

**The Impact of Increased Tax Return Reporting on Financial Statement Tax Disclosure
Quality: Evidence from IRS Schedule UTP**

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**Michelle Kim Harding
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Abstract

This study uses the 2010 implementation of IRS Schedule UTP (Uncertain Tax Position) to examine the impact of additional tax return reporting on financial statement tax disclosure quality. Using a hand-collected sample, I find that firms reduce the quality of their Financial Accounting Standards Board Interpretation No. 48 (FIN 48) disclosures for Accounting for Uncertainty in Income Taxes in response to increased proprietary costs of disclosure following the adoption of IRS Schedule UTP. Standard setters intended FIN 48 disclosures to benefit investors. Contrary to this intended outcome, I find that as tax return reporting increases, firms reduce discretionary FIN 48 disclosures, making public tax disclosures more opaque and less useful to tax authorities and other stakeholders. Thus, an unintended consequence of increased tax return reporting is lower financial statement tax disclosure quality that undermines standard setters' goals of transparency, relevance, and comparability in financial reporting of income taxes.

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I. Introduction

My study examines how firms respond to mandatory increases in disclosure to the Internal Revenue Service (IRS). Specifically, I examine how increased private tax return reporting via IRS Schedule UTP (Uncertain Tax Position) impacts the public financial statement tax disclosure quality of reserves for uncertain tax positions. Information on Schedule UTP paired with high quality financial statement disclosures required under Financial Accounting Standards Board Interpretation No. 48 (FIN 48) potentially increases firms' proprietary costs because increased disclosure reduces the firms' ability to effectively negotiate with the IRS regarding their uncertain tax positions. In what is likely an unintended consequence of the IRS mandate to increase tax return reporting, firms could seek to minimize proprietary costs by decreasing their FIN 48 disclosure quality in order to limit the public information available to the IRS about their uncertain tax positions.¹ This is important because investors are generally unable to access corporate tax returns to obtain information for evaluating a firm's tax strategies² and FIN 48 disclosure is the primary source of information for investors to assess a firm's uncertain tax positions.

In 2010, the IRS implemented Schedule UTP to increase the efficiency of corporate taxpayer audits (Shulman 2010). Due to the nature of Schedule UTP reporting, its efficacy at increasing IRS audit efficiency should depend on its interaction and overlap with public disclosures of uncertain tax positions, and with the quality of those disclosures. For example, Schedule UTP requires a firm to disclose a concise narrative description, but not the magnitude, of each federal uncertain tax position included in its FIN 48 reserves. As a result, FIN 48 reserves

¹ For this study, I use the terms FIN 48 disclosure and public tax disclosure to refer to the financial statement disclosures required by FIN 48. IRS Schedule UTP (Uncertain Tax Position) tax return disclosures are distinct. Uncertain tax positions reported on IRS Schedule UTP are descriptions of the underlying federal uncertain tax positions for which the firm is reserving in their FIN 48 reserve liability and is including in their federal tax return. To avoid confusion, I refer to Schedule UTP disclosures as tax return reporting or private tax disclosure.

² Debtholders may have access to corporate tax returns as a part of the due diligence process.

and related disclosures are the only way the IRS can ascertain the economic magnitude of these uncertain tax positions.³ In fact, the IRS instructs its examiners to carefully review and analyze financial statement tax disclosures as a part of the audit planning process.⁴ This is important because the IRS faces constrained resources, budget, and staffing (Nessa, Schwab, Stomberg, and Towery 2016; Marr, Friedman, and DeBot 2015).

Evidence supports the assertion that the financial statement disclosure for uncertain tax positions is important for the IRS and that this importance increased subsequent to the promulgation of Schedule UTP. Specifically, Bozanic, Hoopes, Thornock, and Williams (2017) find that the IRS more than tripled its downloads of 10-K annual financial statement filings following the 2007 adoption of FIN 48. Furthermore, Bozanic et al. (2017) find a more than fifty percent increase in the number of 2010 10-K filings that the IRS downloaded in 2011 following the 2010 adoption of Schedule UTP.

Consistent with firms perceiving Schedule UTP to increase proprietary costs, my results show that FIN 48 disclosure quality declines following the 2010 adoption of IRS Schedule UTP. I find that firms maintain their compliance with the mandatory components of FIN 48 disclosure while decreasing discretionary disclosures. Additionally, I find that while firms continue to comply with mandatory components of FIN 48 disclosure, firms change how they comply. For example, firms are less likely to include numerical estimates in their mandatory discussions of expected changes to FIN 48 reserve balances.⁵

³ Any incremental information gained from FIN 48 disclosures is important to the IRS because under the IRS's Modified Policy of Restraint issued in conjunction with the implementation of IRS Schedule UTP, the IRS is not allowed to request documents privileged under attorney-client privilege, tax advice privilege, or the work product doctrine – see <https://www.irs.gov/businesses/corporations/uncertain-tax-positions-modified-policy-of-restraint>.

⁴ See <http://www.irs.gov/Businesses/Corporations/FIN-48-Implications---LB&I-Field-Examiners'-Guide>.

⁵ A change to the content of an annual footnote disclosure, absent a change to the governing accounting standard, is uncommon. A conversation with a former director for SEC reporting at a public company confirms that it is standard practice to roll forward disclosures from one year to the next and only update the relevant numbers. Thus, the changes to the content of discretionary disclosures that I document are unlikely to be spurious. My results

My results suggest that regulators should consider how firm discretion impacts disclosure quality and how firm discretion allows firms to comply with the letter of the law without fulfilling the spirit of the law. This consideration is relevant as the Financial Accounting Foundation (FAF) proposes allowing firms the discretion to determine the materiality threshold for reporting FIN 48 reserves and removing the requirement for a tabular reconciliation of FIN 48 reserves. A recent conversation with FAF staff reveals that they are not concerned that information will be lost if more firm discretion is allowed regarding how firms comply with FIN 48 disclosure requirements. The FAF anticipates that if given more discretion, firms will focus on providing more information on their most material transactions. My results suggest that this prediction is unlikely. My findings show that firms exercise discretion to reduce FIN 48 disclosure quality. My results are consistent with the rise in SEC comment letters released concerning poor FIN 48 disclosure quality. Of the 422 comment letters issued through the first 9 months of 2015, 45 related to FIN 48 reserves. Consistent with my findings, PwC summarizes that “disclosures lack the clarity necessary to provide financial statement users with an understanding of a change in the measurement of unrecognized tax benefits (UTBs) that have already occurred or could potentially occur in the near term (PwC 2015).”

With the exception of the Robinson and Schmidt (2013) study that examines FIN 48 disclosure quality following the initial period of FIN 48 adoption, prior FIN 48 disclosure studies only report on changes to FIN 48 reserve balances (Abernathy et al. 2013; Towery 2017), only focus on one component of the FIN 48 disclosure (Abernathy, Beyer, and Rapley 2017; Dunbar, Omer, and Schultz 2010; Blouin, Gleason, Mills, and Sikes 2007), or measure the volume of the tax footnote in its entirety, while relying on indirect proxies to assess the content of the FIN 48

support that firms respond to the adoption of IRS Schedule UTP and the mandate for the disclosure of additional private tax information to the IRS by reducing the quality of FIN 48 public tax disclosures.

disclosure (Bozanic et al. 2017). In contrast, my study using a hand-collected sample allows for a comprehensive examination of FIN 48 disclosure quality. Rather than relying on indirect measures, my hand-collected sample allows me to directly measure FIN 48 disclosure quality by capturing compliance with each of the six mandatory components of FIN 48 as well as four components of discretionary disclosure.

My paper provides insight that helps to explain potentially conflicting results in the prior literature examining the impact of IRS Schedule UTP on FIN 48 reporting and disclosure. Towery (2017) finds that firms reduce their FIN 48 reserves without reducing their underlying tax positions in their tax returns in response to IRS Schedule UTP. Towery (2017) also finds that firms facing higher costs of Schedule UTP disclosure provide less informative concise descriptions in private disclosures to the IRS. Consistent with Towery (2017) findings, additional analysis reveals that firms in my sample that have the largest reductions to FIN48 reserves are more likely to reduce discretionary FIN 48 disclosure quality following the adoption of IRS Schedule UTP. In contrast, Bozanic et al. (2017) finds that firms increase their volume of public financial statement tax disclosure following the adoption of IRS Schedule UTP. However, Bozanic et al. (2017) relies on measures of the number of sentences and number of numerical figures in the entire tax footnote to examine how firms respond to increased IRS attention surrounding IRS Schedule UTP. In additional analysis, I find that following the adoption of IRS Schedule UTP, firms subject to IRS Schedule UTP are more likely to disclose additional information about previously settled prior-year tax positions than those firms not subject to IRS Schedule UTP. Firms are more likely to include an additional prior year of data in their tabular reconciliation of FIN 48 reserves and to include more discussion of the resolutions of prior years' FIN 48 reserves rather than the details

of the nature of the current year's FIN 48 reserves. This result is consistent with Bozanic et al.'s (2017) finding of more voluminous disclosure and my finding of decreased disclosure quality.⁶

Bozanic et al. (2017) also examines the entire tax footnote, thereby introducing a volume of information that may be unrelated to FIN 48 tax reserves. Bozanic et al. (2017) uses Latent Dirichlet Allocation (LDA) to gain a level of comfort that the additional discussion likely relates to FIN 48 topics. However, my results suggest that while firms increase the volume of narrative disclosure surrounding prior years' FIN 48 reserve balances, firms reduce disclosure quality surrounding current or active FIN 48 reserves which would be of most interest to tax authorities. Because I directly measure whether and how the information content of each firm's FIN 48 disclosure changes in response to IRS Schedule UTP, my results reconcile the seemingly incongruent findings of Towery (2017) and Bozanic et al. (2017).

Standard setters designed FIN 48 disclosure requirements for the benefit of investors (Blouin and Robinson 2014). However, there are unintended consequences for investors if FIN 48 disclosures become increasingly opaque and/or less complete, diminishing the disclosure's informative value. As such, it is an important research question to address whether additional tax return disclosure requirements impact the quality of financial statement tax disclosures. Results of my primary tests using a balanced panel of firms that filed IRS Schedule UTP show that firms reduce FIN 48 disclosure quality following the adoption of IRS Schedule UTP. This finding supports the assertion that firms respond to increased tax return reporting that mandates increased private disclosure to tax authorities by reducing the quality of public tax disclosures to prevent tax authorities from gaining incremental information.

⁶ See Appendix C for an example of a firm providing additional disclosure of prior years' FIN 48 reserves following the adoption of IRS Schedule UTP. The example shown from Northrop Grumman Corporation shows that the entire increase in word count related to FIN 48 disclosure is due to the inclusion of the discussion of the additional prior year that is included in the tabular reconciliation.

My study contributes to the literature in several important ways. First, my hand-collected data set allows me to answer the call in Blouin and Robinson (2011) to provide evidence regarding the extent of disclosure variation or the lack of variation after the initial 2007 adoption of FIN 48. Next, I extend the literature on the consequences of changes in tax return reporting requirements (Towery 2017; Abernathy et al. 2013; Donohoe and McGill 2011; Frischmann, Shevlin, and Wilson 2008). As tax authorities acquire new sources of tax data, it is important that there is recognition of the potential unintended consequences of these tax enforcement efforts. Third, I extend the robust literature that examines how tax reporting affects financial reporting choices (Gramlich 1991; Boynton, Dobbins, and Plesko 1992; Manzon 1992; Dhaliwal and Wang 1992; Wang 1994; Guenther, Maydew, and Nutter 1997; Keating and Zimmerman 1999; Calegari 2000; Hanlon, Maydew, and Shevlin 2008).

My findings indicate that it is necessary to consider that tax return reporting, in addition to affecting financial reporting decisions, is also associated with a contemporaneous change in the disclosure quality related to the affected financial reporting items. In addition to being concerned with how FIN 48 tax reserve balances change, my study highlights that stakeholders should also be concerned with changes in the quality of the information accompanying FIN 48 tax reserve balances in response to increased tax reporting. Lastly, my findings are relevant to policymakers, as the Financial Accounting Standards Board (FASB) considers updates to FIN 48 requirements and the International Accounting Standards Board (IASB) considers international standards for tax contingency reporting. My findings suggest that it is necessary to consider how firm discretion has the potential to reduce tax disclosure quality and thwart the goals of relevance, transparency, and comparability in financial reporting of income taxes.

The remainder of this paper is organized as follows: The next section provides background information and literature review. Section III presents the hypothesis development. Section IV discusses the data and research design. I present the primary results in Section V. Section VI reports additional analyses, and Section VII concludes.

II. Background and Literature Review

Financial Statement Tax Disclosure - FIN 48

FIN 48 governs Accounting for Uncertainty in Income Taxes. Effective for fiscal years beginning after December 15, 2006, FIN 48 provides guidance on accounting for tax contingencies and requires the mandatory disclosure of uncertain tax positions to promote consistency and comparability across firms.⁷ Under the previous SFAS (109) reporting regime, in the pre-FIN 48 era, there was variation in how firms defined materiality, and few firms reported their reserves for uncertain tax positions (Blouin and Robinson 2011). Gleason and Mills (2002) find that only 27 percent of observations in their pre-FIN 48 sample contain any disclosure of a tax reserve.

FIN 48 requires that firms report tax reserve balances, termed unrecognized tax benefit (UTB) balances, in addition to disclosing other informational components. UTBs are a measure of the firm's liability for uncertain tax positions, capturing the amount of tax due on positions that fail to meet the more-likely-than-not threshold (as defined in FIN 48).⁸ This assessment assumes that positions are audited by the appropriate taxing authority possessing all knowledge of all relevant information (FASB 2006). In addition to the reconciliation of beginning and ending FIN 48 reserves, the other components of FIN 48 disclosure can include a rich discussion of information that identifies the nature of specific uncertain tax positions. Examples of uncertain tax positions for which an unrecognized tax benefit might be accrued are the decision to not file a state tax return

⁷ When a corporation files its tax return, it often pays less tax than the IRS and the courts might require if various positions related to exclusions, deductions, credits, and valuations were challenged. In its financial statements, the corporation must estimate how much tax expense and tax liability to record, taking into account the uncertainty of the tax benefit related to these positions. The reserve represents the firm's estimate of additional tax expense the firm expects to owe after the audit and the resolution of any litigation. The reserve reduces its current period income and/or net assets. As a result, some of the uncertain benefit claimed on the current year tax return is not recognized in the financial statements (Mills, Robinson, and Sansing 2010).

⁸ I use the terms FIN 48 reserves, UTB reserves, UTB balances to refer to the liability accrued for a firm's uncertain tax positions that fail to meet the FIN 48 standard of more-likely-than-not to be sustained in the event of an audit.

due to uncertainty surrounding nexus, transfer pricing between jurisdictions, and classifying a position as tax exempt.

The liability for uncertain tax positions included in FIN 48 disclosures is an important account. The average FIN 48 reserve for firms in my sample is \$183 million and the largest tax reserve is \$7.8 billion. Given the magnitude of FIN 48 reserves, firms are likely concerned with sustaining these tax positions and protecting them from scrutiny and potential reversal by tax authorities. The IRS, other tax authorities, investors and other stakeholders are likely interested in the tax positions for which firms record FIN 48 reserves and the disclosures about those reserves.

Under the FIN 48 regime, the mandatory nature of the tax reserve liability disclosures creates a benchmark for measuring firm disclosure choices. Deviations from the explicit requirements of FIN 48 create variation in the disclosure quality and information content of FIN 48 disclosures across firms. Robinson and Schmidt (2013) develop disclosure completeness and clarity measures to capture this variation. The disclosure completeness measure is based on the mandatory disclosure of eight items in Paragraphs 20 and 21 of FIN 48.

Prior research documents that firms exercise wide discretion and significant variation with regard to FIN 48 disclosure. This variation allows for the measurement of lack of compliance with individual components of FIN 48 disclosure. For example, only seventeen percent of my sample comply with all six mandatory components of my FIN 48 compliance measure, *COMPLETE*.⁹ I also measure four discretionary components of FIN 48 disclosure. The *CLARITY* measure captures how inconsistencies in FIN 48 disclosure reporting create a lack of transparency and comparability. FIN 48 leaves room for interpretation for how uncertain tax positions are disclosed,

⁹ Based on the Robinson and Schmidt (2013) compliance measure, *COMPLETE* measures the six mandatory components of FIN 48 disclosure that are required in periods subsequent to the initial adoption period and for which firms demonstrate variation in compliance.

as well as whether and how additional information is included in the disclosure (Beyer, Cohen, Lys, and Walther 2010; Blouin and Robinson 2011). A component of the *CLARITY* measure is whether firms disclose if the UTB reported includes or excludes interest and penalties. In their sample, Blouin, Gleason, Mills, and Sikes (2007) find that the aggregate UTB could range from \$70 to \$78 billion, depending upon the assumption as to whether the disclosed UTB reserve contains interest. Blouin and Robinson (2011) conclude their submission to the FAF's Post-Implementation Review of FIN 48 by stating, "If disclosure practices are too varied, then strides in increasing the comparability of UTB balances may yield little benefit to shareholders."

A recent FASB exposure draft reports that FIN 48 users do not use disclosures about unrecognized tax benefits for modeling purposes, but they do use the disclosures to assess how aggressive an entity is with its tax positions (FASB 2016). This finding is inconsistent with the conclusions reported in the FAF's 2012 FIN 48 Post-Implementation Review, which states that investors use the information included in FIN 48 disclosures to predict income tax cash flows and to assess how aggressive management are in their income tax strategies (FAF 2012). This change in how investors use FIN 48 suggests that since the adoption of FIN 48, there has been a change in investor's ability to gain useful information from FIN 48 disclosures. This is consistent with recent SEC Comment letters that find that FIN 48 disclosures lack sufficient clarity to be useful to financial statement users (PwC 2015). Thus, there are implications for financial statement users if increased tax return reporting is also associated with reduced disclosure quality that diminishes the relevance, transparency and comparability and ultimately the usefulness of public tax disclosures that standard setters intended with the passage of FIN 48.

Tax Return Reporting - IRS Schedule UTP

The final version of Schedule UTP released on September 24, 2010, requires firms with assets of \$100 million or greater to disclose a narrative description, but not the amount, for each federal uncertain tax position for which they have a FIN 48 reserve in their financial statements. Firms are required to separately disclose federal uncertain tax positions for the current year and accumulated prior year positions that are still pending. There is a transition rule whereby a firm is not required to report a tax position taken in a tax year beginning before January 1, 2010, even if a reserve is recorded with respect to that tax position in audited financial statements issued in 2010 or later. Also, at adoption Schedule UTP included a planned roll-out of Schedule UTP to firms with assets of \$50 million and \$10 million in assets in 2012 and 2014, respectively. Thus, the implications of increased Schedule UTP tax reporting are relevant for small firms that become subject to Schedule UTP in subsequent years.

IRS Commissioner Doug Shulman introduced Schedule UTP in a January 2010 speech made to the New York State Bar Association Taxation Section. In practice, prior to Schedule UTP, the aggregated nature of the reserve balance prevented federal, state, and foreign tax authorities from determining whether the reserves related to tax positions claimed in their respective jurisdictions (Towery 2017). In his remarks, Commissioner Schulman indicated a desire to increase efficiency in the audit process and to reduce the amount of time the IRS spent searching for taxpayer issues (Shulman 2010). Practitioners and professional organizations tried to pressure the IRS to abandon the initiative (Towery 2017). Robert Mathers, a member of the AICPA Tax Practice Responsibilities Committee, referred to the Schedule UTP as a “road map to potential audit issues” (Mathers and Kmiecik 2015). Prior research supports the notion that

investors believe Schedule UTP provides the “road map” to the IRS that FIN 48 on its own did not (Abernathy, Davenport, and Rapley 2013).

Regulatory Interaction

Regulatory interaction is the combination of requirements to publicly disclose some information and privately disclose other information to regulators (Bozanic, Hoopes, Thornock, and Williams 2017). Schedule UTP enables the IRS to link federal uncertain tax positions reported on the Schedule UTP to information included in a firm’s public FIN 48 disclosures. Schedule UTP, along with any incremental information garnered from FIN 48 disclosures can help the IRS to refine and target its audit process and procedures. In the IRS’s Modified Policy of Restraint issued in conjunction with the implementation of IRS Schedule UTP, the IRS is not allowed to request documents privileged under attorney-client privilege, tax advice privilege, or the work product doctrine. Thus, the ability to link information from public tax disclosures to private tax reporting is a likely “road map” mechanism.

There are a number of ways that the IRS can link Schedule UTP to information in FIN 48 disclosures. For example, if a firm lists a new uncertain tax position on Schedule UTP, this item can be traced to the firm’s explanation of the dollar amount of current year UTB changes.¹⁰ Furthermore, Schedule UTP requires firms to indicate if a position causes a permanent and/or temporary tax difference. If a firm chooses to disclose the portion of the UTB balance that impacts the effective tax rate or provides an explanation for the portion of their UTB balance that does not affect their effective tax rate, this scenario again provides incremental information to the IRS that could allow the IRS to better ascertain the dollar magnitude of reserves for specific

¹⁰ There may be multiple jurisdictions included in the total current year additions included in the FIN 48 reconciliation. However, if a firm provides an explanation that attributes all or a portion of the current year addition to a specific jurisdiction, this better informs the IRS of the dollar amount of the current year portion of the FIN 48 reserve that may be related to federal uncertain tax positions included on IRS Schedule UTP.

UTPs.¹¹ If a firm chooses to disclose its accrued interest and penalties related to UTB balances separately, revealing large accrued penalties, this documentation signals that the firm has relatively aggressive uncertain tax positions that the firm deems would result in penalties in addition to interest were those positions to be audited by tax authorities (Robinson and Schmidt 2013). If a firm chooses to disclose that it expects to reduce its UTB balance in the next year due to expiration, this narrative allows the IRS to trace the UTB reserve amounts to those federal uncertain tax positions that are set to expire in the next year and gain a sense of potential magnitude relating to federal positions. The same is true if a firm discloses a UTB amount that it expects to settle within the year. Thus, Schedule UTP may increase the proprietary costs of firms publicly disclosing incremental information in financial statement FIN 48 disclosures.

Prior research finds that firms reduced reported FIN 48 reserve balances in response to the adoption of IRS Schedule UTP in 2010 (Abernathy et al. 2013; Towery 2017). Using confidential IRS data, Towery (2017) finds that after the imposition of Schedule UTP tax reporting requirements, firms report lower FIN 48 tax reserves for financial reporting purposes, but do not claim fewer income tax benefits on their federal tax returns. This finding suggests that some firms changed their financial reporting of UTB reserves for uncertain tax positions to avoid Schedule UTP reporting requirements without changing the underlying positions. Towery (2017) interprets the result as an unintended consequence of increased tax return reporting that firms permanently reduce their financial reporting of FIN 48 reserve balances. As such, it is possible that in addition to reducing UTB balances reported, firms also change the information disclosed about remaining UTB balances. In other words, the FIN 48 reserve balance is one lever that a firm can maneuver

¹¹ The FIN 48 explanation of UTB impact to the effective tax rate is different than UTB amounts that may be included in the tax rate reconciliation also presented in the 10-K. The rate reconciliation includes the amount of UTB that impacts the current year's effective tax rate. The FIN48 disclosure addresses the portion of the UTB ending balance that may impact effective tax rates in future years.

in response to IRS Schedule UTP. FIN 48 disclosure quality is another, potentially less costly, level that firms can manipulate in response to IRS Schedule UTP. Less costly, because auditors may be less likely to question a FIN 48 disclosure change than they would be to question a change to the actual FIN 48 reserve. Information that a firm discloses in its FIN 48 financial statement disclosure has the potential to allow the IRS to infer more accurate estimates of the magnitude of uncertain tax positions listed on Schedule UTP. This conglomeration of public and private data is a proprietary cost that potentially impacts the ability of firms to negotiate with the IRS during the audit process. Thus, higher quality FIN 48 disclosures can effectively reduce noise for the IRS by increasing the disaggregating signals (Banker and Datar 1989). Disaggregating signals being that the more detailed and precise FIN 48 disclosures are, the less noise the IRS has to decipher in order to gain information that complements private disclosures in IRS Schedule UTP. Higher quality FIN 48 financial statement disclosures have the potential to aid the IRS in levying more accurate assessments and more efficiently allocating constrained audit resources.

III. Hypothesis Development

Disclosure theory posits that, provided certain frictions are not present, managers will disclose all material information in a timely and high-quality manner (Grossman and Hart 1980). In the disclosure setting, frictions are associated with costs managers will incur from high-quality timely disclosures. There is an inherent information asymmetry between the IRS and firms, which can affect a firms' willingness to publicly disclose tax information. There was initial concern that FIN 48 disclosures would act as a "roadmap" for the IRS, pointing the IRS towards plausibly contestable tax issues (Leone 2007). The IRS introduced Schedule UTP in 2010, confirming the IRS's interest in and focus on uncertain tax positions to increase the efficiency and effectiveness of corporate tax audits (Harvey 2010). It is possible that IRS Schedule UTP heightens proprietary costs because of the increased risk of disclosing incremental or complementary information that the IRS is now able to trace to private tax return disclosures. If managers believe that IRS Schedule UTP increases proprietary costs, they may react by reducing FIN 48 financial statement disclosure quality. This reaction would be with consistent Wagenhofer (1990) and Verrecchia (1983) that suggest managerial concerns of revealing proprietary information could limit full disclosure. Consequently, it is possible then that increased tax return reporting leads to reduced financial statement tax disclosure quality. The firm's motivation could also be to provide as little information as possible to tax authorities or a desire to maintain the continuity of its usual disclosure pattern (Field, Lowry, and Shu 2005).

However, given the extent of the IRS's private information, new public information provided in the financial statements may not be very useful for tax enforcement (FASB 2006). It is possible that once the IRS requires more private disclosure, the proprietary cost of information disclosure to shareholders is reduced, and firms publicly disclose more. If this is the case, in the

presence of lower proprietary costs, firms may respond by increasing FIN 48 disclosure quality. This result is consistent with Bozanic et al. (2017) findings of increased volume of tax disclosure following the 2010 adoption of IRS Schedule UTP. Firms may desire to be as transparent as possible to investors regarding their uncertain tax positions, while also minimizing the probability that revealed tax information is used against them by the tax authority (Mills et al. 2010). Thus, increased private tax disclosure to the IRS may reduce the cost of increased public tax disclosure. Bozanic et al. (2017) assert that tax-related proprietary costs decrease as a result of the IRS's increased private disclosure requirements (Verrecchia 2001; Dye 2001).

In addition to facing proprietary costs, firms face other disclosure costs. Prior research shows that lower quality disclosures subject firms to increased cost of equity capital and lower firm valuations (Francis, Nanda, and Olsson 2008; Lambert, Leuz, and Verrecchia 2007; Hope, Ma, and Thomas 2013; Akamah, Hope, and Thomas 2014; Botosan 1997; Chung, Judge, and Li 2015). Theoretical models propose that managers disclose more information than required by market regulations to reduce information asymmetry among their investors (Diamond 1985; Diamond and Verrecchia 1991). Survey evidence suggests that managers provide voluntary disclosure to reduce risk (Graham, Harvey, and Rajgopal 2005). Balakrishnan, Blouin, and Guay (2014) finds that firms with greater tax complexity increase disclosure to reduce information asymmetry. It is possible then that firms maintain or improve their FIN 48 disclosure quality after Schedule UTP to reduce information asymmetry with investors. Firms may disclose more information increasing the quality of their tax disclosures to signal the legitimacy of those uncertain tax positions and reduce uncertainty for investors. Analytical models predict that taxpayers will claim fewer weak tax positions once the tax authority observes more information about the strength of a tax position (Mills et al. 2010). This finding suggests that subsequent to

the initial adoption period of FIN 48, the remaining uncertain tax positions are the most strongly supported and the least likely to be overturned. Thus, the introduction of Schedule UTP may motivate increased FIN 48 disclosure quality.

Based on the above theory and prior research, firms may choose to increase or decrease FIN 48 disclosure in response to IRS Schedule UTP. Therefore, I do not predict a direction and I state my hypothesis in the null form:

H₁: Firms do not change their FIN 48 disclosure quality in response to IRS Schedule UTP.

IV. Data and Research Design

Sample Selection and Variable Descriptions

I examine a hand-collected sample of FIN 48 footnote disclosures for calendar year-end firms in the Compustat S&P 1500 Super Composite Index for 2009 and 2010. The introduction and final implementation of Schedule UTP within calendar-year 2010 provides a clean cutoff to examine the impact of increased tax return reporting that requires increased private tax disclosure. In 2010, non-calendar year-end firms had more time to respond to Schedule UTP filing requirements than calendar year-end firms. While a non-calendar year-end firm might choose not to enter a planned transaction upon the September 2010 release of the final Schedule UTP, a calendar year-end firm might have already entered the transaction. Towery (2017) notes that due to proximity to year end of the implementation of Schedule UTP, calendar-year firms likely did not have time to unwind their uncertain tax positions related to FIN 48 reserves reported. Thus, I limit the sample to calendar year-end firms to hold constant the amount of time sample firms had to respond to Schedule UTP. I exclude firms that disclose a zero or non-material UTB balance and do not report a tabular UTB reconciliation in 2009 or 2010. Table 2 provides a summary of sample selection for my balanced panel of firms.

Following Robinson and Schmidt (2013), I construct a two-part disclosure quality score for each firm in the sample, *COMPLETE* and *CLARITY*. *COMPLETE* measures compliance with the FIN 48 disclosure guidelines by capturing the presence or absence of each mandatory disclosure as presented in the Appendix A. The eight criteria are: 1. Firms must disclose a tabular reconciliation of the UTB balance that categorizes changes during period. 2. Firms must describe changes to the UTB reserve balance during the year. 3. Firms must separately disclose the amount of the UTB that, if recognized, would affect the effective tax rate (ETR). 4. The disclosure must contain the amounts of any accrued interest and penalties related to the UTB. 5. Firms must

stipulate where they report interest and penalties in the income statement. 6. The disclosure must include a discussion of open tax years in major jurisdictions. 7. Firms must make a forward-looking disclosure of expected changes to the UTB balance within the next twelve months. 8. Firms must disclose the balance sheet adoption effect of retroactive application of FIN 48 (only required in the year of adoption). Each component of the disclosure measures is described in detail in Table 1. To account for FIN 48 compliance after the initial period of adoption, I exclude item eight, the requirement for firms to disclose the initial balance sheet impact of FIN 48 adoption. Although some firms continue to make this disclosure in subsequent years, it is only required in the initial period of adoption of FIN 48. Also, I exclude the requirement to provide a tabular UTB reconciliation. I use Python code to identify additional firms from the SEC Edgar database whose 10-K filings disclose FIN 48 balances that are not captured by Compustat. I also use ending UTB balance as a control variable. Therefore, I require all firms in the sample to disclose a tabular UTB reconciliation so that I have sufficient data for UTB control variables for all observations, those identified via Compustat and those identified using Python code from the SEC Edgar database. As all firms in the sample disclose a tabular UTB reconciliation in both years, there is no variation. Thus, the *COMPLETE* score of mandatory disclosure ranges from 0 to 6.

The *CLARITY* measure is based on four additional elements of FIN 48 disclosure where firm discretion is used in reporting. *CLARITY* ranges from 0 to 4 and captures discretionary disclosure decisions by measuring the precision of the mandatory disclosures as indicated by the presence or absence of important clarifying information needed to understand and interpret the disclosure. The first clarity component is whether the firm includes a discussion or explanation of the amount of the UTB that does not affect the effective tax rate (e.g., temporary differences, goodwill, or other comprehensive income adjustments) that is included in the UTB reserve

balance. The second clarity measure is whether the firm explicitly states whether the reported UTB was gross or net of federal deductions for state tax benefits. The third clarity component is whether the firm explicitly states whether the reported UTB included interest and penalties. The fourth clarity measure is whether the firm reports interest and penalties separately.

To test H₁, I estimate using a Poisson regression because my dependent variables are nonnegative count variables.^{12 13}

$$\begin{aligned} \text{SCORE}_{it} = & b_0 + b_1\text{SchUTP}_{it} + b_2\text{CETR}_{it} + b_3\text{UTB}_{it} + b_4\text{SIZE}_{it} + b_5\text{PFT}_{it} + b_6\text{CAPINT}_{it} \\ & + b_7\text{LTDA}_{it} + b_8\text{MB}_{it} + b_9\text{BIG4}_{it} + b_{10}\text{TAXFEES}_{it} + b_{11}\text{DAYSFILE}_{it} \\ & + b_{12}\text{ANALYSTS}_{it} + b_{13}\text{WEAKYRS}_{it} + b_{14}\text{BODINSIDE}_{it} + b_{15}\text{BODLOCKS}_{it} \\ & + b_{16}\text{BODOTHER}_{it} + b_{17}\text{LITDUM}_{it} + b_{18}\text{REGDUM}_{it} + b_{19}\text{FOROPS}_{it} \\ & + b_{20}\text{BUS_SEG}_{it} + b_{21}\text{GEO_SEG}_{it} + f + e_{it} \end{aligned}$$

I define the dependent variable, *SCORE*, as either *COMPLETE* or *CLARITY*. *COMPLETE* and *CLARITY* measure different aspects of the FIN 48 disclosure. *COMPLETE* measures lack of compliance, while *CLARITY* measures the discretionary disclosure that captures the voluntary inclusion of important clarifying information needed to understand and interpret the disclosure. Following Robinson & Schmidt (2013), I include control variables that capture firm-level characteristics that may affect firms' disclosure choices. I include a firm fixed effect to control for time invariant firm characteristics. The results are robust to using an industry fixed effect. The model includes robust standard errors.

Proprietary costs of disclosing more information about uncertain tax positions result from the possibility that the increased disclosure may weaken a firm's competitive position

¹² Robinson & Schmidt (2013) test using an ordered logit regression. Ordered logit regressions are most appropriate when the dependent variable is an ordinal measure such as survey responses that measure from 1 to 10. A Poisson regression is appropriate when the dependent variable is a count variable. In untabulated results, my results for my main regressions are statistically similar when using an ordered logit.

¹³ I test the Poisson model for over dispersion using a negative binomial regression. I also use the Stata command `estat gof` to test that the Poisson Model is appropriately specified. The model fits reasonably well because the goodness-of-fit chi-squared test is not statistically significant.

when negotiating with tax authorities, increase the probability of an audit occurring or increase the effectiveness of an IRS audit. If the IRS does not find information in the FIN 48 disclosure useful, then the 2010 implementation of Schedule UTP may lower proprietary costs associated with providing more information in the FIN 48 disclosure. As such, the variable of interest is *SchUTP*, an indicator variable equal to one for 2010 firm-year observations to capture a within firm analysis of whether firm disclosure changes surrounding Schedule UTP adoption. The coefficient captures the average of firm-specific differences in disclosure. I do not predict a direction for the association between disclosure score and *SchUTP*. However, a negative *SchUTP* coefficient indicates that firms on average have lower FIN 48 disclosure quality following the adoption of IRS Schedule UTP. A positive *SchUTP* coefficient indicates that firms on average have higher quality FIN 48 disclosure post IRS Schedule UTP.

CETR is a measure of tax avoidance and is calculated as a three-year average cash effective tax rate, measured as the sum of cash taxes paid from three lagged years divided by the sum of total pretax income from three lagged years (Dyreng et al. 2008). *CETR* is winsorized at the 1st and 99th percentiles.¹⁴ A positive and significant value of *CETR* implies that firms that pay higher effective tax rates or engage in less tax avoidance behavior, likely face lower proprietary costs from full disclosure and have higher FIN 48 disclosure quality. A negative and significant value of b_2CETR implies that a firm that pays higher effective tax rates faces higher proprietary costs from full disclosure, and have lower quality tax disclosures.

I add *UTB* to the Robinson & Schmidt (2013) model. It is measured as the log of the

¹⁴ Results are robust to not winsorizing the *CETR* variable.

year-end balance of UTB tax reserves. Firms that possess large UTB tax reserve balances may be sufficiently opaque due to the aggregation of many large positions and not be motivated to alter FIN 48 disclosure quality. Similarly, a firm with a small UTB balance may not be concerned with higher quality disclosure because the IRS may have good information on small balances. However, in general, firms may not want to provide any incremental information that can allow the IRS to better ascertain the magnitude of the reserve for specific positions. As such, I do not make a prediction for UTB.¹⁵¹⁶

Prior research finds a positive association between firm size and disclosure quality (Lang and Lundholm 1993). To control for the possibility that FIN 48 disclosure quality is correlated with disclosure quality more generally, I include firm characteristics that predict comprehensive disclosure: size (*SIZE*), profitability (*PFT*), capital intensity (*CAPINT*), leverage (*LTDA*), and investment opportunities (*MB*). Limiting the sample to S&P 1500 firms may bias me against finding results as these firms are likely used to scrutiny and may have already taken into account attention from tax jurisdictions. However, relatively larger firms also face increased visibility and attention from the media or regulators which may increase the likelihood of lower quality tax disclosure to reduce potential political costs, (Watts and Zimmerman 1986). Additionally, large firms are in a better position to “hide” information contained in any single disclosure due to the sheer volume of disclosures.

Capital intensity is a proxy for entry barriers, and disclosure quality is likely to increase

¹⁵ In untabulated results, I control for changes to the current year portion of the UTB balance and the total annual change to UTB balance. My results are robust to both specifications.

¹⁶ The Schedule UTP transition rule does not require firms to report tax positions taken in a tax year beginning before January 1, 2010, even if a reserve is recorded with respect to that tax position in audited financial statements issued in 2010 or later. Thus, changes to FIN 48 disclosure quality may be driven by additions or the net change to the prior year portion of the UTB balance. In untabulated results, to control for the potential impact of prior year positions, I add to the model a variable for the addition to prior year positions and a variable for the net change to prior year positions. My results are unchanged.

as the threat of entry decreases (Cohen 2003). Agency problems associated with debt increase with leverage. However, there may be an inverse relation between higher leverage, which implies less equity, and cost savings in private information acquisition. Prior research finds mixed results concerning the effect of performance on disclosure, thus I do not make a prediction for my measure of profitability (Skinner 1994; Lang and Lundholm 1993). Investors commonly use the market-to-book ratio to measure the investment opportunity set and the related financing considerations. The market-to-book ratio also proxies for the information asymmetry between management and investors, an important determinant of the disclosure choice (Verrecchia 1990).

Firms that pay higher tax fees to their auditors (*TAXFEES*) reserve more sufficiently for uncertain tax positions (Gleason and Mills 2011). If firms disclose more information in response to Schedule UTP, it is possible that there are Schedule UTP implementation costs. I include number of days between the year-end and the annual filing date (*DAYSFILE*) as a proxy for implementation costs. Prior studies show that information asymmetry and the demand for information can increase firms' incentives to make high-quality disclosures (Bhushan 1989; Lang and Lundholm 1993). A positive association between analyst forecasting activity, *ANALYSTS*, and the level of financial disclosure would be consistent with the prior literature. The number of internal control weaknesses (*WEAKYRS*) could capture complexities associated with the firm's internal information environment, which may impact the ability to calculate and substantiate a firm's tax positions. Firms reporting a control weakness in their tax accounts (*WEAKYRS*) may have greater difficulty analyzing and substantiating their tax positions.

Literature suggests that firm monitoring affects disclosure quality. I include control

variables that measure the various aspects of corporate governance (Warfield, Wild, and Wild 1995). In my setting, it is unclear whether a high-quality FIN 48 disclosure potentially jeopardizes the sustainability of tax strategies or reduces information asymmetry with investors. Therefore, I do not make predictions on my measures of internal governance, the percentage of insiders on the board (*BODINSIDE*), the average number of additional boards on which current directors serve (*BODOTHER*), and the number of board interlocks (*BODLOCKS*). I expect higher quality disclosure as indicated by positive coefficients on the external governance measures, when the firm uses a Big-four audit firm (*BIG4*) and operates in a highly regulated industry (*REGDUM*) due to additional monitoring.

Prior research finds that the threat of shareholder litigation can have negative effects on disclosure decisions (Skinner 1994; Francis, Philbrick, and Schipper 1994; Kasznik and Lev 1995; Soffer, Thiagarajan, and Walther 2000). The potential for legal action related to inadequate or untimely disclosures can improve disclosure. Where a significant amount of judgment is inherent in making the disclosure, litigation risk has the potential to reduce incentives to provide disclosure. Consistent with prior literature, I include an indicator variable for firms in high-litigation industries (*LITDUM*). I do not make a prediction on *LITDUM* as the net impact of litigation risk is unclear.

Multinational firms likely face greater information asymmetry than domestic firms. Typically, the demand from stakeholders for tax information should be higher the greater the extent of foreign operations (*FOROPS*) because multinational firms face more tax-planning opportunities and face tax uncertainty in several different tax jurisdictions.¹⁷ Investors may

¹⁷ I follow Robinson & Schidmt (2013) for the specification of *FOROPS* as the number of times a firm reports foreign pretax income (PIFO) as a percentage of the number of times a firm reports total pretax income (over the previous five years). My results are robust to using the alternate specification of foreign income as a percentage of total revenue (PIFO/SALE).

want more disclosure to reduce uncertainty surrounding the sustainability of tax positions and future tax cash flow. I also include *BUS_SEG* and *GEO_SEG* to control for the complexity of the firms' underlying business (Li 2008; Li 2010). Firms with complex operations are more likely to have complex tax positions. Increased complexity may increase the burden of applying the two-step process of FIN 48 to each tax position to determine if it should be reserved as failing to meet the FIN 48 standard of being more-likely-than-not to be sustained upon examination by the relevant tax authority and then to calculate the appropriate tax liability for the uncertain tax position.

V. Empirical Results

Descriptive Statistics

Panel A of Table 3 presents descriptive statistics for the disclosure score dependent variables for the sample of 1,456 firm-years. The *COMPLETE* disclosure score has a range of 0 to 6 and the mean (median) is 5 (5).¹⁸ *CLARITY* ranges from 0 to 4 and measures the precision of the required disclosures by capturing the presence or absence of important clarifying information needed to understand and interpret the disclosure. The mean (median) of 1.19 (1) indicates that firms exercise significant discretion with regard to the transparency and interpretability FIN 48 disclosures.

Panel B of Table 3 presents the means for the pre-Schedule UTP and post-Schedule UTP samples and a t-test of significance of the difference in means for each of the disclosure scores. The difference in the means for pre- and post- Schedule UTP univariate *CLARITY* disclosure scores is marginally significant at the 10% level. This preliminary finding provides univariate support that the discretionary components of FIN 48 disclosure quality declines following the adoption of Schedule UTP.

Panel C of Table 3 presents the means for the pre-Schedule UTP and post-Schedule UTP samples and a t-test of significance of the difference in means for the individual components of the *COMPLETE* and *CLARITY* disclosure scores. By construction, the sample has one hundred percent compliance for C1_UTB. Thus it is excluded from the *COMPLETE* component measure. There are reasonably high compliance levels for each of the individual components except C2_CHANGE and C8_ADOPT. C2_CHANGE requires that firms explain changes to their FIN 48

¹⁸ When using the Robinson & Schmidt (2013) complete score that ranges from 0 to 8, my mean (median) *COMPLETE* is 6.20 (6) for compliance with the eight mandated components of FIN 48 disclosure. This result is consistent with the complete score of 7.05(7.33) from the Robinson & Schmidt (2013) sample when adjusted for firms no longer disclosing the initial adoption year impact of FIN 48 (8C_ADOPT).

reserve balance. These descriptives are consistent with the findings of SEC comment letters summarized by PwC. Firms include changes in the tabular reconciliation, but fail to provide additional detail as to the nature of the tax position causing the change. *C8_ADOPT* is the impact of the initial adoption of FIN 48. It is only required in the initial year of adoption and many firms no longer report the 2007 FIN 48 adoption impact. As such, I exclude *C8_ADOPT* from the compliance measure *COMPLETE*. The t-test provides univariate support that the *CL1_NONETR* discretionary disclosure declines post Schedule UTP.

Table 4 presents descriptive statistics for the independent variables used in the regressions. *BIG4* mean of .95 indicates that almost all S&P 1500 firms in the sample use a Big 4 auditor. *DAYSFILE* mean of 91.82 indicates that firms file the annual 10-K within three months of the close of the fiscal year. Thus, the 2010 Form 10-K on average is filed by March 31, 2011. The 2010 corporate tax return is filed by March 15, 2011 or the extended deadline of September 15, 2011. Thus, the 2010 Form 10-K is the most relevant source of public tax disclosure for calendar year 2010 for the IRS. T-tests are significant for the difference in the means for pre- and post- Schedule UTP tax fees paid to the auditor, analyst following, business segments and geographic segments. The increase to auditor provided tax services suggests that firms incurred increased costs to comply with Schedule UTP. An increase in analyst following suggests that analysts were also interested in how FIN 48 disclosure quality would change surrounding Schedule UTP adoption. Disclosing more geographic segments may be an indication of the extent of foreign uncertain tax positions included in the aggregated FIN 48 reserves. Disclosing more geographic segments potentially signals a smaller “slice of the pie” related to federal uncertain tax positions disclosed in IRS Schedule UTP and thus lowers the proprietary costs associated with higher disclosure quality.

Test of Hypothesis

Table 5 presents the results of tests of my hypothesis that firms do not change their FIN 48 disclosure quality in response to IRS Schedule UTP. The variable of interest, is indicator variable *SchUTP*. In column 1, the *COMPLETE* regression, the variable of interest is positive but not significant. This finding is consistent with firms maintaining compliance with mandatory components of disclosure in the face of potential IRS scrutiny following the adoption of IRS Schedule UTP. As firms likely anticipate increased IRS attention, they are motivated to comply with the “letter of the law.” However, in column 2, the negative and highly significant result for *CLARITY* shows that firms respond to IRS Schedule UTP by reducing their discretionary disclosure of precise elements of FIN 48 disclosure that provide clarifying information needed to better understand and interpret the disclosure.¹⁹ The economic significance of the *SchUTP* coefficient for the *CLARITY* disclosure score is an on average decrease of 8.4 percent. This is calculated as the *SchUTP* coefficient $-.090$ multiplied by the standard deviation of the *CLARITY* sample $.93$ from Panel A of Table 3. Thus, following the adoption of IRS Schedule UTP, firms on average reduce discretionary FIN 48 disclosures by 8.4 percent.

Because I find that firms reduce their discretionary disclosures to reduce the transparency of FIN 48 disclosures but find no evidence that firms reduce disclosure of mandatory items from the FIN 48 reporting guidelines, I further examine a mandatory component of the *COMPLETE* measure to determine if firms comply with the disclosure but provide less information. Table 6 presents the results of an examination of how firms alter the information contained in the forward-looking statement estimating the potential change to the UTB reserve balance in the next twelve months (*7C_FWD*). The forward-looking statement is an important component of FIN 48

¹⁹ The *CLARITY* Poisson regression with fixed effects drops 142 firms or 284 firm-years that have no change in *CLARITY* score, primarily firms that have a zero *CLARITY* disclosure score in 2009 and 2010.

disclosure because it can assist or hinder the ability of investors to determine the related impact on a firm's cash flows (Dunbar et al. 2010). Column 1 indicates that firms do not change their compliance with providing the required forward-looking statement. However, the negative and significant column 3 *SchUTP* result indicates that following the adoption of IRS Schedule UTP firms are less likely to provide a numerical estimate of the anticipated change to their UTB reserve balance.

Prior to Schedule UTP, firms disclosed a numerical point estimate or potential range for how UTB reserve balances may change in the next year. Subsequent to Schedule UTP adoption, firms with non-zero UTB reserve balances are more likely to comply with the forward-looking statement requirement by describing a potential UTB reserve change as “possible,” “uncertain,” “immaterial,” or “not significant.”²⁰ This change is an important loss of information to investors concerned with future after-tax cash flow. This finding is consistent with recent SEC comment letters that describe FIN 48 disclosures as not providing enough early warning about how FIN 48 reserves could potentially change in the near term (PwC 2015). It is a strategic decision for a firm to not provide a value for estimated changes to UTB reserve balances due to settlement or expiration of statute of limitation. The IRS only has descriptions of uncertain tax positions from Schedule UTP. Any incremental information gained from FIN 48 disclosures about expected changes in the next year can help the IRS to triangulate to relevant uncertain tax positions from Schedule UTP that are close to settlement or expiration to obtain an idea of potential magnitude for the uncertain tax position. The column 2 result supports the assertion that firms reduce the quality of FIN 48 disclosures while continuing to comply with the mandatory components of the disclosure.

²⁰ See Appendix B for an example of a firm that changes its disclosure in this way.

Table 7 presents results for the individual components of the *CLARITY* discretionary disclosure score. This breakdown provides insight into the specific mechanisms for decreased disclosure quality. Each of the components has a negative coefficient for the *SchUTP* variable of interest. However, the result is negative and significant for *1CL_NONETR*, indicating that firms are less likely to provide an explanation for the portion of UTB balances that do not impact ETR. For instance, if UTB reserve balances do not impact ETR, it would be useful for an investor to know if that is due to goodwill from an acquisition or timing differences that impact deferred tax accounts. Reducing aspects of *CLARITY* makes FIN 48 disclosures more opaque and potentially less useful to the IRS to identify relevant amounts to be able to determine the magnitude of the uncertain tax positions described in Schedule UTP. An unintended outcome is that this change also reduces the usefulness of FIN 48 disclosures to investors and other stakeholders. My findings are consistent with the rise in SEC comment letters surrounding the lack of clarity of FIN 48 disclosures.

VI. Additional Analysis

To further examine the firms that experience a decline in their overall discretionary disclosure, I create an indicator variable that captures whether a firm has a decline in their *CLARITY* score following the adoption of IRS Schedule UTP. This methodology allows me to focus on firms that experience a decline in their discretionary disclosure, rather than Table 4 primary results which examine the level of firms' discretionary disclosure. Additionally, I include measures for components of the tabular reconciliation of the FIN 48 reserve balance. Untabulated results show that firms with the largest net reductions to FIN 48 reserves balances are more likely to reduce discretionary FIN 48 disclosure quality following the adoption of IRS Schedule UTP. This finding is consistent with the Towery (2017) result that firms subject to IRS Schedule UTP reduce their FIN 48 reserves. My result supports that discretionary disclosure quality is a complementary lever that firms manipulate in addition to changing their financial reporting by reducing their FIN 48 reserve balance in response to IRS Schedule UTP.

In additional analysis, I convert the dependent variable from the Table 7 model to an indicator variable that captures the change from a firm providing a discretionary disclosure in 2009 and no longer providing the discretionary disclosure in 2010 following the adoption of IRS Schedule UTP for each component of the *CLARITY* discretionary disclosure measure. Descriptives reveal that the most reduction in discretionary disclosure occurs with the *CL1_NONETR* and *CL3_INCLUDE* measures. For the firms that provide these discretionary disclosures in 2009, respectively there is a 26% and 20% decline in 2010 following the adoption of IRS Schedule UTP. Rerunning Table 7 analysis, shows that analyst following (*ANALYSTS*) is a negative and highly significant determinant for the decline in disclosure for the *CL1_NONETR*

and *CL3_INCLUDE* measures. This suggests that when analyst following is low, firms are more likely to reduce their discretionary disclosures.

Demand for Information

The additional analysis above is consistent with firms being accountable to other stakeholders and facing a “multi-audience problem” (Bhorraj, Blacconiere, and D'souza 2004). Firms may face the dilemma of not wanting to reveal tax information that can be used against them by the tax authority and wanting to be as transparent as possible to outside stakeholders (Mills et al. 2010). Given this competing motivation for higher quality disclosure, I examine cross sections for the *CLARITY* composite discretionary disclosure measure where firms may face demand for higher quality information. Table 8 reports the cross section for firms with above the median and below the median analyst following. Firms with high analyst following likely face a stronger demand for information. Firms with low analyst following may face less scrutiny. Consistent with these expectations, in column 2 firms with high analyst following do not reduce their FIN 48 discretionary disclosures. However, the negative and highly significant *SchUTP* coefficient in column 3 shows that firms with low analyst following reduce their FIN 48 disclosure quality by reducing the clarity of their FIN 48 disclosures.

Balakrishnan, Blouin, and Guay (2014) find that firms with greater tax complexity increase disclosure to reduce information asymmetry. Guenther, Matsunaga, and Williams (2016) assert that the volatility of effective tax rates captures whether tax strategies increase the overall level of uncertainty regarding future tax payments. Drake, Lusch, and Stekelberg (2016) operationalize the construct of tax risk using the Guenther et al. (2016) measure of volatility of effective tax rates and find that investors negatively value tax risk. This aversion to tax risk is consistent with tax professionals shifting focus from traditional tax compliance and planning to the promulgation of

tax risk management surveys and services (Hutchens and Rego 2015; PwC 2015; EY 2014; Deloitte 2014; KPMG 2011). Given the increased focus on tax risk and investor demand to reduce tax uncertainty, in additional cross-sectional analysis, I examine whether Schedule UTP impacts FIN 48 disclosure quality differently for high tax-risk firms and low tax-risk firms.

Because investors negatively value tax risk, I expect that high tax-risk firms to be more sensitive to changes in information asymmetry and as a consequence, would be less likely to decrease their disclosure quality following the adoption of Schedule UTP. Thus, I expect that high tax-risk firms will maintain or increase disclosure quality in response to Schedule UTP. However, I expect low tax-risk firms to face lower trade-off costs between reducing transparency to the IRS and increasing information asymmetry to investors.

Table 8, column 4 examines the *CLARITY* disclosure quality dependent variable while including a *TAX RISK* variable and an interaction of *TAX RISK* and *SchUTP*. *TAX RISK* is measured using the Guenther et al. (2016) measure of the standard deviation of annual cash ETRs measured over a five-year period ($t-4$ to t). The finding that firms provide lower *CLARITY* of FIN 48 disclosures following IRS Schedule UTP adoption is consistent with Table 4 for *SchUTP*. The *TAX RISK* variable is negative and marginally significant. However, the interaction of *TAX RISK* and *SchUTP* is positive and insignificant. In columns 5 and 6, I bifurcate the sample into above-the-median and below-the-median measures of *TAX RISK*. It would be most detrimental to high *TAX RISK* firms to increase information asymmetry by not providing necessary information to reduce investor uncertainty surrounding the magnitude and sustainability of uncertain tax positions and future tax cash flow. Column 5 results suggest that high *TAX RISK* firms do not change the *CLARITY* of FIN 48 disclosures following Schedule UTP adoption. In contrast, the column 6 results are negative and highly significant for below-the-median *TAX RISK* firms. This suggests

that low *TAX RISK* firms are less concerned with reducing investor information asymmetry and more concerned with reducing transparency to the IRS. This finding is interesting considering recent literature that examines the implications of *TAX RISK*. It also indicates that certain firms are more inclined to reduce tax disclosure quality in response to increased tax return reporting requirements. Multiplying the *SchUTP* coefficient $-.164$ by the standard deviation of $.73$ provides an economic significance of twelve percent. Firms with low tax risk have twelve percent lower discretionary FIN 48 disclosure quality following the adoption of IRS Schedule UTP.

Bozanic et al. (2017) find that firms increase their volume of tax footnote disclosure following the adoption of IRS Schedule UTP. To test whether my results are consistent with the findings from prior literature, I test whether firms disclose more years in their tabular reconciliations following Schedule UTP adoption using an ordered logit regression with where the dependent variable is the number of years that a firm includes in its tabular reconciliation of FIN 48 reserves. In untabulated results, I find that firms are more likely to disclose more prior years of data following the adoption of Schedule UTP. The economic significance of the coefficient on the indicator variable for Schedule UTP shows that firms are 10% more likely to include disclose an extra year following the adoption of Schedule UTP. Review of data shows that the firms that started disclosing an extra year of data in 2010 could have also disclosed three years in 2009, but did not. Furthermore, in preliminary data collection for a sample of firms with less than \$100 million in assets and thus not subject to Schedule UTP in 2010, I find zero observations of firms increasing the number of prior years included in their FIN 48 tabular reconciliation and disclosure discussion. This finding gives me reasonable comfort that my results are consistent with the measures of disclosure volume captured in Bozanic et al. (2017). My results do not contradict Bozanic et al. (2017), but rather provide additional insight into the findings of that study.

Robustness

It is also possible that my results are driven by overall disclosure quality. To address this concern, I include the Chen, Miao and Shevlin (2015) measure to conduct additional analyses to control for the firm's overall disclosure quality. This measure captures the 'fineness' of financial information, as reflected in the level of disaggregation of accounting data items in the financial statements. This measure of disclosure quality is appropriate because it captures a firm's propensity to disclose more detailed financial information. Table 9 reports the results of the model presented in Table 5 when including the Chen et al. 2015 disclosure quality variable. My main results are unaffected. Thus, it appears that the FIN 48 disclosure quality that I examine in this study is distinct from overall disclosure quality.

VII. Conclusion

Using the 2010 introduction of IRS Schedule UTP, I provide evidence of an association between increased tax return reporting requirements and reduced FIN 48 disclosure quality. I find that firms respond to heightened proprietary costs of increased tax return reporting by reducing discretionary FIN 48 disclosures to provide less incremental information. Additionally, my hand-collected sample enables me to identify the individual components of FIN 48 disclosures that change in response to Schedule UTP. In addition to finding that firms reduce the information content of public tax disclosures in response to increased private tax disclosure to the IRS, I identify the mechanisms by which firms reduce disclosure quality. Furthermore, my study provides insight that reconciles findings from prior literature examining the impact of IRS Schedule UTP documenting increased FIN 48 reserves and increased FIN 48 disclosure volume.

Whether FIN 48 disclosures are ultimately useful to the IRS in its audit process is uncertain. However, my results indicate that there is less information available to users of the financial statements because of the way firms respond to increased tax reporting requirements in Schedule UTP. Thus, I contribute to the literature on the consequences of changes in tax reporting requirements by identifying the unintended consequence of firms providing reduced financial statement tax disclosure quality in response to increased tax return reporting. My findings indicate that it is necessary to consider that increased tax return reporting, in addition to affecting financial reporting decisions, is also associated with a contemporaneous change in the disclosure quality related to those financial reporting items. In addition to being concerned with whether the financial reporting numbers change, my study highlights that regulators, practitioners, and other stakeholders should also be concerned with how disclosure about the numbers changes in response to increased tax return reporting. This implication is important as the FASB and IASB are

currently considering international standards for tax contingency reporting. My results suggest that it is necessary to further consider how increased private tax disclosure and firm discretion in public tax disclosure have the potential to reduce public tax disclosure quality.

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Appendices

Appendix A

Example of FIN 48 10-K financial statement disclosure and disclosure scores

Loews Corporation December 31, 2009

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows: **(1C_UTB)**

Year Ended December 31	2009	2008
(In millions)		
Balance at January 1	\$ 24	\$ 20
Additions based on tax positions related to the current year	4	6
Additions for tax positions related to prior years	5	
Lapse of statute of limitations	(6)	(2)
Balance at December 31	\$ 27	\$ 24

Certain foreign income tax returns will no longer be subject to examination and as a result, there is a reasonable possibility that the amount of unrecognized tax benefits will decrease by \$1 million **(7C_FWD)**. At December 31, 2009, there were \$27 million of tax benefits that if recognized would affect the effective rate **(3C_ETR)(1CL_NONETR)**.

The Company recognizes interest accrued related to: (i) unrecognized tax benefits in Interest expense and (ii) tax refund claims in Other revenues on the Consolidated Statements of Income. The Company recognizes penalties in Income tax expense on the Consolidated Statements of Income **(5C_CLASS)**. During 2009, the Company recorded approximately \$3 million for interest income and \$5 million for penalties. As of December 31, 2009, the Company recognized a liability for interest of \$4 million and penalties of \$13 million **(4C_INTPEN)(4CL_LUMP)**.

The Company's 2006 tax year remains subject to examination and the 2008 tax year is under examination by the IRS **(6C_OPEN)**. Although the outcomes of tax audits are always uncertain, the Company believes that any adjustments resulting from audits will not have a material impact on its results of operations, financial position and cash flows. The Company and/or its subsidiaries also file income tax returns in various state, local and foreign jurisdictions. These returns, with few exceptions, are no longer subject to examination by the various taxing authorities before 2005.

1C_UTB	= 0	Not included in COMPLETE measure
2C_CHANGE	= 0	No explanations provided for additions to current year or prior year.
3C_ETR	= .5	Only disclosed the impact of the year end UTB balance on effective tax rate.
4C_INTPEN	= 1	
5C_CLASS	= 1	
6C_OPEN	= 1	
7C_FWD	= 1	
8C_ADOPT	=	Not included in COMPLETE measure
COMPLETE	= 4.5	
1CL_NONETR	= 1	The entire UTB balance impacts ETR, so there is no non-ETR impact to disclose
2CL_GROSS	= 0	The disclosure does not explicitly state whether the FIN 48 reserves are reported gross or net of federal benefits for state or other taxes.
3CL_INCL	= 0	The disclosure does not explicitly state whether the UTB reserve includes the liabilities for interest and penalties.
4CL_LUMP	= 1	The disclosure separately reports interest and penalties.
CLARITY	= 2	

Appendix B

Example of Table 6 Result

The firm no longer provides a numerical estimate as a part of their forward-looking statement post-Schedule UTP adoption. In this example, the UTB balance that potentially impacts the effect tax rate increases by .5 billion, indicating that the balance is material.

Abbot Laboratories 2009

The total amount of unrecognized tax benefits that, if recognized, would impact the effective tax rate is approximately \$2.0 billion. Abbott expects the range of the decrease in the recorded amounts of unrecognized tax benefits, ..., to range from zero to \$680 million, arising from the conclusion of these tax matters.

Abbott Laboratories 2010

The total amount of unrecognized tax benefits that, if recognized, would impact the effective tax rate is approximately \$2.5 billion. Although it is reasonably possible that a change in the balance of unrecognized tax benefits may occur within the next twelve months, at this time it is not possible to estimate the range of change due to the uncertainty of the potential outcomes.

Examples of Schedule UTP narrative descriptions taken from Towerly (2017)

Transfer pricing: “The taxpayer allocated management service costs between its domestic subsidiaries and a foreign subsidiary located in Country X using a methodology the taxpayer considers reasonable. The issue is whether the taxpayer’s method of allocating these costs is acceptable by the IRS.”

Research and experimentation credit: “The taxpayer incurred support department costs that were allocated to various research projects based upon a methodology the taxpayer considers reasonable. The issue is whether the taxpayer’s method of allocating these costs is acceptable by the IRS.”

Business expense deduction: “The taxpayer claimed a deduction for travel and entertainment expenses for conventions and sales meetings. The issues are whether adequate documentation has been retained to substantiate the deductions claimed and whether some of the expenses constitute entertainment subject to a 50% limitation.”

Appendix C

Example of Increased Disclosure of Prior Years

NORTHROP GRUMMAN CORPORATION 2010

Uncertain Tax Positions – In 2010, the company reached a final settlement with the IRS and Joint Committee with respect to the IRS’ examination of the company’s tax returns for the years 2004 through 2006. As a result of this settlement, the company reduced its liability for uncertain tax positions, including previously accrued interest, by \$311 million, which was recorded as a reduction to the company’s effective tax rate.

In 2009, the company reached a final settlement agreement with the IRS and Joint Committee with respect to the IRS’ examination of the company’s tax returns for the years 2001 through 2003. As a result of this settlement, the company reduced its liability for uncertain tax positions by \$60 million, which was recorded as a reduction to the company’s effective tax rate.

In 2008, the company reached a final settlement agreement with the IRS and Joint Committee with respect to the IRS’ audit of the TRW tax returns for the years 1999 through 2002. As a result of this settlement, the company reduced its liability for uncertain tax positions by \$126 million (including accrued interest of \$44 million), \$95 million of which was recorded as a reduction of goodwill.²¹

As of December 31, 2010, the estimated value of the company’s uncertain tax positions which are more-likely-than-not to be sustained on examination was a liability of \$137 million which includes accrued interest of \$11 million. This liability is included in other current liabilities and other long-term liabilities in the consolidated statements of financial position. Assuming sustainment of these positions by the taxing authorities, the reversal of the amounts accrued would reduce the company’s effective tax rate.

Unrecognized Tax Benefits – Unrecognized tax benefits represent the gross value of the company’s tax positions that have not been reflected in the consolidated statements of operations and includes the value of the company’s recorded uncertain tax positions. If the income tax benefits from these tax positions are ultimately realized, such realization would affect the company’s effective tax rate.

The change in unrecognized tax benefits during 2010 and 2009, excluding interest, is as follows:

<i>\$ in millions</i>	December 31		
	2010	2009	2008
Unrecognized tax benefits at beginning of the year	\$ 429	\$416	\$488
Additions based on tax positions related to the current year	19	12	5
Additions for tax positions of prior years	4	61	15
Statute expiration			(9)
Settlements	(326)	(60)	(83)
Net change in unrecognized tax benefits	(303)	13	(72)
Unrecognized tax benefits at end of the year	\$ 126	\$429	\$416

Although the company believes that it has adequately provided for all of its tax positions, amounts asserted by taxing authorities in future years could be greater than the company’s accrued positions. Accordingly, additional provisions on income tax related matters could be recorded in the future due to revised estimates, settlement or other resolution of the underlying tax matters. In addition, open tax years related to state and foreign jurisdictions remain subject to examination but are not considered material. The IRS is currently conducting an examination of the company’s tax returns for the years 2007 through 2009. During the year ended December 31, 2010, 2009, **and 2008**, the company recorded approximately \$88 million, \$6 million, **and \$(29) million** of net interest income (expense), respectively, within its federal and foreign, and state income tax provisions.

Appendix C

²¹ Note that disclosing prior year information is a low cost disclosure strategy as it is a longstanding IRS policy to not reopen tax years that have been examined and closed (Internal Revenue Manual 1.2.1.4.1, P-4-3 (12-21-1984)).

Example of Increased Disclosure of Prior Years

NORTHROP GRUMMAN CORPORATION 2009

Uncertain Tax Positions – During the third quarter of 2009, the company reached a final settlement agreement with the IRS and the U.S. Congressional Joint Committee on Taxation (Joint Committee) with respect to the IRS’ audit of the company’s tax returns for the years 2001 through 2003. As a result of this settlement, the company reduced its liability for uncertain tax positions by \$60 million, which was recorded as a reduction to the company’s effective tax rate.

During the third quarter of 2008, the company reached a final settlement agreement with the IRS and Joint Committee with respect to the IRS’ audit of the TRW tax returns for the years 1999 through 2002. As a result of this settlement, the company reduced its liability for uncertain tax positions by \$126 million (including accrued interest of \$44 million), \$95 million of which was recorded as a reduction of goodwill.

As of December 31, 2009, the estimated value of the company’s uncertain tax positions was a liability of \$423 million which includes accrued interest of \$61 million. If the company’s positions are sustained by the taxing authorities in favor of the company, the reversal of the amounts accrued for uncertain tax positions would reduce the company’s effective tax rate.

Unrecognized Tax Benefits – Unrecognized tax benefits consist of the carrying value of the company’s recorded uncertain tax positions as well as the potential tax benefits that could result from other tax positions that have not been recognized in the financial statement under GAAP. At December 31, 2009, and 2008, unrecognized tax benefits that have not been recognized in the financial statements amounted to \$67 million.

The change in unrecognized tax benefits during 2009 and 2008, excluding interest, is as follows:

\$ in millions	December 31	
	2009	2008
Unrecognized tax benefit at beginning of the year	\$416	\$488
Additions based on tax positions related to the current year	12	5
Additions for tax positions of prior years	61	15
Statute expiration		(9)
Settlements	(60)	(83)
Net change in unrecognized tax benefits	13	(72)
Unrecognized tax benefit at end of the year	\$429	\$416

Although the company believes that it has adequately provided for all of its tax positions, amounts asserted by taxing authorities in future years could be greater than the company’s accrued positions. Accordingly, additional provisions on income tax related matters could be recorded in the future due to revised estimates, settlement or other resolution of the underlying tax matters. In addition, open tax years related to state and foreign jurisdictions remain subject to examination but are not considered material. The IRS is currently conducting an examination of the company’s tax returns for the years 2004 through 2006. It is reasonably possible that the company will reach a settlement with the IRS and Joint Committee within the next twelve months which may result in a material net reduction in the company’s liability for uncertain tax positions.

During the year ended December 31, 2009, the company recorded approximately \$6 million of interest income, and during the year ended December 31, 2008, the company recorded \$29 million of interest expense within its federal and foreign income tax provision.

Table 1
Panel A: Disclosure Score Components
(see Appendix A for more detail)

Variable	Definition
COMPLETE – mandatory components	
<i>1C_UTB</i>	An indicator variable that takes the value of 1 if the firm discloses a tabular reconciliation of beginning and ending UTB reserve balance, 0 otherwise.
<i>2C_CHANGE</i>	An indicator variable that takes the value of 1 if the firm disclosed a change in the UTB balance during the year and explained the reason for the change, 0 otherwise. A firm receives a 1 if there is no change to explain.
<i>3C_ETR</i>	A variable that takes the value 1 if the beginning and ending UTB balance that would affect the ETR was disclosed or 0.5 if the UTB changed during the year and only the beginning or ending that would affect the ETR was disclosed (but not both), and 0 otherwise.
<i>4C_INTPEN</i>	A variable that takes the value of 0.5 if accrued interest or penalty amount related to UTB reserves is disclosed, 1 if both, and 0 if neither interest nor penalty amounts are disclosed.
<i>5C_IPCLASS</i>	A variable that takes the value of 0.5 if the income statement classification is disclosed for either penalty or interest (but not both), 1 if classification is disclosed for both, and 0 if classification not disclosed.
<i>6C_OPEN</i>	An indicator variable that takes the value of 1 if the firm discloses open federal tax years, 0 otherwise.
<i>7C_FWD</i>	A variable that takes the value of 1 if a complete forward-looking statement of expected changes to the UTB reserve balance in the next twelve months was made or 0.33 each for mention of the item, nature, and amount of the expected change; or 0 otherwise.
<i>8C_ADOPT</i>	A variable that takes the value of 1 if the firm discloses the adoption adjustment for the initial period of adoption, 0 otherwise.
CLARITY – discretionary components	
<i>1CL_NONETR</i>	An indicator variable that takes the value of 1 if the firm included a discussion or amount of the UTB that does not affect the ETR (e.g., temporary differences, goodwill, or other comprehensive income adjustments) included in the UTB, 0 otherwise. If a firm discloses that their entire UTB balance would affect ETR, the indicator variable is coded as a 1.
<i>2CL_GROSS</i>	An indicator variable that takes the value of 1 if the firm explicitly stated whether the reported UTB was gross or net, 0 otherwise.
<i>3CL_INCL</i>	An indicator variable that takes the value of 1 if the firm explicitly stated whether the reported UTB included interest and penalties, 0 otherwise.
<i>4CL_LUMP</i>	An indicator variable that takes the value of 1 if the firm reported accrued interest and penalties separately, 0 otherwise.

Table 1 (Continued)
Panel B: Regression Variables

Variable	Definition
<i>COMPLETE</i>	The adjusted sum for six required disclosure score components: 2C_CHG, 3C_ETR, 4C_INTPEN, 5C_CLASS, 6C_OPEN, and 7C_FWD.
<i>CLARITY</i>	The sum of four disclosure score components: 1CL_NONETR, 2CL_GROSS, 3CL_INCL, and 4CL_LUMP.
<i>SchUTP</i>	An indicator variable set to 1 for 2010 firm-years, and 0 otherwise.
<i>CETR</i>	3-year cash effective tax rate, measured as the sum of cash taxes paid (TXPD) from three lagged years divided by the sum of total pre-tax income (PI) from three lagged years.
<i>UTB</i>	The log of year-end UTB tax reserve balance.
<i>SIZE</i>	Firm size at year end, measured as the log of total assets (AT).
<i>PFT</i>	Profit margin at year end, measured as income before extraordinary items (IB) divided by sales (SALE).
<i>CAPINT</i>	Capital intensity at year end, measured as net property, plant, and equipment (PPENT) divided by total assets (AT).
<i>LTDA</i>	Debt-to-assets at year end, measured as long-term debt (DLT) divided by total assets (AT).
<i>MB</i>	Market-to-book ratio year end, measured as the market value of equity (PRCC_F * CSHO) divided by book common equity (CEQ).
<i>BIG4</i>	An indicator variable set to 1 if a firm retains a Big-four audit firm, and 0 otherwise.
<i>BODINSIDE</i>	The percentage of insiders (all directors who are officers or employees) on the board of directors. Insiders are defined as all directors who are officers or employees of the company. Risk Metrics.
<i>BODLOCKS</i>	The number of interlocks (where board members serve on other company boards together) on the board of directors. Risk Metrics.
<i>BODOTHER</i>	The average number of other major boards of directors on which current board members serve. Risk Metrics.

Table 1 (Continued)
Panel B: Regression Variables

Variable	Definition
<i>LITDUM</i>	An indicator variable set to 1 if a firm is in a high litigation industry, and 0 otherwise. Four-digit SIC codes = 2833–2836, 8731–8734, 7371–7379, 3570–3577, and 3600–3674 (Francis et al. 1994).
<i>REGDUM</i>	An indicator variable set to 1 if a firm is in a highly regulated industry and 0 otherwise. Four-digit SIC codes = 4812–4813, 4833, 4841, 4811–4899, 4922–4924, 4931, 4941, 6021–6023, 6035–6036, 6141, 6311, 6321, 6331 (Warfield et al. 1995).
<i>TAXFEES</i>	Ratio of tax fees to total fees paid to the financial statement auditor in the year preceding the FIN 48 disclosure. Audit Analytics database.
<i>FOROPS</i>	Number of times a firm reports foreign pretax income (PIFO) as a percentage of the number of times a firm reports total pretax income (over the previous five years).
<i>DAYSFILE</i>	Number of days between yearend and the actual filing date of the 10-K.
<i>BUS_SEG</i>	The logarithm of 1 plus the number of business segments from Compustat segment data.
<i>GEO_SEG</i>	The logarithm of 1 plus the number of geographic segments from Compustat segment data.
<i>TAXRISK</i>	The standard deviation of annual cash ETRs measured over a five-year period, $t-4$ to t .

Table 2
Sample Selection

Criteria		Firms	Firm-years
2009 S&P 1500		1,500	
Non-December 31 year-end	(450)	1,050	
No Compustat Reported UTB balance (beginning or ending)	(296)	754	
Additional observations identified using Python Coding	112	866	
*Missing FIN 48 disclosure in one or both years	(31)	835	
Drop observations with missing regression variables in 2009 or 2010	(107)	728	
Final sample for balanced panel 2009-2010		728	1,456

*FIN 48 Disclosure describes Uncertain Tax Benefits as immaterial and/or missing tabular reconciliation

Table 3
Descriptive Statistics

Panel A: Disclosure Scores

Variable	n	Mean	S.D.	Range of Disclosure Scores		
				Min	Median	Max
COMPLETE	1456	5	0.62	1	5	6
CLARITY	1456	1.19	0.93	0	1	4

Notes: This panel presents descriptive statistics for disclosure scores for the entire sample.

COMPLETE = The sum of six required disclosure score components (see Appendix A); CLARITY = The sum of four discretionary disclosure score components (see Appendix A).

Panel B: Disclosure Scores Pre and Post IRS Schedule UTP

Variable	n	Pre-SchUTP	Post-SchUTP	t-test for Difference in means
		Mean	Mean	
COMPLETE	728	5.01	4.99	
CLARITY	728	1.23	1.16	*

Notes: This panel presents descriptive statistics for disclosure scores for Pre (2009) and Post (2010) IRS Schedule UTP. COMPLETE = The sum of six required disclosure score components (see Appendix A); CLARITY = The sum of four discretionary disclosure score components (see Appendix A). *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively.

Panel C: Disclosure Score Components Pre and Post IRS Schedule UTP

	COMPLETE			CLARITY	
	Pre-Sch UTP	Post-Sch UTP		Pre-Sch UTP	Post-Sch UTP
C1_UTB	1	1	CL1_NONETR	0.30	0.26*
C2_CHANGE	0.24	0.22	CL2_GROSS	0.31	0.29
C3_ETR	0.95	0.95	CL3_INCLUDE	0.31	0.29
C4_INTPEN	0.88	0.89	CL4_LUMP	0.18	0.18
C5_CLASS	0.97	0.97			
C6_OPEN	0.97	0.96			
C7_FWD	0.87	0.86			
C8_ADOPT	0.56	0.01	***		

Notes: These panels presents descriptive statistics for the components of the COMPLETE and CLARITY disclosure scores reported in panels for Pre (2009) and Post (2010) IRS Schedule UTP. Please see Table 1 for a complete description of each component. *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table 4
Descriptive Statistics

Regression Variables				
	Full Sample	Pre- SchUTP	Post- SchUTP	t-test for
Variable	n = 1456 Mean	n= 728 Mean	n= 728 Mean	Difference in means
SchUTP	0.50	0.00	1.00	
CETR	0.29	0.30	0.27	
UTB	2.89	2.92	2.86	
SIZE	8.28	8.23	8.32	
PFT	0.02	-0.01	0.05	
CAPINT	0.23	0.23	0.23	
LTDA	0.18	0.18	0.17	
MB	2.70	3.10	2.30	
BIG4	0.95	0.95	0.95	
TAXFEES	0.09	0.08	0.10	**
DAYSFILE	91.82	91.43	92.20	
ANALYSTS	8.61	7.84	9.37	***
WEAKYRS	0.11	0.11	0.12	
BODINSIDE	0.14	0.14	0.14	
BODLOCKS	0.01	0.02	0.01	
BODOTHER	0.80	0.80	0.79	
LITDUM	0.20	0.20	0.20	
REGDUM	0.26	0.26	0.26	
FOROPS	0.56	0.54	0.57	
BUS_SEG	5.72	4.60	6.85	***
GEO_SEG	8.11	6.47	9.75	***

Notes: This panel reports descriptive statistics of the independent variables used in the main regression analysis pre- and post-IRS Schedule UTP. I define the variables as follows: SchUTP = A 0/1 indicator variable set to 1 if the year is 2010, 0 otherwise; CETR = three-year average cash effective tax rate; UTB = end of year UTB tax reserve balance; SIZE = Firm measured as the log of total assets; PFT = Firm profit margin, measured as income before extraordinary items divided by sales; CAPINT = Firm capital intensity, measured as net property, plant, and equipment divided by total assets; LTDA = Firm debt-to-assets, measured as long-term debt divided by total assets; MB = Firm market-to-book ratio, measured as the market value of equity divided by book common equity; BIG4 = A 0/1 indicator variable set to 1 if a firm is audited by a Big-four auditor, 0 otherwise; BODINSIDE = The percentage of insiders on the board of directors; BODLOCKS = The number of interlocks on the board of directors; BODOTHER = The average number of other major boards of directors on which current board members serve; LITDUM = A 0/1 indicator variable set to 1 for firms in high-litigation industries (Four-digit SIC codes = 2833–2836, 8731–8734, 7371–7379, 3570–3577, and 3600–3674), 0 otherwise; REGDUM = A 0/1 indicator variable set to 1 if a firm is in a highly regulated industry (Four-digit SIC codes = 4812–4813, 4833, 4841, 4811–4899, 4922–4924, 4931, 4941, 6021–6023, 6035–6036, 6141, 6311, 6321, 6331), 0 otherwise; ANALYSTS = The number of analysts following the firm at the yearend; WEAKYRS = The number of years a firm had a control weakness in tax accounts; TAXFEES = Current year tax fees paid divided by total fees paid to auditor. If a firm switched auditors during the year, the total tax fees and total fees paid are aggregated to calculate a percentage; FOROPS = The extent of foreign operations, measured as the number of times a firm reports foreign pretax income as a percentage of the number of times a firm reports total pretax income (over the previous 5 years); DAYSFILE = The number of days between the end of the calendar year and the filing of the 10-K; BUS_SEG = The logarithm of 1 plus the number of business segments; GEO_SEG = The logarithm of 1 plus the number of geographic segments. *, **, *** denote significance at the 0.10, 0.05, and 0.01 (two-tailed) levels, respectively.

Table 5
IRS Schedule UTP Tax Reporting Impact on FIN 48 Disclosure Quality

	COMPLETE	CLARITY
SchUTP	0.013	-0.090***
	(0.008)	(0.027)
CETR	0.005*	-0.018
	(0.003)	(0.015)
UTB	0.00	-0.058***
	(0.007)	(0.020)
SIZE	0.026	0.11
	-0.028	-0.096
PFT	-0.027***	0.021***
	(0.005)	(0.007)
CAPINT	-0.005	1.514***
	(0.182)	(0.494)
LTDA	-0.007	0.083
	(0.091)	(0.276)
MB	0.000	-0.001
	0.000	(0.001)
BIG4	0.007	-0.31
	(0.086)	(0.267)
TAXFEES	-0.047	0.089
	(0.069)	(0.248)
DAYSFILE	0.000	0.001
	0.000	(0.001)
ANALYSTS	-0.003	0.009
	(0.002)	(0.006)
WEAKYRS	0.045	-0.002
	(0.040)	(0.280)
BODINSIDE	-0.128	-0.183
	(0.125)	(0.299)
BODLOCKS	-0.048	0.033
	(0.031)	(0.026)
BODOTHER	0.022	0.116*
	(0.020)	(0.067)
FOROPS	0.00	0.00
	(0.00)	(0.00)

Table 5 (continued)
IRS Schedule UTP Tax Reporting Impact on FIN 48 Disclosure Quality

	COMPLETE	CLARITY
BUS_SEG	-0.003 (0.002)	0.010 (0.006)
GEO_SEG	-0.002 (0.001)	-0.002 (0.003)
Firm Fixed Effects	YES	YES
N	1,456	1,172
Firms	728	586

*, **, *** denote significance at the 0.10, 0.05, and 0.01 (two-tailed) levels, respectively. This table presents the results of Poisson regressions (robust standard errors in parentheses in the second row) that evaluate the effect of IRS Schedule UTP adoption on FIN 48 disclosure quality. I define the dependent variables as follows: COMPLETE = The sum of six required disclosure score components (see Appendix A); CLARITY = The sum of four discretionary disclosure score components (see Appendix A). See Tables 1 or 2 for independent variable definitions. The *CLARITY* Poisson regression with fixed effects drops 142 firms or 284 firm-years that have no change in *CLARITY* score, primarily firms that have a zero *CLARITY* disclosure score in 2009 and 2010.

Table 6
IRS Schedule UTP Impact on the Content of Mandatory FIN 48 Disclosures

	Forward-looking Statement (7C_FWD)	Includes a Numerical Estimate in Forward-looking Statement
SchUTP	0.104	-0.157*
	(0.097)	(0.088)
UTB	0.271***	0.211***
	(0.084)	(0.051)
CONTROLS	YES	YES
N	1456	1456
Pseudo R²	0.078	0.049

*, **, *** denote significance at the 0.10, 0.05, and 0.01 (two-tailed) levels, respectively. This table presents the results of logit regressions (robust standard errors in parentheses in the second row) that evaluate the effect of firm-specific characteristics on FIN 48 disclosure quality. I cluster standard errors by industry (using two-digit NAICS codes). I define the dependent variables as follows: Forward-looking Statement is an indicator variable equal to 1 if the firm provides a forward-looking statement about how the UTB balance is expected to change in the next twelve months, 0 otherwise. Includes a Numerical Estimate in Forward-looking Statement is an indicator variable equal to 1 if the disclosure provides a numerical point or range estimate of the expected change to the UTB balance in the next twelve months, 0 otherwise. See Appendix B for FIN 48 disclosure examples.

Table 7
IRS Schedule UTP Impact on the Discretionary of FIN 48 Disclosures

	Non-ETR Impact	Gross/Net	Include/Exclude Interest	Report I&P Separately
	1CL_NONETR	2CL_GROSS	3CL_INCL	4CL_LUMP
SchUTP	-0.212** (0.091)	-0.084 (0.058)	-0.102 (0.068)	-0.085 (0.076)
UTB	-0.169*** (0.063)	0.159*** (0.057)	0.044 (0.048)	0.038 (0.081)
CONTROLS	YES	YES	YES	YES
N	1,456	1,456	1,456	1,456
Pseudo R ²	0.040	0.040	0.023	0.032

*, **, *** denote significance at the 0.10, 0.05, and 0.01 (two-tailed) levels, respectively. This table presents the results of logit regressions (robust standard errors in parentheses in the second row) that evaluate the effect of firm-specific characteristics on components of FIN 48 disclosure CLARITY. I cluster standard errors by industry (using two-digit NAICS codes). I define the dependent variables as follows: 1CL_NONETR is an indicator variable that takes the value of 1 if the firm included a discussion or amount of the UTB that does not affect the ETR (e.g., temporary differences, goodwill, or other comprehensive income adjustments) included in the UTB, 0 otherwise; 2CL_GROSS is an indicator variable that takes the value of 1 if the firm explicitly stated whether the reported UTB was gross or net, 0 otherwise; 3CL_INCL is an indicator variable that takes the value of 1 if the firm explicitly stated whether the reported UTB included interest and penalties, 0 otherwise; 4CL_LUMP is an indicator variable that takes the value of 1 if the firm reported interest and penalties separately, 0 otherwise.

Table 8
Additional Analysis

	Analyst Following	High Analyst Following	Low Analyst Following	Tax Risk	High Tax Risk	Low Tax Risk
SchUTP	-0.099***	-0.035	-0.132***	-0.106***	-0.063	0.164** *
Analyst	-0.005	0.006	-0.269	0.012*	0.009	0.012
Analyst * SchUTP	0.004					
Tax Risk				-0.305		
Tax Risk * SchUTP				0.020		
UTB	-0.057***	-0.039	-0.068**	-0.056***	-0.092**	-0.042**
CONTROLS	YES	YES	YES	YES	YES	YES
Firm Fixed Effects	YES	YES	YES	YES	YES	YES
N	1,172	590	574	1,104	602	570
Firms	586	295	287	552	301	285

*, **, *** denote significance at the 0.10, 0.05, and 0.01 (two-tailed) levels, respectively. This table presents the results of Poisson regressions. High Analyst Following (column 2) is above the median number of analysts and Low Analyst Following (column 3) is below the median number of analysts. TAX RISK is measured as the standard deviation of annual Cash ETRs measured over a five-year period, $t-4$ to t . High Tax Risk (column 5) is above the median tax risk and Low Tax Risk (column 6) is below the median tax risk.

Table 9
Overall Disclosure Quality

	Mandatory	Discretionary
SchUTP	0.015	-0.131***
Disclosure Quality Chen, Miao, Shevlin 2015	-0.004	0.124
UTB	-0.005	-0.058
CONTROLS	YES	YES
Firm Fixed Effects	YES	YES
N	1,122	892
Firms	561	446

*, **, *** denote significance at the 0.10, 0.05, and 0.01 (two-tailed) levels, respectively. This table presents the results of Poisson regressions (robust standard errors in parentheses in the second row). Table 9 presents the model from Table 5 with an additional control for overall disclosure quality from Chen, Miao and Shevlin 2015.

Vita

Dr. Larzette Hale, CPA was the first African American woman to receive a PhD in Accounting in 1955 from the University of Wisconsin. In May of 2017, Michelle Harding will become the first African American female to graduate with a PhD in Accounting from the University of Tennessee, Knoxville. Michelle is tremendously grateful to Dr. Hale and the other trailblazers who made her academic journey possible.

During her time at the University of Tennessee, she witnessed the defunding of the Office of Diversity and Inclusion. It was a heartbreaking experience as a student of color to see the University's inability to effectively advocate for the importance of diversity. The lack of African American and Hispanic faculty across campus contributes to the lack of diverse graduate students. It is Dr. Harding's hope that as she enters academia, she can help to bridge this gap. She embraces the responsibility to be a role model as a researcher and in the classroom for the next generation of accounting and business leaders.

After more than ten years of industry experience and learning more about pursuing a doctoral degree in accounting through the KPMG PhD Project Conference, Michelle chose to pursue a career in academia. It is her desire to answer interesting and important research questions. Her dissertation, "The Impact of Increased Tax Return Reporting on Financial Statement Tax Disclosure Quality: Evidence from IRS Schedule UTP," examines the intersection of public and private tax disclosure. She looks forward to continuing her tax disclosure research stream.

Michelle is a recipient of the KPMG and AICPA Doctoral Student Fellowships. She is a licensed Certified Public Accountant with non-profit, public accounting, and industry experience. Most recently, she was the financial controller for a subsidiary of a Fortune 100 company. She received her undergraduate and master's degrees in accounting from the McIntire School of Commerce at the University of Virginia.

Dr. Harding's professional affiliations include the KPMG PhD Project Accounting Doctoral Student Association, AICPA, American Accounting Association, American Taxation Association, National Tax Association, National Association of Black Accountants, and Accounting and Financial Women's Alliance. During her doctoral program, Michelle lived out her commitment to service as one of the founders and the first president of the Multicultural Graduate Student Organization, as a member of the Knoxville Area Urban League Young Professionals and as a board member and volunteer for Girl Talk, Inc.

Dr. Harding is excited to begin her career as a tenure-track assistant professor in the Department of Accounting & Information Systems at the Virginia Polytechnic Institute and State University.