

1-1-2013

# When Less Is More: The Effect of Reducing Auditor Liability On Auditor Judgments In Principles-Based and Rules-Based Environments

Linda Quick

*University of South Carolina*

Follow this and additional works at: <https://scholarcommons.sc.edu/etd>



Part of the [Business Administration, Management, and Operations Commons](#)

---

## Recommended Citation

Quick, L.(2013). *When Less Is More: The Effect of Reducing Auditor Liability On Auditor Judgments In Principles-Based and Rules-Based Environments*. (Doctoral dissertation). Retrieved from <https://scholarcommons.sc.edu/etd/466>

This Open Access Dissertation is brought to you by Scholar Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact [dillarda@mailbox.sc.edu](mailto:dillarda@mailbox.sc.edu).

WHEN LESS IS MORE: THE EFFECT OF REDUCING AUDITOR LIABILITY ON  
AUDITOR JUDGMENTS IN PRINCIPLES-BASED AND RULES-BASED  
ENVIRONMENTS  
by

Linda A. Quick

Bachelor of Science in Accounting  
East Carolina University, 2005

Master of Science in Accounting  
East Carolina University, 2005

---

Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Philosophy in

Business Administration

Darla Moore School of Business

University of South Carolina

2013

Accepted by:

Dr. Scott D. Vandervelde, Dissertation Chair

Dr. Timothy S. Douppnik, Committee Member

Dr. Robert A. Leitch, Committee Member

Dr. Kathleen M. Whitcomb, Committee Member

Dr. Lacy K. Ford, Vice Provost and Dean of Graduate Studies

© Copyright by Linda A. Quick, 2013  
All Rights Reserved.

## DEDICATION

Throughout this process, I have been so blessed to have the love and support of my husband, Brandon – thank you for being willing to make countless sacrifices for me to follow my dreams.

I also appreciate the support of my parents, Richard & Suzanne Rusnak; my brother, John Rusnak; my grandparents, Billy & Jackie Montague; and my in-laws, Bobby & Beverly Quick. I could not have made it through the past five years without all of your love and prayers.

Ty, thank you for listening to what seemed like a thousand versions of this idea on our morning walks. Dogs truly are man's best friend.

Also, to my wonderful colleagues and friends over the past five years: Erin Hamilton, Vicki Hansen, Jennifer Winchel, Billy Brink, and Michael Majerczyk – I have thoroughly enjoyed my time at South Carolina with you. Thank you for being such great friends.

## ACKNOWLEDGEMENTS

I appreciate the time, patience, and helpful advice of my chair, Scott Vandervelde, not only on this project, but also on every facet of the PhD program and life in academia. I have benefited tremendously from his guidance and support, and I am so thankful to have had such a wonderful mentor and such a genuinely fun person to work with.

I am also grateful for the time and assistance of my committee members: Tim Doupnik, Al Leitch, and Kathy Whitcomb. Tim has been willing to work with me even with his many other time commitments, and has always been supportive of my endeavors. Al agreed to be on my dissertation committee and provided me with his unique perspective and helpful insights even through his “retirement.” Kathy has been a fantastic resource for all of my statistical analysis questions.

I have been incredibly fortunate to have had Cal Christian and John Reisch as mentors since my freshman year of college. Thank you both for your encouragement – without you, I likely would have never thought of getting a PhD. I look forward to many years of your continued guidance.

In addition, I am grateful to Billy Brink for his assistance in coding data for my dissertation. I also appreciate helpful comments on this manuscript from Billy Brink, Mark Cecchini, Erin Hamilton, Ling Harris, Marsha Keune, Tim Keune, Tao Ma, Michael Majerczyk, Brad Tuttle, Rich White, Jennifer Winchel and workshop participants at East Carolina University, the University of South Carolina, and Virginia Tech. I also thank the firms and their auditors for participating in my study.

## ABSTRACT

The purpose of this paper is to investigate the joint effects of accounting guidance type (principles-based versus rules-based) and legal liability regime (unlimited versus limited) on auditor decisions. Both the Securities and Exchange Commission (SEC) and the Financial Accounting Standards Board (FASB) believe that moving to more principles-based standards in the United States will allow companies and auditors to more appropriately reflect the economic substance of transactions in the financial statements. However, very little attention has been paid to the possibility that principles-based standards will be applied differently in the United States than in other countries due to a different legal regime. This paper explores how different legal liability regimes impact auditor judgments in principles-based and rules-based environments. Results suggest that auditors' decisions differ based on the type of accounting guidance, and regulators may want to consider this when evaluating a potential change in standards. In my study, I predict and find that when the economic substance of a transaction suggests that the relatively more aggressive accounting treatment is appropriate, auditors make decisions most consistent with economic substance under a combination of principles-based guidance and limited auditor liability.

## TABLE OF CONTENTS

DEDICATION .....	iii
ACKNOWLEDGEMENTS.....	iv
ABSTRACT .....	v
LIST OF TABLES .....	vii
LIST OF ABBREVIATIONS.....	viii
CHAPTER 1: INTRODUCTION.....	1
CHAPTER 2: THEORY AND HYPOTHESIS DEVELOPMENT .....	5
CHAPTER 3: METHOD.....	14
3.1 PARTICIPANTS .....	14
3.2 DESIGN.....	14
3.3 TASK .....	17
3.4 TEST OF HYPOTHESES.....	18
3.5 SUPPLEMENTAL ANALYSES .....	20
CHAPTER 4: CONCLUSION .....	30
REFERENCES .....	32
APPENDIX A: INSTRUMENT EXCERPTS AND MANIPULATIONS.....	37

## LIST OF TABLES

Table 3.1 Descriptive Statistics.....	25
Table 3.2 Least Square Means for Auditor Decision (Dependent Variable) by Condition .....	26
Table 3.3 Results.....	27
Table 3.4 Supplemental Analyses.....	28

## LIST OF ABBREVIATIONS

FASB.....	Financial Accounting Standards Board
IFRS .....	International Financial Reporting Standards
PCAOB .....	Public Company Accounting Oversight Board
SEC .....	Securities and Exchange Commission
U.S. GAAP.....	United States Generally Accepted Accounting Principles

# CHAPTER 1

## INTRODUCTION

The purpose of this paper is to investigate the joint effects of accounting guidance type (principles-based versus rules-based) and legal liability regime (unlimited versus limited) on auditor decisions. Both the Securities and Exchange Commission (SEC) and the Financial Accounting Standards Board (FASB) believe that principles-based standards such as International Financial Reporting Standards (IFRS) allow companies and auditors a better opportunity to more appropriately reflect the economic substance of transactions in the financial statements (FASB, 2002; SEC, 2003b).<sup>1</sup> Although reactions to adopting IFRS in the European Union have been positive (Armstrong et al. 2012), principles-based standards might not be applied in the same manner in the United States as in other countries because of differences in the litigation environment.<sup>2</sup> Under the existing unlimited liability legal regime in the United States, a move to principles-based standards may lead to an unintended consequence: overly conservative auditor judgments.

The current study investigates this potential unintended consequence of more principles-based guidance under the existing legal regime in the United States, and

---

<sup>1</sup> Regardless of whether IFRS is adopted in the United States, the SEC has expressed a desire to move towards more “objectives-based” (e.g., principles-based) standards (SEC, 2012); therefore, differences between principles-based and rules-based guidance in the United States are important regardless of whether a transition to IFRS in the United States is ever achieved.

<sup>2</sup> For example, Ramseyer and Rasmusen (2010) note that securities class action suits, in particular, are abused in the U.S. legal system unlike any other country in the world.

suggests a potential mitigating factor for the use of a conservative heuristic by auditors: limiting auditor liability. I expect that a combination of principles-based guidance and limited auditor liability will allow auditors to focus on the economic substance of a transaction, and therefore make decisions most consistent with economic substance. Results show that under this combination, auditors do make decisions most consistent with economic substance. Overall, my results suggest that auditors make decisions more consistent with economic substance under principles-based standards than under rules-based standards. However, it is in the specific case of limited liability and principles-based standards where auditors make decisions most consistent with economic substance.

While principles-based standards have been implemented with apparent success in other countries, in the highly litigious environment in the United States, principles-based standards might be applied differently.<sup>3</sup> Legal liability concerns can impact auditor decision-making (Barron et al. 2001; Johnstone and Bedard 2003; Blay 2005; Abbott et al. 2006), and the impact of the legal liability regime could be heightened in the presence of principles-based standards.<sup>4</sup> Practitioners have expressed concern that more principles-based standards will further increase the already high level of auditor liability in the United States due to less detailed guidance available to use as a defense (Love and Eickemeyer 2009). Nusbaum (2007) also notes that liability issues are a top concern for audit firms, and an area where additional academic research is needed.

---

<sup>3</sup> Ramseyer and Rasmusen (2010) note the relatively litigious environment in the United States compared to other countries. For example, the United States had a higher number of lawyers per capita and a higher number of suits filed per capita than Australia, Canada, France, Japan, or England (Ramseyer and Rasmusen, 2010).

<sup>4</sup> Prior research has shown that auditors recognize and respond to the litigation environment in the United States being riskier than that of the U.K., for example, by increasing fees for firms listed in the U.S., even when controlling for greater disclosure requirements (Seetharaman et al. 2002).

While legal standards suggest that auditors should be held liable only in the event of negligent behavior (e.g., *Ultramares Corp. v. Touche*, 1931; *SEC v. Arthur Young & Co.*, 1979), prior research suggests that jurors will sometimes hold auditors accountable for an audit failure regardless of the quality of the audit (Kadous 2000; Reffett 2010). Thus, auditors face some uncertainty regarding the criteria they will be held to in the event of a lawsuit. This uncertainty can motivate auditors to minimize the risk of a lawsuit by using a heuristic to choose the most conservative possible treatment (i.e., income decreasing), rather than the treatment that best reflects economic reality. Palmrose and Scholz (2004) show that 83% of restatements resulting in litigation occur when income is overstated. While the design of their study does not allow for causal inferences, their results suggest that litigation results more often in instances of overstated income, and therefore, auditors need to be wary of the potential litigation risk associated with allowing clients to overstate income.

The weighting function of prospect theory (Kahneman and Tversky 1979) suggests that auditors might overweight the possibility of a significant potential liability and allow this possibility to influence their decision making process. Kahneman and Tversky (1979) note that individuals typically overweight very small probabilities of negative outcomes.<sup>5</sup> This overweighting of small probabilities of negative outcomes is evident, for example, when individuals choose to purchase insurance even when the probability of a catastrophic loss (such as a flood) is very small.<sup>6</sup> However, accountability

---

<sup>5</sup> Although the catastrophic liability faced from shareholder lawsuits is at a firm level, this liability can have implications at an individual level as well. Individuals within the firm are impacted by firm effects (i.e., factors that impact the firm also impact the judgments of individuals working for the firm).

<sup>6</sup> Note that audit firms are limited in their ability to cover potentially catastrophic losses through the purchase of insurance due to the high risk perceived by insurance companies (Center for Audit Quality [CAQ] 2008).

theory suggests that reducing the level of outcome accountability (i.e., legal liability) could reduce the effects of this bias (Simonson and Staw 1992; Tetlock 1992; Siegel-Jacobs and Yates 1996; Lerner and Tetlock 1999).

This paper contributes to both the audit judgment and decision-making literature and the principles- versus rules-based standards debate. The current study investigates whether principles-based guidance is applied differently under different legal liability regimes. Results show that under principles-based guidance, auditors make decisions most consistent with economic substance when auditor liability is limited. My study suggests that principles-based standards alone (without a limit to auditor liability) may not be enough to cause auditors to make the most appropriate decisions in a scenario where the economic substance of a transaction suggests a relatively more aggressive treatment. As such, this study provides one piece of evidence for the SEC to consider when making decisions about adopting more principles-based standards in the United States. This suggests that the SEC might consider limiting auditor liability or providing other safeguards for auditors if more principles-based standards are adopted.

The paper proceeds in the following manner: the next section discusses prior literature and relevant theory and develops hypotheses; the following section describes the research method and analyses and discusses results; and the final section provides conclusions.

## CHAPTER 2

### THEORY AND HYPOTHESIS DEVELOPMENT

Prior to the implementation of the Sarbanes-Oxley Act of 2002 (SOX), academic literature generally suggested that, given sufficient latitude in the standards, auditors would allow clients to behave aggressively (Hackenbrack and Nelson 1996; Ng and Tan 2003). Cuccia et al. (1995) showed that, in a tax setting, accounting professionals will interpret either the standard or the facts of a case opportunistically in order to reach the client-preferred conclusion. This suggests that accounting professionals can choose to make decisions consistent with client preferences regardless of the precision of the standard. Salterio and Koonce (1997) find that auditors also follow client preference when precedents do not clearly point to an appropriate accounting treatment. Through data collected from auditors, Nelson et al. (2002) found that managers attempt to manage earnings under both precise and imprecise standards, using both structured and unstructured transactions, respectively. However, these attempts to manage earnings are least successful (i.e., auditors were most likely to require adjustment) under a combination of precise accounting standards and transactions that were not structured. Therefore, the standard precision does have some effect on the likelihood of auditors' allowing earnings management, depending on how managers attempt to manage earnings.

Following the implementation of SOX, academic literature has suggested that the behavior of financial statement preparers has shifted towards being more conservative. Agoglia et al. (2011) conduct an experiment using financial statement

preparers as participants and find that preparers exhibit greater concern with potential costs of litigation and second-guessing from regulators under less precise standards, and therefore, behave more conservatively. While Jamal and Tan (2010) also examine the behavior of financial statement preparers, they examine how the audit partner's standards orientation impacts preparer judgments. The results of their study suggest that auditor mindset plays an important role in preparers' reactions to principles-based guidance.

In studies conducted with auditors after SOX implementation, unless specifically allowed via rules-based guidance (i.e., a bright-line threshold), auditors are shown to be more likely to make decisions consistent with the economic substance of a transaction rather than consistent with client preference. Peytcheva and Wright (2011) show that principles-based standards lead to increased epistemic motivation,<sup>7</sup> which leads to auditor judgments that are more representative of the economic substance of the transaction. Segovia et al. (2009) also speak to the principles- versus rules-based standards debate from an auditor decision-making perspective, finding that rules-based standards appear to facilitate auditor agreement with aggressive client reporting.

This existing literature suggests that principles-based standards will allow auditors to make decisions more consistent with the economic substance of a transaction. However, the design of previous studies is such that the decision that is more consistent with the economic substance of a transaction is also the more conservative decision (Agoglia et al. 2011; Jamal and Tan 2010; Peytcheva and Wright 2011; Segovia et al. 2009). Therefore, it is unclear *why* these decisions are being made – are auditors truly attempting to best reflect the economic substance of a transaction, or simply making the

---

<sup>7</sup> Epistemic motivation is defined as “the desire to develop and hold a rich and accurate understanding of the world” (De Dreu et al., 2006, p. 928).

more conservative decision? This study attempts to disentangle these effects by looking at both a situation where the relatively more conservative option is most appropriate and a situation where the relatively more aggressive option is most appropriate.

The FASB removed conservatism from the conceptual framework in 2010 (FASB 2010), and the SEC has expressed concern with conservative reporting as well (SEC 1998 and 2003a). Both academic literature (Jackson and Liu 2010) and regulators (SEC 1998 and 2003a) have suggested that conservative reporting can be used to set up unnecessary reserves, which can be tapped into in order to manage earnings in the future. Therefore, conservative decision-making by auditors is not always appropriate, as it could lead to financial reporting that is inconsistent with economic substance. Hirshleifer and Teoh (2009) suggest that conservative accounting has an intuitive appeal due to the potential to reduce investors' disappointment by managing expectations through conservative accounting. Auditors also have an incentive to behave conservatively. Auditors are faced with the risk of potential litigation from shareholders and have an incentive to avoid this costly litigation whenever possible. Since shareholder lawsuits generally stem from overstated income (Palmrose and Scholz 2004), making conservative (i.e., income decreasing) decisions can help auditors minimize their litigation risk. Therefore, it is important to determine whether auditor decisions under principles-based guidance are driven by a concern for minimizing legal liability or a desire to reflect the economic substance of transactions.

Principles-based guidance allows financial statement preparers and auditors the freedom to report transactions based on the economic substance of the transaction and the spirit of the guidance, rather than following a strict rule. This ability to report transactions

differently based on differing circumstances can result in financial statements that more accurately reflect economic reality. This has been touted as one of the benefits of moving to more principles based standards in the United States (FASB 2002; SEC 2003b). Without the detailed guidance included in rules-based standards, auditors are forced to consider other factors, such as facts and circumstances indicative of the economic substance of the transaction, when determining the appropriate treatment of a transaction. If auditors no longer have this detailed guidance to rely on, they should be more likely to consider the economic substance of the transaction.

Prior research in accounting has shown that auditors behave more consistent with economic substance under principles-based standards than under rules-based standards (Peytcheva and Wright 2011; Segovia et al. 2009). In those studies, the economic substance of the transaction was the more conservative treatment. I predict that in a setting where the more *aggressive* treatment is most consistent with economic substance, auditors will still be more likely to follow economic substance under principles-based guidance as compared to rules-based guidance. Principles-based guidance gives auditors more flexibility in their reporting choices and an opportunity to report consistent with economic substance, regardless of whether the economic substance is conservative or aggressive. This rationale leads to the following testable hypothesis:

**Hypothesis 1:** Under principles-based guidance, auditors will make decisions more consistent with economic reality than under rules-based guidance.

Panel A and Panel B of Figure 2.1 depict the expectation that principles-based guidance leads to participants following the more economically appropriate decision (e.g., a main effect for type of guidance). As indicated in Hypothesis 1, the expectation holds true for both the conservative and aggressive accounting scenarios.

Auditors might not be able to mitigate legal liability by following appropriate accounting and auditing standards.<sup>8</sup> Existing research has shown that the general public (i.e., potential jury pools in an auditor liability case) is not familiar with accounting and auditing standards, and therefore, will often hold auditors accountable regardless of how well the standards are followed (Kadous 2000; Kadous and Mercer 2012; Reffett 2010). Reffett (2010) finds that performing additional fraud detection procedures does not protect auditors from shareholder lawsuits in the event of undetected fraud. Kadous (2000) finds that jurors' assessment of auditors' liability is based on whether or not the company went bankrupt, rather than the quality of the audit. This increased assessment of blame can lead to negative litigation outcomes. As such, auditors are forced to determine an alternative approach to minimize legal liability. Cornell and Warne (2012) also find that under principles-based standards, investors assign greater legal blame to auditors in the event of a negative outcome. As previously stated, Palmrose and Scholz (2004) show that litigation is often the result of overstated (as opposed to understated) income. One way auditors can minimize their legal liability is through using a conservative heuristic (i.e., when in doubt, do not allow income-increasing treatments and allow income-decreasing treatments).

Blay (2005) shows that auditors interpret audit evidence in a more conservative manner for a client with higher litigation risk, and in turn make more conservative decisions. This again suggests that litigation risk affects auditors' information processing

---

<sup>8</sup> Cohen et al. (2012) examine auditor judgments under both principles- and rules-based standards while manipulating regulatory enforcement. Regulatory enforcement and legal liability are two different concerns faced by auditors. Auditors can reduce the risk of regulatory enforcement actions through following appropriate accounting and auditing standards. However, following appropriate accounting and auditing standards might not be enough to mitigate legal liability. Additionally, Cohen et al. (2012) focuses on auditors' constraining aggressive reporting by management, which may become less important under principles-based standards if managers themselves are already behaving more conservatively (Agoglia et al., 2011).

and judgments. Krishnan and Krishnan (1997) show that auditor resignation and factors indicating high litigation risk are highly correlated, supporting the idea that, in extreme circumstances, auditors will resign rather than face high litigation risk. Additionally, Gramling et al. (1998) show that for high risk clients, there is a reduced likelihood that auditors will accept clients under joint and several liability. In less extreme scenarios, Johnstone and Bedard (2003) show that when firms do accept higher risk clients, they tend to have higher billing rates and are more likely to use specialists. Both higher billing rates and the use of specialists can be seen as ways to mitigate legal liability, suggesting that auditors seek ways to minimize the cost and/or risk of litigation.

Although not considering a monetary cap on auditor liability, several studies in the prior literature have experimentally shown that differing legal liability regimes affect auditor liability (Dopuch and King 1992; Dopuch et al. 1997; King and Schwartz 2000). Regulators worldwide have expressed concern regarding the potential magnitude of auditor liability (European Commission 2008; Treasury 2008). Limited auditor liability, in the form of auditor liability caps, already exists in some countries, such as Germany and Austria (Gietzmann and Quick 1998; Nobes and Zeff 2008). However, academic research has done little to investigate the potential effect of limiting liability through auditor liability caps on auditor judgments. Smith (2012) found that limiting auditor liability can have negative effects on investor perception of audit quality; however, this does not directly address how auditor judgments and actual audit quality are affected by limiting auditor liability.

The weighting function of prospect theory suggests that individuals overweight small probabilities for catastrophic losses (Kahneman and Tversky 1979). Under

unlimited liability, catastrophic financial losses are possible for auditors. Therefore, it follows that potential lawsuits will likely be overweighted by auditors under an unlimited liability regime. In order to mitigate potential lawsuits, auditors could choose to follow a conservative heuristic. As previously stated, prior research has shown that 83% of restatements occur when income is overstated (Palmrose and Scholz 2004). Therefore, using a conservative heuristic could reduce the number and amount of lawsuits to which an auditor is subject.

Accountability theory also suggests that concern with facing legal liability will cause auditors to attempt to minimize risk by behaving conservatively. Prior research in accounting (DeZoort et al. 2006) has found that auditors behave more conservatively when making materiality judgments under accountability pressures such as justification and feedback pressure. These types of accountability represent process accountability, or accountability for the decision making process (rather than the outcome). Legal liability is a type of outcome accountability, or accountability for the end result of a decision rather than the decision making process itself. Prior research in accountability has found that outcome accountability has negative effects on individuals' decision making (Simonson and Staw, 1992; Tetlock, 1992; Siegel-Jacobs and Yates, 1996; Lerner and Tetlock, 1999). For example, under high levels of outcome accountability, individuals are more likely to resort to an overly simplified heuristic such as maintaining the status quo (Tetlock and Boettger, 1994) or remaining committed to a losing course of action (Simonson and Staw, 1992). Reducing outcome accountability can lessen the use of these decision making heuristics. Since legal liability is a type of outcome accountability for auditors, limiting liability can take auditors' focus away from potential lawsuits and

allow them to focus on the appropriate treatment for the transaction. This rationale leads to the following testable hypothesis:

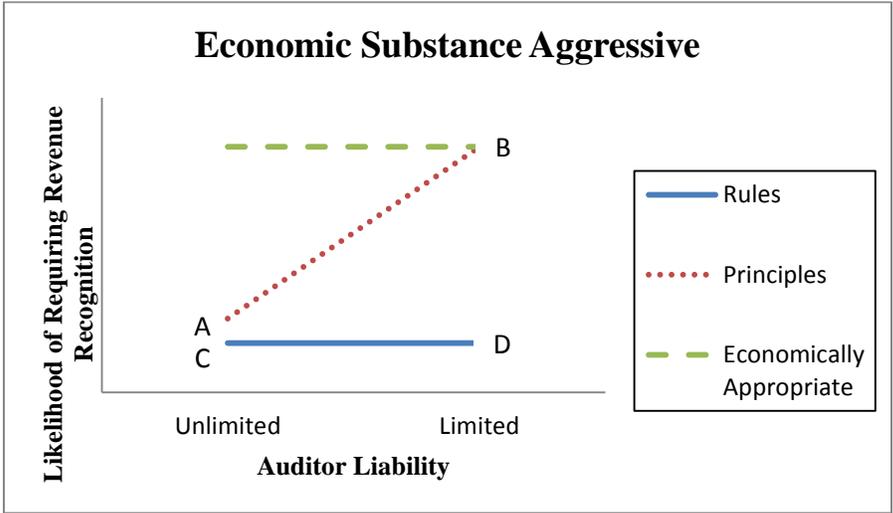
**Hypothesis 2:** When the economic substance of a transaction is relatively more aggressive, auditors will make decisions more consistent with economic reality under limited liability than under unlimited liability.

As shown in Figure 2.1, Panel A, Hypothesis 2 predicts that under limited liability, auditors will make more economically appropriate decisions.

Under principles-based guidance, auditors are not constrained by rules and have the ability to allow reporting most consistent with the economic substance of a transaction. However, if the economic substance of a transaction is relatively more aggressive, the full benefits of principles-based guidance might not be realized when liability is unlimited and auditors are focused on potential catastrophic losses (Kahneman and Tversky 1979). When liability is limited, auditors are less focused on potential litigation and less likely to default to a conservative heuristic. Therefore, the combination of principles-based guidance and limited auditor liability gives auditors both the ability (supported by the guidance) and the incentive (due to less concern with legal liability) to report most consistent with the economic substance of a transaction. This rationale leads to the following testable hypothesis:

**Hypothesis 3:** When the economic substance of a transaction is relatively more aggressive, auditors will make decisions most consistent with economic reality under a combination of principles-based guidance and limited liability.

As shown in Figure 2.1, Panel A, when the economic substance of the transaction is more aggressive, the only scenario where auditors are predicted to make decisions consistent with economic substance is in the case of principles-based guidance and limited liability.

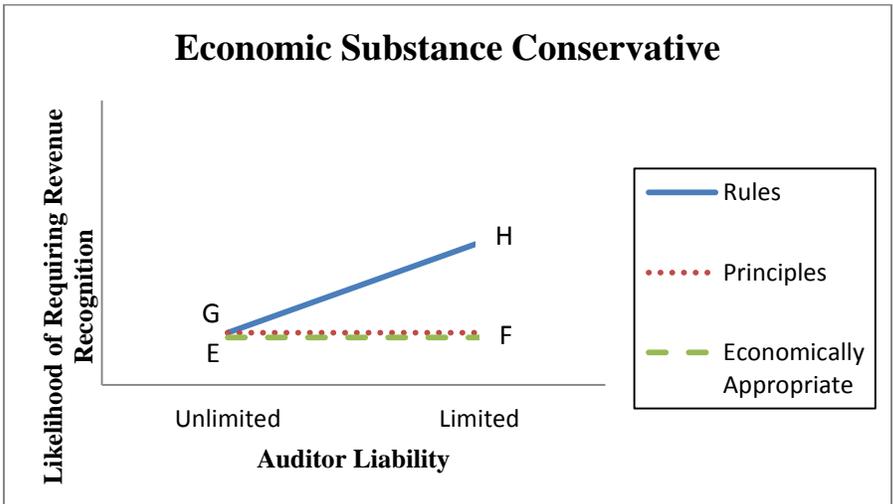


H1:  $(A+B)/2 > (C+D)/2$

H2:  $(B+D)/2 > (A+C)/2$

H3:  $B > (A+C+D)/3$

PANEL A



H1:  $(E+F)/2 < (G+H)/2$

PANEL B

FIGURE 2.1 – PREDICTED RESULTS

## CHAPTER 3

### METHOD

#### 3.1 PARTICIPANTS

Participants are 93 auditors (primarily seniors and managers) from Big Four, international, national, and regional accounting firms (see Table 1 for descriptive statistics).<sup>9</sup> Audit seniors are often the first auditors to review a transaction and give their opinion on the appropriate treatment based on the applicable accounting guidance. Audit managers also review transactions that are material to the financial statements and determine the appropriate accounting treatment. Prior literature suggests that decisions and documentation by audit seniors affects subsequent evaluation by partners (Ricchiute 1999). This suggests that decisions made by audit seniors will ultimately affect the final decision by the audit team on an appropriate accounting treatment. Therefore, both audit seniors and audit managers are appropriate participants for the current study.

#### 3.2 DESIGN

The design of this experiment is a  $2 \times 2 \times 2$  repeated measures design, as shown in Figure 3.1. Independent variables are the type of accounting guidance (GUIDANCE), the auditor legal liability regime in place (LIABILITY), and the more economically appropriate decision (ECONOMIC). GUIDANCE is manipulated between subjects as either principles-based or rules-based. LIABILITY is manipulated within subjects as

---

<sup>9</sup> Auditor title, and firm, and years of audit experience are not significant in any of the models or tests of hypotheses. Additionally, the exclusion of participants at the Audit Staff level does not change the direction or significance of any of the models or tests of hypotheses. Therefore, the analyses reported include the full data set.

either limited or unlimited. ECONOMIC is manipulated within subjects as either relatively more conservative or relatively more aggressive. The manipulations of the three independent variables are discussed in more detail on the pages that follow. See Appendix 1 for details of the instrument and manipulations.

In the current study, GUIDANCE is operationalized as the type of firm guidance participants receive. In the rules-based condition, participants receive firm guidance with bright-line thresholds stating when revenue recognition is appropriate. In the principles-based condition, participants receive firm guidance without the bright-line thresholds, stating only general principles regarding when revenue recognition is appropriate.<sup>10</sup>

In practice, auditors can face legal liability when there is an audit failure, or anytime their client is required to restate financial statements and the stock price decreases. In the experiment, LIABILITY is manipulated as either an unlimited or limited liability country. Participants are provided with a sentence stating that the legal regime in the country where their client is located either allows investors to recover all of their losses plus punitive damages from auditors (unlimited) or auditor liability is limited and only allows investors to recover a portion of their losses from auditors (limited).

ECONOMIC is manipulated as the decision most consistent with economic substance being to require immediate recognition of revenue in the “relatively more aggressive” setting and to require delayed recognition of revenue in the “relatively more

---

<sup>10</sup> GUIDANCE is chosen as the variable of interest rather than actual accounting standards in order to provide for a cleaner manipulation of similar length and content.

conservative” setting. The decision most consistent with economic substance in each case was confirmed in a consultation with a panel of audit partners.<sup>11</sup>

Participants are randomly assigned to one of the four treatment combinations shown in Figure 3.1, and each participant is asked to make a judgment on two cases. Each participant sees one case where ECONOMIC is relatively more conservative, and one case where ECONOMIC is relatively more aggressive. In one of the two cases, LIABILITY is unlimited, and in the other case, LIABILITY is limited. The order of both within-subjects manipulations (ECONOMIC and LIABILITY) is balanced across participants. The GUIDANCE variable is manipulated between subjects. The repeated measures design used in the current study allows for greater statistical power than purely between-subjects designs, while still minimizing the time commitment from participants by providing them two of the four possible treatment combinations.

The dependent variable in this study is likelihood of requiring revenue to be recognized, measured on a ten-point scale ranging from 1 being “definitely require *delayed recognition* of revenue” to 10 being “definitely require *immediate recognition* of revenue.” In addition to the main dependent measure, I also ask several supplemental questions in order to gain insight into participants’ judgments. Participants are asked to list up to three factors influencing their judgment. Participants are also asked about their beliefs regarding the treatment that would best reflect economic reality in each scenario. These supplemental measures are discussed further in the Supplemental Analyses section.

---

<sup>11</sup> A panel of 5 audit partners was consulted in the development of the cases. The partners’ average rating for the “relatively more aggressive” case was a 6.75 on a 10-point scale (with 1 being “definitely not recognize revenue” and 10 being “definitely recognize revenue”). Consistent with verbal feedback from the partners, this indicates that in the relatively more aggressive case, revenue recognition is the most appropriate judgment, but the case is still somewhat ambiguous. The “relatively more conservative” setting was developed by making changes to the case that the panel of partners indicated would change their judgment as to what the appropriate treatment should be.

### 3.3 TASK

Participants are asked to read a case study describing two hypothetical clients that produce transaction-specialized tooling equipment and machinery for resale. One client is located in a country where auditor liability is limited, and the other client is located in a country where auditor liability is unlimited. The case describes a transaction for each client. In each transaction, the client produces two related pieces of specific equipment for a customer during the fiscal year under audit. One piece of equipment was delivered to the customer prior to year-end, and the second is scheduled to be delivered within six months after year-end. Auditor participants are asked to decide whether or not to allow the client to recognize revenue related to the delivery of the first piece of equipment in each transaction.

In one transaction, the facts are such that requiring revenue recognition is most appropriate (relatively more aggressive). In the other transaction, the facts are such that requiring *delayed* revenue recognition is most appropriate (relatively more conservative). Thus, there are four possible conditions each participant can see (limited liability and relatively more aggressive; limited liability and relatively more conservative; unlimited liability and relatively more aggressive; and unlimited liability and relatively more conservative). Each participant will see two of these possible combinations, with each participant seeing both levels of each of the two within subject manipulations.<sup>12</sup> Order of the two transactions is randomized across participants to control for potential order

---

<sup>12</sup> Recall that GUIDANCE is a between-subjects variable; therefore, for each of the possible combinations of scenarios seen by participants, approximately half of the participants will receive principles-based GUIDANCE, with the remaining half receiving rules-based GUIDANCE.

effects.<sup>13</sup> See Figure 3.1 for a depiction of the different treatment combinations seen by each subject. Participants are provided with relevant firm guidance for revenue recognition in the rules-based and principles-based GUIDANCE manipulation.<sup>14</sup>

### 3.4 TEST OF HYPOTHESES

I ask two manipulation check questions to test participant's recall of the litigation environment for each client. A total of 81 out of 93 (87.1%) participants passed both manipulation check questions. Dropping the participants who failed the manipulation checks does not change the direction or significance of the model or tests of hypotheses; therefore, all participants are included in the analyses reported below. Participants had an average of 5.30 years of audit work experience and spent an average of 29.7% of their time on public clients. Additional descriptive statistics are reported in Table 3.1.

Least square means for each condition are shown in Table 3.2 and presented graphically in Figure 3. I test the hypotheses using a repeated measures mixed model with GUIDANCE, LIABILITY, and ECONOMIC as the three independent variables, and auditor decision as the dependent variable.<sup>15</sup> Test results are tabulated in Table 3.3.<sup>16</sup>

---

<sup>13</sup> Order was not significant when included in the analysis of hypotheses.

<sup>14</sup> Participants are provided with firm guidance and permitted to reference that guidance when making their judgments, consistent with practice, in order to test how principles-based versus rules-based guidance is interpreted by auditors. Making the guidance available to participants throughout the experiment allows for testing of the variable of interest, rather than creating a memory task.

<sup>15</sup> The model assumption of constant variance was met (Brown-Forsythe test  $F=0.93$ ,  $p=0.487$  [Full Model];  $F=1.56$ ,  $p=0.204$  [Aggressive Condition Only]; and  $F=0.72$ ,  $p=0.543$  [Conservative Condition Only]). The model assumption of normality was slightly violated. Logarithmic transformation of the data to remedy the violation of normality did not change the direction or significance of any of the models or tests of hypotheses; therefore, for ease of interpretation, results are based on the initial, non-transformed data set.

<sup>16</sup> Since the GUIDANCE variable is between-subjects, the Subject within GUIDANCE mean square is the appropriate error term for this effect. Since both LIABILITY and ECONOMIC are within-subjects, the mean square error is the appropriate error term for these effects.

Hypothesis 1 predicts a main effect for accounting guidance type. A significant effect for the variable GUIDANCE in the expected direction would indicate that Hypothesis 1 is supported. In the mixed model, the variable GUIDANCE is significant ( $p=0.004$ , one-tailed), indicating support for Hypothesis 1 (see Table 3.3, Panel A). For the ECONOMIC aggressive condition, the variable GUIDANCE is significant in the expected direction ( $p=0.003$ , one-tailed), further supporting Hypothesis 1 (see Table 3.3, Panel B). For the ECONOMIC conservative condition, the variable GUIDANCE is not significant ( $p=0.384$ , two-tailed) (see Table 3.3 Panel C). Comparing the least square means for each GUIDANCE condition shows that in the ECONOMIC aggressive condition, participants in the principles-based condition are more likely to appropriately allow revenue recognition as compared to participants in the rules-based condition (least squares means of 8.58 and 7.52, respectively;  $t=2.77$ ,  $p=0.003$ , one-tailed) (see Table 3.2). In the ECONOMIC conservative condition, participants in the principles-based condition are not significantly more likely to appropriately *not* allow revenue recognition as compared to participants in the rules-based condition (least squares means of 3.26 and 2.89, respectively;  $t=-0.87$ ,  $p=0.384$ , two-tailed) (see Table 3.2). Therefore, Hypothesis 1 is supported for the aggressive condition. However, for the conservative condition, Hypothesis 1 is not supported.<sup>17</sup>

Hypothesis 2 predicts a main effect for legal liability regime when the economic substance of a transaction is relatively more aggressive. A significant effect for the

---

<sup>17</sup> The interactions between the variable GUIDANCE and four measures of experience (U.S. GAAP experience, IFRS experience, U.S. GAAP revenue recognition for multiple product shipments experience, and IFRS revenue recognition for multiple product shipments experience) were not significant in any of the models or tests of hypotheses. Additionally, the interactions between the variable GUIDANCE and the influence of both flexibility and restrictions inherent in the guidance were not significant in any of the models or tests of hypotheses.

variable LIABILITY in the expected direction (that is, judgments under limited liability are higher on the previously mentioned 1 to 10 scale than judgments under unlimited liability) when the variable ECONOMIC is the relatively more aggressive option would indicate that Hypothesis 2 is supported. When ECONOMIC is aggressive, there is no significant difference for the variable LIABILITY ( $t=0.34$ ,  $p=0.736$ , two-tailed). Therefore, Hypothesis 2 is not supported (see Table 3.3, Panel B).

Hypothesis 3 predicts an interaction between GUIDANCE and LIABILITY. Specifically, Hypothesis 3 suggests that auditor judgments will be most consistent with economic reality in the principles-based guidance/limited liability cells, when economic substance is relatively more aggressive. In order to test for this interaction, I use contrast coding based on the pattern of expected results shown in Figure 2.1, Panel A. Statistical analysis using contrast coding is significant ( $t=2.47$ ,  $p=0.008$ , one-tailed); therefore, Hypothesis 3 is supported. This result indicates that under principles-based standards, auditors may need a limit to liability in order to make decisions most consistent with economic substance when the economic substance of a transaction is relatively more aggressive.<sup>18</sup>

### 3.5 SUPPLEMENTAL ANALYSES

In addition to the main dependent variable (decision to allow revenue recognition or not allow revenue recognition), participants are asked several supplemental questions. First, participants are asked to list the three factors most influential in their judgment. This question allows me to explore process variables underlying the auditors' decisions, as well as provide information regarding the effect of the manipulations. I expect to find that

---

<sup>18</sup> Inferences for all hypotheses are unchanged when adjusting for multiple comparisons using the Bonferroni method.

in the unlimited LIABILITY condition (cells A, C, E, and G in Figure 3.1) participants will be more likely to list litigation risk as a primary factor in their decision than participants in the limited LIABILITY condition (cells B, D, F, and H in Figure 3.1). Secondly, I expect participants in cells A, C, E, and G to be more likely to mention intentionally choosing the more conservative treatment than participants in cells B, D, F, and H. Text responses were coded by the author and a second independent coder, and all differences were mutually resolved. The author and the second coder were both blind to experimental conditions while coding. Inter-rater agreement was 94.1% for litigation risk and 99.5% for conservatism (Cohen's Kappa of 0.70 and 0.89, respectively, both significantly different from zero,  $p < 0.001$ ). Contrary to expectation, participants were not significantly more likely to list litigation risk as a factor in their decision in the unlimited LIABILITY condition ( $t = 0.25$ ,  $p = 0.801$ , two-tailed). Participants also were not significantly more likely to mention intentionally choosing the more conservative treatment in the unlimited LIABILITY condition ( $t = 0.45$ ,  $p = 0.652$ , two-tailed). Given that neither litigation risk nor intentional conservatism were significantly different between liability conditions; however, the interaction between LIABILITY and GUIDANCE was significant; the effect litigation risk on participants' judgments may be a subconscious effect.

Hypothesis 1 predicts that auditors will make decisions more consistent with economic reality under principles-based guidance than under rules-based guidance. Evidence from the mixed model and from a comparison of the least square means in the ECONOMIC aggressive condition supports this prediction. However, this difference could be due to participants' belief of what the true economic substance of the transaction

is, or due to participants intentionally reporting in a more conservative manner under rules-based standards. In order to disentangle these two potential causes, supplemental analysis was performed on participants' responses to a process measure question regarding the participants' belief of what treatment best reflects economic reality.

After making a judgment on the treatment they require and listing the factors most influential in their judgment, participants are then asked to assess what treatment they believe best reflects economic reality on a ten-point scale ranging from 1 being “definitely *delay recognition* of revenue until the *next* fiscal year” to 10 being “definitely *immediately recognize* revenue in the *current* fiscal year” (the same scale as the dependent variable measure). Responses to this question give insight into whether participants in the rules-based GUIDANCE condition are able to identify the economically appropriate treatment, yet are unwilling to follow that treatment due to perceived constraint from the guidance.<sup>19</sup> Supplemental analyses for this question are tested using a calculated difference between the participants' dependent variable responses and responses to what they believe best reflects economic reality. Mean difference calculations (shown in Table 3.4, Panel A) for all cells except for cell A (principles-based GUIDANCE, unlimited LIABILITY, aggressive ECONOMIC cell) indicate that participants responded to the dependent variable question in a more conservative manner than their belief of the economic reality of the transaction. For cell A, the mean difference was zero. Results shown in Table 3.4, Panel B indicate that participants in the rules-based GUIDANCE condition have a marginally significantly greater difference than participants in the principles-based GUIDANCE condition

---

<sup>19</sup> The study was administered online, and this question is on a separate screen from the dependent variable measure. Participants are not allowed to go back and change their initial judgment after viewing this question.

( $t=1.47$ ,  $p=0.072$ , one-tailed). Supporting Hypothesis 1, this suggests that auditor participants in the rules-based condition are more likely than those in the principles-based condition to require their client to report more conservatively than they believe the true economic reality of the transaction warrants.

Economic Substance Aggressive

		<u>Liability</u>	
		Unlimited	Limited
<u>Guidance</u>	Principles	A	B
	Rules	C	D

Economic Substance Conservative

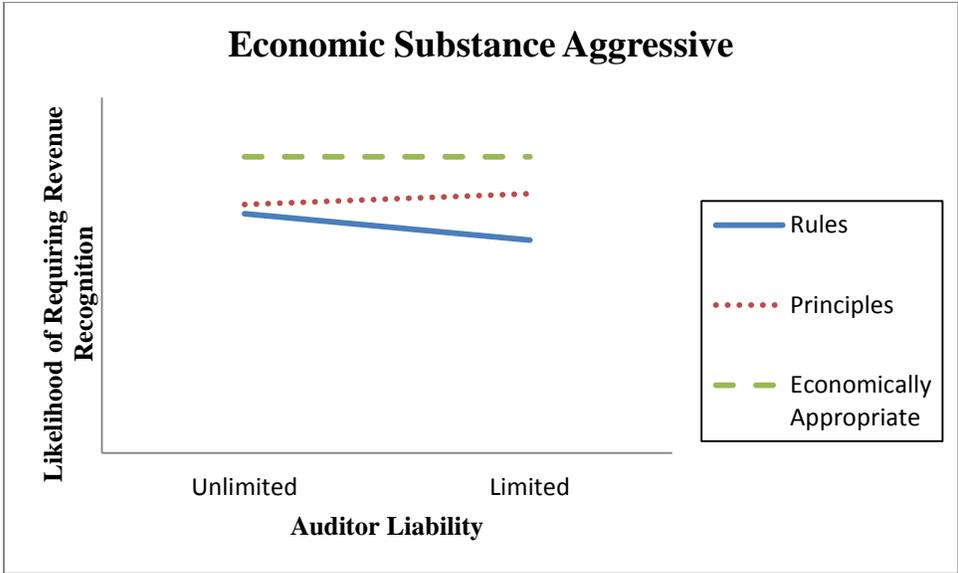
		<u>Liability</u>	
		Unlimited	Limited
<u>Guidance</u>	Principles	E	F
	Rules	G	H

Repeated Measures Design

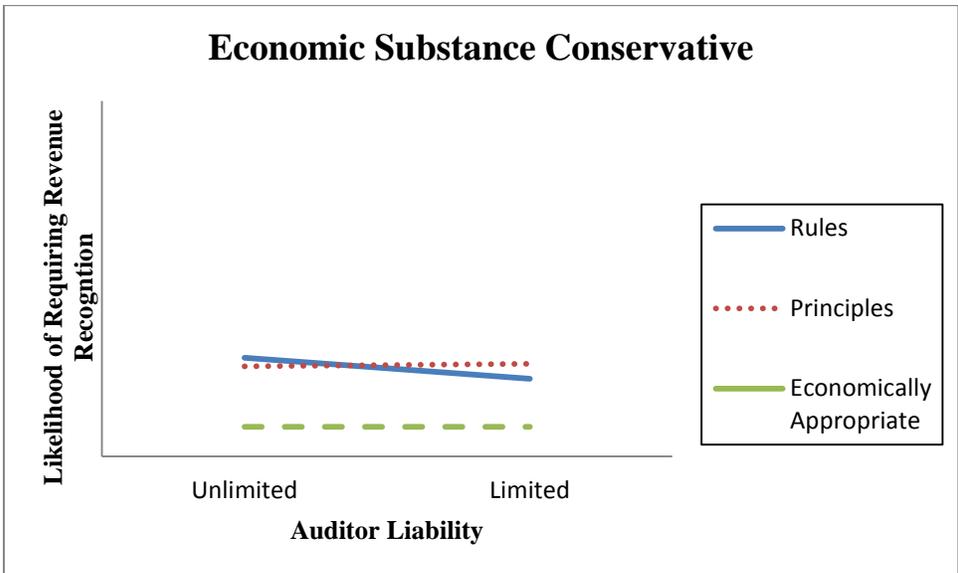
<u>Combination</u>	<u>Cells</u>
1	A, F
2	B, E
3	C, H
4	D, G

Note: Order is balanced between participants

FIGURE 3.1 – DESIGN



PANEL A



PANEL B

FIGURE 3.2 – RESULTS

TABLE 3.1 – DESCRIPTIVE STATISTICS

**Panel A:** Experience with U.S. GAAP and IFRS

	Mean <sup>a</sup>
U.S. GAAP experience	6.08
U.S. GAAP revenue recognition for multiple product shipments experience	4.05
IFRS experience	2.91
IFRS revenue recognition for multiple product shipments experience	2.16

<sup>a</sup> Measured on a scale of 1 to 7, where 1=Not at all familiar and 7=Very Familiar

**Panel B:** Job Title

	Number
Audit Staff	12
Audit Senior	39
Audit Manager	25
Audit Senior Manager	14
Audit Partner	1
Other <sup>b</sup>	2

<sup>b</sup> The other category includes one Advisory Senior Manager and one Advisory Senior

**Panel C:** Primary Industry

	Number
Manufacturing	29
Financial Services	23
Government/Non-profit	11
Retail	7
Technology	4
Healthcare	4
Construction	3
Real Estate	3
Other/Not industry specific <sup>c</sup>	9

<sup>c</sup> The other category represents any “Primary Industry” response with fewer than two participants in that industry. There are no significant industry effects in any of my analyses.

TABLE 3.2 – LEAST SQUARE MEANS FOR AUDITOR DECISION  
(DEPENDENT VARIABLE) BY CONDITION

Economic Substance Aggressive

	Unlimited Liability	Limited Liability	Marginal Means
Principles-Based Guidance	8.31 n=23	8.86 n=25	8.58 n=48
Rules-Based Guidance	7.92 n=24	7.11 n=21	7.52 n=45
Marginal Means	8.11 n=47	7.98 n=46	n=93

Economic Substance Conservative

	Unlimited Liability	Limited Liability	Marginal Means
Principles-Based Guidance	3.52 n=25	3.01 n=23	3.26 n=48
Rules-Based Guidance	3.24 n=21	2.53 n=24	2.89 n=45
Marginal Means	3.38 n=46	2.77 n=47	n=93

Dependent Variable: Auditor decision whether or not to recognize revenue, measured on a 10-point scale (1=definitely require *delayed recognition* of revenue and 10=definitely require *immediate recognition* of revenue).

TABLE 3.3 – RESULTS

**Panel A: Full Mixed Model**

Effect	DF	F -value	P-value*
LIABILITY	90	0.25	0.620
GUIDANCE	89	7.22	0.009
ECONOMIC	90	263.46	<0.001
LIABILITY*GUIDANCE	90	1.72	0.193
INFLREV	89	29.18	<0.001
GAAPREV	89	5.71	0.019

**Panel B: Economic Substance Aggressive**

Source	DF	Type III SS	Mean Square	F-value	P-value*
LIABILITY	88	0.39	0.39	0.11	0.736
GUIDANCE	88	26.18	26.18	7.66	0.007
LIABILITY*GUIDANCE	88	10.49	10.49	3.07	0.083
INFLREG	88	45.32	45.32	13.27	0.001

**Panel C: Economic Substance Conservative**

Source	DF	Type III SS	Mean Square	F-value	P-value*
LIABILITY	88	8.35	8.35	2.02	0.159
GUIDANCE	88	3.17	3.17	0.77	0.384
LIABILITY*GUIDANCE	88	0.23	0.23	0.06	0.815
INFLREV	88	109.26	109.26	26.39	<0.001

GUIDANCE= Type of accounting guidance

LIABILITY= Auditor legal liability regime in place

ECONOMIC= The more economically appropriate decision

INFLREG= Influence of potential regulatory action

INFLREV= Influence of desire not to overstate revenue

GAAPREV= U.S. GAAP revenue recognition for multiple product shipments experience

\*All p-values are two-tailed

TABLE 3.4 – SUPPLEMENTAL ANALYSES

**Panel A: Mean Differences – Required Treatment vs. Belief of Economic Reality**

Economic Substance Aggressive

	Unlimited Liability	Limited Liability	Marginal Means
Principles-Based Guidance	0.00 n=23	0.28 n=25	0.15 n=48
Rules-Based Guidance	0.29 n=24	0.95 n=21	0.60 n=45
Marginal Means	0.15 n=47	0.59 n=46	n=93

Economic Substance Conservative

	Unlimited Liability	Limited Liability	Marginal Means
Principles-Based Guidance	0.32 n=25	1.22 n=23	0.75 n=48
Rules-Based Guidance	0.81 n=21	1.25 n=24	1.04 n=45
Marginal Means	0.54 n=46	1.23 n=47	n=93

Participants are asked to assess what treatment they believe best reflects economic reality on a ten-point scale ranging from 1 being “definitely delay recognition of revenue until the next fiscal year” to 10 being “definitely immediately recognize revenue in the current fiscal year” (the same scale as the dependent variable measure). Supplemental analyses for this question are tested using a calculated difference between the participants’ dependent variable responses and responses to what they believe best reflects economic reality. In all cells (other than Principles-Based, Unlimited, Aggressive where the mean difference is 0.00), participants responded to the dependent variable measure in a more conservative manner than the economically appropriate measure.

TABLE 3.4 – SUPPLEMENTAL ANALYSES – CONTINUED

**Panel B: Contrast Testing of Principles-Based vs. Rules-Based Differences**

Contrast	DF	F-value	P-value*
Difference: RULES<PRINCIPLES	182	2.15	0.145

\*P-value is two-tailed

## CHAPTER 4

### CONCLUSION

Both the SEC (SEC, 2003b) and the FASB (FASB, 2002) believe that moving to more principles-based standards in the United States will allow companies and auditors to more appropriately reflect the economic substance of transactions in the financial statements. However, to my knowledge, academic research has not yet tested whether principles-based standards will be applied differently by auditors in the United States than in other countries due to a different legal regime, specifically, a regime with unlimited auditor liability. The current paper explores whether auditors require treatments more consistent with the economic substance of a transaction under principles-based guidance, and whether limiting auditor liability can improve auditor decision making under both principles- and rules-based accounting guidance. Additionally, the current study examines auditor decisions both in a scenario where the *less* conservative treatment is most consistent with economic reality and in a scenario where the *more* conservative treatment is most consistent with economic reality. This design allows me to disentangle the effects of conservatism and economic substance of transactions on auditor decisions. Results suggest that principles-based guidance may be applied differently under different levels of auditor liability, and regulators in the United States may want to consider this when evaluating the change in standards. Specifically, the results show that when the economic substance of a transaction is relatively more aggressive, auditor participants make decisions most consistent with the economic substance of a transaction, under a

combination of principles-based standards and limited auditor liability. Since the SEC has exhibited concern for overly conservative judgments, the findings of the current study may be of interest to regulators and other policy makers (SEC, 1998; 2003a).

The finding that auditors appear to intentionally behave conservatively under rules-based standards, as discussed in the supplemental analysis section, suggests some interesting avenues for future research. Further studies may want to investigate whether auditors are less likely to behave in a more conservative manner than they believe is warranted by the economic substance of a transaction when they are made aware of their conservative behavior, or when client preference is made salient. Alternatively, auditors may be more likely to intentionally behave conservatively if potential enforcement from regulators such as the SEC or Public Company Accounting Oversight Board (PCAOB) is made salient.

One limitation of the present study is that the liability faced by auditor participants in practice involves real consequences that are not faced by participants in the current study; however, this biases against the hypothesized findings. Additionally, findings in this study may not generalize to other financial reporting decisions. Nonetheless, this study provides some initial evidence regarding how auditors in the U.S. interpret principles-based and rules-based guidance, particularly in scenarios where the less conservative accounting treatment is most appropriate, and how the level of auditor liability might change auditor decisions. Future research can investigate whether the salience of auditor liability affects auditor decisions, as well as additional factors that may impact the successful implementation of more principles-based standards in the United States.

## REFERENCES

- Abbott, L., Parker, S., and Peters, G. 2006. Earnings Management, Litigation Risk, and Asymmetric Audit Fee Responses. *Auditing: A Journal of Practice and Theory* 25(1): 85-98.
- Agoglia, C., Douppnik, T. and Tsakumis, G. 2011. Principles-Based versus Rules-Based Accounting Standards: The Influence of Standard Precision and Audit Committee Strength on Financial Reporting Decisions. *The Accounting Review* 86(3): 747-767.
- Armstrong, C., Barth, M., Jagolinzer, A., and Riedl, E. 2012. Market Reaction to the Adoption of IFRS in Europe. *The Accounting Review*, forthcoming.
- Barron, O., Pratt, J., and Stice, J. 2001. Misstatement Direction, Litigation Risk, and Planned Audit Investment. *Journal of Accounting Research* 39(3): 449-462.
- Blay, A. 2005. Independence Threats, Litigation Risk, and the Auditor's Decision Process. *Contemporary Accounting Review* 22(4): 759-789.
- Center for Audit Quality (CAQ). 2008. "Report of the Major Public Company Audit Firms to the Department of the Treasury Advisory Committee on the Auditing Profession."
- Cohen, J., Krishnamoorthy, G., Peytcheva, M., and Wright, A. 2012. How Does the Strength of the Financial Regulatory Regime Influence Auditors' Judgments to Constrain Aggressive Reporting in a Principles versus Rules-Based Accounting Environment? Working Paper.
- Cornell, R. and Warne, R. 2012. Accounting Flexibility, Auditor Liability, and the Psychology of Blame. Working Paper.
- Cuccia, A., Hackenbrack, K., and Nelson, M. 1995. The Ability of Professional Standards to Mitigate Aggressive Reporting. *The Accounting Review* 70(2): 227-248.
- De Dreu, C., Beersma, B., Stroebe, K., and Euwema, M. 2006. Motivated Information Processing, Strategic Choice, and the Quality of Negotiated Agreement. *Journal of Personality and Social Psychology* 90 (6): 927-943.
- DeZoort, T., Harrison, P., and Taylor, M. 2006. Accountability and Auditors' Materiality Judgments: The Effects of Differential Pressure Strength on Conservatism, Variability, and Effort. *Accounting, Organizations, and Society* 31: 373-390.

- Dopuch, N., Ingberman, D., and King, R. 1997. An Experimental Investigation of Multi-Defendant Bargaining in “Joint and Several” and Proportionate Liability Regimes. *Journal of Accounting and Economics* 23: 189-221.
- Dopuch, N. and King, R. 1992. Negligence versus Strict Liability Regimes in Auditing: An Experimental Investigation. *The Accounting Review* 67 (1): 97-120.
- European Commission (EC). 2008. “Commission Recommendation Concerning the Limitation of the Civil Liability of Statutory Auditors and Audit Firms.”
- Financial Accounting Standards Board (FASB). 2010. Concepts Statement No. 8 – Conceptual Framework for Financial Reporting.
- Financial Accounting Standards Board (FASB). 2002. “Proposal – Principles-Based Approach to U.S. Standard Setting.”
- Gergen, D. 1991. America’s Legal Mess. *U.S. News and World Report* 111(8): 72.
- Gietzmann, M. and Quick, R. 1998. Capping Auditor Liability: The German Experience. *Accounting, Organizations and Society* 23(1): 81-103.
- Gramling, A., Schatzberg, J., Bailey, Jr., A., and Zhang, H. 1998. The Impact of Legal Liability Regimes and Differential Client Risk on Client Acceptance, Audit Pricing, and Audit Effort Decisions. *Journal of Accounting, Auditing, and Finance* 13(2): 437-460.
- Hackenbrack, K. and Nelson, M. 1996. Auditors’ Incentives and Their Application of Financial Accounting Standards. *The Accounting Review* 71(1): 43-59.
- Hirshleifer, D. and Teoh, S. H. 2009. The Psychological Attraction Approach to Accounting and Disclosure Policy. *Contemporary Accounting Research* 26 (4): 1067-1090.
- Jackson, S. and Liu, X. 2009. The Allowance for Uncollectible Accounts, Conservatism, and Earnings Management. *Journal of Accounting Research* 48(3): 565-601.
- Jamal, K. and Tan, H. 2010. Joint Effects of Principles-Based versus Rules-Based Standards and Auditor Type in Constraining Managers’ Aggressive Reporting. *The Accounting Review* 85(4): 1325-1346.
- Johnstone, K. and Bedard, J. 2003. Risk Management in Client Acceptance Decisions. *The Accounting Review* 78(4): 1003-1025.
- Kadous, K. 2000. The Effects of Audit Quality and Consequence Severity on Juror Evaluations of Auditor Responsibility for Plaintiff Losses. *The Accounting Review* 75(3): 327-341.
- Kadous, K. and Mercer, M. 2012. Can Reporting Norms Create a Safe Harbor? Jury Verdicts Against Auditors Under Precise and Imprecise Accounting Standards. *The Accounting Review* 87(2): 565-587.

- Kahneman, D. and Tversky, A. 1979. Prospect Theory: An Analysis of Decision under Risk. *Econometrica* 47(2): 263-292.
- King, R. and Schwartz, R. 2000. An Experimental Investigation of Auditors' Liability: Implications for Social Welfare and Exploration of Deviations from Theoretical Predictions. *The Accounting Review* 75 (4): 429-451.
- Krishnan, J. and Krishnan, J. 1997. Litigation Risk and Auditor Resignations. *The Accounting Review* 72(4): 539-560.
- Lerner, J. and Tetlock, P. 1999. Accounting for the Effects of Accountability. *Psychological Bulletin* 125(2): 255-275.
- Love, V. and Eickemeyer, J. 2009. IFRS and Accountants' Liability. *The CPA Journal* April: 54-59.
- Nelson, M., Elliott, J., and Tarpley, R. 2002. Evidence from Auditors about Managers' and Auditors' Earnings Management Decisions. *The Accounting Review* 77(Supplement): 175-202.
- Ng, T. and Tan, H. 2003. Effects of Authoritative Guidance Availability and Audit Committee Effectiveness on Auditors' Judgments in an Auditor-Client Negotiation Context. *The Accounting Review* 78(3): 801-818.
- Nobes, C. and Zeff, S. 2008. Auditors' Affirmations of Compliance with IFRS around the World: An Exploratory Study. *Accounting Perspectives* 7(4): 279-292.
- Nusbaum, E. 2007. Top 10 Wish List for Audit Research. *Current Issues in Auditing* 1: C3-C9.
- Palmrose, Z-V. and Scholz, S. 2004. The Circumstances and Legal Consequences of Non-GAAP Reporting: Evidence from Restatements. *Contemporary Accounting Research* 21(1): 139-180.
- Peytcheva, M. and Wright, A. 2011. The Impact of Principles versus Rules-Based Accounting Standards on Auditor Motivations and Reporting Decisions. Working Paper.
- Ramseyer, J. and Rasmusen, E. 2010. Comparative Litigation Rates. *The Harvard John M. Olin Discussion Paper Series* 681.
- Reffett, A. 2010. Can Identifying and Investigating Fraud Risks Increase Auditors' Liability? *The Accounting Review* 85(6): 2145-2167.
- Ricchiute, D. 1999. The Effect of Audit Seniors' Decisions on Working Paper Documentation and on Partners' Decisions. *Accounting, Organizations and Society* 24: 155-171.

- Salterio, S. and Koonce, L. 1997. The Persuasiveness of Audit Evidence: The Case of Accounting Policy Decisions. *Accounting, Organizations and Society* 22 (6): 573-587.
- SEC v. Arthur Young & Co., 590 F.2d 785, 788 (9th Cir. 1979).
- Seetharaman, A., Gul, F., and Lynn, S. 2002. Litigation Risk and Audit Fees: Evidence from UK Firms Cross-Listed on US Markets. *Journal of Accounting and Economics* 33: 91-115.
- Segovia, J., Arnold, V., and Sutton, S. 2009. Do Principles- vs. Rules-Based Standards Have a Differential Impact on U.S. Auditors' Decisions? *Advances in Accounting Behavioral Research* 12: 61-84.
- Siegel-Jacobs, K., and Yates, J.F. 1996. Effects of Procedural and Outcome Accountability on Judgment Quality. *Organizational Behavior and Human Decision Processes* 65(1): 1-17.
- Simonson, I. and Staw, B. 1992. Deescalation Strategies: A Comparison of Techniques for Reducing Commitment to Losing Courses of Action. *Journal of Applied Psychology* 77(4): 419-426.
- Smith, J. 2012. Investors' Perceptions of Audit Quality: Effects of Regulatory Change. *Auditing: A Journal of Practice and Theory* 31 (1): 17-38.
- Tetlock, P. 1992. The Impact of Accountability on Judgment and Choice: Toward a Social Contingency Model. *Advances in Experimental Social Psychology* 25: 331-376.
- Tetlock, P. and Boettger, R. 1994. Accountability Amplifies the Status Quo Effect When Change Creates Victims. *Journal of Behavioral Decision Making* 7(1): 1-23.
- The Department of the Treasury (Treasury). 2008. "Advisory Committee on the Auditing Profession – Final Report."
- U.S. Securities and Exchange Commission (SEC). 1998. "Remarks by Chairman Arthur Levitt, Securities and Exchange Commission – The 'Numbers Game' – NYU Center for Law and Business."  
<http://www.sec.gov/news/speech/speecharchive/1998/spch220.txt>
- U.S. Securities and Exchange Commission (SEC). 2003a. "Report Pursuant to Section 704 of the Sarbanes-Oxley Act of 2002."  
<http://www.sec.gov/news/studies/sox704report.pdf>

U.S. Securities and Exchange Commission (SEC). 2003b. “Study Pursuant to Section 108(d) of the Sarbanes Oxley Act of 2002 on the Adoption by the United States Financial Reporting System of a Principles-Based Accounting System.”

<http://www.sec.gov/news/studies/principlesbasedstand.htm>

U.S. Securities and Exchange Commission (SEC). 2012. “Work Plan for the Consideration of Incorporating International Financial Reporting Standards into the Financial Reporting System for U.S. Issuers.”

<http://www.sec.gov/spotlight/globalaccountingstandards/ifrs-work-plan-final-report.pdf>

Ultramares Corp. v. Touche, 255 N.Y. 170. 174 N.E. 441 (1931).

## APPENDIX A: INSTRUMENT EXCERPTS AND MANIPULATIONS

### **Legal Liability Manipulation (Within Subjects)**

#### Legal Liability Unlimited

Specialized Machine is located in Country X. Country X's legal regime is such that investors can recover all of their investment losses plus punitive damages from auditors; that is, **auditor liability is unlimited**.

#### Legal Liability Limited

Specialized Machine is located in Country Y. Country Y's legal regime is such that investors can recover a portion of their investment losses from auditors; that is, **auditor liability is limited**.

### **Economic Substance Manipulation (Within Subjects)**

#### Economic Substance Aggressive

Machine A was delivered two months before the end of the fiscal year. Machine B is scheduled to be delivered within the first six months of the next fiscal year. Machine B is not necessary for Golf Clubs to be able to use Machine A. Revenue related to each piece of equipment can be independently determined. Revenue related to Machine A is \$8.15 million. Revenue related to Machine B is \$2.85 million. Due to the specific nature of the equipment, it is unlikely that Golf Clubs would be able to resell either piece of equipment.

Economic Substance Conservative

Machine C was delivered two months before the end of the fiscal year. Machine D is scheduled to be delivered within the first six months of the next fiscal year. Machine D is necessary for Golf Clubs to be able to use Machine C. Revenue related to each piece of equipment can be independently determined. Revenue related to Machine C is \$8.15 million. Revenue related to Machine D is \$2.85 million. Due to the specific nature of the equipment, it is unlikely that Golf Clubs would be able to resell either piece of equipment.

**Firm Guidance Manipulation (Between Subjects)**

Principles-Based Manipulation

Revenue for the sale of goods can be recognized if:

- (a) the entity has transferred to the buyer the significant risks and rewards of ownership of the goods;
- (b) the amount of revenue can be measured reliably;
- (c) it is probable that the economic benefits associated with the transaction will flow to the entity; and
- (d) the delivered item or items have value to the customer on a standalone basis.

Rules-Based Manipulation

Revenue for the sale of goods can be recognized if:

- (a) the entity has transferred to the buyer at least 75% of the risks and rewards of ownership of the goods;
- (b) the amount of revenue can be measured reliably;
- (c) there is greater than 90% likelihood that the economic benefits associated with the transaction will flow to the entity; and
- (d) the delivered item or items have value to the customer on a standalone basis.