of Australian publicly traded firms. Their sample includes 82 firms with financial statement information in 1993. They find a significant positive association between the magnitude of assets write-down and senior executive changes; firms with senior executive changes tend to have larger write-down in their assets during and right after the executive change.

Wells (2002) investigating the extent of earnings management in the periods surrounding CEO changes by Australian firms from 1984 to 1994, finds evidence of incoming CEOs undertaking earnings management to reduce income in the year of the change, with abnormal and extra-ordinary items being the primary vehicle through which this is achieved. However, Wells (2001) could not find any association between CEO changes and changes in accruals.

Wilson and Wang (2010) using a sample of publicly listed Australian firms to examine the relationship between discretionary accruals and concurrent senior management change. They do not find any significant decrease in discretionary accruals in the year of the change and the year following the change. However, they find that a CEO change accompanied with a concurrent change in the board chairperson is associated with significant income decreasing accruals. The lack of results related to discretionary accruals around executive changes in Australia could be attributed lack of power as all of the studies involve small sample size.

Unlike most studies that only examine earnings management around executive change by observing the change in discretionary accruals or the existence of a write-off, Godfrey et al. (2003) examine impression management through presentational format of graphs in the financial report of sixty Australian public companies in the year of the executive change. They find evidence of unfavorable impression management of the key financial variables graphs. Impression management occurs when management selects the information to display (usually through graphs and pictures) and presents the information in a way that it is intended to distort the users' perception of corporate performance.

A lot of media attention and congressional inquiries have been directed recently at chief financial officers (CFOs) and their role in the financial reporting process. The eventual outcome of these congressional inquiries is the formal requirement by the Sarbanes-Oxley Act of 2002 that CEOs and CFO personally certify to the material accuracy and completeness of the financial information and disclosures made by their companies.

Geiger and North (2006) examine the effect of hiring a new CFO on earnings quality. Using a sample 712 companies that appointed a new CFO in the period 1994 to 2000, they find that discretionary accruals decreased significantly following the appointment of a new CFO. This is consistent with the argument that the hiring of a new executive is associated with downward bias in earnings management.

Jiang et al. (2010) focus on the S&P 1500 firms covered by Execucomp to examine the financial reporting responsibility of CFOs compared to CEOs. These authors find that the magnitude of discretionary accruals and the likelihood of beating benchmarks and earnings restatements are more sensitive to the CFOs' equity incentives than to those of

the CEO. They conclude that CFOs have a significant impact over the financial reporting process compared to the CEO.

Executive Change and Audit Report Lag Hypotheses

If incoming executives have deflated current earnings to report higher earnings in the future and the auditor does not attenuate these manipulations, then the current audited financial reports may not provide adequate and relevant information for future earnings and cash-flows. Since the presence of new executives is associated with an increase likelihood of earnings management in the year of the executive change, auditors have an incentive to exercise more effort and care during the audit engagement. The increase in effort will lead to a longer audit report lag.

When auditors make client portfolio management decisions, they assess financial risk, audit risk, and clients business risk, and consider whether engagement fees are sufficient to cover current and future expected engagement costs and determine the amount of effort and due care to be exercise during the engagement (Johnstone and Bedard 2003; Bedard and Johnstone 2004). CEO and CFO changes are usually associated with a significant change in the firm business environment and corporate strategy. This change might increase the client's business risk and the additional effort required by the auditor to respond to this change will ultimately lead to longer audit report lag.

The above discussion leads to the following hypotheses (in the null form):

H05: Audit report lag is not longer when the client has a new CEO.

H06: Audit report lag is not longer when the client has a new CFO.

Hiring an Insider versus an Outsider for a Top Executive Position

The change from one executive to another can either be smooth or it can be a bumpy ride. In a smooth executive change, the successor is chosen years in advance of the period of anticipated change. Subsequently, the power and authority are handed over to the chosen replacement. Even when the executive change is smooth, the exit of an old executive and the installation of a new executive can create a shock to the corporate system.

Corporations have increasingly looked to an outsider as a replacement when hiring a new executive. Research on executive changes has shown that firms tend to hire outsiders to shake-up things within the organization; outsiders are likely to make more changes in an organization than would insiders. External successions tend to create more disruption compared to internal succession.

Wiersema (1992) investigates whether the type of top management succession affects subsequent firm strategy. She obtained a sample of 146 firms of which 86 had an executive change during the period 1977 to 1981. She finds that firms that hired an outsider executive have a greater likelihood of experiencing significant change in business strategy than firms that hired from within.

Boeker and Goodstein (1993) examine the association between firm performance and the likelihood of firm hiring an outsider versus an insider CEO. They examined 67 semi-conductors companies over a period of 22 years from 1968 to 1989. They find that poor firm performance is associated the hiring of an outsider CEO.

Shen and Cannella (2002) use a sample 300 publicly traded U.S. corporation to examine the executive succession type and firm performance. They divided executive

succession in to three distinct categories; internal succession where the outgoing executives retired, internal succession where the outgoing executive was dismissed, and hiring an outsider executive. They could not find any association between firm performance and hiring an insider irrespective of whether the successor retired or was dismissed. However, they find a positive association between hiring an outsider and firm performance.

Shen and Cannella (2003) investigate investor reaction to the different type of executive change. They find a strong positive market reaction to outside CEO promotion and a negative market reaction to inside CEO promotion. This shows that investors favor outside promotions that will ultimately lead to the change in the firm's business strategy.

Clayton et al (2005) examine the impact of CEO change on equity volatility. This study uses a sample of 872 firms that had CEO change over the period 1979 to 1995. They find that outside successions increase volatility more than inside successions, which they attribute to increased uncertainty over the successor CEO's firm specific skill and knowledge in managing the firm's operations.

Zhang and Rajagopalan (2009) investigate the association between the degree of strategic change in the pattern of the allocation of firm resources between firms led by an outsider CEO and firms led by an insider CEO. Using a sample of 193 firms that had an executive change between 1993 and 1998, they find that the level of change differ between insider led executive change and outsider led executive change with outsiders having more effect on the allocation of firms resources.

In summary, prior research shows that the hiring of an outsider has a more significant effect on the firm's corporate strategy than hiring an insider (Boeker and

Goodstein, 1993). Also, incoming outsider executives tend to owe less allegiance to the outgoing management and will be more likely carry-out strategic changes and/or asset write-downs and attribute poor performance in the year of the write-downs to the outgoing executive. However, in an executive change where an insider is chosen, the new executive and the outgoing executive have the same goal; to make the new executive successful. If the new executive is not successful it will reflect negatively on the image of the outgoing executive. In this case there is less conflict of interest between the old and the new management which might have led to opportunistic earnings management. Therefore we will expect auditors to exercise more effort in audits where the new executive is an outsider compared to an insider.

The above discussion leads to the following hypotheses (in the null form):

H₀₇: Audit report lag is not longer when the client has a new external CEO than a new internal CEO.

H₀₈: Audit report lag is not longer when the client has a new external CFO than a new internal CFO.

Method

Model

To examine the association between the appointment of new executives and audit report lag, I use the following linear regression model:

$$\begin{aligned}
 SQ_LAG &= \alpha_0 + \alpha_1 * LNTA + \alpha_2 * SQSEG + \alpha_3 * BIG4 + \alpha_4 * HIGHTECH + \\
 &\alpha_5 * HIGHLIT + \alpha_6 * HIGHGROWTH + \alpha_7 * FOREIGN + \alpha_8 * LOSS + \\
 &\alpha_9 * EXTRAORD + \alpha_{10} * FINCOND + \alpha_{11} * ACQUI + \alpha_{13} * GC + \alpha_{14} * ICW +
 \end{aligned}$$

$$\alpha_{15} * CEO + \alpha_{16} * CFO + \varepsilon \dots \dots \dots 5$$

where:

- SQ_LAG* = the square-root of the number of days from fiscal year-end to the date of signature of opinion;
- LNTA* = the natural log of the firm's total assets;
- SQSEG* = the square-root of the number of business segments;
- BIG4* = 1 if BIG Four auditor, 0 otherwise;
- HIGHTECH* = 1 if the firm belongs to high-tech industries (3 digit SIC codes 283, 284, 357, 366, 367, 371, 382, 384, and 737), 0 otherwise;
- HIGHLIT* = 1 if the firm belongs to litigious industries (2 digit SIC codes 28, 35, 36, 38, and 73), 0 otherwise;
- HIGHGROWTH* = 1 if the firm belongs to high-growth industries (2 digit SIC codes 35, 45, 48, 49, 52, 57, 73, 78, and 80), 0 otherwise;
- FOREIGN* = 1 if the firm had foreign operations, 0 otherwise;
- LOSS* = 1 if the firm had negative income before extra-ordinary items, 0 otherwise;
- EXTRAORD* = 1 if the firm had any extra-ordinary items in the income statement, 0 otherwise;
- FINCOND* = probability of bankruptcy estimated from Zmijewski's (1984) model for non-financial firms (calculated as of the end of the fiscal year);
- ACQUI* = 1 if the firm had any mergers and acquisitions, 0 otherwise;

<i>GC</i>	=	1 if the firm received a going concern opinion, 0 otherwise;
<i>ICW</i>	=	1 if the firm had any material weakness in internal controls, 0 otherwise;
<i>CEO</i>	=	1 if the firm had a CEO change, 0 otherwise; and
<i>CFO</i>	=	1 if the firm had a CFO change, 0 otherwise.

The controls variables in the model relate the lag to firm and accounting complexity, financial distress, and firm size (Ashton et al. 1987, 1989; Newton and Ashton 1989, Bamber et al. 1993; Knechel and Payne 2001; Krishnan and Yang 2009). The degree of complexity of the firm's operation and accounting are proxied by following control variables the presence of extraordinary items in the income statement (*EXTRAORD*), the number of business segments (*SQSEG*), foreign operations (*FOREIGN*), the firms size measured by the natural log of total assets (*LNTA*). I also control for industry difference by including three industry dummies; high litigation industry (*HIGHLIT*), high growth industries (*HIGHGROWTH*), and high-tech industries (*HIGHTECH*). To control for the financial condition of the firm, I include *FINCOND*, the estimated probability of bankruptcy, *LOSS* for firms reporting loss, and *GC* for firms receiving a modified going concern opinion. I control for auditor type by *BIG4* which represents a firm audited by a Big 4 auditor.

Data

As seen in Table 17, the initial sample includes 7,269 US firms with December 31 fiscal year-end and with audit opinion data in the Audit Analytics database for 2008 and

2009. I exclude 2,936 firms in the financial industry (SIC codes 6000-6999). I also eliminate 1,017 firms with incomplete financial statement data in Compustat database in 2008 and 2009. I delete 852 firms that did change auditors in 2008 and 2009. CEO and CFO change data was obtained from the Audit Analytics database. The final sample includes 2,464 firms.

Results

Descriptive Statistics

Table 18 presents the results of the descriptive statistics of the variables used in the regression model. The mean (median) audit report lag (*LAG*) is 65.226 (62) days. The mean and the median total assets (*TASSETS*) are \$3829.94 million and \$651.299 million respectively. This indicates that the variable total asset (*TASSETS*) in the sample is high skewed to the right. To correct for this skewness, I use the natural log of the total assets (*LNTA*). The proportion of clients audited by a Big 4 auditor (*BIG4*) is 0.845. The proportion of firms in the sample reporting a loss (*LOSS*) is 0.275. The proportion of firms with a going concern opinion (*GC*) is 0.015. The proportion of firms reporting material weakness in internal control is 0.065. The percentage of firms that dismissed their CEO in the sample is 6.1 percent, and the percentage of firms that dismissed a CFO in the sample is 8.3 percent.

I test for multi-collinearity between the independent variables by examining the correlation matrix (not tabulated). I find that all of the bi-variate correlations are less than 0.50. I also find that the variance inflation factors for the variables in the regression

model are all less than 1.37, indicating that multi-collinearity does not cause problems with our inferences.

Regression Results

Table 19 presents the results of three regressions audit report lag as the dependent variable (SQ_LAG). All three regression model are significant with F-values 129.99, 129.76, and 121.88 respectively. I control for year fixed effect in all three regressions. The results of the control variables are consistent as predicted. Larger clients (LNNTA) tend to have shorter audit report while firms reporting a loss tend to have longer audit report lag. Firms with extraordinary items (EXTRAORD), going concern opinions (GC), and material weakness in internal controls (ICW) have longer audit report as may be perceived as risky by the auditor.

The first regression reported in Panel 1 of Table 19 provides the results for the regression examining the association between audit report lag and CEO change. There is a significant positive association (coefficient= 0.022, p-value= 0.012) between audit report lag and CEO change.

Panel 2 of Table 19 present the results of the regression of audit report lag, where the variable of interest is CFO change. I find a significant positive association (coefficient= 0.097, p-value= 0.001) between audit report lag and CFO change.

Panel 3 of Table 19 presents the results of the regression of audit report lag with both CEO change and CFO change variables included in the model. There is a significant positive association between audit report lag and both CEO change (p-value=0.026) and CFO change (p-value=0.003).

The findings in Table 19 provide empirical evidence for rejecting both hypotheses five and six. CEO and CFO changes are associated longer audit report lag. The results suggest that the auditor has to exercise more effort in conducting the audit because of the additional risk brought about by the heightened probability of the earnings management or the change in the corporate strategy and business environment of the firm when there is a new senior management.

Table 20 presents the regression results of sample firms with either a CEO or CFO change only. The focus here is to examine the effect of hiring an insider versus an outsider senior executive on audit report lag. Panel 1 of Table 20 shows that there is a significant negative association (coefficient= 0.015, p-value=<.001) between audit report and CEO changes that involves hiring an insider compared to CEO changes that involves hiring an outsider. Panel 2 of Table 20 shows that there is a significant negative association (coefficient= 0.186, p-value= <.001) between audit report and CFO changes that involves hiring an insider compared to CFO changes involves hiring an outsider. Panel 3 presents the results of the regression analysis with both CEO and CFO changes in the model. The results here are consistent with the results presented in both Panel 1 and Panel 2. Overall, I find that the replacement of an outgoing CEO or CFO with an insider is associated with shorter audit report lag compared to outsider replacements. Thus the empirical evidence rejects the seventh and eighth null hypotheses.

The data used in my analysis covers two periods, 2008 and 2009. Although, I control for year fixed effects in the full sample, I perform additional year by year analysis to see if my results hold in both of the two years. Tables 21 and 22 present the results for

the two years, 2009 and 2009. The results in these two tables are consistent with those in Table 19, indicating that the results are not being driven by any one year.

Summary

Corporate accounting and reporting has received considerable attention from both the media and regulators (Bartov et al 2002, SEC 2002). The public has always been concerned with companies trying to manage earnings by manipulating levels of accounting income. One particular stream of research has examined earnings management around the appointment of a new executive (Strong and Meyer 1987, DeAngelo 1988, Pourciau 1993). The predominant theme from these studies is that incoming executives are more likely to reduce reported income in the year of the change and the year right after the change by taking a “big bath”. This “big bath” is usually achieved through either assets write-down or some other form of accrual management.

Other studies have shown that CEOs and CFOs have significant over the future of a company (Denis and Denis 1995). Incoming senior executives are usually associated with changes in firm policies, corporate or business strategy. However, given the influence of new senior management on firm future earnings and business strategy, no accounting studies have examined how auditors respond to senior executive changes

I hypothesize that since the hiring of a new executive is associated a higher probability of earnings management and/or change in corporate strategy, auditors in firms with an executive change will exercise more effort which will result in a longer audit report lag. Using a sample of 2,464 U.S. public firms for year 2008 and 2009, and with December 31 year-end, I find that there is significant positive association between audit

report lag and CEO or CFO changes. Prior research suggests that senior executives who are brought in from outside the firm are more likely to change firm policies (Helmich 1974), and also more likely to engage in earnings management (Pourciau 1993) than insiders. Therefore, we should expect auditors response to an insider's appoint to be different from that of an outsider. To test this, I examine the association between audit report lag and the hiring of an outsider versus an insider new senior executive. I find that for a sample of firms that have CEO or CFO change in 2008 or 2009, audit report lag is greater when the new CEO or CFO is someone external to the firm than when an insider is promoted as the new CEO or CFO.

V. CONCLUSION

Relevance and reliability are the two primary quality of accounting information according to the Financial Accounting Standards Board's (FASB) Conceptual Framework. Relevant information has to be timely i.e., available to investors when needed, and reliable information must be free from bias.

In 2002, the SEC introduced shorter report filing deadlines for 10-K and 10-Q reports. The SEC reduced the deadlines of the 10-K filing deadline for accelerated filers from 90 to 75 days in 2003 and from 75 days to 60 days in 2006. Several big audit firms and companies in the response to the SEC's proposal to reduce the filing deadlines argued that the need to file annual reports with the SEC on shorter deadline will put significant pressure on management and the auditors, and this will adversely affect audit quality and financial reporting quality.

Financial reporting lag is closely related to audit report lag, which is the difference in number of days between the fiscal year end and the date of the auditor's report on the financial statements (that are then filed with the SEC). Knechel and Payne (2001) provide empirical evidence to show that audit effort is associated with audit report lag; that is, greater the audit effort, the longer the audit report lag. Therefore, the SEC in requiring companies to file the audited report earlier will force auditors to complete the engagement earlier (leading to a shorter lag). This shorter audit report lag might reduce the reliability of accounting information as management can now exercise more discretion over earnings.

The first part of my dissertation investigates the association between audit report lag and meeting or beating earnings benchmarks. Several studies have shown that

meeting or beating earnings benchmarks represent some form of earnings management (Hayn 1995; Burgstahler and Dichev 1997; Degeorge et al. 1999). I hypothesize that auditors are sensitive to earnings management and hence will negotiate with management to reduce management's discretion over the level of earnings management. In my empirical tests, I do not find any significant association between audit report lag and meeting or beating earnings benchmarks. However, I find that longer audit report lag is associated with a lower likelihood of using discretionary accruals to meet or beat earnings benchmarks. Thus the findings suggest that audit effort proxied by audit report lag reduces management's discretion over earnings management. The results are consistent even after controlling for the endogeneity of audit report lag.

The second part of my dissertation examines the association between the type of auditor changes and audit report lag. The SEC has long been cautious about auditor changes, and has promulgated detailed disclosure rules related to auditor changes. Prior research suggests that auditor resignations are viewed differently by investors than client dismissals of the incumbent auditor, and that the disclosures in Form 8-K filings of auditor changes about reportable events elicit a negative market reaction (Krishnan and Krishnan 1997; Wells and Loudder 1997; Whisenant et al. 2003). I hypothesize that auditors' response to auditor changes would vary depending on the type of change (resignation or dismissal) and the presence of reportable events. Using a sample of 602 firms that had an auditor change in 2008 and 2009, I find that audit lag is significantly higher following a resignation than a dismissal. I also find that clients that disclosing a reportable event in the Form 8-K related to the auditor change have a significantly longer audit report lag compared to clients that do not disclosed any reportable event.

The third part of my dissertation examines the association between executive change (CEO and CFO) and audit report lag. Senior executives, particularly the CEO and the CFO play a significant role in the financial reporting process. Several studies have shown that incoming senior executives tend to manage earnings in the year of the change and the following year by taking a “big bath” (Strong and Meyer 1987, DeAngelo 1988, Pourciau 1993). The extent of this “big bath” could pose significant challenges in the future for the auditor in the event of the disclosure of an accounting misstatement. In addition, new executives often lead to changes in corporate strategy and thus increase the business risk of the auditor. I hypothesize that CEO or CFO changes are associated with longer audit report lag. Using a sample 2,464 firms with financial statement data in 2008 and 2009, I find that firms who had a CEO or a CFO change are associated with longer audit report lag. I further examine the association between audit report lag and the hiring of an insider versus and an outsider, and find that the audit report lag is longer after the hiring of an outsider executive than an insider executive.

The findings of this study are subjected to several limitations. First, we assume audit report lag represents the actual effort the auditors put in the engagement. The measurement of the audit report lag begins from the end of the fiscal year and assumes all audit work is conducted after the end of the fiscal year. However, auditors do conduct interim audit work. To the extent that a significant proportion of the audit engagement is conducted in the interim, this might affect our inferences. Second, in the first study, we employ performance matched discretionary accruals estimated from Kothari et al. (2005). As with other studies on earnings management, estimation of accruals are subject to measurement problems. Although the model employed in the study have been proven to

provide the most powerful and well specified estimation on discretionary accruals, the measurement limitations related to earnings management studies that have been well documented exist also in my study. Third, I rely on the disclosures made in Form 8-K filings after an auditor change; it is possible that for strategic reasons, both the client and the auditor are silent about any disagreements that may have existed. Finally, with respect to executive changes, it is possible that the auditor is aware in advance of formal announcements of such changes; but this would introduce a bias against my findings.

The results from my dissertation have important policy implications. First, the significant negative association between report lag and earnings management with accruals to achieve benchmarks suggests that as the SEC seeks to reduce filing lags, the Commission has to proceed with caution. The need for timely information must be balanced against the need for reliable information. Second, the results related to the association between report lag and auditor changes reinforce the need for investors and others to receive, on a timely basis, detailed information about auditor changes. Finally, the results from the third part of my dissertation suggest that the SEC may want to more closely monitor the types of disclosures (and perhaps require more detailed disclosures) made by registrants when there are changes in top executives.

Table 1
Sample Selection for Audit Report Lag and Earnings Management Analyses

December 31 fiscal year end US firm with audit opinion data in Audit Analytics for 2008 & 2009	7,269
Less firms in the financial industry (SIC codes 6000-6999)	(2,936)
Less firms with SIC code 9999 and with no SIC code**	(280)
Less firms with incomplete data from COMPUSTAT	(1,017)
Less firms with missing analyst forecast data from IBES	(272)
Final Sample	2,764

Table 2
Descriptive Statistics of Sample for Audit Report Lag and Earnings Management Analyses

<i>Variable</i>	Mean	StdDev	Q1	Median	Q3
<i>MBE</i>	0.178	0.383	0.000	0.000	0.000
<i>SMALLINCREASE</i>	0.162	0.369	0.000	0.000	0.000
<i>SMALLPROFIT</i>	0.224	0.417	0.000	0.000	0.000
<i>MBE_ACC</i>	0.087	0.283	0.000	0.000	0.000
<i>S INCREASE_ACC</i>	0.074	0.262	0.000	0.000	0.000
<i>S PROFIT_ACC</i>	0.070	0.254	0.000	0.000	0.000
<i>LAG (Days)</i>	63.094	24.425	56.000	60.000	71.000
<i>SQ_LAG</i>	7.917	0.964	7.483	7.746	8.426
<i>MKVL(Millions)</i>	3186.660	9334.171	214.477	634.741	2113.550
<i>LNMKVL</i>	6.529	1.749	5.368	6.453	7.656
<i>SHT_TEN</i>	0.055	0.228	0.000	0.000	0.000
<i>BIG4</i>	0.839	0.369	1.000	1.000	1.000
<i>ANALYST</i>	9.914	7.257	5.000	8.000	14.000
<i>FORSTD</i>	0.173	0.660	0.027	0.069	0.159
<i>LTGROWTH</i>	0.162	4.556	0.002	0.090	0.206
<i>LEVERAGE</i>	0.194	0.230	0.001	0.142	0.299
<i>CFO_TA</i>	0.043	0.508	0.040	0.090	0.138
<i>BTM</i>	0.672	1.074	0.280	0.503	0.830
<i>PROFIT_{T-1}</i>	0.754	0.430	1.000	1.000	1.000

Notes:

1. The sample includes 2,764 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as follows: MBE=1 if the firm's actual earnings per share – forecasted earnings per share, scaled by stock price as of fiscal year end, is greater than or equal zero and less than or equal to 0.01, 0 otherwise; SMALLINCREASE=1 if the firm's current year actual earnings per share – last year actual earnings per share, scaled by stock price as of fiscal year end, is greater than or equal to 0 and less than or equal to 0.01, 0 otherwise; SMALLPROFIT=1 if the current year actual earnings per share, scaled by stock price as of fiscal year end, is greater than or equal to 0 and less than or equal to 0.01, 0 otherwise; MBE_ACC=1 if MBE = 1 and but actual earnings per share minus a positive discretionary accruals per share is less than analyst forecast EPS, 0 otherwise; S_INCREASE_ACC=1 if SMALLINCREASE = 1 and the earnings per share minus a positive discretionary accruals per share is less than prior year actual EPS, 0 otherwise; S_PROFIT_ACC=1 if SMALLPROFIT = 1 and the current year actual earnings per share minus a positive discretionary accruals per share is less than 0, 0 otherwise; LAG (Days) =the number of days from the fiscal year end to the date of signature of the of the audit opinion; SQ_LAG= the square-root of the number of days from fiscal year-end to the date of signature of opinion; MKVL(Millions)=the market value of stockholder's equity; LNMKVL=the natural logarithm of the market value of stockholder's equity; SHT_TEN=1 if the auditor has audited the client for less than four year, 0 otherwise; BIG4=1 if Big Four auditor, 0 otherwise; ANALYST=the number of analyst following the firm obtained from IBES; FORSTD=the standard deviation of the forecasted earnings per shares by the analysts obtained from IBES; LTGROWTH=the analyst forecast of long-term earnings per share growth obtained from IBES; LEVERAGE=total long-term debt divided by total assets; CFO_TA=total cash-flow from operations scaled by total assets; BTM=book value per share scaled by market price per share; PROFIT_{t-1}= 1 if the firm reported a profit in the previous year, 0 otherwise.

Table 3
Regression Results: Audit Report Lag and Meeting or Beating Earnings Benchmarks

	1	2	3
	MBE	SMALLINCREASE	SMALLPROFIT
<i>Variable</i>	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
<i>Intercept</i>	1.159 (0.047)	2.773 (<.001)	2.529 (<.001)
<i>SQ_LAG</i>	-0.004 (0.938)	0.008 (0.732)	-0.012 (0.821)
<i>LNMKVL</i>	0.028 (0.331)	0.031 (0.455)	0.052 (0.201)
<i>SHT_TEN</i>	0.082 (0.036)	0.067 (0.043)	0.304 (0.001)
<i>BIG4</i>	-0.180 (0.284)	-0.139 (0.225)	-0.055 (0.742)
<i>ANALYST</i>	0.022 (0.014)	0.056 (<.001)	0.041 (<.001)
<i>FORSTD</i>	-1.812 (<.001)	-0.271 (<.001)	-0.319 (0.780)
<i>LTGROWTH</i>	1.004 (<.001)	0.044 (0.002)	0.076 (<.001)
<i>LEVERAGE</i>	0.075 (0.749)	0.390 (0.012)	1.132 (<.001)
<i>CFO_TA</i>	-0.941 (<.001)	-0.190 (0.701)	-0.024 (0.489)
<i>BTM</i>	-0.238 (0.002)	-0.157 (<.001)	-0.140 (0.002)
<i>PROFIT_{t-1}</i>	0.291 (0.038)	1.068 (<.001)	0.818 (<.001)
<i>YEAR</i>	YES	YES	YES
<i>IND</i>	YES	YES	YES
<i>N</i>	2,764	2,764	2,764
<i>Likelihood Ratio</i>	169.097 (<.001)	174.897 (<.001)	122.418 (<.001)

Notes:

1. The sample includes 2,764 non-financial firms with a December 31 fiscal year end that all available data in Compustat, IBES, and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 2.

Table 4
Regression Results: Audit Report Lag and Using Discretionary Accruals to Meet or Beat Earnings Benchmarks

	1	2	3
	MBE_ACC	S INCREASE_ACC	S PROFIT_ACC
<i>Variable</i>	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
<i>Intercept</i>	1.957 (0.025)	5.040 (<.001)	3.056 (<.001)
<i>SQ_LAG</i>	-0.060 (0.012)	-0.026 (0.009)	-0.093 (0.003)
<i>LNМКVЛ</i>	0.053 (0.378)	0.268 (<.001)	0.001 (0.890)
<i>SHT_TEN</i>	0.091 (0.003)	0.107 (0.027)	0.411 (0.023)
<i>BIG4</i>	-0.289 (0.089)	-0.225 (0.075)	-0.280 (0.052)
<i>ANALYST</i>	0.007 (0.001)	0.039 (0.004)	0.022 (0.014)
<i>FORSTD</i>	-1.800 (<.001)	-0.055 (0.007)	-0.647 (<.001)
<i>LTGROWTH</i>	1.003 (<.001)	0.031 (0.070)	0.062 (<.001)
<i>LEVERAGE</i>	0.411 (0.091)	1.037 (0.001)	0.590 (<.001)
<i>CFO_TA</i>	-0.892 (<.001)	-0.072 (0.737)	-0.002 (0.859)
<i>BTM</i>	-0.126 (0.039)	-0.060 (0.479)	-0.110 (0.025)
<i>PROFIT_{t-1}</i>	0.494 (0.015)	1.413 (<.001)	0.994 (<.001)
<i>YEAR</i>	YES	YES	YES
<i>IND</i>	YES	YES	YES
<i>N</i>	2,764	2,764	2,764
<i>Likelihood Ratio</i>	42.710 (<.001)	79.055 (<.001)	82.516 (<.001)

Notes:

1. The sample includes 2,764 non-financial firms with a December 31 fiscal year end that all available data in Compustat, IBES, and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 2.

Table 5
Regression Results of Using Discretionary Accruals to Meet or Beat Earnings Benchmarks

	<i>1</i> <i>MBE_ACC</i> <i>(Only firms with</i> <i>0.00 >= A_EPS_t -</i> <i>F_EPS_t <= 0.01)</i>	<i>2</i> <i>S_INCREASE_ACC</i> <i>(Only firms with</i> <i>0.00 >= A_EPS_t - A_EPS_{t-1} -</i> <i>1 <= 0.01)</i>	<i>3</i> <i>S_PROFIT_ACC</i> <i>(Only firms with</i> <i>0.00 >= EPS_t <= 0.01)</i>
<i>Variable</i>	<i>Coefficient</i> <i>(P-value)</i>	<i>Coefficient</i> <i>(P-value)</i>	<i>Coefficient</i> <i>(P-value)</i>
<i>Intercept</i>	2.205 <i>(0.006)</i>	4.343 <i>(<.001)</i>	-3.928 <i>(<.001)</i>
<i>SQ_LAG</i>	-0.056 <i>(0.031)</i>	-0.031 <i>(0.002)</i>	-0.082 <i>(0.011)</i>
<i>LNМКVЛ</i>	0.059 <i>(0.213)</i>	0.039 <i>(0.697)</i>	0.214 <i>(0.016)</i>
<i>SHT_TEN</i>	0.098 <i>(0.001)</i>	1.098 <i>(0.072)</i>	0.309 <i>(0.071)</i>
<i>BIG4</i>	-0.217 <i>(0.056)</i>	-0.311 <i>(0.047)</i>	-0.204 <i>(0.096)</i>
<i>ANALYST</i>	0.005 <i>(0.008)</i>	0.021 <i>(0.032)</i>	0.030 <i>(0.010)</i>
<i>FORSTD</i>	-1.325 <i>(0.019)</i>	-0.030 <i>(0.080)</i>	-0.582 <i>(0.061)</i>
<i>LTGROWTH</i>	1.001 <i>(<.001)</i>	0.029 <i>(0.084)</i>	0.005 <i>(0.196)</i>
<i>LEVERAGE</i>	0.404 <i>(0.137)</i>	1.097 <i>(<.001)</i>	1.456 <i>(<.001)</i>
<i>CFO_TA</i>	-0.065 <i>(0.921)</i>	-0.070 <i>(0.797)</i>	-0.009 <i>(0.412)</i>
<i>BTM</i>	-0.134 <i>(0.039)</i>	-0.195 <i>(0.002)</i>	-0.132 <i>(0.013)</i>
<i>PROFIT_{t-1}</i>	0.307 <i>(0.005)</i>	0.800 <i>(<.001)</i>	0.899 <i>(<.001)</i>
<i>YEAR</i>	YES	YES	YES
<i>IND</i>	YES	YES	YES
<i>N</i>	465	421	493
<i>Likelihood Ratio</i>	27.256 (0.004)	34.093 (<.001)	41.049 (<.001)

Notes:

1. The sample includes non-financial firms with a December 31 fiscal year end that all available data in Compustat, IBES, and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 2.

Table 6
Regression Model to Estimate Predicted Audit Report Lag

<i>Variable</i>	Coefficient (P-value)
<i>Intercept</i>	9.007 (<.001)
<i>LNTA</i>	-0.160 (<.001)
<i>SQSEG</i>	-0.033 (0.387)
<i>BIG4</i>	-0.093 (0.066)
<i>HIGHTECH</i>	0.059 (0.224)
<i>HIGHLIT</i>	-0.103 (0.036)
<i>HIGHGROWTH</i>	0.114 (0.002)
<i>FOREIGN</i>	0.029 (0.449)
<i>LOSS</i>	0.200 (<.001)
<i>EXTRAORD</i>	0.160 (0.171)
<i>FINCOND</i>	0.101 (0.129)
<i>ACQUI</i>	0.075 (0.037)
<i>GC</i>	0.409 (0.003)
<i>ICW</i>	1.622 (<.001)
<i>YEAR</i>	YES
<i>N</i>	2,764
<i>F-VALUE</i>	68.84
<i>ADJ. R-SQUARE</i>	<.001

Notes:

1. The sample includes 602 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.

2. The variables are defined as follows:

LAG=the number of days from fiscal year-end to the date of signature of opinion; SQ_LAG=the square-root of the number of days from fiscal year-end to the date of signature of opinion; TASSETS=total assets in millions of dollars; LNTA=the natural log of the firm's total assets; SQSEG=the square-root of the number of business segments; BIG4=1 if BIG Four auditor, 0 otherwise; HIGHTECH=1 if the firm belongs to high-tech industries (3 digit SIC codes 283, 284, 357, 366, 367, 371, 382, 384, and 737), 0 otherwise; HIGHLIT=1 if the firm belongs to litigious industries (2 digit SIC codes 28, 35, 36, 38, and 73), 0 otherwise; HIGHGROWTH=1 if the firm belongs to high-growth industries (2 digit SIC codes 35, 45, 48, 49, 52, 57, 73, 78, and 80), 0 otherwise; FOREIGN=1 if the firm had foreign operations; 0 otherwise;

LOSS=1 if the firm had negative income before extra-ordinary items, 0 otherwise; EXTRAORD=1 if the firm had any extra-ordinary items in the income statement, 0 otherwise; FINCOND=probability of bankruptcy estimated from Zmijewski's (1984) model for non-financial firms (calculated as of the end of the fiscal year); ACQUI=1 if the firm had any mergers and acquisitions, 0 otherwise; GC =1 if the firm received a going concern opinion, 0 otherwise; ICW=1 if the firm had any material weakness in internal controls, 0 otherwise.

Table 7
Regression Results: Audit Report Lag, Meeting or Beating Earnings Benchmarks, and
Endogeneity

	<i>1</i>	<i>2</i>	<i>3</i>
<i>Variable</i>	<i>MBE</i>	<i>SMALLINCREASE</i>	<i>SMALLPROFIT</i>
	<i>Coefficient</i> <i>(P-value)</i>	<i>Coefficient</i> <i>(P-value)</i>	<i>Coefficient</i> <i>(P-value)</i>
<i>Intercept</i>	1.274 (0.030)	2.614 (<.001)	2.411 (<.001)
<i>PRED_LAG</i>	-0.001 (0.997)	0.005 (0.786)	-0.008 (0.869)
<i>LNMKVL</i>	0.029 (0.325)	0.031 (0.456)	0.050 (0.209)
<i>SHT_TEN</i>	0.081 (0.036)	0.069 (0.041)	0.309 (0.001)
<i>BIG4</i>	-0.114 (0.286)	-0.178 (0.375)	-0.161 (0.491)
<i>ANALYST</i>	0.025 (0.011)	0.056 (<.001)	0.039 (<.001)
<i>FORSTD</i>	-1.808 (<.001)	-0.274 (<.001)	-0.316 (0.789)
<i>LTGROWTH</i>	1.009 (<.001)	0.041 (0.002)	0.076 (<.001)
<i>LEVERAGE</i>	0.077 (0.740)	0.396 (0.011)	1.104 (<.001)
<i>CFO_TA</i>	-0.946 (<.001)	-0.171 (0.763)	-0.021 (0.504)
<i>BTM</i>	-0.237 (0.002)	-0.157 (<.001)	-0.143 (0.001)
<i>PROFIT_{t-1}</i>	0.287 (0.035)	1.065 (<.001)	0.817 (<.001)
<i>YEAR</i>	YES	YES	YES
<i>IND</i>	YES	YES	YES
<i>N</i>	2,764	2,764	2,764
<i>Likelihood Ratio</i>	168.231 (<.001)	176.825 (<.001)	124.561 (<.001)

Notes:

1. The sample includes non-financial firms with a December 31 fiscal year end that all available data in Compustat, IBES, and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 2:

Table 8
Regression Results: Audit Report Lag, Using Discretionary Accruals to Meet or Beat Earnings Benchmarks and Endogeneity

	<i>1</i>	<i>2</i>	<i>3</i>
	<i>MBE ACC</i>	<i>S INCREASE ACC</i>	<i>S PROFIT ACC</i>
<i>Variable</i>	<i>Coefficient</i> <i>(P-value)</i>	<i>Coefficient</i> <i>(P-value)</i>	<i>Coefficient</i> <i>(P-value)</i>
<i>Intercept</i>	1.943 (0.028)	4.972 (<.001)	3.031 (<.001)
<i>PRED_LAG</i>	-0.056 (0.045)	-0.022 (0.016)	-0.081 (0.009)
<i>LNМКVЛ</i>	0.052 (0.378)	0.274 (<.001)	0.001 (0.893)
<i>SHT_TEN</i>	0.094 (0.003)	0.113 (0.023)	0.412 (0.023)
<i>BIG4</i>	-0.291 (0.041)	-0.225 (0.063)	-0.284 (0.079)
<i>ANALYST</i>	0.008 (0.001)	0.041 (0.004)	0.023 (0.013)
<i>FORSTD</i>	-1.793 (<.001)	-0.052 (0.008)	-0.647 (<.001)
<i>LTGROWTH</i>	1.004 (<.001)	0.035 (0.069)	0.060 (<.001)
<i>LEVERAGE</i>	0.407 (0.090)	1.036 (0.001)	0.590 (<.001)
<i>CFO_TA</i>	-0.890 (<.001)	-0.074 (0.732)	-0.004 (0.831)
<i>BTM</i>	-0.125 (0.039)	-0.061 (0.479)	-0.115 (0.020)
<i>PROFIT_{t-1}</i>	0.490 (0.017)	1.400 (<.001)	0.996 (<.001)
<i>YEAR</i>	YES	YES	YES
<i>IND</i>	YES	YES	YES
<i>N</i>	2,764	2,764	2,764
<i>Likelihood Ratio</i>	40.536 (<.001)	77.852 (<.001)	83.003 (<.001)

Notes:

1. The sample includes non-financial firms with a December 31 fiscal year end that all available data in Compustat, IBES, and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 2.

Table 9
Regression Results: Using Discretionary Accruals to Meet or Beat Earnings Benchmarks and Endogeneity

	<i>1</i> <i>MBE_ACC</i> <i>(Only firms with</i> <i>0.00 >= A_EPS_t -</i> <i>F_EPS_t <= 0.01)</i>	<i>2</i> <i>S_INCREASE_ACC</i> <i>(Only firms with</i> <i>0.00 >= EPS_t - EPS_{t-1} <=</i> <i>0.01)</i>	<i>3</i> <i>S_PROFIT_ACC</i> <i>(Only firms with</i> <i>0.00 >= EPS_t <= 0.01)</i>
<i>Variable</i>	<i>Coefficient</i> <i>(P-value)</i>	<i>Coefficient</i> <i>(P-value)</i>	<i>Coefficient</i> <i>(P-value)</i>
<i>Intercept</i>	2.136 (0.009)	4.580 (<.001)	-4.003 (<.001)
<i>PRED_LAG</i>	-0.049 (0.043)	-0.039 (0.003)	-0.072 (0.024)
<i>LNМКVL</i>	0.058 (0.212)	0.037 (0.690)	0.215 (0.016)
<i>SHT_TEN</i>	0.099 (0.001)	1.097 (0.072)	0.311 (0.068)
<i>BIG4</i>	-0.218 (0.075)	-0.306 (0.081)	-0.203 (0.096)
<i>ANALYST</i>	0.009 (0.003)	0.020 (0.032)	0.030 (0.010)
<i>FORSTD</i>	-1.331 (0.011)	-0.032 (0.080)	-0.584 (0.061)
<i>LTGROWTH</i>	1.007 (<.001)	0.032 (0.080)	0.011 (0.196)
<i>LEVERAGE</i>	0.415 (0.109)	1.093 (<.001)	1.451 (<.001)
<i>CFO_TA</i>	-0.064 (0.920)	-0.070 (0.796)	-0.009 (0.410)
<i>BTM</i>	-0.134 (0.038)	-0.194 (0.002)	-0.133 (0.013)
<i>PROFIT_{t-1}</i>	0.311 (0.001)	0.801 (<.001)	0.891 (<.001)
<i>YEAR</i>	YES	YES	YES
<i>IND</i>	YES	YES	YES
<i>N</i>	465	421	493
<i>Likelihood Ratio</i>	25.382 (0.009)	36.216 (<.001)	42.531 (<.001)

Notes:

1. The sample includes non-financial firms with a December 31 fiscal year end that all available data in Compustat, IBES, and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 2.

Table 10
Sample Selection for Auditor Change Analysis

December 31 fiscal year end US firm with audit opinion data in Audit Analytics for 2008 & 2009	7,269
Less firms in the financial industry (SIC codes 6000-6999)	(2,936)
Less firms with incomplete data from COMPUSTAT	(1,017)
Less firms with no auditor Change	(2,464)
Less firms with auditor change as a result of merger or acquisition, client bankruptcy, or the auditor is exiting public audits	(250)
Final Sample	602

Table 11
Descriptive Statistics for Auditor Change Sample

<i>Variable</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>25th Percentile</i>	<i>Median</i>	<i>75th Percentile</i>
<i>LAG</i>	67.842	22.835	60.000	64.000	70.000
<i>SQ_LAG</i>	8.908	1.217	7.307	7.888	8.287
<i>TASSETS</i>	719.267	1822.919	25.986	88.037	447.453
<i>LNTA</i>	4.658	2.111	3.258	4.478	6.103
<i>SQSEG</i>	1.298	0.431	1.000	1.000	1.732
<i>BIG4</i>	0.342	0.475	0.000	0.000	1.000
<i>HIGHLIT</i>	0.403	0.491	0.000	0.000	1.000
<i>HIGHGROWTH</i>	0.295	0.456	0.000	0.000	1.000
<i>HIGHTECH</i>	0.311	0.403	0.000	0.000	1.000
<i>FOREIGN</i>	0.339	0.474	0.000	1.000	1.000
<i>LOSS</i>	0.582	0.494	0.000	1.000	1.000
<i>EXTRAORD</i>	0.002	0.049	0.000	0.000	0.000
<i>FINCOND</i>	0.421	0.408	0.028	0.257	0.946
<i>ACQUI</i>	0.297	0.458	0.000	0.000	1.000
<i>GC</i>	0.153	0.361	0.000	0.000	0.000
<i>ICW</i>	0.077	0.268	0.000	0.000	0.000
<i>HIR_LAG</i>	6.630	29.863	0.000	0.000	1.000
<i>FYR_LAG</i>	184.926	107.605	93.500	199.00	269.500
<i>SQ_HIR_LAG</i>	0.961	0.268	0.000	0.000	1.000
<i>SQ_FYR_LAG</i>	12.684	5.345	9.9670	14.107	16.417
<i>RESIGNED</i>	0.243	0.429	0.000	0.000	0.000
<i>REPORTABLE</i>	0.406	0.491	0.000	0.000	1.000

Notes:

1. The sample includes 602 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.

2. The variables are defined as follows:

LAG=the number of days from fiscal year-end to the date of signature of opinion; SQ_LAG=the square-root of the number of days from fiscal year-end to the date of signature of opinion; TASSETS=total assets in millions of dollars; LNNTA=the natural log of the firm's total assets; SQSEG=the square-root of the number of business segments; BIG4=1 if BIG Four auditor, 0 otherwise; HIGHTECH=1 if the firm belongs to high-tech industries (3 digit SIC codes 283, 284, 357, 366, 367, 371, 382, 384, and 737), 0 otherwise; HIGHLIT=1 if the firm belongs to litigious industries (2 digit SIC codes 28, 35, 36, 38, and 73), 0 otherwise; HIGHGROWTH=1 if the firm belongs to high-growth industries (2 digit SIC codes 35, 45, 48, 49, 52, 57, 73, 78, and 80), 0 otherwise; FOREIGN=1 if the firm had foreign operations; 0 otherwise; LOSS=1 if the firm had negative income before extra-ordinary items, 0 otherwise; EXTRAORD=1 if the firm had any extra-ordinary items in the income statement, 0 otherwise; FINCOND=probability of bankruptcy estimated from Zmijewski's (1984) model for non-financial firms (calculated as of the end of the fiscal year); ACQUI=1 if the firm had any mergers and acquisitions, 0 otherwise; GC =1 if the firm received a going concern opinion, 0 otherwise; ICW=1 if the firm had any material weakness in internal controls, 0 otherwise; SQ_HIR_LAG=the square-root of the number of days from the date of the dismissal of the outgoing auditor to the date of hiring of the new auditor; SQ_FYR_LAG=the square-root of the number of days from the date of the hiring of the new auditor to the fiscal year end date; RESIGNED=1 if the outgoing auditor resigned, 0 otherwise; REPORTABLE=1 if the Form 8-K filing disclosed any reportable events; 0 otherwise.

Table 12
Comparison of Resignation vs. Dismissal groups

<i>Variable</i>	<i>Resigned</i> <i>N=199</i>	<i>Dismissed</i> <i>N=403</i>	
	<i>Mean</i> <i>(Median)</i>	<i>Mean</i> <i>(Median)</i>	<i>p-value for t-test</i> <i>(p-value for wilcoxon test)</i>
LAG	74.592 (75.000)	65.676 66.000	0.001 (<.001)
LNTA	3.995 (3.901)	4.871 (4.833)	0.231 (0.268)
SQSEG	1.234 (1.000)	1.319 (1.000)	0.214 (0.327)
BIG4	0.194 0.000	0.389 0.000	<.001 (<.001)
HIGHLIT	0.437 (0.000)	0.393 (0.000)	0.421 (0.256)
HIGHGROWTH	0.223 (0.000)	0.318 (0.000)	0.247 (0.638)
HIGHTECH	0.216 (0.000)	0.219 (0.000)	0.369 (0.914)
FOREIGN	0.213 (0.000)	0.380 (0.000)	0.081 (0.099)
LOSS	0.621 (1.000)	0.570 (1.000)	<.001 (<.001)
EXTRAORD	0.000 (0.000)	0.003 (0.000)	0.572 (0.635)
FINCOND	0.492 (0.363)	0.399 (0.259)	<.001 (<.001)
ACQUI	0.262 (0.000)	0.308 (0.000)	0.372 (0.919)
GC	0.272 (0.000)	0.115 (0.000)	<.001 (<.001)
ICW	0.107 (0.000)	0.069 (0.000)	<.001 (<.001)
HIR_LAG	22.757 (0.000)	1.455 (0.000)	<.001 (<.001)
FYR_LAG	169.204 (191.000)	189.972 (204.000)	0.032 (0.020)
REPORTABLE	0.631 (1.000)	0.333 (0.000)	<.001 (<.001)

Notes:

1. The sample includes 602 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 11.

Table 13
Comparison Reportable Event vs. No-Reportable Event Groups

<i>Variable</i>	<i>Reportable Event N=232</i>	<i>No Reportable Event N=370</i>	
	<i>Mean (Median)</i>	<i>Mean (Median)</i>	<i>p-value for t-test (p-value for wilcoxon test)</i>
LAG	69.470 (75.000)	66.731 (66.000)	0.003 (0.007)
LNTA	4.830 (3.901)	4.542 (4.833)	0.168 (0.375)
SQSEG	1.284 (1.000)	1.308 (1.000)	0.589 (0.659)
BIG4	0.367 (0.000)	0.325 (0.000)	0.385 (0.364)
HIGHLIT	0.401 (0.000)	0.405 (0.000)	0.941 (0.637)
HIGHGROWTH	0.297 (0.000)	0.294 (0.000)	0.950 (0.981)
HIGHTECH	0.271 (0.000)	0.289 (0.000)	0.871 (0.793)
FOREIGN	0.349 (0.000)	0.333 (0.000)	0.741 (0.985)
LOSS	0.552 (1.000)	0.603 (1.000)	0.298 (0.652)
EXTRAORD	0.002 (0.000)	0.004 (0.000)	0.409 (0.542)
FINCOND	0.422 (0.264)	0.421 (0.252)	0.977 (0.862)
ACQUI	0.314 (0.000)	0.286 (0.000)	0.533 (0.575)
GC	0.167 (0.000)	0.143 (0.000)	0.356 (0.421)
ICW	0.145 (0.000)	0.032 (0.000)	<.001 (<.001)
HIR_LAG	9.965 (0.000)	4.353 (0.000)	0.057 (0.023)
FYR_LAG	189.471 (205.500)	181.825 (204.000)	0.661 (0.715)
RESIGNED	0.378 (0.000)	0.151 (0.000)	<.001 (<.001)

Notes:

1. The sample includes 602 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 11.

Table 14
Regression of Auditor Changes and Audit Report Lag

<i>Panel</i>	1	2	5
<i>Variable</i>	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
<i>Intercept</i>	9.822 (<.001)	9.797 (<.001)	9.822 (<.001)
<i>LNTA</i>	-0.151 (<.001)	-0.154 (<.001)	-0.148 (<.001)
<i>SQSEG</i>	0.061 (0.611)	0.082 (0.494)	0.072 (0.549)
<i>BIG4</i>	-0.473 (0.001)	-0.487 (0.001)	-0.472 (0.001)
<i>HIGHLIT</i>	-0.123 (0.271)	-0.121 (0.276)	-0.123 (0.269)
<i>HIGHGROWTH</i>	0.133 (0.237)	0.122 (0.269)	0.134 (0.231)
<i>HIGHTECH</i>	-0.006 (0.723)	-0.005 (0.789)	-0.005 (0.772)
<i>FOREIGN</i>	0.100 (0.385)	0.120 (0.289)	0.100 (0.384)
<i>LOSS</i>	0.316 (0.009)	0.300 (0.012)	0.304 (0.011)
<i>EXTRAORD</i>	0.098 (0.923)	0.195 (0.847)	0.193 (0.848)
<i>FINCOND</i>	0.173 (0.263)	0.163 (0.287)	0.162 (0.291)
<i>ACQUI</i>	0.100 (0.395)	0.108 (0.349)	0.109 (0.383)
<i>GC</i>	0.613 (<.001)	0.599 (<.001)	0.591 (0.001)
<i>ICW</i>	0.904 (<.001)	1.010 (<.001)	0.983 (<.001)
<i>SQ_LAG_HIR</i>	0.006 (<.001)	0.007 (<.001)	0.008 (<.001)
<i>SQ_LAG_FYR</i>	-0.009 (<.001)	-0.011 (<.001)	-0.008 (<.001)
<i>RESIGNED</i>	0.090 (0.001)		0.089 (0.002)
<i>REPORTABLE</i>	-	0.224 (0.028)	0.246 (0.020)
<i>YEAR</i>	YES	YES	YES
<i>N</i>	602	602	602
<i>F</i>	13.42	15.82	13.09
<i>ADJ. R-SQUARE</i>	0.319	0.329	0.327

Notes:

1. The sample includes 602 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 11.

Table 15
Regression of Types of Reportable Events and Audit Report Lag

<i>Panel</i>	<i>1</i>	<i>2</i>	<i>2</i>
<i>Variable</i>	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
<i>Intercept</i>	9.653 (<.001)	9.653 (<.001)	9.653 (<.001)
<i>LNTA</i>	-0.149 (<.001)	-0.150 (<.001)	-0.150 (<.001)
<i>SQSEG</i>	0.078 (0.526)	0.079 (0.524)	0.079 (0.524)
<i>BIG4</i>	-0.399 (0.006)	-0.390 (0.009)	-0.392 (0.007)
<i>HIGHLIT</i>	-0.091 (0.434)	-0.089 (0.439)	-0.089 (0.438)
<i>HIGHGROWTH</i>	0.132 (0.241)	0.139 (0.221)	0.136 (0.233)
<i>HIGHTECH</i>	-0.007 (0.743)	-0.005 (0.750)	-0.005 (0.751)
<i>FOREIGN</i>	0.091 (0.429)	0.098 (0.413)	0.094 (0.420)
<i>LOSS</i>	0.361 (0.001)	0.349 (0.006)	0.353 (0.004)
<i>EXTRAORD</i>	0.091 (0.955)	0.091 (0.955)	0.091 (0.955)
<i>FINCOND</i>	0.141 (0.381)	0.140 (0.380)	0.139 (0.381)
<i>ACQUI</i>	0.047 (0.694)	0.043 (0.699)	0.046 (0.695)
<i>GC</i>	0.584 (<.001)	0.571 (<.001)	0.572 (<.001)
<i>IC_ISSUE</i>	0.121 (0.013)		0.115 (0.068)
<i>RELIABLE</i>		2.283 (0.026)	2.270 (0.077)
<i>YEAR</i>		YES	YES
<i>N</i>	511	511	511
<i>F</i>	12.11	12.15	12.19
<i>ADJ. R-SQUARE</i>	0.294	0.295	0.297

Notes:

1. The sample includes 511 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 11.

Table 16
Regression of Auditor Changes and Changes in Audit Report Lag

<i>Panel</i>	1	2	5
<i>Variable</i>	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
<i>Intercept</i>	0.400 (<i><.001</i>)	0.490 (<i><.001</i>)	0.322 (<i><.001</i>)
<i>LNTA_C</i>	0.444 (0.005)	0.417 (0.009)	0.390 (0.071)
<i>SQSEG_C</i>	1.309 (0.065)	1.362 (0.055)	1.407 (0.045)
<i>BIG4_C</i>	-1.788 (<i><.001</i>)	-1.606 (0.001)	-1.792 (<i><.001</i>)
<i>FOREIGN_C</i>	0.806 (0.240)	0.655 (0.338)	0.723 (0.287)
<i>LOSS_C</i>	0.122 (<i><.001</i>)	0.249 (<i><.001</i>)	0.123 (<i><.001</i>)
<i>EXTRAORD_C</i>	0.003 (0.020)	0.005 (0.015)	0.003 (0.021)
<i>FINCOND_C</i>	0.693 (0.001)	0.558 (0.010)	0.710 (0.001)
<i>ACQUI_C</i>	0.344 (0.060)	0.337 (0.055)	0.319 (0.095)
<i>GC_C</i>	0.901 (<i><.001</i>)	0.895 (<i><.001</i>)	0.913 (<i><.001</i>)
<i>ICW_C</i>	1.155 (<i><.001</i>)	1.158 (<i><.001</i>)	1.217 (<i><.001</i>)
<i>SQ_HIR_LAG</i>	0.112 (<i><.001</i>)	0.063 (<i><.001</i>)	0.100 (<i><.001</i>)
<i>SQ_FYR_LAG</i>	-0.017 (<i><.001</i>)	-0.034 (<i><.001</i>)	-0.022 (<i><.001</i>)
<i>RESIGNED</i>	0.619 (<i><.001</i>)	-	0.797 (<i><.001</i>)
<i>REPORTABLE</i>	-	0.527 (<i><.001</i>)	0.514 (<i><.001</i>)
<i>N</i>	602	602	602
<i>F</i>	3.57	3.58	3.66
<i>ADJ. R-SQUARE</i>	0.018	0.018	0.020

Notes:

1. The sample includes 602 non-financial firms with December 31 fiscal year end that have all available data in Compustat and Audit Analytics for fiscal year 2008 and 2009.

2. The variables are defined as follows:

LAG_C= the square root of audit report in the current year minus square root of audit report lag in the previous year; LNTA_C = the change in the natural log of the firm's total assets; SQSEG_C = the change in square-root of the number of business segments; BIG4_C = 1 if a change from a non-Big 4 to a Big 4, 0 otherwise; FOREIGN_C = 1 if the firm had foreign operations in the current year but not in the previous year; 0 otherwise; LOSS_C = 1 if the firm had negative income before extra-ordinary items in the current year but not in the previous year, 0 otherwise; EXTRAORD = 1 if the firm had any extra-ordinary items in the income statement in the current year but not in the previous year, 0 otherwise; FINCOND = the change in the probability of bankruptcy estimated from Zmijewski's (1984) model for non-financial firms (calculated as of the end of the fiscal year); ACQUI = 1 if the firm had any mergers and acquisitions in the

current year but not in the previous year, 0 otherwise; GC = 1 if the firm received a going concern opinion in the current year but not in the previous year, 0 otherwise; ICW = 1 if the firm had any material weakness in internal controls in the current year but not in the previous year, 0 otherwise; SQ_HIR_LAG = the square-root of the number of days from the date of the dismissal of the outgoing auditor to the date of hiring of the new auditor; SQ_FYR_LAG = the square-root of the number of days from the date of the hiring of the new auditor to the fiscal year end date; RESIGNED = 1 if the outgoing auditor resigned, 0 otherwise; REPORTABLE = 1 if the Form 8-K filing disclosed any reportable events; 0 otherwise

Table 17
Sample Selection for Executive Changes Analysis

December 31 fiscal year end US firm with audit opinion data in Audit Analytics for 2008 & 2009	7,269
Less firms in the financial industry (SIC codes 6000-6999)	(2,936)
Less firms with incomplete data from COMPUSTAT	(1,017)
Less firms with auditor change in 2008 and 2009	(852)
Final Sample	2,464

Table 18
Descriptive Statistics for Executive Changes Analysis
(n=2,464)

<i>Variable</i>	Mean	Std. Dev	25 th Percentile	Median	75 th Percentile
<i>LAG</i>	65.226	16.495	57.000	62.000	73.000
<i>SQ_LAG</i>	8.024	0.914	7.550	7.874	8.544
<i>TASSETS</i>	3829.94	19932.84	200.663	651.299	2186.640
<i>LNTA</i>	6.571	1.751	5.302	6.479	7.690
<i>SQSEG</i>	1.425	0.487	1.000	1.000	1.732
<i>BIG4</i>	0.845	0.361	1.000	1.000	1.000
<i>HIGHLIT</i>	0.465	0.499	0.000	0.000	1.000
<i>HIGHGROWTH</i>	0.318	0.466	0.000	0.000	1.000
<i>HIGHTECH</i>	0.307	0.461	0.000	0.000	1.000
<i>FOREIGN</i>	0.510	0.500	0.000	1.000	1.000
<i>LOSS</i>	0.275	0.446	0.000	0.000	1.000
<i>EXTRAORD</i>	0.029	0.169	0.000	0.000	0.000
<i>FINCOND</i>	0.202	0.292	0.003	0.054	0.287
<i>ACQUI</i>	0.434	0.496	0.000	0.000	1.000
<i>GC</i>	0.015	0.123	0.000	0.000	0.000
<i>ICW</i>	0.065	0.246	0.000	0.000	0.000
<i>CEO</i>	0.061	0.239	0.000	0.000	0.000
<i>CFO</i>	0.083	0.276	0.000	0.000	0.000

Notes:

1. The sample includes 2,464 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as follows. *SQ_LAG*=the square-root of the number of days from fiscal year-end to the date of signature of opinion; *LNTA*=the natural log of the firm's total assets; *SQSEG*=the square-root of the number of business segments; *BIG4*= 1 if BIG Four auditor, 0 otherwise; *HIGHTECH*=1 if the firm belongs to high-tech industries (3 digit SIC codes 283, 284, 357, 366, 367, 371, 382, 384, and 737), 0 otherwise; *HIGHLIT*=1 if the firm belongs to litigious industries (2 digit SIC codes 28, 35, 36, 38,

and 73), 0 otherwise; HIGHGROWTH =1 if the firm belongs to high-growth industries (2 digit SIC codes 35, 45, 48, 49, 52, 57, 73, 78, and 80), 0 otherwise; FOREIGN=1 if the firm had foreign operations, 0 otherwise; LOSS= 1 if the firm had negative income before extra-ordinary items, 0 otherwise; EXTRAORD=1 if the firm had any extra-ordinary items in the income statement, 0 otherwise; FINCOND=probability of bankruptcy estimated from Zmijewski's (1984) model for non-financial firms (calculated as of the end of the fiscal year); ACQUI=1 if the firm had any mergers and acquisitions, 0 otherwise; GC=1 if the firm received a going concern opinion, 0 otherwise; ICW=1 if the firm had any material weakness in internal controls, 0 otherwise; CEO =1 if the firm had a CEO change, 0 otherwise; CFO=1 if the firm had a CFO change, 0 otherwise.

Table 19
Regression Analysis of Executive Change and Audit Report Lag

<i>Panel</i>	1	2	3
<i>Variable</i>	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
<i>Intercept</i>	8.903 <.001	8.905 (<.001)	8.901 (<.001)
<i>LNTA</i>	-0.157 (<.001)	-0.157 (<.001)	-0.157 (<.001)
<i>SQSEG</i>	0.019 (0.390)	0.020 (0.372)	0.019 (0.388)
<i>BIG4</i>	-0.040 (0.165)	-0.040 (0.164)	-0.040 (0.168)
<i>HIGHLIT</i>	-0.092 (0.001)	-0.093 (0.001)	-0.092 (0.001)
<i>HIGHGROWTH</i>	0.093 (<.001)	0.094 (<.001)	0.093 (<.001)
<i>HIGHTECH</i>	0.006 (0.723)	0.012 (0.668)	0.011 (0.695)
<i>FOREIGN</i>	0.009 (0.692)	0.010 (0.663)	0.008 (0.699)
<i>LOSS</i>	0.138 (<.001)	0.139 (<.001)	0.137 (<.001)
<i>EXTRAORD</i>	0.149 (0.009)	0.151 (0.008)	0.193 (0.848)
<i>FINCOND</i>	0.036 (0.343)	0.038 (0.313)	0.162 (0.291)
<i>ACQUI</i>	0.084 (<.001)	0.083 (<.001)	0.082 (<.001)
<i>GC</i>	0.426 (<.001)	0.429 (<.001)	0.591 (0.001)
<i>ICW</i>	1.092 (<.001)	1.091 (<.001)	0.983 (<.001)
<i>CEO</i>	0.022 (0.012)	-	0.018 (0.026)
<i>CFO</i>	-	0.097 (0.001)	0.092 (0.003)
<i>YEAR_DUMMY</i>	YES	YES	YES
<i>N</i>	2,464	2,464	2,464
<i>F</i>	129.99	129.76	121.88
<i>ADJ. R-SQUARE</i>	0.209	0.209	0.209

Notes:

1. The sample includes 2,464 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model.
2. The variables are defined as in Table 18.

Table 20
Analysis of Type of Executive Change and Audit Report Lag

<i>Panel</i>	1	2	3
<i>Variable</i>	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
<i>Intercept</i>	9.956 <.001	9.141 (<.001)	9.353 (<.001)
<i>LNTA</i>	-0.172 (<.001)	-0.169 (<.001)	-0.162 (<.001)
<i>SQSEG</i>	0.010 (0.298)	0.009 (0.323)	0.009 (0.328)
<i>BIG4</i>	-0.038 (0.483)	-0.036 (0.491)	-0.039 (0.401)
<i>HIGHLIT</i>	-0.019 (0.231)	-0.022 (0.209)	-0.020 (0.201)
<i>HIGHGROWTH</i>	0.033 (0.919)	0.036 (0.841)	0.039 (0.801)
<i>HIGHTECH</i>	0.017 (0.228)	0.017 (0.228)	0.017 (0.229)
<i>FOREIGN</i>	0.011 (0.507)	0.013 (0.433)	0.014 (0.279)
<i>LOSS</i>	0.134 (0.099)	0.135 (0.096)	0.132 (0.099)
<i>EXTRAORD</i>	0.143 (0.086)	0.131 (0.092)	0.141 (0.087)
<i>FINCOND</i>	0.020 (0.877)	0.035 (0.157)	0.033 (0.203)
<i>ACQUI</i>	0.079 (0.099)	0.081 (0.091)	0.089 (0.072)
<i>GC</i>	0.246 (0.259)	0.229 (0.286)	0.237 (0.297)
<i>ICW</i>	1.167 (<.001)	1.234 (<.001)	1.145 (<.001)
<i>CEO_OUTSIDE</i>	0.015 (<.001)	-	0.011 (<.001)
<i>CFO_OUTSIDE</i>	-	0.186 (<.001)	0.173 (<.001)
<i>YEAR_DUMMY</i>	YES	YES	YES
<i>N</i>	888	888	888
<i>F</i>	12.97	13.70	19.06
<i>ADJ. R-SQUARE</i>	0.218	0.238	0.231

Notes:

1. The sample includes 888 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal years 2008 and 2009 to estimate the regression model, and had an executive change in 2008 or 2009.
2. The variables are defined as in Table 18. *CEO_OUTSIDE* is 1 if the firm hires a CEO from the outside the company, 0 otherwise. *CFO_OUTSIDE* is 1 if the firm hires a CFO from the outside the company, 0 otherwise.

Table 21
Analysis of Executive Change and Audit Report Lag for Fiscal Year 2008

<i>Panel</i>	1	2	3
<i>Variable</i>	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
<i>Intercept</i>	8.663 <.001	8.653 (<.001)	8.653 (<.001)
<i>LNTA</i>	-0.118 (<.001)	-0.118 (<.001)	-0.118 (<.001)
<i>SQSEG</i>	0.034 (0.326)	0.033 (0.338)	0.034 (0.325)
<i>BIG4</i>	-0.053 (0.280)	-0.055 (0.257)	-0.055 (0.260)
<i>HIGHLIT</i>	-0.094 (0.036)	-0.093 (0.038)	-0.093 (0.039)
<i>HIGHGROWTH</i>	0.106 (0.002)	0.105 (0.002)	0.106 (0.002)
<i>HIGHTECH</i>	0.061 (0.180)	0.061 (0.173)	0.060 (0.182)
<i>FOREIGN</i>	0.049 (0.158)	0.050 (0.152)	0.049 (0.162)
<i>LOSS</i>	0.126 (0.004)	0.123 (0.005)	0.121 (0.006)
<i>EXTRAORD</i>	0.037 (0.585)	0.038 (0.577)	0.036 (0.595)
<i>FINCOND</i>	0.094 (0.154)	0.098 (0.135)	0.094 (0.153)
<i>ACQUI</i>	0.108 (0.001)	0.105 (0.001)	0.106 (0.001)
<i>GC</i>	0.332 (0.043)	0.331 (0.044)	0.323 (0.049)
<i>ICW</i>	1.195 (<.001)	1.189 (<.001)	1.187 (<.001)
<i>CEO</i>	0.025 (0.082)	-	0.029 (<.001)
<i>CFO</i>	-	0.100 (0.039)	0.096 (<.001)
<i>N</i>	1,232	1,232	1,232
<i>F</i>	50.91	51.04	47.92
<i>ADJ. R-SQUARE</i>	0.173	0.173	0.209

Notes:

1. The sample includes 1,232 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal year 2008 to estimate the regression model.
2. The variables are defined as in Table 18.

Table 22
Analysis of Executive Change and Audit Report Lag for Fiscal Year 2009

<i>Panel</i>	1	2	3
<i>Variable</i>	Coefficient (P-value)	Coefficient (P-value)	Coefficient (P-value)
<i>Intercept</i>	9.064 <.001	9.064 <.001	9.065 <.001
<i>LNTA</i>	-0.186 (<.001)	-0.187 (<.001)	-0.186 (<.001)
<i>SQSEG</i>	0.074 (0.005)	0.074 (0.005)	0.074 (0.006)
<i>BIG4</i>	-0.132 (<.001)	-0.133 (<.001)	-0.132 (<.001)
<i>HIGHLIT</i>	-0.098 (0.004)	-0.099 (0.004)	-0.098 (0.004)
<i>HIGHGROWTH</i>	0.093 (<.001)	0.094 (<.001)	0.093 (<.001)
<i>HIGHTECH</i>	0.031 (0.351)	0.031 (0.358)	0.033 (0.345)
<i>FOREIGN</i>	0.022 (0.400)	0.021 (0.421)	0.022 (0.403)
<i>LOSS</i>	0.183 (<.001)	0.183 (<.001)	0.184 (<.001)
<i>EXTRAORD</i>	0.054 (0.743)	0.055 (0.741)	0.055 (0.739)
<i>FINCOND</i>	0.022 (0.610)	0.023 (0.588)	0.022 (0.607)
<i>ACQUI</i>	0.060 (0.015)	0.059 (0.017)	0.060 (0.015)
<i>GC</i>	0.459 (<.001)	0.462 (<.001)	0.460 (<.001)
<i>ICW</i>	0.853 (<.001)	0.857 (<.001)	0.854 (<.001)
<i>CEO</i>	0.028 (0.055)	-	0.029 (0.077)
<i>CFO</i>	-	0.098 (0.011)	0.029 (0.065)
<i>N</i>	1,232	1,232	1,232
<i>F</i>	97.45	97.32	91.34
<i>ADJ. R-SQUARE</i>	0.179	0.178	0.178

Notes:

1. The sample includes 1,232 non-financial firms with a December 31 fiscal year end that all available data in Compustat and Audit Analytics databases for fiscal year 2009 to estimate the regression model.
2. The variables are defined as in Table 18.

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