Academic research on FIN 48: What have we learned?

Prepared for the Financial Accounting Foundations' Post-Implementation Review of Financial Accounting Standards Board Interpretation No. 48

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I. Introduction

Financial Accounting Standards Board (FASB) Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (FIN 48), was effective for fiscal years beginning after December 15, 2006 and represents the most significant change in accounting for income taxes over the past decade. Because the Statement on Financial Accounting Standards No. 109, *Accounting for Income Taxes* (SFAS 109), was silent on how income tax uncertainties arising from tax planning should be reflected in financial statements prepared in accordance with U.S. Generally Accepted Accounting Principles (GAAP), FIN 48 provides guidance on accounting for tax contingencies.

Taxpayers are often uncertain whether the tax authority will assess an additional tax payment upon audit of their income tax returns. The potential for these future tax payments (i.e., tax contingencies) implies that the tax liability on the originally filed tax return may be too low (e.g., because too little income was reported, too many deductions were reported, the character of income reported or credit taken is inappropriate). The financial reporting problem that FIN 48 seeks to address is how to reflect these 'uncertain tax benefits', realized on the tax return, in financial statements during the time that any potential tax disputes remain unresolved. Each period a firm must assess how much of the tax benefits attributable to uncertain tax positions should be recognized in its financial statements. FIN 48 sets forth a process for evaluating when uncertain tax benefits should be recognized, how they should be measured, and the requirement to disclose the liability for uncertain tax benefits claimed on its tax return that are not permitted to be recognized in its financial statements. FIN 48 terms this liability, or the tax reserve, the 'unrecognized tax benefit' (UTB).

This review paper evaluates the findings of the academic literature on FIN 48 in the context of the post-implementation review (PIR) process by assessing whether FIN 48 met the objectives

which led to its issuance. There are several important caveats to the literature review. The first caveat is that there are only four papers published in academic journals that study the impact of FIN 48 in a context that can address the post-implementation review objectives outlined below. The reasons the literature is so sparse are twofold. FIN 48's effective date was just over four years ago, which is a short tenure for researchers given that these tax reserve disclosures are not available until almost a year after adoption and the roughly three year review process required for publication. However, there are some interesting working papers that show promise and each relevant paper is discussed without regard to its publication status.

The other reason for the relatively few studies on the effects of FIN 48 is that there was virtually no publicly-available information on tax reserves *before* the implementation of FIN 48. One of the most powerful empirical research design methodologies for assessing the impact of a new accounting policy is to compare behavior of those affected before and after the change. Due to the lack of information on tax reserves prior to FIN 48, researchers have no ability to make a pre- versus post-FIN 48 comparison of tax reserve activity. As discussed later, some firms occasionally disclosed material changes to their tax reserve balance prior to FIN 48. However, because these disclosures were infrequent and virtually always reveal reserve decreases, any analysis of these firms suffers from selection bias. This means that firms choosing to disclose may not be representative of the population of firms and hence, any inferences are not generalizable to the entire population of firms. Also, since researchers must rely on publicly available financial statement data for information on a firm's tax reserves, there is no ability to separate measurement from recognition issues. From the researcher's perspective, any amount recognized in the financial statements is also presumed to represent the appropriate measurement of the tax reserve.

The second important caveat is that empirical archival research (i.e., research which uses data collected from financial statements) cannot infer causality (i.e., does some change create an outcome) about the effect of a policy change on firm behavior. The reason for this limitation is that, unlike a laboratory setting, researchers do not have a treatment and control group. In order to infer causality, all attributes of the treatment and control groups must be identical except that one group receives treatment (or is affected by the policy change) and the other is not. Clearly, this type of research design is impossible for a change in accounting policy. Not only are all firms subject to the same rules, but there are other events that occur in the economy simultaneously with changes in accounting rules. Because researchers are limited from studying true cause and effect, empirical archival research does not allow researchers to make normative statements (i.e., make determinations about what is the right or wrong policy). That is, empirical research cannot conclude that one accounting regime is better than another, or that a policy is good or bad or right or wrong.

The final caveat is that empirical archival research cannot infer what management or investors think or feel.[1] Some studies examine whether markets move with the release of information about a new accounting policy and the new information it provides in the financial statements. However, this statistical relation cannot speak to whether the market believes the new information to be relatively better. Because little to no tax reserve information was provided in the financial statements before FIN 48, evidence of a response to new information does not provide insight as to whether market participants believe that the measurement of tax reserve information after FIN 48 is more informative than the pre-FIN 48 measurement of tax reserves.

[1] Field studies and surveys are used to evaluate these issues.

The literature review is organized based on the following post-implementation review objectives:

1. Determine whether the standard is accomplishing its stated purposes.
    a. Did the standard resolve the issues underlying its need?
    b. Is decision useful information being reported to, and being used by, investors, creditors and other financial statement users?
    c. Is the standard operational (i.e., stakeholders are able to apply the standard as intended; the standard is understandable; preparers are able to report the information reliably)?
    d. Are there significant unexpected changes to financial reporting and operating practices (as the result of applying the standard)?
    e. Are there any significant economic consequences that were *not* considered?
2. Evaluate the standard's implementation and continuing compliance costs and related benefits.
3. Provide recommendations to improve the standard-setting process.

The academic literature only addresses a portion of objective 1.b. and has not undertaken any work that addresses objective 1.e. In addition, there is no research addressing the second and third post-implementation review objectives.

Objective 1.c.seeks to understand the specific methods investors and creditors might use to incorporate FIN 48 information in their investment decisions. The academic literature is only able to address this objective indirectly because empirical researchers evaluate investment decisions using stock prices; the precise mechanism by which FIN 48 information affects price remains unexplored. In terms of objective 1.e., with the exception of the change in behavior of

the taxing authorities, which is extensively discussed in the significant unexpected changes section below, we are unaware of any subsequent changes to the environment (either economic or reporting) that would affect firms' accounting for tax reserves. Objective 2 requires some knowledge of managements' (or the accounting firms') perceptions regarding FIN 48. To date, there is no field study work where researchers have been granted access to management to assess their opinions regarding the clarity and costs/benefits of the implementation of the standard. Finally, objective 3 is inquiring about an inherently normative issue which, as explained above, traditional archival empirical research is unable to address.

As a result, the review of the literature is organized into four main sections. Each section corresponds with a part of the first post-implementation review objective as follows:

a) Did the standard resolve the issues underlying its need? (post-implementation review objective 1a)

   This section focuses on work that addresses i) whether the reasons that FIN 48 was added to the agenda appear valid (i.e., diversity in practice and lack of information for investors), and ii) whether the stated purpose of FIN 48 is being realized.

b) Is decision useful information being reported? (post-implementation review objective 1b)

   This section includes a discussion of work that examines the stock market's response to FIN 48 related events.

c) Is the standard operational? (post-implementation review objective 1c)

   This section focuses on ascertaining whether the standard is being applied consistently, in terms of recognition, measurement and disclosure.

d) Are there any significant unexpected changes to behavior resulting from the issuance of FIN 48? (post-implementation review objective 1d)[2]

This section addresses whether firms or the tax authorities changed their behavior due to the implementation of FIN 48.

Ultimately, the literature review finds evidence in the academic literature that provides input to each of these objectives. First, the literature suggests that FIN 48 was needed to reduce the diversity of practice regarding tax reserve disclosure. Researchers infer this result using the wealth of new information on tax reserves provided in firms' FIN 48 disclosures. Hence, there appears to have been a substantial increase in information regarding firms' tax reserves. In addition, there is some limited evidence that FIN 48 increased the comparability of firms' tax reserves.

Second, there are a handful of papers that investigate whether the UTB is useful to equity investors. These studies consistently document a statistically significant positive association (i.e., higher UTB balances suggest higher stock prices) between the UTB balance and stock prices/returns. Although the results suggest the market is using UTB information in setting prices, this positive association is surprising since the UTB presumably captures a potential future cash outflow. Some conjecture that the reason for the positive market response is that the UTBs disclosed at the implementation of FIN 48 were less than what the market anticipated.

Third, research suggests that FIN 48 altered consistency in measurement and disclosure of tax reserves. Several studies conjecture that FIN 48 may have reduced the use of the tax reserve for earnings management, implying that tax reserve balances are more likely to be *measured*

[2] For purposes of this review of the academic literature, "changes in behavior" is synonymous with "changes in operating g practices."

consistently across firms. Although the weight of the evidence suggests that earnings management has declined, the papers on this issue draw somewhat conflicting inferences (i.e., some find support for less earnings management and others do not). Papers that examine firms' FIN 48 *disclosure* practices find significant variation in adoption disclosures made in firms' first quarterly financial statements (i.e., 10-Qs) filed after their adoption of FIN 48. While paragraphs 20 and 21 of FIN 48 enumerate the required content of these disclosures, researchers have identified sources of disclosure variation that reduce the comparability of the disclosed information without technically violating the disclosure guidelines. However, this work documents that almost 100 percent of firms now provide *some* tax reserve information in their footnotes.

Finally, academic research has worked to document the changes in behavior as a result of FIN 48 adoption. In terms of firm behavior, work suggests that firms' tax strategies may have changed because they now have to provide detailed disclosures regarding their UTB that are available to the tax authorities. However, several papers conjecture that the UTB disclosure was not the panacea for the tax authorities as originally anticipated. Consistent with this notion, there is evidence that the IRS has begun to seek ways to learn the portion of the UTB on firms' financial statements that is attributable to domestic tax planning activities.

This review of the academic literature on FIN 48 is organized as follows: Section II addresses the need for FIN 48 and whether the new standard is accomplishing its stated purpose. Section III evaluates whether capital markets are using FIN 48 information. Section IV examines whether FIN 48 is applied consistently. Section V describes changes around FIN 48. Section VI covers other miscellaneous insights derived from the literature. Section VII concludes.

II. *Did the standard resolve the issues underlying its need?*

FIN 48 was added to the FASB's agenda because of concern regarding the diversity in practice related to recording uncertain tax benefits and potentially premature recognition of unsustainable tax benefits. The standard's purpose was to increase the relevance and comparability of firms' tax uncertainty and to provide more information about firms' tax uncertainties.

As discussed below, the academic literature provides some input into the potential diversity in practice and whether FIN 48 increased information available about uncertain tax benefits. But, due to the fact that there was little information about firms' tax reserves or uncertain tax benefits in firms' pre-FIN 48 financial statements, researchers are unable to observe tax reserve activity to determine whether increases in tax reserves were disproportionately recognized in periods subsequent to when the initial tax position was taken. Hence, researchers have been unable to provide any input into the premature recognition debate. The lack of pre-FIN 48 data also hinders researchers from investigating the relevance and comparability of pre-FIN 48 tax reserve balances. Research is limited to a handful of studies that find evidence consistent with the presence of earnings management via the tax reserve account in the pre-FIN 48 period.

a. *Motivation for FIN 48*

The motivation for FIN 48 grew out of the SEC's staff concern about the applicability of SFAS 109 to uncertainty created by tax motivated transactions that could lead to a material overstatement of tax benefits recognized (i.e., understatement of potential tax liabilities) in financial statements (SFSAC, 2004). The lack of guidance under SFAS 109 led to diversity in accounting practices with respect to accounting for tax uncertainty.

Anecdotally, firms were using a variety of methods for determining tax reserves. The academic research assumes that firms were following SFAS 5, *Accounting for Contingencies*, and accruing the expected value of the outcome from potential tax assessments.[3] Regardless of whether uncertain tax benefits were recognized prematurely in financial statements pre-FIN 48, there was no specific guidance on the disclosure of tax reserve information. Hence, academics presumed that although required to disclose material contingencies, firms had substantial discretion in defining "material" under SFAS 5. The widely held belief was that this diversity in practice resulted in inconsistent accounting for income tax reserves and limited the availability of information about these reserves to market participants.

As discussed in the caveat section of the introduction, tax reserve information was very limited pre-FIN 48. Therefore, only a few studies examine the financial reporting of income tax uncertainties before the implementation of FIN 48. Those that do, however, provide key insights into pre-FIN 48 practices, particularly regarding disclosure of tax reserves. Generally, this research finds diversity in disclosure of firms' tax reserves. As discussed below, although there is some evidence of diversity in measurement of tax reserves, evidence is limited and indirect.

Gleason and Mills (2002) study 100 large firms from 1987 to 1995 to investigate firms' decisions to disclose tax reserves in their financial statements. In 900 firm-year observations, the paper finds that only 27 percent contain *any* disclosure of a tax reserve (including information regarding its mere existence) and only 8.1 percent provide the detailed information required by SFAS 5. Linking proprietary tax assessment data from the IRS with financial statement data, the paper finds that the probability of a tax reserve disclosure increases with the size of the firm's

[3] Recall that firms did not discuss their accounting for tax reserves in their footnotes pre-FIN 48.

IRS assessment.[4] However, the very largest assessments drive this result; many "material" assessments (based on a 5-percent-of-income benchmark) are not disclosed. Overall, Gleason and Mills (2002) finds evidence of pre-FIN 48 diversity of tax reserve disclosure practices arising, in part, from how firms define the materiality threshold for disclosure.

Using data from later time periods, Blouin and Tuna (2007) and Gupta, Laux and Lynch (2011) document a continued pattern of diverse disclosure practices pre-FIN 48. Blouin and Tuna (2007) reviews the 10-Ks for a random sample of 50 firms from 1999 to 2004 and finds that only 13 percent of their 256 firm-year observations disclose any information about tax reserves.[5] Gupta et al. (2011) examines quarterly financial statements of a random sample of 100 Fortune 500 firms from 2003 through 2005 and finds only 121 firm-quarters where changes in tax reserves are disclosed (out of a potential 800 firm-quarters). Note that both Blouin and Tuna (2007) and Gupta et al. (2011) document that nearly all disclosed changes in tax reserves were decreases.

Because so few firms disclose any detailed information about tax reserves, none of the aforementioned studies are able to investigate diversity in tax reserve measurement. However, there are papers that study whether researcher-developed *estimates* of the pre-FIN 48 tax reserves are correlated with measures of potential tax assessments. Each of the papers discussed below suggests that, on average, firms with greater potential tax assessments recorded larger tax reserves.

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[4] Note that these data do not provide any details about the specific tax issue(s) resulting in the claim. In addition, these authors do not have knowledge of what the firm believed its expected loss on audit would be.

[5] The descriptive evidence presented also reveals that when tax reserve information was disclosed, there was significant variation in the content of the disclosure. Some firms reported the balance in the tax reserve, some reported changes in tax reserves (an overwhelming majority of changes disclosed reflected *decreases*), and others reported only *partial decreases* in the tax reserve related to specific issues. This suggests that substantial discretion entered into pre-FIN 48 disclosure practices.

Gleason and Mills (2002) find that IRS assessments are positively correlated with an author-developed estimate of firms' tax reserves.[6] Using the same estimate of tax reserves as Gleason and Mills (2002), Lisowsky (2010) reports a positive association between the estimated tax reserve and the incidence of reportable transaction disclosures made on IRS Form 8886 in a sample of 1,769 firms.[7] Finally, Gleason and Mills (2010) investigate whether auditor-provided tax services (APTS) improve the estimate of tax reserves by testing the adequacy of reserves for IRS disputes from 2000 to 2002. The study finds firms that purchase APTS are, on average, fully reserved for IRS disputes, while other firms record additional reserves in the year the IRS finishes its examination. This study suggests that the independent auditor may play a non-trivial role in preventing premature recognition of tax benefits.[8] Although each of these papers suggests that firms with greater (or more) uncertain tax positions were recording larger *estimated* tax reserves, none of these papers observe the actual tax reserve balance so they are unable to provide conclusive evidence about the diversity in measurement pre-FIN 48.

Finally, there are three studies that find evidence consistent with firms using pre-FIN 48 tax reserves for earnings management. These studies come closest to broaching the topic of measurement diversity. If firms use the subjectivity required to measure tax reserves in order to meet earnings objectives, then diversity in measurement may arise from variation in firms'

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[6] The authors estimate the IRS related tax reserve by comparing the sum of current federal tax expense to the sum of the income tax payable recorded on firms' IRS Form 1120. Note that this estimate is a very rough approximation due to the variation in consolidation rules for GAAP reporting and tax reporting. However, on average, aggregate current federal tax expense should equal aggregate taxes due reported on the firm's Form 1120.

[7] To combat the rise of corporate tax shelters in the United States, in 2000 the IRS issued regulations under Internal Revenue Code (IRC) §6011 requiring taxpayers to disclose on Form 8886, *Reportable Transaction Disclosure Statement*, their participation in various activities known administratively as "reportable transactions" that are described in specific IRS notices, rulings, and guidance.

[8] The authors conjecture that APTS improves the adequacy of tax reserves through knowledge spillover between the auditors and the tax preparers. Thus, the finding that other firms are not adequately reserved does not prove that this was an intentional understatement on the part of the firm. Also note that this paper investigates adequacy, not accuracy of tax reserves, so it may be the legal liability for auditors selling both tax and audit services to the same firm ensures 'adequate' tax reserves.

financial reporting objectives. Consider two firms that both have an uncertain tax position that creates an expected future tax payment ranging from $90 to $110 depending on, for example, one's interpretation of existing case law and/or opinion of the tax authorities' willingness to settle at a particular dollar amount. Further, assume that in the absence of financial reporting objectives, both firms would decide to record a reserve of $100. If one firm is potentially going to miss its earnings target by $10 if it recognizes a tax reserve of $100 (resulting in a decrease to earnings of $100), then it may have incentives to recognize a reserve of only $90. Similarly, if the other firm is going to beat its earnings target by $10 with a tax reserve of $100, it may choose instead to recognize a tax reserve of $110 – this overstatement is referred to as a cookie jar reserve and facilitates future earnings management (i.e., earnings smoothing). If the firm's judgment regarding the appropriate tax reserve amount is influenced by reporting objectives, then earnings management may affect reserve amounts recognized by firms with identical facts and circumstances regarding the uncertain tax position.

Dhaliwal, Gleason, and Mills (2004) finds evidence that unusual decreases in tax expense between the third and fourth quarters are correlated with an increased frequency of firms meeting fourth quarter analysts' forecasts of earnings. The authors conjecture that this finding could result from cookie jar behavior enabled by the subjectivity in recording tax reserves under SFAS 5. Gupta et al. (2011) finds that tax reserve reversals, when disclosed, are associated with an increased probability of firms meeting analysts' forecasts.[9] In a sample of 1,446 firms from 1999 to 2004, Blouin and Tuna (2007) finds that incentives to smooth earnings explain some cross-sectional variation (i.e., variation across firms) in their financial statement-based estimate of

[9] Because tax reserve increases (income-decreasing) were rarely disclosed, Gupta et al. (2011) cannot examine whether tax reserves were used pre-FIN 48 to smooth accounting earnings.

changes in firms' tax reserves.[10] Although the overall conclusion from these studies is that the discretion afforded under SFAS 5 with respect to recording tax reserves was used opportunistically, the *extent* to which this was the case is unclear. Also, it is important to note that none of the papers discussed is able to explicitly link changes in tax reserves with meeting or beating an earnings benchmark.

b. *Stated Purpose of FIN 48*

The purpose of FIN 48 was to increase relevance and comparability in financial reporting of income taxes and to provide more information to users of financial statements about income tax uncertainty (FIN 48). To this aim, the standard imposes consistent criteria for recognition, measurement, and mandatory disclosure guidelines. Relevance is a fundamental qualitative characteristic of useful financial information and means that information is capable of making a difference in the decisions made by users. To make a difference, the information must have both predictive value and confirmatory value (SFAC 8). Comparability is an enhancing qualitative characteristic that enables users to identify and understand differences in, and differences among, items.

The evidence regarding the increased comparability in the accounting for uncertain tax benefits is limited to one paper whose inferences are indirect at best. No study has addressed increased relevance because the stock market reaction to tax reserve information was never examined prior to FIN 48. As discussed above, because there was so little tax reserve information disclosed pre-FIN 48, researchers have been unable to assess the relevance and/or

[10] Consistent with these studies, Lee and Swenson (2010) finds firms that were more prone to smooth earnings pre-FIN 48 were also more likely to report a tax reserve reversal at adoption, suggesting firms overstated tax reserves pre-FIN 48 to facilitate meeting earnings targets.

comparability pre-FIN 48. However, there is ample evidence that users of financial statements have more information after the implementation of FIN 48.

By limiting discretion in the setting of tax reserves and increasing transparency, FIN 48 can potentially reduce earnings management via the tax reserve. If firms have varying incentives for earnings management, then, as illustrated in our example on page 12, reducing earnings management would imply an increase in the comparability of tax reserves. Gupta et al. (2011) studies quarterly tax reserve disclosures for the same sample of 100 Fortune 500 firms *before and after* FIN 48 adoption and finds evidence that the practice of meeting or beating an earnings target via the tax reserve appears to have declined post-FIN 48.[11] However, inferences regarding whether FIN 48 changed earnings management behavior is limited to just this one study; and this study likely suffers from selection bias (described in the introduction) since very few firms disclosed reserve activity prior to FIN 48.

Several studies provide descriptive evidence on the FIN 48 adoption effects reported in firms' first quarter 2007 financial statements. A clear message of these studies is that FIN 48 resulted in a substantial increase in information on tax uncertainties in firms' financial statements. Blouin, Gleason, Mills, and Sikes (2007) examines the adoption disclosures of the 100 largest non-regulated, non-financial companies. Notably, all of these large firms report the balance of the UTB as of January 1, 2007.[12] In contrast, less than one third of large firms examined in Gleason and Mills (2002) disclosed any tax reserve information pre-FIN 48.[13]

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[11] Lee and Swenson (2009) finds that (non-tax) discretionary accruals declined post-FIN 48 and concludes that FIN 48 was effective in reducing earnings managed by ruling out the possibility that earnings management simply shifted from tax to non-tax accruals. However, the study does not directly test for reduced earnings management via the tax reserve.

[12] Blouin et al. (2007) caveats this for a handful of firms but concludes that the UTB balance can be inferred from the disclosure. Robinson and Schmidt (2011) examines this issue in detail; i.e., the need to infer information from

Studies that examine adoption disclosures also potentially speak (albeit indirectly) to the issue of increased comparability. Consider that Blouin, Gleason, Mills, and Sikes (2010) documents in their sample of 100 large firms that 40 firms increase the tax reserve at adoption, 40 firms decrease the tax reserve, and 20 firms experience no change. Given that FIN 48 introduced a *consistent* set of measurement criteria that all firms apply, the relatively symmetric distribution of adoption adjustments around zero implies that firms are moving away from their diverse practices, which in turn, suggests increased comparability.[14] This descriptive evidence, however, does not allow us to understand the *degree* to which the diversity in practice was reduced.[15,16]

III. *Is decision useful information being reported?*

One objective of the post-FIN 48 implementation review was to ascertain whether FIN 48 is useful to investors. By useful, the FASB means that the information contained in the disclosure

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FIN 48 disclosures that use ambiguous language. See Section VI of our paper for a discussion of the variation in disclosure regarding other disclosure requirements of FIN 48, i.e., other than the tax reserve balance.

[13] Although they do not address any of the post-implementation review objectives, several other studies also present detailed descriptive data on FIN 48 first quarter adoption disclosures (Dunbar, Kolbasovsky, and Phillips, 2007; Nichols, Baril, and Briggs, 2007; Robinson and Schmidt, 2011) as well as the first annual disclosures (Nichols, 2008).

[14] Consistency is discussed extensively in section IV.

[15] Dunbar et al. (2007) examine the S&P 500 calendar-year end firms and, among other things, highlight variation in first quarter adoption effects for clients of the Big 4 audit firms. One observation noted in the study is that only one audit firm was associated with client firms showing increases to the reserve at FIN 48 adoption that was greater in absolute value (mean and median) than decreases.

[16] Langmead and Keeling (2010) concludes that FIN 48 did not substantially impact the reporting of tax uncertainties by examining first quarter adoption disclosures of the Dow 30. The authors note that adoption adjustments were "slight", suggesting that these firms "do not appear to have taken advantage of the lack of specific guidance or standards before FIN 48" (pg. 31). However, one cannot draw such a conclusion at the aggregate level without noting the underlying firm-level variation. For instance, the adoption adjustments as a percent of the beginning balance in the UTB range from 0 to 32 percent, with a mean and median of 8 and 5 percent, respectively. Interestingly, the correlation between the adoption adjustment (as a percent of the beginning balance in the UTB) and the UTB (both in raw values and as a percent of total assets) is negative. That firms' adoption adjustments were smaller when the UTB was larger suggests that firms with more significant uncertain tax positions may have spent more time pre-FIN 48 on documenting, evaluating, and properly recording tax reserves.

aided investors in their allocation of capital efficiently across investments (see SFAC No. 8). Although usefulness refers to investment decisions made by all potential investors including lenders/creditors, this review focuses on equity investors primarily because, to date, these investors are the focus of the academic research. If investors use the information in their investment decisions then there should be a significant statistical association between firms' UTBs and some measure of firms' market values or stock returns. Essentially, the interest is in understanding whether the information about uncertain tax positions is incorporated into stock price; i.e., is *value relevant*.

The academic literature has two streams of research that study the effects of changes in accounting standards on investor behavior. The first includes studies that investigate whether the announcement of the standard (or some other change in regulation) creates a market reaction. These *event* studies attempt to measure whether the market believes that the new standard will have an economic impact on firms. In a well-executed event study, a significant stock market response on an event date captures market participants' perceptions about the potential costs and benefits from adopting new accounting standards. Note that these studies do not differentiate the market's response across firms but rather consider the response in aggregate across all firms in the economy. The second stream of research includes studies that investigate whether investors (or potential investors) in a particular firm use the information in their investment decisions. These tests are cross-sectional analyses where each investor makes an assessment of the usefulness of the standard's information unique to each firm. To date, there are only a handful of papers that investigate the market's response to FIN 48 information.

Frischmann, Shevlin, and Wilson (2008) investigates the aggregate stock market response to several key announcements pertaining to FIN 48. Using a series of event dates beginning on

March 3, 2004 (the date a member of the FASB Board initially met with representatives of the SEC's Office of the Chief Accountant) and ending January 17, 2007 (the date that the Board rejects calls for a one-year extension on the effective date of FIN 48), the paper documents little aggregate reaction by the market to FIN 48-related milestones. These results suggest that the market did not view FIN 48 as particularly costly for firms.[17] Another interesting event studied in Frischmann et al. (2008) is the announcement of the Senate inquiry regarding the disclosed UTB of at least 30 firms. The study documents a significant negative aggregate market response to news of the inquiry, consistent with the market revising its beliefs regarding the potential costs of FIN 48 to firms.

Frischmann et al. (2008) also studies whether the market impounds into price the information contained in the opening UTB balance of 334 S&P 500 firms. Although the paper finds no significant association between the total UTB balance and cumulative abnormal returns, the paper documents a significant positive association between returns and the portion of the UTB that affects the firm's earnings (i.e., the portion related to permanent differences). The paper provides two explanations for this result. First, if the large UTB represents aggressive tax planning, then the positive association is consistent with investors viewing aggressive tax planning as value-enhancing. Second, the result can be interpreted as evidence that the market views the firm's earnings as being understated because the presumption that all tax positions must be viewed by the tax authorities leads the firm to overstate unrecognized tax benefits (i.e., overstate the reserve).

[17] Note that Frischmann et al. (2008) also partition their sample by a measure of tax aggressiveness to see whether the market reacted to the FIN 48 news disparately. There was no evidence of an aggregate response across any of the tax aggressiveness partitions.

Three additional studies, Song and Tucker (2008), Koester (2011) and Robinson and Schmidt (2011), also document a significant positive association between the UTB and measures of firm performance. Song and Tucker (2008) uses a sample of 276 S&P 500 firms' initial UTB balances reported in the first quarter of 2007. Koester (2011) finds the relation using year-end FIN 48 balances reported in the 10-K's of S&P 500 firms with year-ends between 12/15/2007 and 12/14/2009.[18] Song and Tucker (2008) interprets the positive association as evidence that firms are continuing to over-reserve for uncertain tax positions consistent with cookie jar behavior. However, the characterization of their results seems more in line with the interpretation in Frischmann et al. (2008) of the association between the UTB and firm value; namely that the market views the UTB as too high. Finally, Robinson and Schmidt (2011) finds a positive association between the disclosed UTB and abnormal returns using the adoption disclosures in the first quarter 2007 10-Q filings for calendar-year end firms in the S&P 1500.

Although sparse, the academic literature is remarkably consistent in its finding that the market appears to effectively "recognize" a portion of the unrecognized tax benefit in its valuation of firms. It would be interesting to know how FIN 48 changed the market's assessment of the UTB. Unfortunately, the dearth of disclosures regarding the tax contingency prior to FIN 48 provides researchers little opportunity to investigate how FIN 48 altered the landscape for investors.

[18] In addition, Koester (2011) finds that the association between the UTB and price is primarily driven by the permanent component of the UTB. However, she is not able to confirm the Frischmann et al. (2008) findings using a returns specification.

IV. *Is the standard operational?*

The focus of this objective is to ascertain whether the standard is clear and understandable by those who are implementing it, thereby speaking to the standard's consistent application. As outlined in the introduction, empirical archival work cannot speak to these criteria of the objective because clarity and understanding are based on management's perceptions. Therefore, the focus of this section is consistency, which potentially leads to comparability of tax reserve information in the FIN 48 regime.

Consistency refers to the use of the same methods for the same items, either from period to period within a reporting entity or in a single period across entities (SFAC No. 8). Consistency helps achieve the goal of comparability, an enhancing qualitative characteristic of financial accounting information that increases its usefulness.[19] According to SFAC No. 8, information is "useful if it can be compared with similar information about other entities and with similar information about the same entity for another period or another date". Whether FIN 48 is being applied consistently is of interest because of its effect on the usefulness of information provided pursuant to the new standard.

a. Measurement

Inconsistent application of FIN 48's recognition and measurement guidelines across firms may arise due to variation in financial reporting objectives.[20] Hanlon and Heitzman (HH, 2010) includes a discussion of various measures of tax avoidance used in the academic literature; the

[19] According to FASB, SFAC No. 8, the objective of financial reporting is to provide information that is useful in assessing both cash flow prospects and stewardship.

[20] It is well recognized that firms strategically choose accounting policies and procedures to manipulate their results to attain some reporting objective, such as meeting or beating the consensus analyst forecast, avoid reporting an earnings decline, avoid reporting losses, (e.g., Burgstahler and Dichev, 1997; Degeorge, Patel, and Zeckhauser, 1999).

most recent addition is the unrecognized tax benefit (UTB) disclosed pursuant to FIN 48.[21] The paper cautions researchers that the amount of UTB recorded in the financial statements is subject to the judgment of management and may be used to achieve reporting objectives.

Gupta et al. (2011) directly tests the HH (2010) conjecture pointing out that the new guidelines and increased transparency might constrain the ability to manage earnings with the tax reserve. Using a random sample of 100 Fortune 500 firms, the study examines whether changes in the UTB are used to manage quarterly earnings in 2007 and 2008. The analysis suggests that income-increasing UTB decreases are not used to meet earnings targets, but that income-decreasing UTB increases are used to smooth earnings. Using a different research design, Cazier, Rego, Tian, and Wilson (2010) find that S&P 500 and S&P 400 firms appear to continue to use changes in the UTB for earnings management post-FIN 48. The study finds evidence that both UTB decreases and UTB increases are used to manage earnings.

Cazier et al. (2010) has two shortcomings relative to Gupta et al. (2011). First, Cazier et al. only studies post-FIN 48 reserve behavior and so it does not address whether earnings management via the tax reserve is different than in the pre-FIN 48 period. Second, the Cazier et al. research design is widely criticized in the academic literature.[22] Thus, the results should be interpreted with caution. As both studies find evidence of income smoothing using different research design choices, incentives to report smooth earnings may continue to reduce consistency in the measurement of UTBs post-FIN 48.

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[21] See Section VI of this paper for a further discussion of academic research related to using the unrecognized tax benefit as a measure of 'tax aggressiveness' or 'tax risk'.

[22] Cazier et al.'s analysis suffers from the "backing-out" problem discussed in Lim and Lustgarten (2003) and Elgers, Pfeiffer, and Porter (2003). The "backing-out" problem occurs when the measure being studied, e.g., unmanaged earnings, is estimated (because "true" unmanaged earnings are unobservable by the researcher) by subtracting the balance of the specific account being used for earnings management, e.g. the discretionary accrual. Because the observed unmanaged earnings balance is now a function of the discretionary accrual, the research induces a negative relationship between the variables he/she is studying.

It is important to note that even if firms apply the accounting guidance prescribed under FIN 48 consistently, the information produced may not be comparable. The reason is that the process of evaluating a firm's tax positions is highly subjective, and the effect of management's judgment in evaluating tax positions is unclear. The new standard attempts to limit the impact of discretion in two key ways. First, the recognition step focuses on the tax position's technical merits, rather than audit probabilities or litigation/settlement intentions. Second, if the 'more likely than not' threshold based on the technical merits is *not* met, the determination of the tax reserve is insensitive to the probability assessment.

Understanding the extent to which the discretion afforded under FIN 48 produces different tax reserve amounts is an important part of understanding whether the standard, even consistently applied in practice, creates comparable information. Raby and Raby (2006) and Kimmelfield (2006) point out that FIN 48 reserve calculations require a fairly high level of sophistication and experience (that most companies are lacking), concluding that the standard may not produce "meaningful income measurement" (Raby, pg. 156) and the information may suffer from lack of comparability.

Three studies demonstrate this notion. First, Nichols (2008) examines the annual FIN 48 disclosure at 2007 year-end for 263 Fortune 500 firms and, among other things, notes substantial changes in the UTB, as a percent of the beginning balance in the UTB, related to prior-year tax positions. In particular, eight firms changed assessments of tax positions taken in a prior period such that the total UTB balance increased by more than 80 percent. The paper concludes that these large changes raise "questions about management's judgment when determining the UTB on adoption of FIN 48" (pg. 560). Nichols (2008) cannot determine whether these changes in

assessment represent drastic changes in facts and circumstances, or whether management's initial judgment was unsound.

Second, De Simone, Robinson, and Stomberg (2011) uses a unique setting to examine the extent to which differences of opinion can emerge when evaluating uncertain tax positions. The study uses a small sample of paper companies to document variation in the recognition of tax benefits for a virtually identical tax position (i.e., 'alternative fuel mixture credit' or 'black liquor' refunds). Of the eight firms that disclose the increase to the UTB related specifically to this tax position, five firms recognized none of the benefit, one firm recognized 8 percent of the benefit, and two firms recognized more than 70 percent of the benefit.[23] Interestingly, the two firms exhibiting the largest percentage of *recognized* tax benefits are audited by the same accounting firm. Unless the management of these two firms have systematically different opinions about the merits of the transaction than the management of the other six firms, this finding suggests that firms' auditors may influence the judgment inherent in the measurement of tax reserves.

Finally, Lisowksy, Robinson & Schmidt (2011) attempt to estimate the "expected" component of the UTB. The expected UTB is the amount of a firm's that would be predicted given certain operating, investing, and financing characteristics of the firm.[24] To estimate the expected UTB, the authors use nearly 20,000 firm-year observations to measure the average mapping of various firm characteristics into UTBs (e.g., what is the average UTB for a firm that spends $1 million on R&D during the year and operates in five foreign countries). Lisowsky et

[23] Because the refundable credit was material for these firms, the UTB associated specifically with this tax position was separately disclosed, making this a unique setting in which to examine differences in opinion on the same underlying set of facts and circumstances.

[24] The authors regress (using a Tobit specification) the total UTB on proxies of firms' involvement in complex tax planning (i.e., mergers and acquisitions, international tax, derivatives, nexus issues, etc.) Using this technique, the authors can statistically parse the UTB into an expected and unexpected component.

al. (2011) then compare the expected component of the UTB to the unexpected component (unexpected = UTB – expected). The unexpected component represents how far a firm's UTB amount is relative to the average firm in the sample *with the same set of firm characteristics*. The authors observe that the unexpected UTB has a large standard deviation (i.e., range of values) and conjecture that this finding corroborates those of De Simone et al. (2011) because it suggests that firms engaging in similar activities and transactions determine different UTB amounts. In contrast to De Simone et al. (2011), however, Lisowksy et al. (2011) are not able to observe actual tax positions and rely on the assumption that, on average, firms engaging in similar operating, investing, and financing activities face similar levels of tax uncertainty.

In summary, the academic literature offers two insights regarding consistent application of FIN 48. First, the literature suggests that earnings smoothing may hinder consistent application of FIN 48. Second, consistent application of FIN 48 may not necessarily lead to comparable information due to natural differences in opinion when evaluating even similar facts and circumstances in the context of highly ambiguous tax laws.[25]

b. *Disclosure*

There is a fairly large body of work that investigates FIN 48 disclosure practices. Although FIN 48 provides detailed disclosure requirements, there appears to be substantial variation in the completeness of these disclosures suggesting that perhaps some aspects of the disclosure are particularly costly or difficult for firms to provide. Clearly, the failure to provide all of the

[25] An interesting point is made in Blouin et al. (2010) about how the anticipated adoption of new accounting standard can temporarily result in the loss of comparability of financial information in the period preceding adoption. Firms had incentives to decrease tax reserves prior to adoption to increase earnings, while the subsequent increase would be recognized as an adjustment to stockholders' equity. Thus, with no net change in the tax reserve from this activity, firms can 'game the system' just prior to adoption of a new accounting standard. While appropriate disclosures by firms may have partially compensated for the lack of comparability, not all firms disclosed their pre-FIN 48 reserve changes or their expectation of the effects of adopting FIN 48.

components of the FIN 48 disclosure is a compliance issue. But, depending on the firm's perceived cost of non-compliance with the standard's disclosure requirement, the lack of disclosure may be optimal. This is particularly true when dealing with proprietary information (such as the firm's tax positions).[26]

Paragraphs 20 and 21 of FIN 48 describe its mandatory annual disclosure requirements. Firms subject to FIN 48 were concerned that the disclosure requirement might "provide a roadmap for the tax authority that may undercut the firm's bargaining power in the associated tax disputes" (Spatt, 2007). Given the substantial increase in the amount of information available in financial statements post-FIN 48, researchers compiled the information contained in those disclosures for various samples. Work using these hand-collected samples finds that disclosure practices varied widely.

The lack of consistency in implementing the disclosure guidance of FIN 48 can arise in two ways: i) noncompliance with a standard's mandatory disclosure requirements, and ii) lack of disclosure clarity. The latter implies that the user of the financial statements is required to make an assumption in order to evaluate the information presented. If investors can make different assumptions and come to different conclusions, the information disclosed is not comparable. Notice that disclosure variation may result in the non-comparability of information for users of financial statements, *even if the recognition and measurement process of FIN 48 is implemented consistentl*y.

What is known about disclosure variation comes mainly from three studies; Blouin et al. (2010), Robinson and Schmidt (2011), and Dunbar et al. (2010). Other studies generally confirm

[26] Thus, it may be useful to consider enforcement issues when designing mandatory disclosure guidelines for proprietary information.

the observations made in these studies (e.g., Nichols et al. 2007, Nichols 2008). Blouin et al. (2010) offers a detailed discussion and tabulation of adoption disclosures for the 100 largest non-financial, non-regulated calendar year-end firms, noting that "inconsistencies remain in the disclosures" (pg. 523). The following things are noted to be unclear: i) whether the gross UTB includes or excludes interest, ii) whether the amount of the UTB that impacts the effective tax rate (ETR) includes or excludes interest, and iii) whether the amount of interest itself is gross or net of the tax benefit. The authors quantify the impact of issue i) by showing that the *actual* UTB (excluding interest) in their sample could range from $70 billion to $78 billion depending on assumptions about whether the *disclosed* UTB does or does not include interest.[27] Note that because some firms explicitly included interest while others explicitly excluded interest, the reader could not be certain what firms were doing in the absence of an explicit statement. Therefore, note that two investors reading the identical FIN 48 information in the footnotes could conclude UTB balances that are 10 percent different. Hence, the clarity of the footnote information to financial statement users is a non-trivial issue.

Robinson and Schmidt (2011) undertake a large scale study that attempts to quantify the quality of FIN 48 first quarter adoption disclosures in 1,000 S&P 1500 firms. By carefully examining the content of adoption disclosures in conjunction with the required disclosures (there were 8 required disclosures), the study develops firm-specific disclosure scores across two dimensions: i) disclosure compliance, and ii) disclosure clarity.[28] In the full sample, there is no single disclosure requirement that achieves a 100 percent compliance rate, yet the SEC sent only

[27] The lower bound of $70 billion assumes that the disclosed UTB includes interest (when firms are not explicit) and the upper bound of $78 billion assumes that the disclosed UTB excludes interest (when firms are not explicit). In the former case, interest would be removed from the disclosed UTB balance, whereas in the latter instance no adjustment would be made to the UTB balance.

[28] Note that the study does not examine firms that disclose a $0 UTB because disclosure quality is not relevant.

34 comment letters to these firms regarding FIN 48 issues within 3 years of the disclosure. The largest firms (S&P 500) score highest on compliance and lowest on clarity, while the smallest firms (S&P 600) score highest on clarity and lowest on compliance. As larger firms are more likely to be subject to SEC enforcement, large firms are more 'compliant'. But, because clarity is difficult to enforce, these large firms appear to reduce the information content of the required disclosures through ambiguous language, consistent with observations made by Blouin et al. (2010).

Aside from the descriptive exercise of quantifying disclosure quality in a large sample, Robinson and Schmidt (2011) has two key empirical findings. First, firms' overall disclosure quality is lower when the proprietary cost of disclosure is expected to be high.[29] The cost of disclosure is captured using various measures of the extent and nature of the firms' tax avoidance activities. This suggests that the observed variation in disclosure is not random and that firms intentionally reduced the transparency of tax reserve information to avoid the potential cost of disclosure. Second, the study finds that the positive market reaction documented in Frischmann et al. (discussed earlier) to the disclosed UTB at adoption is attenuated by high disclosure quality. This finding implies that investors value (reward) a lack of transparency in a setting where the proprietary cost of disclosure is high. These findings are interesting in light of the fact that standard setters designed FIN 48 disclosure requirements for the benefit of investors.

Dunbar et al. (2010) focuses its attention on the look-forward disclosure required by FIN 48 (FIN 48, ¶21d) on the basis that disclosure of this information has a particularly high proprietary

[29] The phrase 'proprietary cost' refers to situations where information disclosed by a firm induces an adverse reaction from an 'opponent' that may prove costly to the disclosing firm. The opponent may either be another competing firm or a political agency (i.e., the IRS). For example, if firms are required to disclose details of their product pricing in their financial statements then competitors could use this information to undercut firms' bids.

cost. The study documents that 14 percent of their 280 S&P 500 firms provide a look-forward disclosure at adoption and 1 percent did not provide the disclosure at the end of the first year of adoption (note that "disclosure" includes a statement about a possible reserve change of an indeterminable amount). Though the incidence of the disclosure increased, the study notes that the informativeness of the disclosure continued to vary greatly. Only one half of the firms accurately predict the *direction* of the expected change, and only one fourth accurately predict the *amount* of the change. The study concludes that firms involved in tax disputes appear to strategically disclose by predicting possible changes to reserves and rarely forecasting an amount. While this study suggests regular non-compliance with the look-forward disclosure, results are also consistent with firms having extreme uncertainty regarding anticipated settlements opting to disclose less rather than incorrectly.

Non-compliance and lack of disclosure clarity exist in the FIN 48 setting, but their effect on users of financial statements (including academic researchers) is unclear. Furthermore, no systematic evidence exists regarding the extent of disclosure variation (or the lack of variation) after the year of adoption because it requires substantial time on the part of the researchers to read through each disclosure. It is possible that the variation may have decreased post adoption as the fear that FIN 48 information would be useful to the taxing authority declined (Compliance Week, 2009).

V. *Are there any significant unexpected changes to behavior resulting from the issuance of FIN 48?*

This section addresses whether there were any significant indirect or *unexpected* changes in behavior that resulted from the implementation of FIN 48. Of particular interest is understanding

whether financial reporting has an impact on real firm behavior. When an accounting standard changes, it is natural to investigate whether firms' real behavior somehow changes as well. This change in firm behavior that has some economic ramification is considered an unexpected consequence of the reporting regime. FIN 48 is unique because it not only has a potential effect on firms' behavior but it could also conceivably alter the behavior of taxing authorities – a party not typically considered when evaluating the unexpected consequences of accounting standards.

Two streams of research regarding FIN 48's changes in behavior are discussed below. The first investigates whether firms altered their behavior due to FIN 48's implementation. In particular, many are interested in understanding whether firms changed their tax strategy to either reduce their FIN 48 UTBs or avoid scrutiny by the tax authorities. Studies investigate behavior around implementation as well as evidence of any ongoing changes in behavior. The second stream focuses on the potential response of the taxing authorities to the FIN 48 disclosures. There was much conjecture that FIN 48 would provide an "audit" roadmap to the IRS. Unless the taxing authorities intended to use FIN 48 information in its audit process (either selection of firms for audit or in settlement negotiations), it isn't clear why firms would be reluctant to include UTB information in their financial statements.

Blouin, Gleason, Mills and Sikes (2010) provides evidence consistent with firms accelerating their settlement negotiations with tax authorities in advance of FIN 48 adoption. Using a sample of the 100 largest U.S. firms, this paper documents increased settlement activity in the quarter immediately preceding FIN 48 implementation. This suggests that firms were attempting to alleviate the uncertainty of their tax positions to reduce the reserve required pursuant to FIN 48.

Lisowsky (2010) develops a prediction model that estimates the probability that a firm is involved in a tax shelter (i.e., a reportable transaction as defined by the IRS) and finds that the

predictive power of the model is lower in the post-FIN 48 regime, relative to the pre-FIN 48 period.[30] This finding is consistent with firms reducing their tax aggressive behavior due to the detailed disclosure of tax reserves required by FIN 48. However, Lisowsky (2010) caveats its results by noting that the analysis only investigates one year of post-FIN 48 data so the weakened results could be attributable to a lack of power. Beck and Lisowsky (2011) studies whether FIN 48 led to an increased likelihood that firms participate in the IRS's Compliance Assurance Process (CAP) program pilot which was introduced during the 2005 tax year. The CAP program is a streamlined audit process whereby firms agree to disclose their uncertain tax positions with the IRS in an effort to resolve any issues in advance of the filing of the return. By agreeing to the treatment of a particular tax issue with the IRS, the paper argues that the firm reduces the tax reserve that would otherwise be disclosed in its financial statements. The paper finds that CAP participation is correlated with high FIN 48 balances suggesting that FIN 48 led firms to be more forthcoming with the IRS in order to reduce the unrecognized tax benefit in their financial statements. However, one should be cautious in the interpretation of this paper's results. Note that the paper only analyzes the post-FIN48 period. As the CAP program was implemented in response to new corporate governance and financial reporting requirements imposed by the Sarbanes-Oxley Act of 2002 (see Nolan, 2006) Section 404, the results could be attributable to the fact that large, profitable firms already in the IRS's Coordinated Industry Case program began to move into the CAP program as the probability of the CAP program becoming permanent increased.[31]

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[30] Predictive power is the ability of a variable or set of variables to explain some phenomena (e.g., participation in tax shelters).

[31] The IRS administered a survey to the original 17 2005 CAP participants. The survey finds that firms participated in the program to reduce income tax uncertainty. Since this response was prior to the issuance of the proposed FIN

Dunbar, Phillips, and Plesko (2009) studies the effect of FIN 48 on the tax planning behavior of public and private firms. The study conjectures that public firms' tax planning behavior should become less aggressive because of the FIN 48 disclosure's potential to be an audit roadmap. During this paper's sample period, private firms did not yet have a FIN 48 reporting requirement. Using 2005 to 2007 IRS data, Dunbar et al. (2009) finds that permanent book-tax differences declined only for public firms. Interestingly, this decline appears to be concentrated in domestic-only firms where the FIN 48 disclosure would present a better roadmap of uncertain tax positions for the IRS. Although the authors conclude that FIN 48 led public firms to reduce their tax aggressiveness, the papers' results are difficult to interpret as they do not control for performance in their primary analysis. Recall that 2007 was the front-end of the financial crisis and many firms' performance suffered suggesting a relative decline in the need to be tax aggressive during the period.

Graham, Hanlon, and Shevlin (2011) surveyed firms' executives in 2007 regarding a series of issues pertaining to firms' tax planning and financial reporting behavior. Of particular relevance for our paper, the authors asked "What effect will FIN 48 have (or has it had) on your firm's willingness to take aggressive tax positions?" and then, followed-up with "If FIN 48 will reduce your company's willingness to be tax aggressive, why?" Over 57% of firms indicated that their willingness to engage in aggressive tax planning would decrease as a result of FIN 48. Consistent with some capital market costs, they report that public firms were significantly more likely to change their tax planning behavior than private firms (60% v. 47%, respectively). Of the firms that answered that FIN 48 would change their tax aggressiveness, 48% answered that their

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48 standard, it is not clear as to whether FIN 48 was be attributable for the change in taxpayers' desire to relieve tax uncertainty. Note that the CAP program became permanent as of March 2011.

tax aggressiveness would change because they believed that FIN 48 represented a potential "road map" to the IRS. Thirty-two percent of firms also believed that tax aggressiveness under FIN 48 would increase the risk of a later financial statement restatement. Overall, Dunbar et al. (2009) and Graham et al. (2011) suggest that firms were concerned that the disclosures under FIN 48 would provide the IRS (in particular) with details regarding their uncertain tax positions.

Changes in firm behavior are also suggested by papers that investigate state and local tax settlement activity and tax receipts around FIN 48 adoption. FIN 48 clarifies that nexus issues represent uncertain tax positions. Nexus is of significant concern in the state and local tax area because nexus issues are often fuzzy (see Wells and McFadden-Wade, 2007). Because FIN 48 requires firms to accrue interest and penalties on any uncertain tax position, if a firm never files a tax return, the statute of limitations never lapses and interest and penalties will accrue indefinitely. So, if a firm has a state nexus issue, its FIN 48 reserve will continue to grow precipitously until it files a return.

Gupta, Mills, and Towery (2009) conjectures that FIN 48 could potentially have led to the increase in state and local tax collections from 2005 to 2007. Dubin and Watts (2009) documents an increase in both state and local tax collections and an increase in the frequency of National Nexus Program voluntary disclosure agreements.[32] However, the latter paper is careful to point out that the increase in tax amnesty programs resulted after a number of changes to state and location taxation beginning in 2000 (e.g., attacks on the Delaware holding company, passive investment company, and captive REIT structures, etc.), and that this trend may have precipitated the increase in settlement activity and collections rather than FIN 48. In addition, it

[32] The Multistate Tax Commission established the National Nexus Program (NNP) to help states coordinate tax administration. Firms can approach the NNP anonymously to settle potential liabilities resulting from past years.

was unlikely that firms would begin pre-emptive state income tax filings until 2006 when the final standard was issued. Recall that the draft version of FIN 48 issued in July 2005 did not include any discussion of tax positions not included on a filed return, such as nexus issues. While there were likely many protective returns filed due to FIN 48, it is unlikely that this activity a) yielded substantial revenue or b) would have begun as early as 2005.

The second stream of research considers how the tax authorities might react to the FIN 48 disclosure. Mills, Robinson and Sansing (2010) develops a theoretical model that explores the possible effects of FIN 48 on the strategic interaction between the firm (i.e., the taxpayer) and the tax authority. The paper's motivation is the widely viewed belief that the taxing authorities will use FIN 48 information in the audit process. In the paper's model, a firm that has relatively strong supporting facts for their tax positions will have higher expected payoffs from its tax positions post-FIN 48. This is because the FIN 48 disclosure can inform the tax authorities about the quality of firms' tax positions thereby leading them to select firms for audit more efficiently by not auditing the firms with the high quality tax positions. This increases the expected payoff of a particular tax planning strategy while decreasing the tax authorities net cost of audits.[33] The overall message of the study is that FIN 48 may actually make less aggressive tax planners better off post-FIN 48 relative to pre-FIN 48. To date, there has been no direct empirical test of the model.

Interestingly, it appears that the IRS initially intended to exhibit restraint when requesting FIN 48 work papers (see Coder, 2008; Coder, 2009). Yet, consistent with Mills et al. (2010),

[33] The model makes several assumptions that are not consistent with the actual FIN 48 reporting environment. For instance, the model assumes that there is only one tax authority and one tax position, which implies that the tax authority has complete information regarding the taxpayer's uncertainty. However, as the purpose of the model is to determine the 'worst case scenario' regarding the effects of FIN 48 on the taxpayer's interaction with the taxing authority, these assumptions do not limit the message of the study.

Coder (2009) discusses evidence which suggests that the IRS has been using the FIN 48 disclosures to select firms for audit. Although the FIN 48 reserve appears to be useful in the risk assessment of a particular audit selection (see Klotsche, Traubenberg, and Hollingsworth, 2010), it appears that the IRS views the FIN 48 disclosure as not particularly helpful in audit selection because it often aggregates a variety of tax positions as well as across several jurisdictions.

Recently, the IRS has shown some lack of restraint as it has issued the new Schedule UTP ("Uncertain Tax Positions") requesting specific information about firms' U.S. tax positions. For 2010 tax returns, firms will be required to report their uncertain tax positions and rank them in terms of largest to smallest. The form requires firms to describe the issue and the applicable code sections describing the firms' position. Although the IRS initially intended to require firms to report the maximum tax adjustment for each uncertain tax position, the final Schedule UTP eliminated this requirement since firms may not already be calculating this information for the FIN 48 disclosures. Finally, the IRS has decided that the filing of a tax position on the Schedule UTP will be afforded penalty protection. Coder (2010), Saparie (2010) and Dellinger (2010) each discuss the IRS's plans for the Schedule UTP.

Another potential consequence of FIN 48 is the legal concerns regarding the FIN 48 workpapers. Prior to FIN 48, an assessment of whether the firm would prevail in litigation with the tax authorities was prepared by attorneys and therefore was protected, based on attorney-client privilege, from IRS summons. Since FIN 48 now requires firms to incorporate probabilities of prevailing in court in their estimates of their UTB, the privilege of the tax contingency analyses is effectively lost. Although merely a conjecture, Kimmelfield and Hsu (2007), Monks (2009), and Dellinger (2010) discuss whether FIN 48 affects the determination

that tax accrual workpapers inclusive of the FIN 48 UTB analysis are prepared in anticipation of litigation.

VI. *Other issues*

There are also several themes in the academic literature that do not address specific issues surrounding the efficacy of FIN 48. For example, researchers have begun to study whether the UTB captures the notion of "tax aggressiveness" and whether the UTB has a role in tax director compensation.

a. *Executive compensation*

There is much interest in the academic literature in understanding whether the compensation of management (e.g., the tax director) explains cross-sectional variation in firms' tax aggressiveness. Authors conjecture that FIN 48 may represent an assessment of the riskiness of firms' tax strategies. If this is the case, then the UTB may be an effective tool to evaluate the potential pay-off to risky tax strategies undertaken by management. De Waegenaere et al. (2010) shows theoretically that the optimal contract features a bonus for reducing the firm's GAAP effective tax rate (ETR), but a penalty for generating an increase to the UTB. Brown et al. (2010) examines CEO/CFO bonus payments from 2007 to 2009 and finds that bonuses are increasing in tax performance (low cash ETRs) but only in firms with low tax risk (low UTB).

b. *Determinants of UTBs*

There are also several studies that examine the cross-sectional determinants of levels and changes in the unrecognized tax benefit. Many of these studies are exploratory in nature and are generally interested in understanding whether FIN 48 provides information that is related to the nature and extent of firms' tax avoidance activities (e.g., Alexander, Ettredge, Stone, and Sun,

2009; Campbell, 2010; Cazier, Rego, Tian, and Wilson, 2009; Lisowsky, Robinson, and Schmidt, 2011).

VII. Conclusion

In this paper, the findings of the academic literature on FIN 48 are evaluated to ascertain whether the new standard improved financial reporting. Overall, academic evidence suggests that FIN 48 a) increased the amount of information regarding UTBs available to investors, b) improved the comparability of the UTB balances, and c) improved the consistency of UTB accounting practices. The literature also suggests that there have been changes in behavior due to FIN 48; particularly associated with the potential increased costs of allowing the taxing authorities to have more information regarding firms' tax uncertainties. However, the academic literature has not yet been able to quantify the cost of taxing authorities' additional scrutiny. Although the literature has found that the market impounds the information in the UTB into price, the positive association between the UTB and price is surprising and warrants further attention. Finally, a number of working papers that examine firms' FIN 48 *disclosure* practices find significant variation in the quality and completeness of the UTB footnote disclosures. If disclosure practices are too varied, then strides in increasing the comparability of UTB balances may yield little benefit to shareholders.

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Exhibit 1: Linking of references to revised post-implementation review objectives

Objectives are in the following respective columns

a) Did the standard resolve the issues underlying its need?
b) Is decision useful information being reported?
c) Is the standard operational?
d) Are there any changes in behavior resulting from the issuance of FIN 48?

Author(s)	Title	Year	Published	Journal	(a)	(b)	(c)	(d)	Other
Alexander, Raquel, Michael Ettredge, Mary S. Stone, and Lili Sun	Assessing uncertain tax benefit aggressiveness	2009	No				X		
Beck, Paul, and Petro Lisowsky, Petro	Financial statement incentives and benefits of voluntary real-time tax audits	2011	No					X	
Blouin, Jennifer, Cristi Gleason, Lillian Mills, and Stephanie Sikes	What can we learn about uncertain tax benefits from FIN 48?	2007	Yes	National Tax Journal	X				
Blouin, Jennifer, Cristi Gleason, Lillian Mills, and Stephanie Sikes	Pre-empting disclosure? Firms' decisions prior to FIN No. 48	2010	Yes	The Accounting Review	X		**X**	X	
Blouin, Jennifer, and Irem Tuna	Tax contingencies: cushioning the blow to earnings?	2007	No		X				
Brown, Jennifer, Katharine Drake and Melissa Martin	Are firms myopic? The case of contracting on performance and uncertainty	2010	No						Compensation
Campbell, Linda	FIN 48 and micro-cap firms	2010	No						Determinants of the UTB
Cazier, Richard A., Sonja O. Rego , Xiaoli (Shaolee) Tian, and Ryan J. Wilson	Early evidence on the determinants of unrecognized tax benefits	2009	No						Determinants of the UTB
Cazier, Richard A., Sonja O. Rego , Xiaoli (Shaolee) Tian, and Ryan J. Wilson	Did FIN 48 stop "last chance" earnings management through tax reserves?	2010	No				X		

Author(s)	Title	Year	Published	Journal	(a)	(b)	(c)	(d)	Other
Coder, Jeremiah	Accounting workpapers generally not meaningful, officials say	2008	Yes	Tax Notes				X	
Coder, Jeremiah	FIN 48 workpapers affect taxpayers, IRS in unexpected ways	2009	Yes	Tax Notes				X	
Coder, Jeremiah	Wilkins discusses need for uncertain tax position reporting	2010	Yes	Tax Notes				X	
Dellinger, Kip	The IRS FIN 48 disclosure initiative: Two worlds	2010	Yes	Tax Notes				X	
De Simone, Lisa, John R. Robinson, and Bridget Stomberg	Distilling the reserve for uncertain tax positions: The revealing case of black liquor	2010	No				X		
De Waegenaere, Anja, Richard C. Sansing and J. Wielhouwer	Financial accounting measures of tax reporting aggressiveness	2010	No						Compensation
Dhaliwal, Dan, Cristi Gleason, and Lillian Mills	Last-chance earnings management: Using the tax expense to meet analysts' forecasts	2004	Yes	Contemporary Accounting Research	X				
Dubin, Elliot, and Anne Boyd Watts	Could FIN 48 have contributed to an increase in compliance among non-filers?	2009	Yes	Multistate Tax Commission Review				X	
Dunbar, Amy, Linda Kolbasovsky, and John Phillips	FIN 48 adoption disclosures	2007	Yes	Financial Reporting Watch	X				
Dunbar, Amy, John Phillips and George Plesko	The effect of FIN 48 on firms' tax-reporting behavior	2009	No					X	
Dunbar, Amy, Thomas C. Omer, and Thomas D. Schulz	The informativeness of the FIN 48 "look-forward" disclosures		No				**X**		
Frischmann, Peter, Terry Shevlin, and Ryan Wilson	Economic consequences of increasing the conformity in accounting for uncertain tax benefits	2008	Yes	Journal of Accounting and Economics		X			
Gleason, Cristi, and Lillian Mills	Materiality and contingent tax liability reporting	2002	Yes	The Accounting Review	X				
Gleason, Cristi, and Lillian Mills	Do auditor-provided tax services improve the estimate of tax reserves?	Forthcoming	Yes	Contemporary Accounting Research	X				

Author(s)	Title	Year	Published	Journal	(a)	(b)	(c)	(d)	Other
Graham, J., Hanlon, M., and T. Shevlin	Inside the corporate tax department: insights on corporate decision making and tax aggressiveness	2011	No					X	
Gupta, Sanjay, Rick Laux, and Dan Lynch	Do firms use tax cushion reversals to meet earnings targets? Evidence from the Pre- and Post-FIN 48 Periods	2010	No		X		X		
Gupta, Sanjay, Lillian F. Mills, and Erin Towery	Did FIN 48 arrest the trend in multistate tax aggressiveness?	2009	No					X	
Hanlon, Michelle, and Shane Heitzman	A review of tax research	2010	Yes	Journal of Accounting and Economics			X		
Kimmelfield, Neil D.	FIN 48: Measuring tax benefits in the real world	2006	Yes	Tax Notes			X		
Kimmelfield, Neil D., and William C. Hsu	Textron, the work product doctrine, and the impact of FIN 48	2007	Yes	Tax Notes				X	
Klotsche, John, Neil Traubenberg, and Tracy Hollingworth	Tax risk management: Shulman's conversation with the board.	2010	Yes	Tax Notes				X	
Koester, Allison	Investor valuation of tax avoidance through uncertain tax positions	2010	No			X			
Langmead, Joseph M., and Kermit O. Keeling	How blue chip companies fared under FIN 48	2010	Yes	The CPA Journal	X				
Lee, Namryoung, and Charles Swenson	Shock and law: Fin 48 report card, IFRS, and beyond	2010	Yes	International Journal of Economics and Finance	X				
Lisowsky, Petro	Seeking shelter: Empirically modeling tax shelters using financial statement information	2010	Yes	The Accounting Review	X			X	
Lisowsky, Petro, Leslie A. Robinson, and Andrew P. Schmidt	Do publicly disclosed tax reserves tell us about privately disclosed tax shelter activity?	2011	No		X			X	Determinants of the UTB
Mills, Lillian, Leslie Robinson, and Richard Sansing	FIN 48 and tax compliance	2010	Yes	The Accounting Review				X	

Author(s)	Title	Year	Published	Journal	(a)	(b)	(c)	(d)	Other
Monks, Thomas J.	'Your papers, please'. Requests for FIN 48 workpapers	2010	Yes	Tax Notes				X	
Nichols, Nancy	One year later: An analysis of FIN 48 disclosures in 2007 forms 10-K	2008	Yes	Tax Notes			X		
Nichols, Nancy, Charles Baril, John Briggs	And the impact is…first quarter results from adopting FIN 48	2007	Yes	Tax Notes	X				
Nolan, Deborah	LMSB's compliance assurance program (CAP): Once year later	2006	Yes	Tax Executive				X	
Raby, William and Burgess Raby	Quantifying uncertain tax positions	2006	Yes	Tax Notes			X		
Robinson, Leslie A., and Andrew P. Schmidt	Firm and investor responses to uncertain tax benefit disclosure requirements	2011	No		X	X	**X**		
Sapirie, Marie	UTP regime continues to be refined, officials say	2010	Yes	Tax Notes				X	
Song, Wei-Ling, and Alan L. Tucker	Corporate tax reserves, firm value, and leverage	2008	No			X			