ASSESSMENT OF FIN 48 LIABILITIES: A PROPOSED EXPERIMENT HIGHLIGHTING FLEXIBLE UNCERTAINTY

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ABSTRACT

Financial Interpretation No. 48 (FIN 48) requires firms to create tax liabilities for tax positions that do not meet a more-likely-than-not threshold. Early work suggests that companies have an incentive to minimize these reported liabilities. This study seeks to investigate situational factors that influence auditor's assessments of FIN 48 reporting. Specifically, FIN 48's multi-layered subjectivity allows managers substantial discretion. This study uses rational choice theory and self-serving bias to examine auditor's assessment of manager's uncertain tax benefits recognition decision, based on the uncertainty associated with tax positions and financial impact. A proposed study using a scenario-based experiment is outlined. **JEL Classification:** D03, M42

INTRODUCTION

Behavioral economists have long studied individual level decision making under uncertainty (e.g. Simon, 1955). Among the many findings of this decades old research effort is that opportunistic individuals faced with decisions under uncertainty who are provided with discretion in their interpretation of the conditions of the decision making task will use this flexibility to select the method which is most beneficial to themselves (Holthausen, 1990), particularly when the implications of the decision are financial. Bazerman et al. (2002) note that this self-serving bias can lead auditors make irrational choices, which can expose their clients to risk. This manuscript explores the extent to which auditors faced with assessing tax positions for Multinational Corporations (MNCs) will opportunistically exploit the subjectivity inherent in the interpretation of US tax law and take positions most financially advantageous to the organization.

The context for this study is US based MNCs with revenues overseas. US Tax law generally requires that after the taxes on international revenues are paid to the local tax authorities (i.e. international tax authorities), an additional tax may be payable to US tax authorities if the local taxes were lower than US taxes would have been. This tax liability can be avoided if those revenues are designated as 'permanently reinvested," meaning that they will not be returned to the US, and will be reinvested in international operations. This, accompanied by the subjectivity involved in interpreting *Financial*

Interpretation No. 48 (FIN 48) has led a number of US MNCs to designate billions of dollars as permanently reinvested in order to avoid US tax liability. Bloomberg Business estimated that in 2014, US MNCs had a total of $1.95 trillion trapped overseas, with 3 companies (Apple, Microsoft and IBM) accounting for $206 billion of that number (Rubin, 2014). The magnitude of this behavior has consequence for US tax payers, as well as the US economy (Ghirmay, 2006), as trapped cash reduces cash flow for US operations (Edwards, Kravet, & Wilson, 2015; J. R. Graham, Hanlon, & Shevlin, 2010). Indeed, there may be negative consequences for the MNCs as well, as many researchers have argued that since reinvestment opportunities in international settings are limited, MNCs who pursue this tax avoidance strategy are forced to accept less than optimal returns on their investments, and indeed many firms are simply holding onto cash rather than actually reinvesting the revenue (Edwards et al., 2015).

Effective in fiscal years beginning after December 15, 2006, FIN48 requires firms to evaluate all tax positions taken on domestic and foreign tax returns and establish reserves for uncertain tax positions that may not be upheld by taxing authorities. This study proposes to examine the joint effect of two subjective criteria for recognizing FIN 48 liabilities. First, all tax positions that fail to meet the "*more-likely-than-not*" (MLTN) threshold should be accrued for financial statements purposes. Typically, MLTN is operationalized as larger than 50% chance of sustaining a beneficial tax position, however, precisely interpreting MLTN is involves substantial subjectivity. Second, FIN 48 does not provide clear guidance with respect to unit of account decisions, which refers to the appropriate level of aggregation or disaggregation used to report tax positions. While discretion exists at many points in the process of accounting for the uncertainty of tax positions, Jones & Cambell (2007) view the determination of the unit of account as the "first step in the whole process" and note that "Under FIN 48, the appropriate unit of account is a matter of judgment."

FIN 48 reserves represent a liability on financial statements, a signal of potential risk to investors (Blouin, Gleason, Mills, & Sikes, 2010), and may even be used as a road map for IRS auditors (J. Graham, Hanlon, & Shevlin, 2011). As such firms are likely motivated to avoid setting up FIN 48 reserves. Extant research finds that shortly before FIN 48 took effect firms began settling disputed tax positions with tax authorities to avoid recording FIN 48 reserves (Blouin et al., 2010), and that afterward firms report lower FIN 48 reserves for tax positions but did not claim fewer income tax benefits on their federal tax returns (Abernathy, Davenport, & Rapley, 2012; Ferraro, 2012; Towery, 2012). Even with the likely manipulation of reported FIN 48 reserves, the liability can be substantial. For example, Pfizer reported about $7,310 million in tax reserves in 2011, while its reported profits in the same year were $10,009 million (Ferraro, 2012). Given the size, subjectivity, and 'newness' of FIN 48, a better understanding of factors that influence FIN 48 reporting is needed.

The manuscript explores the effect of FIN 48's multi-layered subjectivity and uncertainty (MLTN and unit of account) in an environment where the reporting entity has a high versus low incentive to avoid recognizing FIN 48 liabilities. Using the theory of rational choice and theory related to self-serving bias, it is posited that auditors may agree with managers' opportunistic unit of account decisions, and will seek to use aggregation to minimize FIN 48 reserves, particularly when setting up these reserves will have harmful financial consequences. Although decision makers should normally keep each FIN 48 subjective assessment distinct, it is expected that when the combined uncertainty (that is, the probability that they will not be upheld by a taxing authority) of tax positions subject to the MLTN criteria can be avoided, auditors will support the decision to aggregate units of account, but support disaggregation when the combined uncertainty cannot avoid the MLTN criteria. Further, and consistent with rational choice theory, it is posited that auditors faced with relatively small negative economic consequences of FIN 48 reporting will be less likely to make inconsistent aggregation choices in order to avoid setting up FIN 48 reserves, while auditors faced with relatively large negative economic consequences will be more likely to support opportunistic aggregation choices in an effort to avoid FIN 48 reserve recognition.

FIN 48 seeks to standardize how firms recognize, measure and disclose uncertain tax positions with the goal to reduce diversity in reporting practice and to provide more relevant and comparable information to investors (FIN48, 2006). Therefore, whether FIN 48 is operational (whether the standard is clear and understandable by those who are implementing it) is a key issue in determining whether FIN 48 is accomplishing its stated purpose. As mentioned in the post-implementation review of FIN 48 (Blouin & Robinson 2012), "the process of evaluating a firm's tax position is highly subjective, and the effect of management's judgment in evaluating tax positions is unclear." To the extent results from this study are consistent with expectations, the discretion afforded to managers under FIN 48 may need to be mitigated in order to achieve the stated objectives of FIN 48. Additional regulatory guidance and more clear and strict standards may be needed from policy makers (both FASB and the IRS). Whether FIN 48 can curtail the diversity in accounting practices with respect to accounting for tax uncertainty remains questionable, and the comparability and relevance of information about FIN 48 reserves to market participants is still limited.

Prior archival research focusing on FIN 48 has produced mixed results about the extent to which FIN 48 is useful and operational, due to the natural limitations of archival research. For example, before FIN 48, very little tax reserve information was available, making direct comparisons difficult. Further, archival researchers have only limited information, owing to a lack of access to tax workpapers and inability to assess decision makers' perceptions and judgments. This study seeks to compliment archival research through a scenario-based experiment to examine these perceptions and judgments directly. This study has the potential to contribute to the existing FIN 48 literature and develop a more comprehensive understanding of the application of this important new standard.

This proposal is organized as follows: in the next section relevant prior studies related to uncertain tax positions and FIN 48 reserves are reviewed, and used in the development of hypotheses. Next, a proposed methodology including a scenario based experiment is described. This proposal concludes with a discussion of expected contributions and limitations, as well as directions for further study.

PRIOR RESEARCH AND HYPOTHESES

Uncertain Tax Positions and FIN 48

Ayres et al. (1989, p. 300) note that "Many areas of tax law are ambiguous in that the tax owed depends on the interpretation of complex provisions of the law." A firm's tax position is its determination that an item is or is not either taxable or deductible (Hanlon & Heitzman, 2010). In a "favorable tax position," a firm determines that an item is not taxable, or that it is deductible, and the impact on the current year's taxes is negative (they pay less tax). Uncertainty about the tax position of an item arises when the applicability of tax laws to specific situations is not clear (Margo & Nutter, 2012; Mills, Robinson, & Sansing, 2010). Frank et al. (2009) consider taking a favorable tax position when uncertainty about the tax position exists to be "aggressive tax reporting." Before FIN 48, Accounting Standards Codification (ASC) Topic 740, Income Tax, formerly FASB Statement No. 109 (SFAS 109) provided no specific guidance on how to address uncertainty in accounting for income taxes. The accounting for uncertainty in income taxes, which was based upon the validity of a tax position, was subject to significant and varied interpretations that have resulted in diverse and inconsistent accounting practices and measurements.

FIN 48 (Accounting for Uncertainty in Income Taxes, and Interpretation of FASB Statement No. 48: Accounting for Income Taxes) requires firms to include footnotes in their 10-K filings which disclose their tax related contingent liabilities. Firms are given the responsibility of identifying tax positions for every transaction that involves uncertain returns. They are then required to assign a likelihood to each position, and hold in reserve the tax liability exposure for those tax positions that do not meet the MLTN threshold. This approach involves a fair amount of subjectivity. Research has shown that in a number of other tax issues that involve discretion, such as valuation allowances (Frank & Rego, 2006), tax cushions (Gleason & Mills, 2002) and permanently reinvested earnings (Krull, 2004) discretion has been used opportunistically by firms. Indeed, in their review of tax research, Hanlon & Heitzman (2010) note that FIN48 reserves have been used as a proxy for aggressive tax reporting.

In a review of FIN 48 literature, Blouin & Robinson (2012) note that FIN 48 has led many companies to make substantial changes to their tax strategies. Dunbar et al. (2009) confirm that some firms avoided transactions that would have generated uncertain tax benefits after the implementation of FIN 48, when they felt that they were at risk of being audited by their tax authority. Mills et al. (2010) designed a strategic tax compliance model to demonstrate how FIN 48 allows tax authorities to gather taxpayer's private information which may reduce the taxpayer's bargaining power in related audits. This tradeoff between the tax benefits of aggressive tax positions and the risk of costs associated with more scrutiny was salient even before FIN 48 (Bosch & Eckard, 1991).

Since FIN 48 is a relatively new interpretation, archival data on the impact of FIN 48 is sparse. However, extant research indicates that it is reasonable to expect that many firms take risky tax positions (Dyreng, Hanlon, & Maydew, 2008; Frank et al., 2009), both before and after FIN 48. Gupta et al. (2012) were able to demonstrate that reserves for unrecognized tax benefits are positively related to aggressive tax reporting. Lisowsky et al. (2012) argue that FIN 48 footnotes are indicators of how aggressively firms are engaging in tax avoidance strategies. By combining FIN 48 reserve disclosures with private disclosures of tax shelter participation made to the IRS, Lisowsky et al. (2012) find that tax shelter use is significantly positively associated with FIN 48 reserves. In their sample of 19,271 firm-years during 2006-2009, the tax benefit of tax shelters account for up to 48 percent of the aggregate FIN 48 reserves.

Towery (2012) examines how firms respond to mandatory disclosure of aggressive tax positions to tax authorities and finds that firms decreases FIN 48 reserves for uncertain tax positions but do not reduce tax benefits claimed on their federal tax returns. There are likely a number of reasons that firms are motivated not to set up these reserves: FIN 48 reserves appear as a liability on financial statements, they may be interpreted as a potential risk by investors (Blouin et al., 2010), and can serve as a tool for IRS auditors (J. Graham et al., 2011). Since the FIN 48 reserve decision involves discretion on the part of decision makers, and because decision makers are motivated not to set up FIN 48 reserves, they may act opportunistically to avoid setting up these reserves.

Auditors Assessment of FIN 48 Reporting

Since many steps in the FIN 48 reserve allocation process involve discretion and ambiguous tax laws (Blouin & Robionson, 2012), auditors who are charged with evaluating management's decisions regarding recognizing and measuring uncertain tax positions and related tax liabilities may experience self-serving bias, and as a result not adequately evaluate the decisions of managers. Based on this, this study seeks to examine the tendency of auditors to agree with aggregating or disaggregating uncertain tax positions to avoid reporting FIN 48 liabilities, as well as the factors that influence these assessments. Following Sarbanes Oxley, auditors play a very important role in the review of financial information (Cohen, Krishnamoorthy, & Wright, 2010).

Some research suggests that third parties contracted to provide tax assistance tend to be more risk tolerant in taking favorable tax positions when faced with uncertainty. Ayres et al. (1989) demonstrate that CPAs do tend to take more aggressive tax positions than unlicensed preparers because CPAs have better understanding of tax law and are less likely to face penalties if a position is denied in an audit. Libby & Kinney (2000) use a sample of Big 5 auditors to demonstrate that auditors are opportunistic in exercising their discretion in making corrections to immaterial misstatements, specifically corrections tend not to be made if doing so would cause the firm to miss an analyst's forecast.

A number of studies have demonstrated that auditors are selective in their adherence to and even their interpretation of accounting regulations, particularly when they are empowered to exercise discretion (Frank & Rego, 2006; Gleason & Mills, 2002; Krull, 2004) and when they are faced with uncertain positions (Ayres et al., 1989). According to Bazerman et al. (2002) auditors sometimes experience self-serving bias, where they are motivated to reach a particular conclusion in formulating an opinion, and as a result, find a way to reach that conclusion and justify it. Research shows that people are more susceptible to self-serving biases when they are endorsing someone else's decisions if those decisions are in agreement with their own decisions than when they are making the decisions themselves. Bazerman et al. (2002) provide experimental evidence that professional auditors are vulnerable to self-serving bias and they are more likely to endorse a client's biased accounting numbers than to generate such numbers themselves. As such, I plan to examine the effect of FIN 48 uncertainty in terms of auditor assessment of recognizing and measuring uncertain tax positions and establishing FIN 48 reserves.

Unit of Account Choice and MLTN Threshold under FIN 48

As noted above, decision makers are motivated to behave opportunistically when they are afforded discretion in reporting. In a FIN 48 context, the appropriate unit of account for determining what constitutes an individual tax position and whether the MLTN threshold is met for such tax position is a matter of judgment based on individual facts and circumstances, thus the determination of FIN 48 reserve is especially discretionary. Whether a firm recognizes and discloses a tax position could depend on 1) which unit of account is used to determine a tax position and 2) a slight change in the probability of successfully sustaining that position (i.e., 49% versus 51%). Prior research indicates that even if the application of FIN 48 is consistent, FIN 48 disclosure might not generate comparable information due to natural differences in opinion when evaluating similar facts and circumstances in the context of highly ambiguous tax laws (Blouin & Robionson, 2012).

In this experiment, the focus is on firms that have operations in multiple countries which will definitely have to decide which unit of account is appropriate to evaluate a certain tax position. Each operation will have a stated uncertainty level associated with its tax position. The participant may elect to treat each of these tax positions individually, or they may elect to aggregate the tax positions and report a single, overall uncertainty level.

For example, assume that a firm has operations in Brazil and in Argentina and files a consolidated federal income tax return. The tax benefits related to an identical tax position of both operations is \$5,000,000 each. The probability of whether the Brazil tax position will be upheld by taxing authorities is 51% while that of the Argentina tax position is 48%. In this case, if a decision maker elects to treat these tax positions separately, the Argentina tax position would not meet the MLTN threshold, so a reserve of \$1,500,000 (assuming a 30% effective tax rate) would need to be establish for the Argentina operations, but not for the Brazil operations (This is a simplified example of how FIN48 liabilities are measured. The benefit should be measured as the largest amount of benefit cumulatively greater than 50% likely to be realized). If the decision maker elects to aggregate the two tax positions, then the combined tax position would also not meet the MLTN threshold and a reserve of \$3,000,000 would need to be set up for the firm.

On the other hand, if the probability of the Brazil tax position being upheld by taxing authorities is 52% while that of the Argentina tax position is 49% and the decision maker decides to treat the operations separately, a reserve of \$1,500,000 would still need to be set up for the Argentina operations. However, if the decision maker assesses the positions at the aggregated level, the combined tax positions would meet the MLTN threshold, and the firm would not need to set up FIN 48 reserves. In effect, the lower level of uncertainty associated with the Brazil tax position would mask the higher level of uncertainty associated with the Argentina tax position.

If managers are motivated to minimize reporting under FIN 48, and since they have discretion in the unit of account decision, it is likely that they will make opportunistic UOA decisions as described above. Auditors are charged with evaluating the appropriateness of these decisions. In the experiment, subjects will be asked to play the role of auditors, and evaluate several such UOA decisions by managers at different companies, all of whom made opportunistic UOA decisions. Self-serving bias may come into play, leading the auditors to support the most favorable position for each client, even if the UOA decision is different in each case.

H1: Auditors are more likely to support aggregating the tax positions of operations (rather than report them separately) when the probability of the tax authority upholding the consolidated tax position is greater than 50%.

Economic Consequences and FIN 48 Reporting

In addition to uncertainty associated with the tax positions of the operations, decision makers are likely motivated by the magnitude of the impact of their decision (Bazerman et al., 2002). Research on self-serving bias suggests that if creating a reserve has a large harmful financial impact on the firm, auditors are less likely to support establishing that reserve than if doing so would have a small impact. This contention is consistent with a number of studies which have demonstrated that decision makers become more aggressive in uncertain situations when potential consequences increase (e.g. Collins & Ruefli, 1992; Keil, 2000; Mellers, 1994; Sitkin & Pablo, 1992). Rational choice theory (von Neumann & Morgenstern, 1944) contends that individuals faced with a decision must evaluate the potential costs and benefits, weighted by their associated likelihoods, of potential actions. In the FIN 48 reserve decision, the decision to take an action (establishing a reserve) is influenced by the decision maker's assessment of the magnitude of (weighted likelihood of) an outcome (financial impact). Holding the likelihood constant, a larger potential financial impact will influence the decision maker's construal of the cost/benefit relationship of setting up FIN 48 reserves. As the costs begin to outweigh the benefits, it is predicted that decision makers will be more motivated to engage in activities that allow them to justify not establishing FIN 48 reserves, such as aggregating the tax positions of operations opportunistically such that the lower level of uncertainty associated with one position would mask the higher level of uncertainty associated with the other.

H2: When the negative financial consequences of setting up FIN 48 reserves are higher, auditors will be more likely to support an aggregating decision that does not require them to set up FIN 48 reserves.

In summary, FIN 48 is a relatively recent rule interpretation which requires firms to create reserves for tax positions that do not meet a MLTN threshold. Decision makers use their judgment to determine if a position is MLTN, and are motivated to avoid establishing those reserves. Further, auditors are expected to use their professional judgment in determining if these MLTN assessments are valid. Auditors may be subject to self-serving biases, which may lead them to agree with manager assessments inconsistently across clients, but generally supporting the opportunistic UOA decisions. The proposed research model is presented in Figure 1.

Having reviewed relevant literature on uncertain tax positions and FIN 48 and described the hypotheses, this paper moves to a discussion of the proposed methodology.

PROPOSED METHODOLOGY

In order to test these hypotheses, a scenario-based experiment will be employed. The following sections describe the proposed methodology.

Setting

Decision maker discretion is afforded at several steps in the FIN 48 decision making process, including the unit of account decision, which in a multinational corporation with operations in multiple countries, includes the decision to consolidate the tax positions of the multiple operations or treat them individually. When it comes to multinational firms, firms are subject to multiple tax jurisdictions and the issue of applying FIN 48 consistently is especially complex and challenging. A number of factors (either domestic or foreign) might influence the assessment of the uncertainty of a given tax position, and FIN 48 leaves it up to managers to evaluate these factors and make a decision based on individual circumstances. As a result, different operations belonging to the same firm may have different uncertainty probabilities of successfully sustaining that tax position, and managers as well as auditors need to decide whether to combine tax positions for different operations or evaluate them individually. The decision of whether to assess the uncertainty of a tax position at the individual operation level or at the overall firm level (that is, to consolidate the tax positions of multiple operations or not) is to have an impact on the existence of and extent to which firms have to set up FIN 48 reserves.

Subjects

The population of interest for this study is practicing auditors. Studying auditors rather than managers is consistent with Libby & Kenny (2000), who argue that auditors are likely to have more broad experience than managers, and that managers have stronger incentives to not report truthfully. Following this argument, sampling practicing auditors from multiple firms would strengthen the validity and generalizability of any findings.

Experiment Design

In order to test the hypotheses, a scenario-based experiment will be conducted, in which subjects will read four scenarios, and for each scenario decide whether to aggregate the tax positions of two operations. A 2x2 repeated measure design will be conducted (see Table 1) with manipulations of the level of uncertainty (aggregated and met MLTN vs. aggregated but not met MLTN) and of the impact on ability to borrow (large negative impact vs. small impact). The order in which the scenarios are presented will be randomized. Repeated measure design is preferable, because it simulates real life situations in which an Auditor has to evaluate multiple clients. In all scenarios, subjects will be given basic instructions on uncertain tax positions, FIN 48 and aggregation discretion. Subjects will then read their assigned scenarios. After reading each scenario, subjects will then be asked if they would support management's decision to aggregate the tax positions or treat them individually. Manipulation checks will be conducted to ensure that subjects understand the financial consequences manipulation.

The four scenarios will differ as follows. Each scenario is presented in Appendix

Scenario 1: The probability of the tax authority upholding the independent tax positions of two operations are 51% and 48% and the subject will be informed t hat FIN 48 reserves will result in small negative financial consequences.

Scenario 2: The probability of the tax authority upholding the independent tax positions of two operations are 52% and 49% and the subject will be informed that FIN 48 reserves will result in small negative financial consequences

Scenario 3: The probability of the tax authority upholding the independent tax positions of two operations are 51% and 48% and the subject will be informed that FIN 48 reserves will result in large negative financial consequences.

Scenario 4: The probability of the tax authority upholding the independent tax positions of two operations are 52% and 49% and the subject will be informed that FIN 48 reserves will result in large negative financial consequences.

Data will be analyzed using a 2-way analysis of variance. Having described the proposed research design, I now discuss potential contributions, limitations and directions for future research.

DISCUSSION

FIN 48 is having a substantial impact on the way firms account for uncertainty by reducing the diversity of approaches and increasing the comparability of firms' tax reserves (Blouin & Robionson, 2012). FIN 48 researchers have demonstrated relationships between FIN 48 reserves and stock prices (Blouin et al., 2010) as well as on earnings management behavior (Cazier, Rego, Tian, & Wilson, 2011) , and on tax strategies (Blouin & Robionson, 2012). Despite these accomplishments, archival researchers are forced to draw broad conclusions based on publically available financial data, not from individuals involved in FIN 48 reserve reporting decisions. The proposed study seeks to develop a more comprehensive understanding of the factors that influence auditor's acceptance of unit of account assertions.

Potential findings promise to contribute to FIN 48 research by taking into account behavioral aspects of the individuals involved in the reporting decision in a context that involves discretion. Further, potential findings may prove insightful to policy makers; if it is determine that auditors are comfortable with using the discretion afforded to them in opportunistic ways (whether consciously or as a result of self-serving bias), policy makers may consider changes to the accounting standards to reduce that discretion. As Bazerman et al. (2002) note: "Unlike conscious corruption, unconscious bias cannot be deterred by threats of jail time." Finally, proposed that findings could carry implications for investors. FIN 48 reserves has been heralded as a tool for investors to assess the financial position of firms. Should the findings support those of Towery (2012) and indicate that firms actively use discretion to avoid establishing reserves under FIN 48, this mitigates the effectiveness of those reserves as indicates of the financial health of firms.

Like many experimental studies, the proposed study is not without its limitations. While it would be ideal to sample from a variety of industries, logistical, time and access constraints would place limitations on the researcher's ability to sample thoroughly, which would be likely to effect the generalizability of any findings. Also, even with adequate confidentiality precautions and with the analysis of only aggregated data, the experimental setting might lead to socially desirable distortion (McCrae & Costa Jr, 1983), where subjects may respond differently from how they would in real life, with the intent of creating a positive impression in the minds of the researchers. Finally, this study models the influence of two situational factors on individual behavior. It did not account for individual differences in auditor traits. As a result, the proposed study developed a more comprehensive understanding of some of the factors that influence the unit of account decision; however this model is not exhaustive.

As a result, future studies should consider both situational and individual difference variables on the unit of account decision. Potential individual difference variables include risk propensity, perceptions of audit risk and audit experience. Other enhancements to this study could include manipulating who is actually making the MLTN assessment (i.e. managers vs. tax advisors) and examine whether auditors behave differently because of the source of the assessment. Finally, this study focuses on auditors because research has indicated that they are highly influenced by self-serving bias (Bazerman et al., 2002). Managers are also important decision makers in the determination of unit of account, this study could be replicated using managers as subjects rather than auditors.

CONCLUSION

In summary, a study is proposed that would investigate the tendency of auditors to agree with the unit of account decision made by managers in a FIN 48 context. It is predicted that self-serving bias and rational choice theory will come into play, leading auditors to support unit of account decisions which opportunistically reduce the amount of FIN 48 reserves that they need to set up, particularly when the financial impact of having reserves is high. Potential findings should contribute to FIN 48 research by creating a more comprehensive understanding of this important decision than can be developed with archival-only research. This additional perspective is important, given that the recency of FIN 48 mitigates the availability of long-term archival data.

REFERENCES

Abernathy, J., Davenport, S., & Rapley, E. (2012). Schedule UTP: Stock price reaction and economic consequences. Journal of the American Taxation Association, 35 (1), 25-48.

Ayres, F. L., Jackson, B. R., & Hite, P. S. (1989). The economic benefits of regulation: Evidence from professional tax preparers. The Accounting Review, 64 (2), 300-312.

Bazerman, M. H., Loewenstein, G., & Moore, D. A. (2002). Why good accountants do bad audits. Harvard Business Review, 80 (11), 96.

Blouin, J., Gleason, C., Mills, L. F., & Sikes, S. (2010). Pre-empting disclosure? Firm's decisions prior to FIN No. 48. The Accounting Review, 85, 791-815.

Blouin, J., & Robionson, L. A. (2012). Post-implementation review of FIN 48: A summary of the academic literature. Working Paper.

Bosch, J. C., & Eckard, E. W. (1991). The profitability of price fixing: evidence from stock market reaction to federal indictments. The review of Economics and Statistics, 73 (2), 309-317.

Cazier, R. A., Rego, S. O., Tian, X., & Wilson, R. J. (2011). Working Paper. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1656012

Cohen, J., Krishnamoorthy, G., & Wright, A. (2010). Corporate governance in the post-Sarbanes-Oxley era: Auditors' Experiences. Contemporary Accounting Research, 27 (3), 751-786.

Collins, J. M., & Ruefli, T. W. (1992). Strategic risk: An ordinal approach. Management Science, 38 (12), 1707-1731.

Dunbar, A., Phillips, J., & Plesko, G. (2009). The effect of FIN 48 on firms' tax-reporting behavior. Working paper: University of Connecticut.

Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2008). Long-run corporate tax avoidance. The Accounting Review, 83 (1), 61-82.

Edwards, A., Kravet, T., & Wilson, R. (2015). Trapped cash and the profitability of foreign acquisitions. Contemporary Accounting Research.

Ferraro. (2012). Ferraro 500 - Uncertain tax positions. Retrieved from http://www.tax-whistleblower.com/ferraro500/

Financial Accounting Standards Board (FASB) Interpretation No. 48 (FIN 48), Accounting for Uncertainty in Income Taxes: an Interpretation of FASB Statement No. 109. Norwalk, CT. , (2006).

Frank, M. M., Lynch, L. J., & Rego, S. O. (2009). Tax reporting aggressiveness and its relation to aggressive financial reporting. The Accounting Review, 84 (2), 467-496.

Frank, M. M., & Rego, S. (2006). Do managers use the valuation allowance account to manage earnings around certain earnings targets? Journal of the American Atxation Association (Spring), 43-66.

Ghirmay, T. (2006). Financial Development, Investment, Productivity and economic Growth in the US. Southwestern Economic Review, 33 (1), 23-36.

Gleason, C., & Mills, L. (2002). Materiality and contingent tax liability reporting. The Accounting Review, 77 (2), 317-342.

Graham, J., Hanlon, M., & Shevlin, T. (2011). Inside the corporate tax department: insights on corporate decision making and tax aggressiveness. Working

Paper. Duke University, MIT, University of Washington.
Graham, J. R., Hanlon, M., & Shevlin, T. J. (2010). Barriers to mobility: The lockout effect of US taxation of worldwide corporate profits. Available at SSRN 1316576.
Gupta, S., Mills, L. F., & Towery, E. (2012). FIN 48 and multistate income tax avoidance. Michigan State University and University of Texas at Austin working paper.
Hanlon, M., & Heitzman, S. (2010). A review of tax research. Journal of Accounting and Economics, 50 (2-3), 127-178.
Holthausen, R. W. (1990). Accounting method choice: Opportunistic behavior, efficient contracting, and information perspectives. Journal of Accounting and Economics, 12 (1-3), 207-218.
Jones, J. P., & Campbell, W. M. (2007). Financial-reporting effects of uncertain tax positions. The CPA Journal, 77 (3).
Keil, M. W., L.; Turk, D.; Dixon-Randall, G.; Nulden, U. (2000). An investigation of risk perception and risk propensity on the decision to continue a software development project. Journal of Systems and Software, 53 (2), 145-157.
Krull, L. (2004). Taxes and the reinvestment of foreign subsidiary earnings. The Accounting Review, 79 (3), 745-767.
Libby, R., & Kinney, W. R. (2000). Does mandated audit communication reduce opportunistic corretions to manage earnings forecasts. The Accounting Review, 75 (4), 383-404.
Lisowsky, P., Robionson, L. A., & Schmidt, A. (2012). Do publicly disclosed tax reserves tell us about privately disclosed tax shelter activity? Journal of Accounting Research, 51 (3), 583-629.
Margo, A., & Nutter, S. (2012). Evaluating the strength of tax evidence: How experience affects the use of analogical resoning and onfigural informaiton processing in tax. The Accounting Review, 87 (1), 191-312.
McCrae, R. R., & Costa Jr, P. T. (1983). Social desirability scales: More substance than style. Journal of Consulting and Clinical Psychology, 51 (6), 882-888.
Mellers, B. A. C., S.J. (1994). Representations of risk judgments. Organizational Behavior and Human Decision Processes, 57 (2), 167-184.
Mills, L. F., Robinson, L. A., & Sansing, R. C. (2010). Fin 48 and Tax Compliance. The Accounting Review, 85 (5), 1721-1742.
Rubin, R. (2014, March 12). Cash Abroad Rises $206 Billion as Apple to IBM Avoid U.S. Taxes. Bloomberg Business News.
Simon, H. A. (1955). A behavioral model of rational choice. Quarterly Journal of Economics, 59, 99-118.
Sitkin, S. B., & Pablo, A. L. (1992). Reconceptualizing the determinants of Risk Behavior. Academy of Management Review, 17 (1), 9-38.
Towery, E. M. (2012). How do disclosures of tax aggressiveness to tax authorities affect reporting decisions? Working Paper.
von Neumann, J., & Morgenstern, O. (1944). Theory of games and economic behavior. Princeton, NJ: Princeton University Press.

FIGURE 1: PROPOSED RESEARCH MODEL

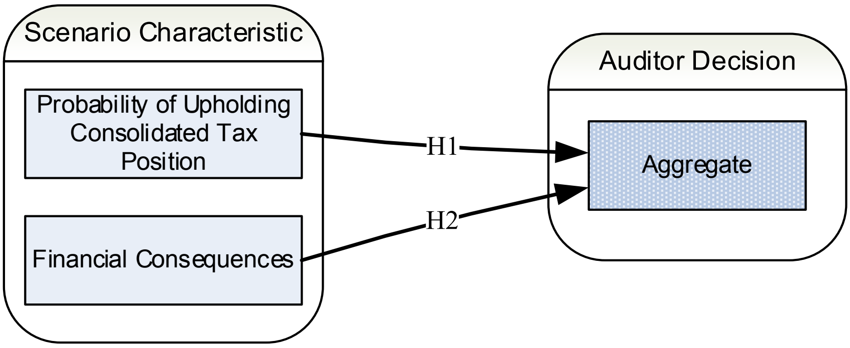

TABLE 1: EXPERIMENTAL DESIGN

Probability Levels	51% vs. 48%	Scenario 1	Scenario 3
	52% vs 49%	Scenario 2	Scenario 4
		Small consequence	Large consequence
		Financial Consequences	

APPENDIX A: DATA COLLECTION INSTRUMENT

Background:

The following task investigates decision making related to Financial Accounting Standards Board Interpretation Number 48 (aka FIN 48). In short, FIN 48 attempts to standardize how firms report uncertain tax positions. Understanding two aspects of FIN 48 is important to the decisions you will make.

First, FIN 48 contains a 'more likely than not' standard. As such, firms must establish liability reserves for tax positions that are less than 50% likely to be upheld by a tax authority. In contrast, if a tax position is more than 50% likely to be upheld by a tax authority, then no liability reserve is required.

Second, FIN 48 contains a subjective 'unit of measure' criteria. As such, firms that operate in multiple jurisdictions must decide whether to aggregate similar tax positions across jurisdictions or to 'unitize' tax positions by specific jurisdiction.

Hypothetical Setting and Task Overview:

The following four scenarios investigate judgments and decisions related to FIN 48.

For each scenario, imagine that you are employed by an international accounting firm and each client in question (four in total) is one of your firm's largest clients.

Assume all four clients are large public companies headquartered in the U.S. and listed on the New York stock exchange.

Each client conducts business in many countries and consequently faces international tax issues with FIN 48 implications (e.g., transfer pricing issues, etc.).

In each scenario that follows, the firm has determined FIN 48 reserves related to a tax position involving two foreign operating locations. In each scenario, the firm could have treated each tax position individually (disaggregate) or combine them (aggregate).

For the scenarios on each of the following four pages, please read and respond the posed questions.

Scenario 1: (LT 50% and small impact)

ABC Corporation's South American operations are comprised of activity in Brazil and Argentina.

ABC management currently has a $10 million tax benefit associated with South American operations (split equally between Brazil and Argentina). If upheld, this tax benefit will reduce future taxable income thereby saving the company $3 million (based on a 30% tax rate).

After analyzing past experience with tax authorities and considering the current legal and political environment, management has determined the Brazilian tax position will be upheld by relevant taxing authorities with 51% probability and the Argentine tax benefit will be upheld with 48% probability. As shown below, under a strict interpretation of "more likely than not", aggregating the South American tax benefit would result in an anticipated FIN 48 liability of $3 Million (because the combined probabilities would be less than 50%).

ABC company management has decided to disaggregate FIN 48 consideration by country, which results in a FIN 48 liability of $1.5 Million for the Argentine tax position (and no liability for the Brazilian tax position). The following table illustrates these options (with management's choice highlighted).

	Location	Tax Benefit Amount	Probability of the position being upheld by tax authorities	Anticipated FIN 48 liability
Disaggregated	Brazil	$5 Million	51%	$0
	Argentina	$5 Million	48%	$1.5 Million
Aggregated		$10 million	49%	$3 Million

Based on ABC's other liabilities and equity, a FIN 48 reserve of $3 million would trigger certain debt covenants with lenders, resulting in a higher borrowing rate. Debt covenants would not be triggered with a $1.5 Million FIN 48 reserve. The financial effect of triggering these debt covenants would be a **$20,000** increase in ABC's annual interest expense.

Your audit firm's financial team has no evidence that would contradict the accuracy of managements probability determinations (i.e., 51% and 48% likelihood of an upheld tax benefit in Brazil and Argentina, respectively), but the unitization issue is more subjective.

Based on the preceding:

1) In determining whether or not to set up FIN 48 reserves, would you be more likely to agree with the management's decision to aggregate the tax positions, or to disaggregate them?

1	2	3	4	5	6	7
Aggregate					Disaggregate	

2) What factors influenced your answer to question 1?

3) If the client sets up a FIN 48 reserve of $3 Million, how harmful are the expected financial consequences?

1	2	3	4	5	6	7
Not Harmful					Very Harmful	

4) Would you be more or less likely to support the decision to disaggregate and set up $1.5 Million in FIN 48 reserves if the client is aggressive in other areas?

1	2	3	4	5	6	7
Less Likely					More Likely	

5) Would you be more or less likely to support the decision to disaggregate and set up $1.5 Million in FIN 48 reserves if the client is NOT aggressive in other areas?

1	2	3	4	5	6	7
Less Likely					More Likely	

6) To what extend to believe that higher FIN 48 reserves will increase IRS scrutiny of aggressive tax avoidance?

1	2	3	4	5	6	7
Not At All						A lot

Scenario 2: (GT 50% and small impact)

DEF Corporation's Asian operations are comprised of activity in India and Vietnam.

DEF management currently has a $10 million tax benefit associated with Asian operations (split equally between India and Vietnam). If upheld, this tax benefit will reduce future taxable income thereby saving the company $3 million (based on a 30% tax rate).

After analyzing past experience with tax authorities and considering the current legal and political environment, management has determined the Indian tax position will be upheld by relevant taxing authorities with 52% probability and the Vietnamese tax benefit will be upheld with 49% probability. As shown below, under a strict interpretation of "more likely than not", aggregating the Asian tax benefit would result in no anticipated FIN48 liability (because the combined probabilities would be more than 50%).

DEF company management has decided to aggregate the tax positions of the two operations, which results in no anticipated FIN 48 liability for either the Indian nor the Vietnamese tax positions. The following table illustrates these options (with management's choice highlighted).

	Location	Tax Benefit Amount	Probability of the position being upheld by tax authorities	Anticipated FIN 48 liability
Disaggregated	India	$5 Million	52%	$0
	Vietnam	$5 Million	49%	$1.5 Million
Aggregated		$10 million	51%	$0

Based on DEF's other liabilities and equity, a FIN 48 reserve of $1.5 million would trigger certain debt covenants with lenders, resulting in a higher borrowing rate. The financial effect of triggering these debt covenants would be a $20,000 increase in ABC's annual interest expense.

Your audit firm's financial team has no evidence that would contradict the accuracy of managements probability determinations (i.e., 52% and 49% likelihood of an upheld tax benefit in India and Vietnam, respectively), but the unitization issue is more subjective.

Based on the preceding:

1) In determining whether or not to set up FIN 48 reserves, would you be more likely to agree with the management's decision to aggregate the tax positions, or to disaggregate them?

1 2 3 4 5 6 7

Aggregate Disaggregate

2) What factors influenced your answer to question 1?

3) If the client sets up a FIN 48 reserve of $3 Million, how harmful are the expected financial consequences?

1 2 3 4 5 6 7

Not Harmful Very Harmful

4) Would you be more or less likely to support the decision to disaggregate and set up $1.5 Million in FIN 48 reserves if the client is aggressive in other areas?

1 2 3 4 5 6 7

Less Likely More Likely

5) Would you be more or less likely to support the decision to disaggregate and set up $1.5 Million in FIN 48 reserves if the client is NOT aggressive in other areas?

1 2 3 4 5 6 7

Less Likely More Likely

6) To what extend to believe that higher FIN 48 reserves will increase IRS scrutiny of aggressive tax avoidance?

1 2 3 4 5 6 7

Not At All A lot

Scenario 3: (LT 50% and large impact)

GHI Corporation's European operations are comprised of activity in Ireland and the Netherlands.

GHI management currently has a $10 million tax benefit associated with European operations (split equally between Ireland and the Netherlands). If upheld, this tax benefit will reduce future taxable income thereby saving the company $3 million (based on a 30% tax rate).

After analyzing past experience with tax authorities and considering the current legal and political environment, management has determined the Irish tax position will be upheld by relevant taxing authorities with 51% probability and the Dutch tax benefit will be upheld with 48% probability. As shown below, under a strict interpretation of "more likely than not", aggregating the European tax benefit would result in an anticipated FIN 48 liability of $3 Million (because the combined probabilities would be less than 50%).

GHI company management has decided to disaggregate FIN 48 consideration by country, which results in a FIN 48 liability of $1.5 Million for the Dutch tax position (and no liability for the Irish tax position). The following table illustrates these options (with management's choice highlighted).

	Location	Tax Benefit Amount	Probability of the position being upheld by tax authorities	Anticipated FIN 48 liability
Disaggregated	Ireland	$5 Million	51%	$0
	Netherlands	$5 Million	48%	$1.5 Million
Aggregated		$10 million	49%	$3 Million

Based on GHI's other liabilities and equity, a FIN 48 reserve of $3 million would trigger certain debt covenants with lenders, resulting in a higher borrowing rate. Debt covenants would not be triggered with a $1.5 Million FIN 48 reserve. The financial effect of triggering these debt covenants would be a $1 Million increase in ABC's annual interest expense.

Your audit firm's financial team has no evidence that would contradict the accuracy of managements probability determinations (i.e., 51% and 48% likelihood of an upheld tax benefit in Ireland and the Netherlands, respectively), but the unitization issue is more subjective.

Based on the preceding:

1) In determining whether or not to set up FIN 48 reserves, would you be more likely to agree with the management's decision to aggregate the tax positions, or to disaggregate them?

1 2 3 4 5 6 7
Aggregate Disaggregate

2) What factors influenced your answer to question 1?

3) If the client sets up a FIN 48 reserve of $3 Million, how harmful are the expected financial consequences?

1 2 3 4 5 6 7
Not Harmful Very Harmful

4) Would you be more or less likely to support the decision to disaggregate and set up $1.5 Million in FIN 48 reserves if the client is aggressive in other areas?

1 2 3 4 5 6 7
Less Likely More Likely

5) Would you be more or less likely to support the decision to disaggregate and set up $1.5 Million in FIN 48 reserves if the client is NOT aggressive in other areas?

1 2 3 4 5 6 7
Less Likely More Likely

6) To what extend to believe that higher FIN 48 reserves will increase IRS scrutiny of aggressive tax avoidance?

1 2 3 4 5 6 7
Not At All A lot

Scenario 4: (GT 50% and large impact on interest rate)

JKL Corporation's European operations are comprised of activity in Greece and Spain.

JKL management currently has a $10 million tax benefit associated with European operations (split equally between Greece and Spain). If upheld, this tax benefit will reduce future taxable income thereby saving the company $3 million (based on a 30% tax rate).

After analyzing past experience with tax authorities and considering the current legal and political environment, management has determined the Greek tax position will be upheld by relevant taxing authorities with 52% probability and the Spanish tax benefit will be upheld with 49% probability. As shown below, under a strict interpretation of "more likely than not", aggregating the European tax benefit would result in no anticipated FIN48 liability (because the combined probabilities would be more than 50%).

DEF company management has decided to aggregate the tax positions of the two operations, which results in no anticipated FIN 48 liability for either the Greek nor the Spanish tax positions. The following table illustrates these options (with management's choice highlighted).

	Location	Tax Benefit Amount	Probability of the position being upheld by tax authorities	Anticipated FIN 48 liability
Disaggregated	Greece	$5 Million	52%	$0
	Spain	$5 Million	49%	$1.5 Million
Aggregated		$10 million	51%	$0

Based on JKL's other liabilities and equity, a FIN 48 reserve of $1.5 million would trigger certain debt covenants with lenders, resulting in a higher borrowing rate. The financial effect of triggering these debt covenants would be a $1 Million increase in ABC's annual interest expense.

Your audit firm's financial team has no evidence that would contradict the accuracy of managements probability determinations (i.e., 52% and 49% likelihood of an upheld tax benefit in Greece and Spain, respectively), but the unitization issue is more subjective.

Based on the preceding:

1) In determining whether or not to set up FIN 48 reserves, would you be more likely to agree with the management's decision to aggregate the tax positions, or to disaggregate them?

1 2 3 4 5 6 7

Aggregate Disaggregate

2) What factors influenced your answer to question 1?

3) If the client sets up a FIN 48 reserve of $3 Million, how harmful are the expected financial consequences?

1 2 3 4 5 6 7

Not Harmful Very Harmful

4) Would you be more or less likely to support the decision to disaggregate and set up $1.5 Million in FIN 48 reserves if the client is aggressive in other areas?

1 2 3 4 5 6 7

Less Likely More Likely

5) Would you be more or less likely to support the decision to disaggregate and set up $1.5 Million in FIN 48 reserves if the client is NOT aggressive in other areas?

1 2 3 4 5 6 7

Less Likely More Likely

6) To what extend to believe that higher FIN 48 reserves will increase IRS scrutiny of aggressive tax avoidance?

1 2 3 4 5 6 7

Not At All A lot