3-2016

# Internal Control Opinion Shopping and Audit Market Competition

Nathan J. Newton

Julie Persellin
*Trinity University*, jpersell@trinity.edu

Dechun Wang

Michael S. Wilkins
*Trinity University*, mike.wilkins@trinity.edu

Follow this and additional works at: https://digitalcommons.trinity.edu/busadmin_faculty

Part of the Business Commons

## Repository Citation

**Internal Control Opinion Shopping and Audit Market Competition**

Nathan J. Newton
Assistant Professor
University of Missouri – Columbia


Julie Persellin
Assistant Professor
Trinity University


Dechun Wang
Associate Professor
Texas A&M University


Michael S. Wilkins
Jesse H. Jones Professor
Trinity University

March 2015

# Internal Control Opinion Shopping and Audit Market Competition

## Abstract

This study examines whether audit clients engage in internal control opinion shopping activities and whether audit market competition appears to facilitate those activities. Regulators have long been concerned about the impact of both audit market competition and opinion shopping on audit quality. We adopt the framework developed in Lennox (2000) to construct a proxy to measure the tendency that clients engage in internal control opinion shopping activities. Our empirical results suggest that clients are successful in shopping for clean internal control opinions. In addition, we find evidence that internal control opinion shopping occurs primarily in competitive audit markets. Finally, our results indicate that among auditor dismissal clients, opinion shopping is more likely to occur when dismissals are made relatively late during a reporting period and when audit market competition is high. Our findings have implications for the current policy debate regarding audit quality and audit market competition.

**Key words**: opinion shopping; internal control weakness; audit opinion; audit quality; audit market competition

**Internal Control Opinion Shopping and Audit Market Competition**

**I. INTRODUCTION**

Opinion shopping has long been of concern to regulators (U.S. Senate 1976; SEC 1988; PCAOB 2011b). The Treadway Commission Report notes that differences of opinion between client management and auditors may prompt management to consult with another auditor "to obtain an opinion that coincides with management's interest in presenting the results in the most favorable light" (Mintz 1995). While prior research has provided evidence that clients are successful in shopping for clean audit opinions in markets outside the U.S., there is limited evidence that clients in the U.S. engage in audit opinion shopping.[1] Our purpose in this paper is to broaden the traditional opinion shopping setting to include opinions related to the effectiveness of internal control over financial reporting (hereafter, internal control opinions). In so doing, we provide an alternative laboratory within which issues related to audit quality and potential compromises in auditor independence may be evaluated.

Our motivation for investigating whether companies appear to shop for favorable internal control opinions comes from two sources. First, Defond and Zhang (2014) suggest that the topic of opinion shopping is important but note that research in this area has not been particularly productive. Specifically, Defond and Zhang (2014) state that the primary limitations of opinion shopping research are that the results do not seem to be generalizable to the U.S., and that the evidence that does exist is based exclusively on the use of audit opinions as a proxy for audit quality. The authors suggest that the importance of opinion shopping is not attributable to the mechanism itself (i.e., the audit opinion) but because the mechanism is one of many factors that may be associated with compromised auditor independence. By investigating a mechanism that

---

[1] Lennox (2002) and Carcello and Neal (2003) provide evidence consistent with audit opinion shopping in the U.S. during pre-SOX years. We discuss potential differences between pre-SOX and post-SOX opinion shopping in Section V.

is very similar to financial statement audit opinions but that is associated with a much higher incidence of unfavorable outcomes for audit clients, we seek to shed light on potential audit quality and independence concerns that are related to the audit reporting process.

Our second reason for investigating internal control opinion shopping is based on numerous reports mentioning surprisingly low numbers of reported material weaknesses. For example, a recent *Wall Street Journal* article notes that Audit Analytics reported 629 material weaknesses in the first year after the Sarbanes-Oxley Act (SOX) was adopted but only 141 such weaknesses in 2011 (Chasan 2013). There is little doubt that genuine improvement in SEC registrants' internal controls has occurred since the passage of SOX. However, Chasan (2013) cites a concern that the infrequency of reported material weaknesses may be related to a potential "lack of rigor around material weakness testing" as observed by the Office of the Chief Accountant, the SEC's Division of Corporation Finance, and the PCAOB. The PCAOB's Staff Audit Practice Alert No. 11 (October 24, 2013) states that in 15 percent of the audit engagements occurring during a recent three-year reporting period, inspections staff found that the audit firm "had failed to obtain sufficient appropriate evidence to support its opinion on the effectiveness of internal control due to one or more auditing deficiencies identified by the inspections staff" (PCAOB 2013b). Furthermore, the Deputy Chief Accountant recently commented, "in some instances companies – managers and auditors – are not adequately evaluating the severity of [internal control] deficiencies. That may mean that some of the deficiencies are being classified as significant deficiencies, when they are really material weaknesses and investors aren't getting the disclosures that are intended" (Mont 2015). To the extent that questionable audit rigor and/or potentially misclassified internal control deficiencies at least partially reflect acquiescence to

client preferences, the existence of internal control opinion shopping would be consistent with these regulatory findings and concerns.

Based on the above, our first research question asks whether internal control opinion shopping appears to occur in U.S. markets – that is, whether adverse internal control opinions would have been issued more frequently if audit clients had made different decisions regarding their incumbent auditors. Ettredge, Heintz, Li, and Scholz (2011) find that clients with adverse internal control opinions are more likely than clients with clean opinions to dismiss their auditors and to choose higher quality replacements. They interpret these findings as suggesting that the auditor dismissal decisions made by clients with adverse internal control opinions reflect, on average, a desire to improve or signal the improvement of their financial reporting quality. Although Ettredge et al. (2011) is somewhat related to our study and we generally concur with their findings, it is important to note that our purpose is to determine whether a client's decision regarding the future of its incumbent auditor is related to the relative likelihood, *ex ante*, of receiving a clean versus adverse internal control opinion. More specifically, we present a probabilistic analysis of both auditor retention and auditor dismissal decisions that allows us to test more directly whether audit clients appear to engage in internal control opinion shopping.

The second research question we investigate relates to how competition among auditors affects clients' internal control opinion shopping activities. At issue is whether audit market competition strengthens or compromises auditor independence. Policy makers and regulators worry that consolidation in the audit market has caused audit quality to decrease (e.g., U.S. Chamber of Commerce 2006, Rappeport 2008). The maintained assumption among these parties seems to be that competition among auditors is desirable. However, when the PCAOB issued a 2011 concept release on mandatory auditor rotation, some commenters expressed concern that

the heightened audit market competition attributable to mandatory auditor rotation could motivate opinion shopping activities, thereby decreasing audit quality (PCAOB 2011a). Although the PCAOB dropped their auditor rotation proposal in 2013, the debate over audit market competition has continued. We hope to inform this debate by providing insights on how opinion-shopping activities might be influenced by audit market competition.

Our third research question explores whether the timing of auditor dismissals seems to be related to opinion shopping. Although internal control deficiencies may be found throughout the year, auditors typically do not make a final judgment on their internal control opinions until relatively late in the reporting period. Given that a client is most likely to engage in opinion shopping when it is able to reliably predict what the incumbent auditor's opinion is going to be, the timing of a dismissal may be indicative of whether it is more likely to have been motivated by opinion shopping. Our analysis in this area complements previous research related to the timing of auditor dismissals and audit opinion shopping and also speaks to the possibility that additional scrutiny may need to be applied to auditor changes that occur close to clients' fiscal year-ends (e.g., Schwartz and Soo 1996).

To address our first research question, we adopt the "what if" framework of Teoh (1992) and Lennox (2000) and investigate the relationship between internal control opinion shopping and auditor dismissal and retention decisions. More specifically, we use an adverse internal control opinion model to estimate the probability (P1) of a client receiving an adverse internal control opinion if the client dismisses its auditor and the probability (P0) of the same client receiving an adverse internal control opinion if the client does not dismiss its auditor. A client is said to be engaging in opinion shopping if P1 is less than P0 and the client dismisses its auditor or if P1 is greater than P0 and the client retains its auditor. Using U.S. data from 2005-2011, we

provide evidence suggesting that clients successfully engage in internal control opinion shopping. When we include a comparably constructed measure of going concern (GC) opinion shopping in the same model, our internal control opinion shopping measure remains significant while the GC opinion shopping measure is not significant. Our conclusion is that adverse internal control opinions convey more information (and/or less predictable information) than GC opinions about important financial reporting problems; hence, firms have a greater incentive to attempt to manage the internal control reporting process than to manage the going concern reporting process.

For our second research question, we use competition measures employed by Numan and Willekens (2012) and others to test the relationship between audit market competition and internal control opinion shopping. Our proxies are based on the Herfindahl Index and two spatial competition measures that assess the market share distance between the incumbent auditor and its closest competitor within a Metropolitan Statistical Area (MSA). Numan and Willekens (2012) argue that the spatial competition measures are suitable proxies for auditor competition because the audit market is oligopolistic in nature. Our results indicate that while internal control opinion shopping does appear to exist on average, it tends to be most pervasive when audit market competition is relatively high. The finding that audit market competition may facilitate successful opinion shopping is consistent with recent studies (e.g., Newton, Wang and Wilkins 2013) suggesting that increased competition in U.S. audit markets may actually impact audit quality negatively.

To test our third research question, we define "late dismissals" as observations where clients dismiss auditors in the third quarter or later and "early dismissals" as observations where clients dismiss auditors in the second quarter or earlier. Based on these categories, we find that

opinion shopping among clients that dismiss their auditors is more likely when auditors are dismissed late in the reporting period. We also find that in highly competitive audit markets, late dismissals occur relatively more frequently than early dismissals and also are much more likely to be associated with opinion shopping.

Our study is important for a number of reasons. First, despite long-standing concerns about the dangers of opinion shopping and what seems to be a widely held belief that such activities do take place, our study is the first to document the existence of opinion shopping in any form in the post-SOX era. Second, our finding that internal control opinion shopping appears to exist while audit opinion shopping does not suggests that audit clients view internal control reports as being more important than audit reports. As such, regulators may wish to increase their monitoring of internal control issues, particularly since concerns have already been expressed by the PCAOB that audit firms may not be collecting enough evidence to support their internal control opinions. Third, our finding that internal control opinion shopping is more likely in competitive audit markets informs the continuing debate regarding the pros and cons of increased auditor competition. More specifically, our results suggest that attempts to increase competition between audit firms may impact audit quality negatively.

The remainder of this paper is organized as follows. In Section II we describe the auditor's responsibilities in audits of internal control over financial reporting. In Section III we present background information related to opinion shopping and also develop our three research questions. In Section IV we discuss our research design and sample characteristics. Section V presents our primary empirical results and additional tests, and in Section VI we provide concluding remarks.

## II. AUDITS OF INTERNAL CONTROL OVER FINANCIAL REPORTING

Section 404 of the Sarbanes-Oxley Act requires both management and the external auditors to report on the operating effectiveness of internal control over financial reporting (ICFR). While auditors have been responsible for assessing internal control for over two decades (AICPA 1988), early evaluations were required primarily for planning and risk assessment purposes. Prior to SOX, auditors could choose not to rely on a poorly designed or functioning internal control by increasing the level of substantive testing performed in order to obtain sufficient evidence to support the audit opinion. The passage of SOX elevated both the complexity involved in obtaining an adequate understanding and proper evaluation of internal control as well as the transparency of the subsequent findings.

The objective in an audit of ICFR is to express an opinion on the operating effectiveness of the controls. Therefore, the focus of the audit is on evaluating the severity of control deficiencies discovered in order to determine whether any are serious enough to potentially undermine effective ICFR. A material weakness is defined by the PCAOB as a deficiency in ICFR such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis (PCAOB 2007). Therefore, if one or more material weaknesses exist that have not been remediated as of year-end, the company's ICFR cannot be considered effective and an adverse internal control opinion must be issued. Significant deficiencies in internal control may also be identified over the course of an audit. A significant deficiency is less severe than a material weakness, and therefore does not require the auditors to issue an adverse opinion on ICFR. However, it does warrant disclosure to both management and the audit committee (PCAOB 2007).

Prior research suggests that the tasks involved in judging the severity of internal control deficiencies are "unstructured, complex, and difficult" (Bedard and Graham 2011).[2] Absent objective evidence that a control deficiency warrants classification as a material weakness (such as an associated material misstatement in the current period) substantial judgment is required in order to determine whether a deficiency represents a significant deficiency, or is in fact a material weakness. Auditors are charged with evaluating both the likelihood and magnitude of an internal control deficiency in order to determine its appropriate classification. The PCAOB refers auditors to the guidance provided by the FASB related to accounting for contingencies (FASB 1975) to determine the likelihood that the deficiency discovered presents more than a remote chance (indicating it is either reasonably possible or probable) that a material misstatement will not be prevented or detected on a timely basis. In evaluating materiality, the PCAOB points to the Supreme Court's judgment that a fact is material if there is "a substantial likelihood that the …fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available" (PCAOB 2010).

The subjective and complex nature of the severity classification process could potentially aid an audit client in its quest for a clean internal control opinion. Legitimate differences of opinion may exist among auditors as to the appropriate classification of an internal control deficiency. As such, clients may be able to exploit the ambiguity of the severity classification criteria to shop for a favorable internal control opinion, especially in highly competitive audit environments. These notions form the basis for our research questions and empirical tests.

---

[2] Bedard and Graham (2011) note the ambiguity in the wording choices used to define the categories of internal control deficiencies. A significant deficiency does not require an adverse internal control opinion, yet the guidance provided by the Supreme Court specifically uses the word "significantly" in its language to explain what they consider to be material. In addition, the difficulty involved in interpreting probability phrases such as "more than remote" and applying them in practice has been noted in prior research (e.g., Amer, Hackenbrack, and Nelson 1994, Asare and Wright 2012).

## III. BACKGROUND AND RESEARCH QUESTIONS

**Background**

Regulators and investors have long been concerned about the relationship between auditor changes and audit quality. A 1976 Senate report includes an interview with Abe Briloff, a prominent accounting professor and frequent Barron's contributor, in which he suggested that differences of opinion related to proper accounting treatments "might produce some kind of shopping around for accountants" (U.S. Senate 1976). In the late 1980s, remarks by then-SEC Chairman David Ruder indicated that new amendments to the S-K, 8-K, and 14-A disclosure requirements were aimed at improving transparency for companies that were changing auditors "in potential opinion shopping situations" (Ruder 1988).[3] Some of these changes were in response to the Treadway Commission, which expressed concern that when companies consult with additional auditors, "commercial pressures are introduced into the process of resolving the financial reporting issue" (Mintz 1995).

Much of the attention paid to opinion shopping during the post-SOX era has taken place within the context of PCAOB discussions related to mandatory audit firm rotation. In Release No. 2011-006, the Board notes that some parties are worried that mandatory audit firm rotation would encourage opinion shopping and that competition for new engagements could lead auditor suitors to offer favorable accounting or auditing outcomes. In the same release, the former CEO of Deloitte is quoted as stating that a rotation requirement "would allow companies to disguise opinion shopping by enabling them to portray a voluntary change in auditors as obligatory" (PCAOB 2011b). Although extensive corporate and political resistance has caused the PCAOB

---

[3] It is also interesting to note that the paragraph immediately preceding Chairman Ruder's comment on opinion shopping mentions the possibility of an SEC rule requiring management to assess internal controls related to financial reporting – a full 14 years before formal certifications were required by SOX.

to drop its auditor rotation project, the Board remains focused on issues related to auditor independence (Chasan 2014). Opinion shopping is one such issue.

Despite clear indications from regulators that opinion shopping may exist and may have unfavorable outcomes for financial statement users, corroborative research evidence is very limited. As discussed by Defond and Zhang (2014), initial forays in this area (e.g., Chow and Rice 1982; Smith 1986; Krishnan 1994) found that clients that changed auditors after receiving a GC opinion were not significantly more likely to receive a clean opinion from their new auditor. To our knowledge, the only study using a similar method that has documented evidence in support of audit opinion shopping is Carcello and Neal (2003). As a part of their supplemental analysis, Carcello and Neal (2003) find that going concern clients with a higher percentage of affiliated directors serving on the audit committee are more likely to receive clean audit opinions in the year following auditor dismissals. Although this finding using pre-SOX data is consistent with opinion shopping, most of the evidence from studies that limit their analysis to clients with auditor dismissals suggests either that audit opinion shopping does not work (or does not exist) or that there are other explanations for why clients with GC opinions change auditors.

A critical problem with many opinion shopping studies is their implicit assumption that while a decision to change auditors might be associated with opinion shopping, a decision *not to change* auditors could not be associated with opinion shopping. Teoh (1992) addressed this oversight by developing a "what-if" scenario in which clients evaluate the probability of receiving good and bad outcomes across current and potential future auditors. In this framework, opinion shopping exists if a client's decision to replace *or retain* its current auditor is driven by assessments of probabilities related to audit opinion outcomes. Lennox (2000) was the first paper to employ this approach in an empirical setting and document "successful" opinion shopping. He

develops a prediction model for a sample of U.K. audit clients and shows that clients would have received unfavorable audit opinions more frequently if they had not made the auditor retention / switching decisions that they did, in fact, make. Lennox (2002) extends this analysis to U.S. firms and documents behavior consistent with audit opinion shopping between 1996 and 1998. Our own investigation of audit opinion shopping corroborates the findings of Lennox (2002) in the pre-SOX period; however, we find no such evidence in the post-SOX period. We defer further discussion of this issue to Section V.

Our decision to modify the traditional opinion shopping setting and focus on internal control opinions is based on a number of factors. First, regulators appear to care more about internal control problems than going concern problems. For example, PCAOB inspection reports frequently mention deficiencies related to internal control opinions and auditors' testing of internal controls, but very rarely mention issues related to going concern assessments.[4] Second, internal control problems are much more common than going concern problems. During our sample period, data from Audit Analytics show that roughly two percent of accelerated filers received GC opinions while six percent received adverse internal control opinions. Furthermore, although these numbers are meaningful, it is likely that they significantly understate the difference between the proportion of firms having internal control problems that require significant audit judgment (i.e., classifying a problem as a significant deficiency or a material weakness) and the number of firms having going concern problems that require significant audit judgment. Our final reason for focusing on internal control opinions relates to their information content. Going concern opinions tend to be preceded rather predictably by poor performance,

---

[4] Additionally, in a 2014 survey from the International Forum of Independent Audit Regulators (IFIAR), 24 percent of audits reviewed for internal control testing had at least one deficiency while only 6 percent of audits reviewed for going concern issues had at least one deficiency. Additionally, the number of audits with going concern deficiencies decreased by 4 percent from 2012 to 2014 while the number of audits with internal control testing deficiencies increased by 52 percent from 2012 to 2014 (IFIAR 2015).

debt covenant violations, and debt service default; however, it would be difficult for an external user to identify internal control weaknesses from any source other than the internal control report itself. As such, firms with internal control problems may have a relatively strong incentive to attempt to manage the internal control reporting process such that these problems are not made public.

**Research Questions**

Our empirical analysis is structured to address three research questions. The first question asks whether there is evidence to suggest that internal control opinion shopping exists. Regulators, practitioners, and academics agree that in certain situations, companies may have an incentive to shop for audit opinions. As Lennox (2000, p. 323) notes, when faced with potentially unfavorable circumstances, "any forward-looking company should care about how switching affects the subsequent audit opinion." It stands to reason that companies should grant the same consideration to internal control opinions, particularly since material weakness disclosures tend to be viewed negatively by capital market participants (e.g., Hammersley, Myers, and Shakespeare 2008; Ashbaugh-Skaife, Collins, Kinney, and LaFond 2009; Dhaliwal, Hogan, Trezevant, and Wilkins 2011) and also may be used to establish management scienter in class action lawsuits and SEC sanctions related to restatements (e.g., Rice, Weber and Wu 2014; Hogan, Lambert and Schmidt 2014).

Our investigation of internal control opinion shopping is also shaped by recent statements by regulators highlighting the confluence of (1) potential lack of rigor in audits of internal control over financial reporting and (2) significant decreases in the number of reported material weaknesses. Underlying these concerns, of course, is the specter of Type II internal control opinion errors – for our purposes, the granting of clean internal control opinions when adverse

opinions are warranted. Some such errors doubtless occur despite auditors' best efforts (i.e., sufficient evidence is collected but "honest mistakes" are made in the application of judgment). Other errors may occur either when auditors collect sufficient evidence but acquiesce to client preferences – such as classifying a potential material weakness as a significant deficiency – or when auditors do not collect sufficient evidence. Although the latter condition has been the primary focus of both the SEC and the PCAOB (e.g., Chasan 2013, PCAOB 2013b), both of these conditions could be indicative of opinion shopping. Our purpose with the first research question is to investigate whether internal control opinion shopping seems to exist, thereby addressing one potential source of regulators' concern.

Our second research question asks whether internal control opinion shopping is influenced by audit market competition. Audit market competition is particularly relevant to opinion shopping because heightened audit market competition will increase the probability of auditor switching or the threat of auditor switching (Oxera Consulting Ltd 2006). Accordingly, audit market competition may lead to a higher probability of opinion shopping (PCAOB 2011b). The pros and cons of audit market competition have been discussed at great length during the post-SOX era. Although most of the arguments advanced by regulatory bodies have supported the idea of increased competition, the 2008 GAO report commissioned by Congress found no evidence that high audit market concentration (i.e., low auditor competition) results in decreased audit quality. Consistent with this notion, Newton et al. (2013) find that restatements are more likely in areas where auditor competition is high, presumably due to the fact that audit firms in such markets are forced to compete heavily on fees (Chaney, Jeter, and Shaw 2003; Numan and Willekens 2012).

Audit fees increased dramatically after the initial passage of SOX, but began decreasing during the global financial crisis and have yet to recover. Current PCAOB Chairman, James Doty, recently stated that audit fees have been flat for some time, that the audit market has stagnated, and that in such markets "the primary battleground for [audit] market share [becomes] price" (Doty 2014). In this environment, both existing and potential clients are likely to possess significant bargaining power. Given the judgment required in classifying internal control problems as significant deficiencies or material weaknesses and in assessing the extent to which existing weaknesses have been sufficiently remediated, auditors may be more likely to acquiesce to client preferences when clients have greater bargaining power. Stated differently, clients may be able to secure clean internal control opinions more readily in highly competitive markets. This notion forms the basis for our second research question.

Our third research question asks whether the timing of an auditor dismissal provides an indication of whether the dismissal may have been motivated by opinion shopping. The timing of dismissals may be important because if clients choose to dismiss the incumbent auditor for reasons related to opinion shopping, they have to be reasonably certain that they would have received an adverse opinion from the incumbent auditor. In a typical audit, design deficiencies are noted in the second quarter and additional deficiencies may be identified in the third or fourth quarter as the operating effectiveness of the controls is tested. The decision regarding the internal control opinion itself normally is not made until relatively late in the fiscal year or even after year-end. Until the client is able to make a reliable estimation of what the opinion is going to be, it may attempt to remediate (or not) as well as attempt to convince the auditor that any issues that exist are significant deficiencies instead of material weaknesses. Ultimately, because the client's uncertainty about the nature of the opinion is more likely to be resolved as the end of the

reporting period draws nearer, we expect that dismissals that occur relatively late in the year are more likely to be motivated by opinion shopping.[5]

As a complement to our development above, we also note that the timing of auditor dismissals vis-à-vis audit opinions has been the subject of a fair amount of academic research (e.g., Schwartz and Menon 1985; Kluger and Shields 1991; Schwartz and Soo 1996). For example, research shows that (1) if management disagrees with the auditor's opinion, the auditor is more likely to be dismissed; (2) auditor-client disagreements tend to occur late in the fiscal year after sufficient evidence has been obtained to make an informed judgment; and (3) if dismissal occurs because of a client's reporting methods or the potential disclosure of deteriorating financial condition, the dismissal is more likely to occur at or near the client's fiscal year-end after auditor-client negotiations prove unsuccessful. Furthermore, Schwartz and Soo (1996) state that their discussions with SEC officials support the contention that auditor changes occurring late in a registrant's fiscal year are potentially the result of opinion shopping. Although the relationships investigated in these studies pertain to the standard auditor's report, the findings are equally relevant to internal control opinions.

## IV. RESEARCH DESIGN AND SAMPLE

**Research Design**

Our empirical tests are based on the audit opinion shopping models of Lennox (2000). To test for the existence of internal control opinion shopping, we first estimate a probit model to generate predictions for the probability that a client will receive an adverse internal control opinion. We then incorporate the predictions from this model into a second model that

---

[5] Similar behavior is observed in studies such as Jeter and Shivakumar (1999) and Das, Shroff and Zhang (2009) that document more earnings management near the end of reporting periods as firms attempt to reach year-end earnings targets.

investigates the relationship between internal control opinion shopping and auditor dismissal decisions.

The general form of the first model is as follows:

$$MW_t = \gamma_0 + \gamma_1 MW_{t-1} + \gamma_2 DISMISS_t + \gamma_3 DISMISS_t * MW_{t-1} + \gamma_4 X_t + \gamma_5 DISMISS_t * X_t + \varepsilon \quad [1]$$

where $MW_t$ is a binary variable identifying clients with clean [0] or adverse [1] internal control opinions in year t, $MW_{t-1}$ is a binary [0,1] variable identifying clients with clean [0] or adverse [1] internal control opinions in year t-1, *DISMISS* is a binary variable identifying clients' year t auditor retention [0] or dismissal [1] decisions, and *X* is a vector of year t control variables frequently used in studies investigating the determinants of material weaknesses in internal controls (e.g., Ashbaugh-Skaife, Collins, and Kinney 2007; Doyle, Ge, and McVay 2007). Our set of control variables includes the announcement of a restatement, firm size, firm age, firm complexity (as proxied by foreign sales and number of business segments), bankruptcy risk, revenue growth, Big 4 auditors, the presence of a net loss, restructuring activity, acquisitions, institutional ownership, and a binary variable identifying clients that had changes in CEO or CFO during the current or prior year.[6] Details regarding all of these measures are presented in Appendix A. We also include controls for year and for the 12 Fama-French industry groups and we cluster standard errors by audit client.

Following Lennox (2000), we estimate equation [1] across the entire sample with *DISMISS*=1 if the incumbent auditor was dismissed in year t and *DISMISS*=0 if the incumbent auditor was retained in year t. We then use the coefficients from this model to generate two predicted values of *MW* for each observation – one with *DISMISS*=1 and one with *DISMISS*=0.

---

[6] While material weaknesses, at least theoretically, should *precede* restatements, research shows that the reverse often is true. For example, Scholz (2014) finds that between 2005 and 2012, only 22 percent of annual restatements were preceded by reports of material weaknesses.

The difference between these two predicted values is used to calculate our opinion-shopping

variable (*SHOP*), which we use in the following auditor-dismissal model:

$$DISMISS_t = \beta_0 + \beta_1 SHOP_t + \beta_2 COMP_t + \beta_3 Z_t + \varepsilon \qquad [2]$$

In equation [2], *DISMISS* is a binary variable identifying clients' year t auditor retention

[0] or dismissal [1] decisions, *SHOP* is our test variable, *COMP* represents alternative measures

of audit market competition in year t, and *Z* is a vector of year t control variables commonly

included in studies investigating auditor changes (e.g. Landsman, Nelson, and Rountree 2009;

Ettredge et al. 2011). The controls represented by *Z* include the announcement of a restatement,

firm size, leverage, profitability, bankruptcy risk, cash holdings, auditor tenure (as of the

previous year), auditor-client size mismatch, the audit office's share of fees in the MSA industry,

prior year GC opinion, revenue growth, accruals, the ratio of inventory and receivables to total

assets, the existence of a net loss, acquisition activity, institutional ownership, and a binary

variable identifying clients that had changes in CEO or CFO during the current or prior year.

Again, details regarding the calculation of these variables are presented in Appendix A. As in

Model 1, we also include controls for year and industry groups and cluster standard errors by

audit client.

As in Lennox (2000), *SHOP* is a function of the predicted values that are generated from

the first model, transformed into probabilities from the standard normal distribution.[7] More

specifically, *SHOP* is equal to the predicted probability (P1) of receiving an adverse internal

control opinion when *DISMISS* = 1 minus the predicted probability (P0) of receiving an adverse

internal control opinion when *DISMISS* = 0. In this framework, a client is said to be engaging in

---

[7] Like Lennox (2000), we also use raw (not normalized) predicted values to define *SHOP*. We discuss these results later in the paper.

opinion shopping if P1 < P0 and the client dismisses its auditor (*DISMISS*=1) or if P1 > P0 and the client retains its auditor (*DISMISS*=0). Stated differently, as P1 – P0 becomes more negative (more positive), clients that are engaging in opinion shopping should be more likely (less likely) to dismiss their auditors. A negative value of $\beta_1$ would suggest that opinion shopping exists.

We use three proxies for audit market competition (*COMP*). The first proxy, *DISTANCE_MSA*, defines competition as the absolute value of the difference between the incumbent audit office's fee market share within its MSA and the fee market share of the audit office within that MSA that is closest to the incumbent auditor. The second proxy for competition, *DISTANCE_IND*, calculates the same difference based on fee market shares within an MSA industry.[8] Numan and Willekens (2012) document a significant positive relation between both *DISTANCE* measures and incumbent auditors' fees, suggesting that fee pressure is likely to be greatest when the closest competing audit office's market share is very similar to that of the incumbent audit office (i.e., when *DISTANCE_MSA* or *DISTANCE_IND* is small). Because competition is decreasing in both *DISTANCE* measures, we decile-rank both variables based on decreasing values before including them in our empirical models. Our third competition measure, *HERF*, is based on the Herfindahl Index, which captures the variation in the number of audit firms present in a given market as well as the distribution of audit fees across those firms (see Appendix A for calculation details). Because the Herfindahl Index would be highest for a market with one audit firm and lowest for a market with numerous firms having similar market shares, we calculate *HERF* by ranking clients into deciles based on decreasing values of the Herfindahl Index. Thus, as with *DISTANCE_MSA* and *DISTANCE_IND*, higher values of *HERF* reflect greater audit market competition.

---

[8] We define audit markets based on Fama & French 12 industry definitions within U.S. Metropolitan Statistical Areas (MSA).

We include our three competition measures in separate estimations of equation [2] to establish a baseline relationship between auditor dismissals (*DISMISS*) and audit market competition (*COMP*). Our expectation is that dismissals will be more likely in competitive markets; that is, we expect $\beta_2$ to be positive. However, our second research question asks whether internal control opinion shopping – *not auditor dismissal* – is more prevalent in competitive audit markets. To address this question, we estimate separate models for below-versus-above median values of *DISTANCE_MSA*, *DISTANCE_IND*, and *HERF*. A value of $\beta_1$ that is more negative when the model is estimated for above-median competition than when it is estimated for below-median competition would suggest that internal control opinion shopping is more likely when audit market competition is greater. We also estimate models that include the decile-ranked competition measures as main effects and as interactions with our opinion shopping variable (*SHOP*). In these models, a negative coefficient for the interaction term would suggest that internal control opinion shopping is more prevalent in high competition markets.

Our third research question asks whether the timing of auditor dismissals is indicative of internal control opinion shopping. More specifically, are auditor dismissals that occur relatively late in the year more likely to be associated with opinion shopping than auditor dismissals that occur relatively early in the year? To address this question, we define early dismissals as those that occur before the end of the second quarter and late dismissals as those that occur after the beginning of the third quarter. We then estimate the dismissal model (equation 2) separately for early and late dismissals with all non-dismissal firm years included as control observations. If late dismissals are more indicative of opinion shopping, the coefficient for *SHOP* should be more negative in the models that include late auditor dismissals than in the models that include early auditor dismissals.

**Sample**

We obtain data for our sample from Compustat, Audit Analytics, and CRSP. Our focus is on shopping for auditors' internal control opinions, which became available in 2004 after the implementation of SOX Section 404. Our sample begins the following year so that we can include lagged material weaknesses in our analysis. Our second research question involves competition among auditors, so we eliminate observations that occur in audit markets where there is limited competition. Specifically, we delete observations when there are fewer than three auditors in an MSA. Given that a majority of clients are audited by Big 4 auditors, we focus on the opinion shopping activities of Big 4 clients and exclude companies that were audited by non-Big 4 auditors in year t-1. Finally, we delete observations where the auditor resigned because opinion shopping revolves around clients' ability to dismiss their auditors rather than auditors choosing to leave.[9] The final sample for our material weakness (MW) prediction model consists of 11,846 firm-years between 2005 and 2011. The sample for our auditor dismissal model drops to 11,361 firm-years due to the data requirements for additional control variables.

Table 1 presents descriptive statistics for the variables that are used in our study. Panel A includes variables representing internal control weaknesses, auditor switching, opinion shopping, and competition. In our sample, 4.2 percent of the observations receive an adverse internal control opinion in year t. This percentage is significantly lower than those that receive an adverse internal control opinion in year t-1 (5.4 percent). Panel A also reveals that auditor switching (i.e., auditor dismissal) occurs in 2.8 percent of our sample, and that the average auditor in our sample differs in audit fee market share from the closest substitute auditor by 8 percent and 18.6 percent at the MSA and MSA-industry-levels, respectively. Panel B of Table 1 presents descriptive

---

[9] We also conduct sensitivity tests that include both dismissals and resignations. The results of these tests are presented in Section V.

statistics on the control variables that are used in our regressions. The statistics in Panel B

indicate that the sample firms are larger, more profitable, and less risky than Compustat averages

(untabulated) for the same period. Less than one percent of sample firms receive a GC opinion,

average auditor tenure is 7.627 years, and 98.9 percent of sample firms retain the services of a

Big 4 auditor in year t (i.e., only 1.1 percent change to a non-Big 4 auditor).

A Pearson correlation matrix of selected variables is presented in Table 2. The correlation

matrix shows that auditor dismissals are more common when competition is high and when the

client receives an adverse internal control opinion in the prior year. Other correlations indicate

that auditor dismissals are positively correlated with client risk, poor client performance, and

restatements, and that auditor dismissals are negatively correlated with institutional ownership.

<div align="center">

### V. EMPIRICAL RESULTS

</div>

**Primary Tests**

Table 3 presents our adverse internal control opinion prediction model. We estimate this

model to generate the predicted values that are used to construct our opinion shopping variable

(*SHOP*). Table 3 shows that material weaknesses are significantly more likely to be reported in

the current period if they were reported in the previous period ($MW_{t-1}$), suggesting that adverse

internal control opinions tend to be sticky. We also find that material weaknesses are

significantly more likely for restatement clients (*REST*), smaller clients (*SIZE*), more complex

clients (*ROOT_SEG*), and clients that have higher acquisition cash flows (*ACQUISITION*), net

losses (*LOSS*) and a higher bankruptcy risk (*BANK_RISK*).[10] Material weaknesses are

significantly more likely for clients that have had a recent change in top management and are

---

[10] We also find (but do not present in Table 3) that material weaknesses are less likely from 2007-2011 than they were during the baseline year of 2005. As discussed previously, this trend could reflect a general improvement in the quality of internal control environments, weaker audits of internal controls, or both.

significantly less likely for clients with higher levels of institutional ownership. The area under the ROC curve for the prediction model is 0.913, suggesting that the model does an excellent job of separating material weakness clients from non-material weakness clients.

Table 4 presents our opinion shopping analysis. The analysis in Panel A is based on the full sample of 11,361 observations having an incumbent Big 4 auditor (i.e., a Big 4 auditor in the previous year).[11] Of these 11,361 observations, 11,039 did not change their auditor, 197 changed to another Big 4 auditor, 90 changed to a mid-tier auditor, and 35 changed to a smaller auditor. Panel A includes all observations, Panel B removes changes to small auditors, and Panel C removes changes to small auditors and mid-tier auditors. The results presented in Panel A indicate that auditor dismissals are more likely for restatement clients (*REST*), small clients (*SIZE*), clients with greater bankruptcy risk (*BANK_RISK*), clients with greater accruals (*ACCR*), and clients where the incumbent auditor had longer tenure (*TENURE*). Auditor dismissals also tend to be more likely when audit market competition is higher across all three measures of audit market competition. These findings stand to reason, as clients should be more willing (and more able) to change auditors when substitutes are readily available in the local audit market.

***Research Question 1***

The variable used to test our first research question is *SHOP*. As discussed previously, *SHOP* is based on the predicted values generated by the adverse internal control opinion model presented in Table 3. As *SHOP* becomes more negative (more positive), clients that are engaging in opinion shopping should be more likely (less likely) to dismiss their auditors. We initially define *SHOP* as *SHOP(normal)*, where the differences between the predicted values from the adverse internal control opinion prediction model are transformed into probabilities. The

---

[11] Because our *COMP=DISTANCE_IND* models exclude MSA industries without the presence of at least two auditors, total observations in the *COMP=DISTANCE_IND* tests presented in Tables 4 and 5 are 10,780, 10,747, and 10,660 with 301, 268, and 181 switches in Panels A, B, and C, respectively.

significant negative coefficient for *SHOP(normal)* in Panel A suggests that across all observations, clients would have received adverse internal control opinions more frequently if they had made different auditor retention or dismissal decisions. Like Lennox (2000), we also conduct tests that are based on the differences between the raw predicted values themselves. When we estimate the models presented in Panel A with *SHOP* defined as *SHOP(raw)*, the coefficients are negative and significant as well. Thus, both specifications of *SHOP* suggest that audit clients do seem to be successful at shopping for internal control opinions.[12]

The results presented in Panel A of Table 4 include all incumbent Big 4 auditors. In Panel B, we remove clients changing to small auditors to determine whether the results from Panel A are driven by these observations. Panel B shows that when changes to small auditors are removed, our results are unchanged. All coefficients for *SHOP(normal)* and *SHOP(raw)* remain negative and statistically significant, and all of the competition measures remain positive and statistically significant. In Panel C of Table A, we remove changes to both small and mid-tier auditors, such that these models are estimated only for clients that retain their incumbent Big 4 auditor or engage a new Big 4 auditor. With these models, only the coefficients for *SHOP(raw)* remain negative and significant, indicating weaker evidence of internal control opinion shopping for this subset of clients. Furthermore, only one of the competition measures is statistically significant.

There are two takeaways associated with Panels B and C of Table 4. First, although we do find evidence of opinion shopping among all subsamples with the *SHOP(raw)* measure, a conservative interpretation of the evidence would suggest that opinion shopping may be most likely among clients that do not prefer or require the services of Big 4 auditors. As such, this

---

[12] When we add to our base sample the 1,806 firms having non-Big 4 auditors in year t-1, our results are qualitatively unchanged. For example, all three *SHOP(normal)* coefficients in Panel A of Table 4 are statistically significant, with z-statistics ranging from -2.468 to -2.915.

portion of our "what-if" analysis lends credence to the idea that opinion leniency may be more likely among non-Big 4 auditors (Ettredge et al. 2011). Second, the results suggest that audit market competition affects auditor dismissal decisions to a greater extent for clients that are able to switch to Big 4, mid-tier, or smaller auditors than for clients that may be limited to switching to another Big 4 auditor. Again, this finding is intuitively appealing given that auditor dismissals, regardless of motive, should be more likely when clients have a larger viable auditor pool from which to draw.

### *Research Question 2*

Table 5 addresses our second research question, regarding the relationship between internal control opinion shopping and audit market competition. In Panel A of Table 5, we classify observations into high versus low competition partitions based on median values of *DISTANCE_MSA*, *DISTANCE_IND*, and *HERF*. We then re-estimate the opinion shopping models from Table 4 separately for each partition, with the competition measures excluded. The resulting models evaluate the extent to which opinion shopping exists in markets that can be classified as having low competition or high competition.[13] As in Table 4, we also estimate the models separately for the three potential auditor size categories to determine whether audit market competition affects the opinion shopping activities of these client groups differentially.

The results presented in Panel A of Table 5 indicate that across the full sample, a relationship does exist between internal control opinion shopping and audit market competition. Specifically, *SHOP(normal)* is negative and significant for clients of all incumbent Big 4 auditors across all three competition proxies when competition is high, and is not significant

---

[13] We use this method because interpreting the results is more intuitive than interpreting an interaction term, and the estimation of separate models for two groups is a common method used in cross-sectional tests [e.g., Jayaraman and Milbourn (2015), Chen, Gul, Veeraghavan, and Zolotoy (2015), Kirk, Reppenhagen, and Tucker (2014), Beck and Mauldin (2014)].

when competition is low. *SHOP(raw)* is negative and significant in both low and high

competition markets. When we remove clients changing from Big 4 auditors to small auditors,

*SHOP(normal)* remains negative and significant in the high competition partition of all three

proxies and, again, is not significant in any of the low competition partitions. In this

specification, *SHOP(raw)* is also negative and significant in all three of the high competition

partitions and remains significant in two of the low competition partitions. When we remove

changes to small auditors and mid-tier auditors, *SHOP(normal)* is significant in two of the high

competition partitions, *SHOP(raw)* is significant in all three high competition partitions, and

neither measure is significant in any of the low competition partitions. Overall, the results

presented in Panel A of Table 5 provide strong evidence that successful opinion shopping

appears to be more prevalent in competitive audit markets.[14]

In Panel B of Table 5 we present alternative tests of the relationship between opinion

shopping and audit market competition. In these models, we include decile competition ranks as

main effects and also interact the ranks with our opinion shopping variables. If internal control

opinion shopping is related to audit market competition, the interaction terms should be

negative.[15] Panel B shows that when the sample includes all incumbent Big 4 auditors, there is

strong evidence of a relationship between opinion shopping and audit market competition.

Specifically, five of the six competition interactions are negative and significant. When the

analysis is limited to Big 4 clients that retain their auditors, change to other Big 4 auditors, or

change to mid-tier auditors (i.e., removing changes to small auditors), three of the six

---

[14] As an additional sensitivity test, we use factor analysis to create a single competition factor that is based on all three competition measures. Using this factor produces inferences that are identical to those that are associated with the results presented in Tables 4 and 5.

[15] We use the procedure described in Norton, Wang, and Ai (2004) to estimate the interaction term coefficients and p-values.

competition interactions are negative and significant. In Panel B, however, there is little evidence

of a relationship between opinion shopping and audit market competition among firms that either

prefer or require the services of a Big 4 auditor. Although the results for this last group of firms

differs from the results presented in Panel A, in general Table 5 provides compelling evidence

that opinion shopping is facilitated by audit market competition.

***Research Question 3***

Table 6 addresses our third research question, regarding the relationship between opinion

shopping and the timing of auditor dismissals. Recall that within our "what-if" framework,

opinion shopping may exist regardless of whether or not the incumbent auditor is actually

dismissed. However, for dismissals that *do occur*, our expectation is that those that are motivated

by opinion shopping will tend to occur later in the reporting period than those that are not

motivated by opinion shopping. In Table 6, we replicate the analysis from Table 4 with the

dependent variable (*DISMISS*) defining, alternatively, the 237 early dismissal clients and the 85

late dismissal clients. All non-dismissal firm-years are included as control observations. Table 6

shows that there is a relationship between opinion shopping and the timing of auditor dismissals

across all competition measures and all audit firm size partitions. With the *SHOP(normal)*

specification, we find evidence consistent with opinion shopping in all nine of the late dismissal

models and in none of the early dismissal models. With the *SHOP(raw)* specification, we find

evidence consistent with opinion shopping in all nine of the late dismissal models and in six of

the early dismissal models. Additionally, using seemingly unrelated estimation, the

*SHOP(normal)* and *SHOP(raw)* coefficients in the late dismissal models are significantly larger

than the coefficients in the early dismissal models in 14 of the 18 models.[16]

---

[16] We also find that among dismissal firms, opinion shopping may be related to auditor quality. For example, 54
percent of the late switchers in our sample change to mid-tier or smaller auditors compared to only 33 percent of

We also re-estimate our Table 5, Panel A models for both early and late dismissal observations. We do not present a separate table because this process results in the creation of 72 additional models.[17] Across these 72 models, there are 18 models in each dismissal timing / audit market competition pairing. For the 36 early dismissal models, the *SHOP(normal)* and *SHOP(raw)* coefficients are negative and significant in only three of the 18 low competition models and in only nine of the 18 high competition models. In contrast, for the 36 late dismissal models, the *SHOP(normal)* and *SHOP(raw)* coefficients are negative and significant in 11 of the 18 low competition models and in 16 of the 18 high competition models.[18] Overall, the evidence regarding our third research question suggests that auditor dismissals that occur relatively late in the reporting period are much more likely to be associated with opinion shopping than auditor dismissals that occur early in the reporting period, particularly when audit markets are competitive.

**Additional Tests**

*Going Concern Opinions*

To test whether our internal control opinion shopping results are attributable to clients that might also be shopping for favorable GC opinions, we take two approaches. First, we remove the 91 observations where clients have a GC opinion in year t-1. With these observations removed, our results are qualitatively and statistically unchanged. Second, we construct a GC

---

early switchers. To the extent that late dismissals are more likely to be associated with opinion shopping activities, a relationship between opinion shopping and auditor quality appears to exist in dismissal situations.

[17] The 72 models are the product of the following combinations: three potential auditor samples * two *SHOP* specifications * three *COMP* specifications * two competition categories (high versus low) within each *COMP* specification * two dismissal timing specifications (early versus late).

[18] Late dismissals also occur relatively more frequently than early dismissals in high competition markets – markets that we show in Table 5 to be associated with a greater incidence of opinion-shopping activities. For example, 81 percent of late dismissals are in high *DISTANCE_IND* markets, as compared to only 67 percent of early dismissals.

opinion shopping variable relating to going concern modifications (*GCSHOP*) using the same

procedure we used to construct the internal control opinion shopping variable (*SHOP*).[19] We then

include both of these variables in our auditor dismissal models.[20] Table 7 replicates the analysis

we present in Table 4 and shows that when we allow for both types of opinion shopping, there is

no evidence of GC opinion shopping (i.e., avoiding going concern explanatory language) and our

internal control opinion shopping results are generally unchanged from the original Table 4

results.[21] Specifically, *SHOP(normal)* and *SHOP(raw)* are consistently negative and significant

in Panels A and B of Table 7 and *SHOP(raw)* is negative and significant in one model in Panel C

of Table 7. Furthermore, the GC opinion shopping variable is not statistically significant in any

of the models. Overall, the findings presented in Table 7 are consistent with our expectation that

internal control opinions are less predictable – and, hence, potentially more valuable – than GC

opinions.

In untabulated results, we do find evidence of audit opinion shopping during the pre-SOX

era. This result – which is consistent with Carcello and Neal (2003) and Lennox (2002) –

combined with the insignificance of *GCSHOP* in Table 7 suggests that firms are less likely to try

to avoid going concern opinions after SOX than they were before SOX. One possible

explanation for the difference in results across these two periods is that the introduction and

importance of internal control opinions in the post-SOX era has reduced the importance of the

---

[19] Our going concern opinion prediction model is based on previous research and includes controls for bankruptcy risk, loss, client size, client age, leverage, change in leverage, operating cash flows, announcement lag, investments, new financing, Big 4 auditor, stock return, stock volatility, institutional ownership, prior going concern, auditor dismissal, and year and industry fixed effects.

[20] Because our *COMP=DISTANCE_IND* models exclude MSA industries without the presence of at least two auditors, total observations in the *COMP=DISTANCE_IND* tests in Table 7 are 10,564, 10,533, and 10,542 with 289, 258, and 177 switches in Panels A, B, and C, respectively.

[21] When we omit *SHOP* from the Table 7 models, *GCSHOP* remains insignificant.

GC opinion in the portfolio of factors firms consider as they are evaluating whether to retain or dismiss their auditors. This explanation is corroborated by the fact that the PCAOB and other regulatory agencies have expressed serious concern regarding deficiencies related to internal control opinions and auditors' testing of internal controls, but rarely discuss issues related to going concern assessments.

*Auditor Dismissal versus Auditor Retention*

The benefit of the "what-if" approach is that it permits modeling of opinion shopping that may be associated with decisions to retain auditors as well as decisions to dismiss auditors. To investigate whether opinion shopping seems to exist across both types of decisions, we estimate separate models for clients that were predicted to have a potential benefit from dismissing their auditors (i.e., *SHOP* is negative) and clients that were predicted to have a potential benefit from retaining their auditors (i.e., *SHOP* is positive). In these models, the opinion shopping coefficient is consistently negative and significant for negative *SHOP* clients. That is, we find evidence of significant opinion shopping for audit clients that were predicted to benefit from dismissing their auditors across all sample cuts – even among the subsample of clients that retain their Big 4 auditor or change to another Big 4 auditor. Additional analysis reveals that the results for negative *SHOP* clients are primarily attributable to opinion shopping in high competition markets, consistent with our second research question.

We also find significant evidence of opinion shopping among positive *SHOP* clients, on average, using the *SHOP(raw)* measure but not with the *SHOP(normal)* measure. When we estimate separate models based on high versus low competition, however, the coefficients for both *SHOP(normal)* and *SHOP(raw)* are negative and significant for positive *SHOP* clients in all three high competition models for the full sample and in all three high competition models when

changes to small auditors are removed. Overall, these tests provide compelling evidence (1) that opinion shopping activity exists among clients that are predicted to benefit from dismissing their auditors as well as clients that are predicted to benefit from retaining their auditors; and (2) that competition facilitates opinion shopping for both groups of clients.

*Opinion Shopping in Restatement Firms*

Rice and Weber (2012) find that companies often fail to disclose a material weakness at the time that a misstatement exists but subsequently disclose a material weakness when a restatement is announced. We conduct a separate analysis for the restatement companies in our sample to determine whether opinion shopping might explain these "missing" adverse internal control opinions. Our sample of 11,361 observations includes 1,124 misstated firm-years in which material weaknesses are not disclosed. When we estimate our baseline model for this subset of firm-years, the coefficients for *SHOP(normal)* and *SHOP(raw)* are significant at p<0.02 and p<0.01, respectively. These findings are consistent with the notion that the non-disclosure of material weaknesses during the year(s) of misstatement may be partially facilitated by opinion shopping activities.

*Changes in Opinion Shopping Over Time*

As discussed previously, regulators have expressed concern about the number of material weaknesses that have been reported in recent years. The downward trend could be attributable to more successful client remediation efforts, greater numbers of audit deficiencies, and/or an increase in internal control opinion shopping activities. To determine whether decreases in reported material weaknesses might be related to increases in opinion shopping, we estimate separate models for different time periods (e.g., 2005-2007 versus 2008-2011). The *SHOP* coefficients in these models are significant (p<0.01) in both early and late post-SOX periods, and

the coefficients are not statistically different from each other. The consistency of the relationship across these periods leads us to conclude that the decrease in reported material weaknesses is not attributable to an increase in opinion shopping.

*All Auditor Changes*

We also conduct our analysis with the auditor change definition broadened to include both auditor dismissals and auditor resignations. While this specification provides a noisier proxy for potential opinion shopping activities, our results are not materially affected by broadening the measure. All of the results associated with our first and second research questions are statistically and qualitatively unchanged when we add resignations to the sample. The results associated with our third research question are slightly sensitive to the inclusion of resignations, but not in a predictable manner. For example, *SHOP(normal)* is significant in all nine late dismissal models with resignations excluded but is significant in only six of the nine late dismissal models with resignations included. However, *SHOP(raw)* is significant in six of the nine early dismissal models with resignations excluded but is significant in all nine early dismissal models with resignations included. Overall, when we include both resignations and dismissals the inferences that we draw with respect to all three research questions are unchanged.

## VI. CONCLUSIONS

For any audit client, a clean internal control opinion could be indicative of acceptable internal controls, audit deficiencies, and/or internal control opinion shopping activities. Our purpose in this paper is to investigate the latter factor, thereby addressing potential compromises in auditor independence and audit quality that traditionally have been associated with the notion of audit opinion shopping. Using the framework of Lennox (2000), we find that audit clients appear to be successful at shopping for clean internal control opinions. More specifically, our results suggest that clients would have received adverse internal control opinions more

frequently if they had made different auditor retention or dismissal decisions. We also find that internal control opinion shopping is more likely to occur in audit markets that can be classified as having relatively high levels of competition. Finally, we find that among clients that dismiss their auditors, opinion shopping activities tend to be more likely when the auditor is dismissed late in the reporting period and when the audit market is highly competitive.

Our results have a number of important implications for the profession. First, our finding that successful internal control opinion shopping appears to exist may prove useful to the PCAOB as it evaluates its assessments of audit deficiencies. Of particular relevance is our evidence that significant opinion shopping activity appears to exist among firms that have clean internal control opinions in advance of financial statement restatements. Our results also corroborate recent academic research indicating that material weakness disclosures cannot reliably be used as advance warning systems for financial reporting problems (e.g., Rice and Weber 2012, Scholz 2014) and that the costs of disclosing material weaknesses seem to outweigh the corresponding benefits (e.g., Rice et al. 2014, Hogan et al. 2014). That is, given that material weakness disclosures are costly and that it may be difficult for external users to predict them (unlike going concern opinions), audit clients have an incentive to attempt to manage the audit process to maximize the probability of receiving a clean internal control opinion. Finally, our finding that auditor dismissals that occur relatively late in the reporting period are more likely to be associated with successful opinion shopping may prove useful to regulatory agencies as they continue addressing issues related to auditor independence, the potential negative antecedents for auditor changes, and the impact of audit market competition on audit quality.

## References

Amer, T., K. Hackenbrack, and M. Nelson. 1994. Between–auditor differences in the interpretation of probability phrases. *Auditing: A Journal of Practice & Theory* 13 (1): 126-136.

American Institute of Certified Public Accountants (AICPA). 1988. *The Auditor's Consideration of Internal Control Structure in the Financial Statement Audit.* New York, NY: AICPA.

Asare, S., and A. Wright. 2012. The effect of change in the reporting threshold and type of control deficiency on equity analysts' evaluation of the reliability of future financial statements. *Auditing: A Journal of Practice & Theory* 31 (2): 1-17.

Ashbaugh-Skaife, H., D. W. Collins, and W. R. Kinney Jr. 2007. The discovery and reporting of internal control deficiencies prior to SOX-mandated audits. *Journal of Accounting and Economics* 44: 166-192.

Ashbaugh-Skaife, H., D. Collins, W. Kinney, and R. LaFond. 2009. The effect of SOX internal control deficiencies on firm risk and cost of equity capital. *Journal of Accounting Research* 47: 1 – 43.

Beck, M. J., and E. G. Mauldin. 2014. Who's really in charge? Audit committee versus CFO power and audit fees. *The Accounting Review* 89 (6): 2057-2085.

Bedard, J., and L. Graham. 2011. Detection and severity classifications of Sarbanes-Oxley section 404 internal control deficiencies. *The Accounting Review* 86 (3): 825-855.

Boone, J. P., I. K. Khurana, and K. K. Raman. 2012. Audit market concentration and auditor tolerance for earnings management. *Contemporary Accounting Research* 29 (4): 1171-1203.

Carcello, J.V. and T. L. Neal. 2003. Audit committee characteristics and auditor dismissals following "new" going-concern reports. *The Accounting Review* 78 (1): 95-117.

Chan, H.K., K.Z. Lin, and P.L. Mo. 2006. A political–economic analysis of auditor reporting and auditor switches. *Review of Accounting Studies* 11: 21-48.

Chaney, P.K., D.C. Jeter, and P.E. Shaw. 2003. The impact on the market for audit services of aggressive competition by auditors. *Journal of Accounting and Public Policy* 22 (6): 487-516.

Chasan, E. 2013. http://blogs.wsj.com/cfo/2013/12/05/sec-official-sounds-alarm-on-decline-in-material-weaknesses/.

Chasan, E. 2014. PCAOB's auditor rotation project is essentially dead. *The Wall Street Journal.* Feb. 5, 2014.

Chen, Y., F. A. Gul, M. Veeraghavan, and L. Zolotoy. 2015. Executive equity risk-taking incentives and audit pricing. *The Accounting Review* (forthcoming).

Das, S., P. K. Shroff, and H. Zhang. 2009. Quarterly earnings patters and earnings management. *Contemporary Accounting Research* 26 (30): 797-831.

DeFond, M. L., T.J. Wong, T.J., and S. Li. 2000. The impact of improved auditor independence on audit market concentration in China. *Journal of Accounting and Economics* 28: 269-305.

DeFond, M. L., and J. Zhang. 2014. A review of archival auditing research. *Working Paper*, University of Southern California.

Dhaliwal, D., C. Hogan, R. Trezevant, and M. Wilkins. 2011. Internal control disclosures, monitoring, and the cost of debt. *The Accounting Review* 86 (4): 1131-1156.

Doty, J. 2013. The role of the audit in the global economy. ICAS Aileen Beattie Memorial Lecture. London, England. http://pcaobus.org/News/Speech/Pages/04182013_ICAS.aspx

Doty, J. 2014. PCAOB concerned about fee decreases. *Accounting Today*. http://www.accountingtoday.com/news/auditing/pcaob-concerned-about-audit-fee-decreases-70530-1.html

Doyle, J., W. Ge, and S. McVay 2007. Determinants of weaknesses in internal control over financial reporting. *Journal of Accounting and Economics* 44: 193-223.

Ettredge, M. E., J. Heintz, C. Li, and S. Scholz. 2011. Auditor realignments accompanying implementation of SOX 404 ICFR reporting requirements. *Accounting Horizons* 25(1): 17-39.

Financial Accounting Standards Board (FASB). 1975. *Accounting for Contingencies*. Statement of Financial Accounting Standards No. 5. Stamford, CT: FASB.

Hammersley, J. S., L. A. Meyers, and C. Shakespeare. 2008. Market reactions to the disclosure of internal control weaknesses and to the characteristics of those weaknesses under section 302 of the Sarbanes Oxley Act of 2002. *Review of Accounting Studies* 13 (1): 141-165.

Hennes, K., A. Leone, and B. Miller. 2014. Determinants and market consequences of auditor dismissals after accounting restatements. *The Accounting Review* 89 (3): 1051-1082.

Hogan, C. E., T. A. Lambert, and J. J. Schmidt. 2013. Do management internal control certifications increase the likelihood of restatement-related litigation? *Working Paper*, Michigan State University, Lehigh University, and the University of Texas at Austin.

Huang, Y. and S. Scholz. 2012. Evidence on the association between financial restatements and auditor resignations. *Accounting Horizons* 26 (3): 439-462.

International Forum of Independent Audit Regulators (IFIAR). 2015. Report on 2014 survey of inspection findings. https://www.ifiar.org/IFIAR/media/Documents/General/IFIAR%20Global%20Survey%20Media%20Coverage/IFIAR-2014-Survey-of-Inspection-Findings.pdf

Jayaraman S., and T. Milbourn. 2015. CEO equity incentives and financial misreporting: The role of auditor expertise. *The Accounting Review* 90 (1): 321-350.

Jeter, D. and L. Shivakumar. 1999. Cross-sectional estimation of abnormal accruals using quarterly and annual data: Effectiveness in detecting event-specific earnings management. *Accounting and Business Research* 29 (4): 369-390.

Kaplan, S. E. and D. D. Williams. 2013. Do going concern audit reports protect auditors from litigation? A simultaneous equations approach. *The Accounting Review* 88 (1): 199-232.

Kirk, M. P., D. A. Reppenhagen, and J. W. Tucker. 2014. Meeting individual analyst expectations. *The Accounting Review* 89 (6): 2203-2231.

Kluger, B.D. and D. Shields. 1991. Managerial moral hazard and auditor changes. *Critical Perspectives on Accounting* 2 (September): 255-272.

Landsman, W. R., K. K. Nelson, and B. R. Rountree. 2009. Auditor switches in the pre- and post-Enron eras: Risk or realignment? *The Accounting Review* 84 (2): 531-558.

Lennox, C., 2000. Do companies successfully engage in opinion shopping? Evidence from the UK. *Journal of Accounting and Economics* 29: 321-337.

Lennox, C. 2002. Opinion shopping, audit firm dismissals, and audit committees. *Working paper*, Nanyang Technological University. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=299843

Mintz, S. 1995. Virtue ethics and accounting education. *Issues in Accounting Education* 10 (2): 247-267.

Mont, J. 2015. Internal controls, audit committees primed for SEC scrutiny. https://www.complianceweek.com/news/news-article/internal-controls-audit-committees-primed-for-sec-scrutiny#.VPjaDFPF-rY

Newton, N. J., D. Wang and M. S. Wilkins. 2013. Does a lack of choice lead to lower quality? Evidence from auditor competition and client restatements. *AUDITING: A Journal of Practice and Theory* 32 (3): 31-67.

Norton, E. D., H. Wang, and C. Ai. 2004. Computing interaction effects and standard errors in logit and probit models. *The Stata Journal* 4 (2): 154-167.

Numan, W. and M. Willekens. 2012. An empirical test of spatial competition in the audit market. *Journal of Accounting and Economics* 53: 450-465.

Oxera Consulting Ltd. 2006. Competition and choice in the UK audit market. https://www.frc.org.uk/FRC-Documents/FRC/Competition-and-Choice-in-the-UK-Audit-Market.aspx.

PCAOB. 2007. Auditing standard (AS) no. 5. An audit of internal control over financial reporting that is integrated with an audit of financial statements. PCAOB Release No. 2007-005A, June 12, 2007.

PCAOB. 2010. *Consideration of Materiality in Planning and Performing an Audit*. Auditing Standard No. 11. Washington, D.C.: PCAOB.

PCAOB. 2011a. Concept release on possible revisions to PCAOB standards related to reports on audited financial statements. PCAOB Release No. 2011-003, June 21, 2011.

PCAOB. 2011b. Concept release on auditor independence and audit firm rotation. PCAOB Release No. 2011-006. August 16, 2011.

PCAOB. 2013. Keynote Address, William & Mary Mason School of Business Norfolk Southern Excellence in Financial Reporting Conference.

PCAOB. 2013b. Staff Audit Practice Alert No. 11. http://pcaobus.org/Standards/QandA/10-24-2013_SAPA_11.pdf

Rappeport, A. 2008. Could the lawyers kill the auditors? CFO.com. http://cfo.com/article.cfm/11661210?f=search

Rice, S. and D. Weber. 2012. How effective is internal control reporting under SOX 404? Determinants of the (non-)disclosure of existing material weaknesses. *Journal of Accounting Research* 50 (3): 811-843.

Rice, S., D. Weber and B. Wu 2014. Does SOX 404 have teeth? Consequences of the failure to report existing internal control weaknesses. *Working paper*, Texas A&M University.

Ruder, D. 2008. Remarks before the 1988 Conference of the American Society of Corporate Secretaries. http://www.sec.gov/news/speech/1988/062888ruder.pdf

Scholz, S. 2014. Financial restatement trends in the United States: 2003-2013. Center for Audit Quality. http://www.thecaq.org/docs/reports-and-publications/financial-restatement-trends-in-the-united-states-2003-2012.pdf?sfvrsn=2

Schwartz, K.B. and B. S. Soo. 1996.  The association between auditor changes and reporting lags.  *Contemporary Accounting Research* 13 (1): 353-370.

Schwartz, K.B. and K. Menon. 1985. Auditor switches by failing firms. *The Accounting Review* 60 (20): 248-261.

Securities and Exchange Commission. 1988. *Disclosure Amendments to Regulation S-K, Form 8-K and Schedule 14A regarding changes in accountants and potential opinion shopping situations*, SEC Financial Reporting Release No.31, Washington, D.C.

Securities and Exchange Commission. 2008. *Foreign Issuer Reporting Enhancements*. Release Nos. 33-8900; 34-57409; International Series Release No. 1308; File No. S7-05-08.

Shu, S. Z. 2000. Auditor resignations: Clientele effects and legal liability. *Journal of Accounting and Economics* 29 (2): 173-205.

Shumway, T., 2001. Forecasting bankruptcy more accurately: A simple hazard model. *The Journal of Business* 74 (1): 101-124.

Teoh, S.H., 1992. Auditor independence, dismissal threats, and the market reaction to auditor switches. *Journal of Accounting Research* 30 (1): 1-26.

United States Chamber of Commerce (US Chamber of Commerce). 2006. Auditing: A profession at risk. *US Chamber of Commerce*, Washington, DC.

U.S. Congress. 2002. *The Public Company Accounting Reform and Investor Protection Act of 2002 (The Sarbanes-Oxley Act)*. Public Law No. 107-204, 116 Statute 745 (July 30). Washington, D.C.: Government Printing Office.

U.S. Senate. 1976. Accounting establishment: A staff study. *Report of the Subcommittee on Reports, Accounting, and Management of the Committee on Government Operations* (Metcalf Committee Report). U.S. Government Printing Office, Washington, DC. https://archive.org/stream/accstabl00unit/accstabl00unit_djvu.txt

# APPENDIX A

## Variable Definitions

*Panel A:*
*Internal Control Opinion, Opinion Shopping, Auditor Dismissal, and Competition Variables*

| Variable | Definition |
|---|---|
| $MW_t$ | Indicator variable equal to 1 if the client's auditor reported a Section 404 material weakness in year t. |
| $MW_{t-1}$ | Indicator variable equal to 1 if the client's auditor reported a Section 404 material weakness in year t-1. |
| $DISMISS_t$ | Indicator variable equal to 1 if the client dismissed its auditor in year t. |
| *SHOP(raw)* | Using the coefficients from model 1 (MW model), the predicted value when *DISMISS* is set to one less the predicted value when *DISMISS* is set to zero. |
| *SHOP(normal)* | The probability of a MW based on the predicted value from model 1 (MW model) when *DISMISS* is set to one less the probability of a MW based on the predicted value when *DISMISS* is set to zero. |
| *DISTANCE* | Within an audit market, the distance in audit fee share between the incumbent auditor and the auditor with the next closest audit fee share (see Numan and Willekens 2012). An audit market is defined as either the MSA (*DISTANCE_MSA*) or the MSA-industry based on Fama & French 12 definitions (*DISTANCE_IND*). Regressions use a decile ranking in reverse order such that higher values represent a closer substitute auditor. |
| *HERF* | The sum of the squared audit fee market shares of all auditors in the MSA. Regressions use a decile ranking in reverse order such that higher values represent greater competition (lower concentration). |

*Panel B:*
*General Control Variables*

| Variable | Definition |
|---|---|
| REST | Indicator variable equal to 1 if the client announced a restatement of prior-year financial statements in the period from the prior-year 10-K filing to the current-year 10-K filing. |
| *SIZE* | Log of total assets. |
| *LOSS* | Indicator variable equal to 1 if income before extraordinary items is negative. |
| *BANK_RISK* | Decile ranking of bankruptcy risk as defined in Shumway (2001). |

## APPENDIX A (continued)

## Variable Definitions

| | |
|---|---|
| *ROOT_SEGS* | Square root of the number of business and geographic segments. |
| *FOREIGN_SALES* | Indicator variable equal to 1 if the company has any foreign sales. |
| *AGE* | Log of 1+ the number of years since the company was first listed in Compustat. |
| *GROWTH* | Percentage change in sales from year t-1 to year t. |
| *RESTRUCT* | Indicator variable equal to 1 if the company has any restructuring charges. |
| *ACQUISITION* | Cash flows for acquisitions scaled by average total assets. |
| *BIG4* | Indicator variable equal to 1 if the auditor in year t is a Big 4 firm. |
| *LEVERAGE* | Long-term debt divided by total assets. |
| *ROA* | Net income divided by average total assets. |
| *CASH* | Cash and cash equivalents scaled by lagged total assets. |
| *ACCR* | Net income less operating cash flows net of cash flows for discontinued operations scaled by lagged total assets. |
| *INVREC* | Inventory plus receivables divided by total assets. |
| *GC* | Indicator variable equal to 1 if the company received a going concern opinion in year t-1. |
| *TENURE* | Number of continuous years of the auditor-client relationship as of the beginning of the year with a maximum value of 10 years. |
| *MISMATCH* | A measure of mismatch of the auditor and client at year t-1 following Shu (2000). |
| *IND_PORT* | An audit office's percentage share of the audit fees at the industry-MSA level at year t-1, where industry is based on the Fama & French 12 definitions. |
| *INST_OWNERSHIP* | The percentage of the company's shares owned by institutional owners. |
| *MGMT_CHANGE* | Indicator variable equal to 1 if the company hired a new CEO or CFO in year t-1 or year t. |

**TABLE 1**
**Descriptive Statistics**

*Panel A:*
*Internal Control Opinion, Opinion Shopping, Auditor Dismissal, and Competition Variables*

| Variable | Mean | Median | 25% | 75% |
|---|---|---|---|---|
| $MW_t$ | 0.042 | 0.000 | 0.000 | 0.000 |
| $MW_{t-1}$ | 0.054 | 0.000 | 0.000 | 0.000 |
| DISMISS | 0.028 | 0.000 | 0.000 | 0.000 |
| SHOP (raw) | -0.001 | 0.249 | -0.326 | 0.786 |
| SHOP (normal) | 0.025 | 0.008 | -0.003 | 0.041 |
| DISTANCE_MSA | -0.080 | -0.044 | -0.098 | -0.017 |
| DISTANCE_IND | -0.186 | -0.088 | -0.250 | -0.031 |
| HERF | -0.277 | -0.255 | -0.300 | -0.228 |

*Panel B:*
*General Control Variables*

| Variable | Mean | Median | 25% | 75% |
|---|---|---|---|---|
| REST | 0.071 | 0.000 | 0.000 | 0.000 |
| SIZE | 7.126 | 7.013 | 5.959 | 8.153 |
| LOSS | 0.244 | 0.000 | 0.000 | 0.000 |
| BANK_RISK | 4.388 | 4.000 | 2.000 | 7.000 |
| ROOT_SEGS | 2.236 | 2.236 | 1.732 | 2.646 |
| FOREIGN_SALES | 0.124 | 0.000 | 0.000 | 0.000 |
| AGE | 2.942 | 2.833 | 2.485 | 3.526 |
| GROWTH | 0.111 | 0.077 | -0.018 | 0.190 |
| RESTRUCT | 0.335 | 0.000 | 0.000 | 1.000 |
| ACQUISITION | 0.029 | 0.000 | 0.000 | 0.019 |
| BIG4 | 0.989 | 1.000 | 1.000 | 1.000 |
| LEVERAGE | 0.203 | 0.158 | 0.005 | 0.315 |
| ROA | 0.020 | 0.041 | 0.002 | 0.082 |
| CASH | 0.201 | 0.113 | 0.035 | 0.284 |
| ACCR | 0.081 | 0.057 | 0.030 | 0.104 |
| INVREC | 0.231 | 0.199 | 0.088 | 0.328 |
| GC | 0.008 | 0.000 | 0.000 | 0.000 |
| TENURE | 7.627 | 9.000 | 5.000 | 10.000 |
| MISMATCH | 0.071 | 0.000 | 0.000 | 0.000 |
| IND_PORT | 0.246 | 0.154 | 0.070 | 0.350 |
| INST_OWNERSHIP | 0.667 | 0.770 | 0.503 | 0.909 |
| MGMT_CHANGE | 0.433 | 0.000 | 0.000 | 1.000 |

All variables are defined in Appendix A. The competition variables (*DISTANCE_MSA, DISTANCE_IND, and HERF*) are the raw values multiplied by negative one, such that higher values represent greater competition. The sample size is 11,846 for the adverse opinion selection model variables (*MW, MW_{t-1}, DISMISS, REST, SIZE, LOSS, BANK_RISK, ROOT_SEGS, FOREIGN_SALES, AGE, GROWTH, RESTRUCT, ACQUISITION, and BIG4*). The sample size is 10,780 for *DIST_IND* and 11,361 for all other variables. Continuous variables are winsorized at the 1st and 99th percentiles.

## TABLE 2
## Selected Pearson Correlations

| | Variable | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | $MW_t$ | | | | | | | | | | | | | |
| (2) | $MW_{t-1}$ | **0.30** | | | | | | | | | | | | |
| (3) | DISMISS | **0.06** | **0.11** | | | | | | | | | | | |
| (4) | SHOP (raw) | **-0.04** | **-0.11** | -0.01 | | | | | | | | | | |
| (5) | SHOP (normal) | **-0.12** | **-0.31** | -0.02 | **0.48** | | | | | | | | | |
| (6) | DISTANCE_MSA | 0.01 | **0.03** | **0.09** | -0.01 | -0.01 | | | | | | | | |
| (7) | DISTANCE_IND | 0.01 | **0.03** | **0.09** | **0.04** | **0.02** | **0.24** | | | | | | | |
| (8) | HERF | -0.02 | -0.01 | **0.04** | -0.01 | 0.02 | **0.47** | **0.20** | | | | | | |
| (9) | REST | **0.33** | **0.08** | **0.04** | **-0.06** | **-0.10** | 0.02 | 0.01 | 0.01 | | | | | |
| (10) | LOSS | **0.11** | **0.11** | **0.04** | **0.13** | **0.24** | 0.05 | 0.06 | 0.03 | **0.06** | | | | |
| (11) | BANK_RISK | **0.09** | **0.11** | **0.06** | **0.07** | **0.17** | 0.00 | 0.01 | 0.01 | **0.06** | **0.38** | | | |
| (12) | ROOT_SEGS | 0.01 | **0.02** | -0.02 | **-0.04** | **-0.03** | **-0.04** | **-0.05** | **-0.06** | 0.00 | **-0.11** | **-0.19** | | |
| (13) | INST_OWNERSHIP | **-0.07** | **-0.07** | **-0.04** | **-0.05** | **-0.27** | **-0.02** | **-0.03** | **-0.05** | -0.01 | **-0.20** | **-0.21** | **0.05** | |
| (14) | MGMT_CHANGE | **0.06** | **0.10** | 0.01 | **-0.17** | **-0.21** | 0.00 | 0.01 | 0.00 | **0.03** | **0.12** | **0.08** | **0.02** | **-0.06** |

All variables are defined in Appendix A. Bolded correlations are significant at the 5 percent level.

**TABLE 3**
**Adverse Internal Control Opinion Prediction Model**
$$MW_t = \gamma_0 + \gamma_1 MW_{t-1} + \gamma_2 DISMISS_t + \gamma_3 DISMISS_t*MW_{t-1} + \gamma_4 X_t + \gamma_5 DISMISS_t*X_t + \varepsilon$$

| Variable | Coefficient | z-stat |
|---|---|---|
| $MW_{t-1}$ | 1.193 | 15.121** |
| DISMISS | -3.666 | -3.428** |
| DISMISS*$MW_{t-1}$ | -0.603 | -2.383** |
| | | |
| *X Vector of Control Variables* | | |
| REST | 1.432 | 22.496** |
| SIZE | -0.059 | -2.539** |
| LOSS | 0.333 | 5.196** |
| BANK_RISK | 0.026 | 2.287** |
| ROOT_SEGS | 0.129 | 2.500** |
| FOREIGN_SALES | 0.115 | 1.461 |
| AGE | -0.053 | -1.173 |
| GROWTH | 0.019 | 0.231 |
| RESTRUCT | 0.003 | 0.040 |
| ACQUISITION | 0.511 | 1.651* |
| BIG4 | 0.004 | 0.018 |
| INST_OWNERSHIP | -0.194 | -2.383** |
| MGMT_CHANGE | 0.088 | 1.702* |
| | | |
| *Interactions* | | |
| DISMISS*REST | -0.329 | -1.241 |
| DISMISS*SIZE | 0.004 | 0.047 |
| DISMISS*LOSS | 0.163 | 0.614 |
| DISMISS*BANK_RISK | 0.016 | 0.354 |
| DISMISS*ROOT_SEGS | -0.115 | -0.498 |
| DISMISS*FOREIGN_SALES | 0.153 | 0.502 |
| DISMISS*AGE | 0.064 | 0.361 |
| DISMISS*GROWTH | -0.436 | -1.439 |
| DISMISS*RESTRUCT | 0.337 | 1.352 |
| DISMISS*ACQUISITION | 1.849 | 1.354 |
| DISMISS*INST_OWNERSHIP | -0.460 | -1.471 |
| DISMISS*MGMT_CHANGE | -0.459 | -2.003** |
| | | |
| *Year Indicators and their interaction terms with DISMISS* | Yes | |
| *Fama-French 12 Industry Indicators and their interaction terms with DISMISS* | Yes | |
| | | |
| *Observations* | 11,846 | |
| *Pseudo R Squared* | 0.349 | |

**, * indicate significance at p<0.05 and p<0.10, respectively (two-tailed).
All variables are defined in Appendix A.

TABLE 4
**Auditor Dismissal Model**

$$DISMISS_t = \beta_0 + \beta_1 SHOP_t + \beta_2 COMP_t + \beta_3 Z_t + \varepsilon$$

---

*Panel A: All Incumbent Big 4 Auditors (N=11,361 with 322 switches)*

| Variable | COMP = DISTANCE_MSA | | COMP = DISTANCE_IND | | COMP = HERF | |
|---|---|---|---|---|---|---|
| | **Coeff** | **z-stat** | **Coeff** | **z-stat** | **Coeff** | **z-stat** |
| *SHOP (normal)* | -0.982 | -2.730** | -1.025 | -2.817** | -1.046 | -2.975** |
| *COMP* | 0.074 | 7.478** | 0.079 | 7.538** | 0.034 | 3.571** |
| *REST* | 0.195 | 2.180** | 0.209 | 2.209** | 0.187 | 2.098** |
| *SIZE* | -0.111 | -4.688** | -0.119 | -4.799** | -0.122 | -5.179** |
| *LEVERAGE* | 0.003 | 0.022 | 0.060 | 0.421 | 0.009 | 0.069 |
| *ROA* | 0.212 | 0.914 | 0.132 | 0.544 | 0.195 | 0.837 |
| *LOSS* | 0.040 | 0.487 | 0.022 | 0.259 | 0.050 | 0.614 |
| *BANK_RISK* | 0.035 | 3.049** | 0.034 | 2.814** | 0.035 | 3.064** |
| *CASH* | -0.093 | -0.667 | -0.027 | -0.189 | -0.065 | -0.480 |
| *GROWTH* | 0.019 | 0.224 | 0.026 | 0.293 | 0.025 | 0.292 |
| *ACCR* | 0.572 | 1.812* | 0.501 | 1.532 | 0.565 | 1.806* |
| *INVREC* | 0.081 | 0.521 | 0.188 | 1.138 | 0.121 | 0.771 |
| *ACQUISITION* | -0.214 | -0.467 | -0.110 | -0.232 | -0.190 | -0.419 |
| *GC* | 0.080 | 0.333 | 0.044 | 0.174 | 0.003 | 0.011 |
| *TENURE* | 0.030 | 3.246** | 0.031 | 3.335** | 0.030 | 3.341** |
| *MISMATCH* | 0.025 | 0.252 | 0.014 | 0.136 | 0.026 | 0.262 |
| *IND_PORT* | -0.115 | -0.958 | 0.026 | 0.206 | -0.030 | -0.244 |
| *INST_OWNERSHIP* | -0.118 | -1.367 | -0.125 | -1.372 | -0.125 | -1.463 |
| *MGMT_CHANGE* | -0.030 | -0.546 | -0.041 | -0.723 | -0.035 | -0.632 |
| | | | | | | |
| *Year Indicators* | Yes | | Yes | | Yes | |
| *Fama-French Industry Indicators* | Yes | | Yes | | Yes | |
| | | | | | | |
| *SHOP (raw)* | -0.545 | -4.610** | -0.557 | -4.513** | -0.577 | -4.871** |
| *COMP* | 0.073 | 7.374** | 0.079 | 7.562** | 0.034 | 3.556** |

*Panel B: Remove Changes to Small Auditors (N=11,326 with 287 switches)*

| Variable | COMP = DISTANCE_MSA | | COMP = DISTANCE_IND | | COMP = HERF | |
|---|---|---|---|---|---|---|
| | **Coeff** | **z-stat** | **Coeff** | **z-stat** | **Coeff** | **z-stat** |
| *SHOP (normal)* | -0.741 | -1.997** | -0.728 | -1.95* | -0.784 | -2.154** |
| *COMP* | 0.058 | 5.817** | 0.066 | 6.301** | 0.027 | 2.797** |
| | | | | | | |
| *SHOP (raw)* | -0.467 | -3.800** | -0.471 | -3.687** | -0.486 | -3.952** |
| *COMP* | 0.057 | 5.731** | 0.066 | 6.315** | 0.027 | 2.746** |

**TABLE 4 (continued)**

*Panel C: Remove Changes to Small and Mid-Tier Auditors (N=11,236 with 197 switches)*

| Variable | COMP = DISTANCE_MSA | | COMP = DISTANCE_IND | | COMP = HERF | |
|---|---|---|---|---|---|---|
| | **Coeff** | **z-stat** | **Coeff** | **z-stat** | **Coeff** | **z-stat** |
| *SHOP* (*normal*) | -0.417 | -1.030 | -0.367 | -0.891 | -0.418 | -1.029 |
| *COMP* | -0.001 | -0.013 | 0.025 | 2.258** | 0.006 | 0.604 |
| | | | | | | |
| *SHOP* (*raw*) | -0.375 | -2.591** | -0.328 | -2.185** | -0.374 | -2.586** |
| *COMP* | -0.001 | -0.075 | 0.025 | 2.260** | 0.006 | 0.584 |

**, * indicate significance at p<0.05 and p<0.10, respectively (two-tailed).
All variables are defined in Appendix A.

**TABLE 5**
**Opinion Shopping and Audit Market Competition**

| Panel A: Separate Models for low versus high competition markets | All Incumbent Big 4 Auditors | | Remove Changes to Small Auditors | | Remove Changes to Small and Mid-Tier Auditors | |
|---|---|---|---|---|---|---|
| | N=11,361 with 322 switches | | N=11,326 with 287 switches | | N=11,236 with 197 switches | |
| *SHOP(normal)* | SHOP Coeff | SHOP z-stat | SHOP Coeff | SHOP z-stat | SHOP Coeff | SHOP z-stat |
| Low DISTANCE_MSA | 0.045 | 0.072 | 0.066 | 0.106 | -0.024 | -0.039 |
| High DISTANCE_MSA | -1.692 | -3.735** | -1.380 | -2.945** | -0.947 | -1.767* |
| | | | | | | |
| Low DISTANCE_IND | 0.358 | 0.579 | 0.793 | 1.226 | 0.630 | 0.966 |
| High DISTANCE_IND | -1.879 | -3.846** | -1.629 | -3.221** | -1.206 | -1.999** |
| | | | | | | |
| Low HERF | -0.182 | -0.334 | 0.072 | 0.128 | 0.063 | 0.104 |
| High HERF | -1.759 | -3.745** | -1.510 | -3.076** | -0.863 | -1.590 |
| *SHOP(raw)* | SHOP Coeff | SHOP z-stat | SHOP Coeff | SHOP z-stat | SHOP Coeff | SHOP z-stat |
| Low DISTANCE_MSA | -0.357 | -1.892* | -0.324 | -1.700* | -0.305 | -1.571 |
| High DISTANCE_MSA | -0.686 | -4.538** | -0.588 | -3.669** | -0.469 | -2.262** |
| | | | | | | |
| Low DISTANCE_IND | -0.469 | -2.120** | -0.374 | -1.633 | -0.374 | -1.601 |
| High DISTANCE_IND | -0.651 | -4.369** | -0.564 | -3.640** | -0.383 | -1.904* |
| | | | | | | |
| Low HERF | -0.466 | -2.539** | -0.324 | -1.694* | -0.319 | -1.517 |
| High HERF | -0.721 | -4.655** | -0.668 | -4.107** | -0.419 | -2.153** |

| Panel B: Interaction Models | All Incumbent Big 4 Auditors | | Remove Changes to Small Auditors | | Remove Changes to Small and Mid-Tier Auditors | |
|---|---|---|---|---|---|---|
| | N=11,361 with 322 switches | | N=11,326 with 287 switches | | N=11,236 with 197 switches | |
| *SHOP(normal) interactions* | Coeff | z-stat | Coeff | z-stat | Coeff | z-stat |
| SHOP(normal)*Decile_DISTANCE_MSA | -0.012 | -1.761* | -0.006 | -1.123 | -0.001 | -0.062 |
| SHOP(normal)*Decile_DISTANCE_IND | -0.019 | -2.233** | -0.016 | -2.000** | -0.008 | -1.519 |
| SHOP(normal)*Decile_HERF | -0.012 | -1.843* | -0.009 | -1.451 | -0.004 | -0.823 |
| | | | | | | |
| SHOP(raw)*Decile_DISTANCE_MSA | -0.004 | -2.570** | -0.002 | -1.990** | 0.001 | 0.433 |
| SHOP(raw)*Decile_DISTANCE_IND | -0.005 | -2.823** | -0.003 | -2.499** | -0.001 | -1.487 |
| SHOP(raw)*Decile_HERF | -0.001 | -1.544 | -0.001 | -1.100 | -0.001 | -0.092 |

**, * indicate significance at $p<0.05$ and $p<0.10$, respectively (two-tailed). *Low* and *High* competition partitions are based on below- and above-median cuts for the three competition proxies. All variables are defined in Appendix A.

**TABLE 6**
**Opinion Shopping and Timing of Auditor Dismissals**

| | *All Incumbent Big 4 Auditors* | | *Remove Changes to Small Auditors* | | *Remove Changes to Small and Mid-Tier Auditors* | |
|---|---|---|---|---|---|---|
| | *N=11,361 with 237 early / 85 late switches* | | *N=11,326 with 214 early / 73 late switches* | | *N=11,236 with 158 early / 39 late switches* | |
| ***COMP=DISTANCE_MSA*** | | | | | | |
| | *SHOP* <br> **Coeff** | *SHOP* <br> **z-stat** | *SHOP* <br> **Coeff** | *SHOP* <br> **z-stat** | *SHOP* <br> **Coeff** | *SHOP* <br> **z-stat** |
| **Timing of Dismissal** | | | | | | |
| *Early – SHOP(normal)* | -0.421 | -1.016 | -0.238 | -0.561 | -0.111 | -0.243 |
| *Late – SHOP (normal)* | -2.311 | -4.012[**] | -1.934 | -3.338[**] | -1.413 | -1.986[**] |
| | | | | | | |
| *Early – SHOP(raw)* | -0.312 | -2.348[**] | -0.258 | -1.890[*] | -0.186 | -1.210 |
| *Late – SHOP(raw)* | -1.017 | -5.147[**] | -0.868 | -4.237[**] | -0.856 | -3.075[**] |
| | | | | | | |
| ***COMP=DISTANCE_IND*** | | | | | | |
| | *SHOP* <br> **Coeff** | *SHOP* <br> **z-stat** | *SHOP* <br> **Coeff** | *SHOP* <br> **z-stat** | *SHOP* <br> **Coeff** | *SHOP* <br> **z-stat** |
| **Timing of Dismissal** | | | | | | |
| *Early – SHOP(normal)* | -0.406 | -0.988 | -0.162 | -0.385 | -0.042 | -0.092 |
| *Late – SHOP (normal)* | -2.318 | -3.887[**] | -1.950 | -3.307[**] | -1.385 | -1.931[*] |
| | | | | | | |
| *Early – SHOP(raw)* | -0.312 | -2.274[**] | -0.244 | -1.742[*] | -0.146 | -0.918 |
| *Late – SHOP(raw)* | -1.039 | -4.964[**] | -0.895 | -4.141[**] | -0.774 | -2.631[**] |
| | | | | | | |
| ***COMP=HERF*** | | | | | | |
| | *SHOP* <br> **Coeff** | *SHOP* <br> **z-stat** | *SHOP* <br> **Coeff** | *SHOP* <br> **z-stat** | *SHOP* <br> **Coeff** | *SHOP* <br> **z-stat** |
| **Timing of Dismissal** | | | | | | |
| *Early – SHOP(normal)* | -0.466 | -1.155 | -0.271 | -0.650 | -0.114 | -0.248 |
| *Late – SHOP (normal)* | -2.282 | -4.038[**] | -1.908 | -3.375[**] | -1.411 | -1.981[**] |
| | | | | | | |
| *Early – SHOP(raw)* | -0.333 | -2.500[**] | -0.269 | -1.965[**] | -0.187 | -1.214 |
| *Late – SHOP(raw)* | -1.041 | -5.363[**] | -0.889 | -4.396[**] | -0.853 | -3.061[**] |

Early (late) dismissals are defined as those that occur within or preceding (after) the first two quarters of the fiscal year. All variables are defined in Appendix A.

Shaded cells indicate that the early and late *SHOP* coefficients within the same column are significantly different from each other (p<0.05) based on seemingly unrelated estimation.

# TABLE 7
## Internal Control Opinion Shopping and Going Concern Opinion Shopping
### $DISMISS_t = \beta_0 + \beta_1 SHOP_t + \beta_2 GCSHOP_t + \beta_3 COMP_t + \beta_3 Z_t + \varepsilon$

*Panel A: All Incumbent Big 4 Auditors (N=11,132 with 310 switches)*

| | COMP = DISTANCE_MSA | | COMP = DISTANCE_IND | | COMP = HERF | |
|---|---|---|---|---|---|---|
| **Variable** | **Coeff** | **z-stat** | **Coeff** | **z-stat** | **Coeff** | **z-stat** |
| *SHOP (normal)* | -0.902 | -2.430** | -0.929 | -2.485** | -0.957 | -2.641** |
| *GCSHOP (normal)* | -0.801 | -1.186 | -0.726 | -0.991 | -0.637 | -0.937 |
| *COMP* | 0.070 | 6.967** | 0.076 | 7.169** | 0.032 | 3.307** |
| | | | | | | |
| *SHOP (raw)* | -0.537 | -4.392** | -0.541 | -4.245** | -0.562 | -4.596** |
| *GCSHOP (raw)* | -0.129 | -0.581 | -0.111 | -0.470 | -0.067 | -0.306 |
| *COMP* | 0.069 | 6.886** | 0.077 | 7.190** | 0.032 | 3.296** |

*Panel B: Remove Changes to Small Auditors (N=11,099 with 277 switches)*

| | COMP = DISTANCE_MSA | | COMP = DISTANCE_IND | | COMP = HERF | |
|---|---|---|---|---|---|---|
| **Variable** | **Coeff** | **z-stat** | **Coeff** | **z-stat** | **Coeff** | **z-stat** |
| *SHOP (normal)* | -0.705 | -1.843* | -0.683 | -1.776* | -0.741 | -1.974** |
| *GCSHOP (normal)* | -0.463 | -0.596 | -0.403 | -0.490 | -0.300 | -0.385 |
| *COMP* | 0.054 | 5.345** | 0.063 | 5.988** | 0.026 | 2.632** |
| | | | | | | |
| *SHOP (raw)* | -0.480 | -3.788** | -0.478 | -3.634** | -0.494 | -3.898** |
| *GCSHOP (raw)* | -0.032 | -0.127 | -0.017 | -0.062 | 0.028 | 0.112 |
| *COMP* | 0.053 | 5.267** | 0.064 | 5.991** | 0.026 | 2.580** |

*Panel C: Remove Changes to Small and Mid-Tier Auditors (N=11,015 with 193 switches)*

| | COMP = DISTANCE_MSA | | COMP = DISTANCE_IND | | COMP = HERF | |
|---|---|---|---|---|---|---|
| **Variable** | **Coeff** | **z-stat** | **Coeff** | **z-stat** | **Coeff** | **z-stat** |
| *SHOP (normal)* | -0.467 | -1.125 | -0.423 | -0.996 | -0.465 | -1.116 |
| *GCSHOP (normal)* | -0.762 | -0.910 | -0.903 | -1.078 | -0.757 | -0.911 |
| *COMP* | -0.003 | -0.248 | 0.023 | 1.999** | 0.005 | 0.491 |
| | | | | | | |
| *SHOP (raw)* | -0.407 | -2.772** | -0.361 | -2.364 | -0.405 | -2.761 |
| *GCSHOP (raw)* | -0.177 | -0.712 | -0.232 | -0.917 | -0.177 | -0.714 |
| *COMP* | -0.003 | -0.303 | 0.023 | 2.011** | 0.005 | 0.466 |

\*\*, \* indicate significance at p<0.05 and p<0.10, respectively (two-tailed). All variables except *GCSHOP* are defined in Appendix A. The vector of control variables represented by Z in this table is the same as in Table 4, except that *GCSHOP* replaces *GC*. *GCSHOP* is calculated in the same manner as *SHOP*, with a prediction model that includes controls for bankruptcy risk, loss, client size, client age, leverage, change in leverage, operating cash flows, announcement lag, investments, new financing, Big 4 auditor, stock return, stock volatility, institutional ownership, prior going concern, auditor dismissal, and year and industry fixed effects.