Erin Towery
of
Red McCombs School of Business
University of Texas at Austin
will discuss

“How do disclosures of tax aggressiveness to tax authorities affect reporting decisions? Evidence from Schedule UTP”

on

February 14, 2013

1:30 pm in BA257
How do disclosures of tax aggressiveness to tax authorities affect reporting decisions?
Evidence from Schedule UTP

Erin M. Towery
The University of Texas at Austin
Red McCombs School of Business

December 2012

ABSTRACT

This study exploits the recently-issued Uncertain Tax Position Statement (Schedule UTP) to examine the effect of mandatory disclosures of tax aggressiveness to tax authorities on firms’ reporting decisions. Schedule UTP requires firms to disclose federal income tax positions to the Internal Revenue Service that have been classified as ‘uncertain’ for financial reporting purposes. In showing how Schedule UTP disclosure requirements affect private and public reporting decisions, I provide insights into the usefulness of these disclosures. Using confidential tax return data and public financial statement data, I find that after imposition of Schedule UTP reporting requirements, firms report lower financial reporting reserves for uncertain income tax positions, but do not claim fewer income tax benefits on their federal tax returns. These findings suggest some firms changed their financial reporting for uncertain tax positions to avoid Schedule UTP reporting requirements without changing the underlying positions. The effect is concentrated among firms with greater business complexity. More broadly, my results imply private disclosures of tax aggressiveness can adversely affect the informativeness of public disclosures of tax aggressiveness.

Keywords: IRS, tax aggressive, accounting for income taxes, disclosure, Schedule UTP
JEL Codes: H25, M41, M48

I greatly appreciate the helpful guidance and support of my dissertation committee, Charles Christian, Jay Hartzell, Ross Jennings, Lillian Mills (chair) and John Robinson. I thank Lisa De Simone, Bill Kinney, Lisa Koonce, Petro Lisowsky, Tracie Majors, John Miller, Jeri Seidman, David Stanley, Bridget Stomberg, David Wagner, Christopher Yust, workshop participants at the University of Texas at Austin and the University of Texas Tax Readings Group for their thoughtful comments and suggestions. I also thank the Internal Revenue Service for supporting this research by providing access to confidential corporate tax return data. I gratefully acknowledge financial support from the Deloitte Foundation, the Red McCombs School of Business and The University of Texas at Austin Graduate School.

The Internal Revenue Service (IRS) provided confidential tax information to me pursuant to provisions of the Internal Revenue Code that allow disclosure of information to a contractor to the extent necessary to perform a research contract for the IRS. None of the confidential tax information received from the IRS will be disclosed in this treatise. Statistical aggregates will be used so that a specific taxpayer cannot be identified from information supplied by the IRS. All opinions are those of the author and do not reflect the views of the IRS.
How do disclosures of tax aggressiveness to tax authorities affect reporting decisions?  
Evidence from Schedule UTP

I. INTRODUCTION

Over the years, many countries have witnessed a proliferation of aggressive tax planning schemes and have developed various responses to address the risk such proliferation poses to their tax base. . . Recognizing the difficulties of relying on traditional audits alone, several countries have introduced complementary disclosure initiatives aimed at improving their capability to detect aggressive tax planning schemes.  
(2011 OECD Report on Disclosure Initiatives)

Firms face increasing pressure from tax authorities to disclose information about aggressive tax planning strategies. A number of jurisdictions, including Canada, Ireland, Portugal, the United Kingdom and the United States (US), mandate early disclosure of transactions deemed tax shelter schemes. Other countries require groups of high-risk taxpayers to complete questionnaires designed to assess tax compliance risk. Most recently in the US, the Internal Revenue Service (IRS) released Schedule UTP, Uncertain Tax Position Statement, which requires a firm to list its uncertain US income tax positions in its corporate income tax return.¹ This evolving reporting environment calls into question whether and how these disclosure requirements affect firm behavior. Using confidential corporate tax return data, confidential Schedule UTP disclosures and public financial statement data, this study exploits the implementation of Schedule UTP to examine how mandatory disclosures of tax aggressiveness to tax authorities affect reporting decisions.

Prior to Schedule UTP, the IRS relied on a combination of pre-audit statistical analyses and tax return audits to identify potential tax issues. Even with extensive audits, examiners likely

---

¹ In remarks to the American Bar Association in September of 2012, IRS Commissioner Doug Shulman broadly defined aggressive tax positions as positions ‘that may not be sustained if challenged by the IRS’ ([http://www.irs.gov/uac/Prepared-Remarks-of-Commissioner-Douglas-H.-Shulman-before-the-American-Bar-Association](http://www.irs.gov/uac/Prepared-Remarks-of-Commissioner-Douglas-H.-Shulman-before-the-American-Bar-Association)). Because uncertain tax positions by definition might not be sustained if challenged by the tax authority, I refer to uncertain tax positions as aggressive tax positions throughout the manuscript. In addition, although firms can engage in non-income tax planning strategies (e.g., sales and use tax planning), this study focuses specifically on income tax aggressiveness.
missed potentially important tax issues due to limited resources. By requiring a firm to disclose aggressive tax positions claimed on the tax return, the Schedule UTP should improve the IRS’ audit process by making examiners and audit selection teams aware of some potential tax issues much sooner. Schedule UTP applies to federal tax positions for which a firm has recorded a reserve in its audited financial statements (Instructions for Schedule UTP).\(^2\) In contrast with other reporting requirements to tax authorities, Schedule UTP is unique in that the disclosures depend on how a firm accounts for aggressive tax positions in its financial statements. Schedule UTP could therefore affect: (i) the decision to claim an aggressive tax position; and (ii) the decision to record a reserve for the position in the audited financial statements.

Theory and existing empirical evidence provide varying predictions on the effect of Schedule UTP on the decision of whether to claim an aggressive tax position. In the most basic tax compliance model, the decision to claim an aggressive position entails trading off the benefit of lower tax liability if undetected with the costs of penalties and interest if detected (Allingham and Sandmo 1972). If disclosing such a position on Schedule UTP increases the likelihood the position will be detected, a firm should become less willing to claim an aggressive tax position. Indeed, game-theoretic models of tax compliance determine that increasing audit probability decreases firms’ willingness to claim aggressive tax positions (e.g., Graetz, Reinganum and Wilde 1986), and recent empirical evidence supports this prediction (Hoopes, Mescall and Pittman 2012). Further, IRS Commissioner Doug Shulman acknowledged in remarks to the American Bar Association in September of 2012 that one purpose of the Schedule UTP was to deter firms from ‘pushing the envelope too far.’

\(^2\) One exception to this general rule is that firms must also disclose any position that the firm expects to litigate even if the firm has not recorded a reserve.
However, a firm could also respond to the increased audit risk resulting from Schedule UTP disclosure by becoming more aggressive. Although disclosing a position on Schedule UTP increases the likelihood the position will be audited, some firms could view the IRS audit process as a negotiation where the final amount of tax liability falls somewhere between the firm’s reported tax liability and the IRS’ proposed higher tax liability. A firm could therefore claim more tax benefits to create a more aggressive starting point for negotiations with the goal of minimizing tax liability. Consistent with this intuition, in a controlled experiment with individual income taxpayers in Minnesota, high income taxpayers reported even lower taxable income amounts when told before filing that their tax return will be audited with certainty (Blumenthal, Christian and Slemrod 2001).

Finally, if the IRS is already aware that a firm is claiming a position via other tax return disclosures or prior audits, disclosing the existence of the position should be costless to the firm. In this case, Schedule UTP could have no effect on firms’ willingness to claim aggressive tax positions. Therefore, whether tax aggressiveness changes, and in what direction (if any), in response to Schedule UTP is an empirical question.

Schedule UTP can also affect a firm’s financial reporting for tax aggressiveness. If a firm could avoid booking a reserve for a claimed position, the firm would not have to list the position on Schedule UTP. Therefore, while external auditors provide some check on a firm’s financial reporting decisions, a firm could find ways to strategically avoid recording financial statement reserves for aggressive tax positions (Harvey 2010). This result would be similar in spirit to experimental findings by Cuccia, Hackenbrack and Nelson (1995) that adopting more stringent tax reporting standards does not mitigate tax aggressiveness because firms find other ways to
justify aggressive tax positions. I therefore also test whether financial reporting for tax aggressiveness changes in response to Schedule UTP.

In related work, Abernathy, Davenport and Rapley (2012) and Ferraro (2012) document a decrease in financial statement reserves for aggressive tax positions in the Schedule UTP regime. However, because firm-level federal tax payments are not publicly-available, the studies cannot determine whether the decrease in reserves results from (i) lower federal tax aggressiveness, or (ii) a change in financial reporting for tax aggressiveness. Understanding which of these explanations drives the decrease in reserves is crucial to assessing the impact of the standard on tax and financial reporting. This study disentangles the two explanations by combining confidential federal tax return data with public financial statement data.

I first report that most positions disclosed on Schedule UTP appear consistent with information reported elsewhere in the tax return and financial statements, supporting the notion that firms are willing to disclose positions of which the IRS is already aware. I then implement a difference-in-differences model to formally test the effect of Schedule UTP on federal tax payments and financial reporting reserves for aggressive tax positions. The behavior is concentrated among multinational firms, whose complex business operations facilitate tax planning strategies that are more difficult for the IRS to identify. These results collectively suggest firms modified their financial reporting for tax aggressiveness to avoid disclosing positions unknown to the IRS on Schedule UTP, but not the underlying claims of such positions. To rule out confounding explanations, I also provide evidence that: (i) foreign, state and local tax expense does not change in the Schedule UTP regime, and (ii) firms not subject to Schedule UTP (i.e., firms with less than $100 million of assets) do not change behavior in the Schedule UTP regime.
This study contributes to multiple literatures. First, a rich stream of studies over the last two decades has broadened our understanding of how tax rules affect financial reporting choices, including inventory costing (Jenkins and Pincus 1998); asset capitalization (Cloyd, Pratt and Stock 1996); accrual policies (Guenther, Maydew and Nutter 1997; Calegari 2000); depreciation (Keating and Zimmerman 1999); and earnings deferral (Scholes, Wilson and Wolfson 1992; Dhaliwal and Wang 1992). I complement these studies by providing evidence on the effect of confidential tax disclosure requirements on the informativeness of financial reporting for tax aggressiveness. I find that firms strategically modify their financial reporting process in response to mandatory confidential disclosures of tax aggressiveness, suggesting such requirements can decrease the informativeness of financial reporting.

Second, confidential Schedule UTP disclosures enable me to describe specific transactions underlying financial statement reserves for aggressive tax positions. The composition of positions reported on Schedule UTP suggests the IRS was already aware of many reported positions prior to Schedule UTP. Further, empirical research finds that tax shelters often generate material temporary book-tax differences (Wilson 2009; Lisowsky, Robinson and Schmidt 2012). My finding that a majority of tax positions reported on Schedule UTP generate permanent book-tax differences suggests that identified tax shelters (‘listed transactions’) do not comprise the bulk of aggressive tax positions.

Finally, because the Schedule UTP requirement essentially disaggregates a financial statement reserve, this study contributes to a growing stream of literature on the effects of accounting disaggregation (e.g. Otley and Dias 1982; Botosan and Stanford 2005; Hirst, Koonce and Venkataraman 2007; Libby and Brown 2012; Bonner, Clor-Proell, Koonce and Wang 2012). Having both financial statement data and confidential tax return data uniquely enables me to
separate two potential effects of accounting disaggregation: an economic effect (i.e. claiming aggressive tax positions) versus a financial reporting effect (i.e. creating reserves for aggressive tax positions). Although disaggregated disclosures are generally intended to increase transparency, my results suggest that requiring firms to disaggregate accounting information can have the unintended effect of decreasing transparency.

My findings are also important to tax administrators, policymakers and financial statement users. First, learning that firms could be modifying their financial reporting for tax aggressiveness to avoid disclosing positions on Schedule UTP affects how tax authorities interpret both financial statement disclosures of tax aggressiveness and tax return disclosures of tax aggressiveness.\(^3\) Specifically, my results suggest: (i) financial statement tax reserves could be less informative about tax aggressiveness in the Schedule UTP regime; and (ii) some aggressive positions are not disclosed on Schedule UTP. Second, understanding more about specific types of aggressive tax positions provides insight into firms’ tax strategies and can inform policymakers in their discussions about corporate tax reform. Finally, financial statement users should exercise care in comparing financial statement reserves for tax aggressiveness in pre- and post- Schedule UTP environments because Schedule UTP appears to have changed the methodology for recording reserves for some firms.

Section II provides background information and develops the hypotheses. Section III describes the research design and Section IV presents results. Section V concludes.

\(^3\) California requires taxpayers to file a copy of the federal Schedule UTP with its California corporate income tax return. The Australian Taxation Office is developing a similar reportable transaction schedule.
II. BACKGROUND AND HYPOTHESIS DEVELOPMENT

The role of Schedule UTP in the current US tax disclosure environment

Over the past several years, the IRS has implemented a number of initiatives designed to identify aggressive tax planning strategies. Figure 1 provides a timeline describing the US tax disclosure environment. Beginning in 2000, firms participating in transactions deemed ‘potentially abusive tax shelters’ must disclose such transactions to the IRS in their corporate tax return on Form 8886. The list of transactions warranting disclosure ('reportable transactions’) has grown over time as the IRS becomes aware of new tax planning strategies. To my knowledge, no empirical studies have examined the effect of the reportable transaction disclosure requirements on firm behavior. However, Sansing (1993) shows analytically that requiring disclosures of tax aggressiveness could either increase or decrease aggressive behavior depending on the precision of the information environment. Importantly, these disclosures do not reveal tax planning strategies that have not yet been identified by the IRS.

Aggressive tax planning strategies can and often do generate differences between financial reporting (book) income and taxable income. In fact, prior studies find that larger book-tax differences are associated with larger proposed audit adjustments by the tax authority (Mills 1998) and firms are less likely to enter aggressive tax positions when they generate book-tax differences (Mills and Sansing 2000). To further increase transparency, the IRS in 2004 began requiring firms to provide a detailed reconciliation of book income to taxable income (Schedule M-3). Donohoe and McGill (2011) provide empirical evidence that firms reported smaller book-tax differences in response to these increased reporting requirements, consistent with Schedule M-3 causing firms to be less tax aggressive. The authors also find a negative market response to the release of the final draft of Schedule M-3, suggesting investors expected higher future tax
payments as a result of the new disclosure. However, Boynton, De Filippes and Legel (2006) find that firms classify 89 percent of total book-tax differences as ‘Other’, which could limit the ability of Schedule M-3 to reveal aggressive tax planning.

Starting in 2007, FASB Financial Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (ASC 740-10), requires firms subject to US GAAP to record and disclose reserves for uncertain tax positions in their public financial statements. The rule arguably increases existing tax reserves because firms are required to ignore detection risk in measuring the reserves. These rules can affect firms’ incentives to claim aggressive tax positions because: (i) recording reserves reduces the benefit firms can recognize in current period financial earnings; and (ii) disclosing reserves provides a signal to tax authorities that could increase the risk of audit. Mills, Robinson and Sansing (2010) develop analytic predictions that these financial reporting requirements cause firms to cease claiming the weakest aggressive tax positions. In empirical work, Blouin, Gleason, Mills and Sikes (2010) find that firms settled disputed tax positions with tax authorities in 2006, consistent with incentives to avoid recording reserves for aggressive tax positions. Gupta, Mills and Towery (2012) show that firms claimed fewer multistate aggressive tax positions when required to record and disclose financial reporting reserves for aggressive tax positions. These studies provide evidence that financial reporting rules requiring firms to record and disclose reserves for tax aggressiveness disregarding audit risk decreases firms’ incentives to claim aggressive tax positions.

However, one key feature of financial reporting reserves is the aggregation of aggressive tax positions across all jurisdictions. Thus, even though the magnitude of a firm’s reserve provides tax authorities with a noisy signal about tax aggressiveness, the IRS is generally unable to determine from the aggregate disclosure whether a firm’s tax positions affect its federal tax
liability. Further, firms are not required to disclose the specific tax positions underlying the reserves.

Despite the availability of reportable transactions disclosures, book-tax reconciliations and financial reporting reserves for tax aggressiveness, the IRS still spends up to 25 percent of audit time searching for issues. To increase efficiency in issue identification, the IRS announced a new disclosure initiative in January of 2010. Schedule UTP, *Uncertain Tax Position Statement*, effective beginning with 2010 tax returns for firms with $100 million or more in assets, requires firms to provide a narrative description of federal tax positions claimed in the current year for which a reserve is recorded in the financial statements. Thus, Schedule UTP enables the IRS to disaggregate financial statement reserves for tax aggressiveness. Edwards, Koester and Shevlin (2010) observe no market reaction to the initial Schedule UTP announcement, suggesting investors did not revise their expectations about future tax liabilities. The IRS released a draft Schedule UTP for comments in April of 2010, which required firms to provide a description of the position as well as the maximum tax adjustment. Unsurprisingly, the proposed schedule was poorly received, with several practitioners and professional organizations pressuring the IRS to abandon the initiative. Consistent with practitioner concerns, Abernathy et al. (2012) finds a negative investor reaction to the release of the draft Schedule UTP. In September of 2010, the IRS released the final version of Schedule UTP, which eliminated many controversial elements of the draft Schedule UTP, including the maximum tax adjustment requirement, but retained the requirement to list and describe each position.

---


5 Rules for recording tax reserves vary depending on the accounting standards used to prepare the financial statements. For example, US GAAP requires firms to record reserves for tax positions failing a more-likely-than-not threshold based on the technical merits of the position (ASC 740-10). In contrast, IFRS requires firms to record reserves for the amount of taxes the firm expects to pay (or settle) in the future (IASB International Accounting Standard No. 12, *Income Taxes* (IAS 12)).
Abernathy et al. (2012) and Ferraro (2012) find that firms reported lower reserves for tax aggressiveness in the Schedule UTP regime. However, because they cannot observe federal tax payments, they are unable to determine whether the decrease is attributed to firms claiming fewer federal tax positions or modifying their financial reporting for tax aggressiveness. The purpose of this study is to examine whether and how the new Schedule UTP requirement affects the decision to claim an aggressive tax position and the decision to create a financial statement reserve for the aggressive tax position. The following subsections discuss these decisions and develop predictions about the effect of Schedule UTP.

**The tax reporting decision**

Predictions from existing analytic models of tax compliance can be reasonably applied to Schedule UTP. In deciding whether to claim an aggressive tax position, a firm trades off the benefit of lower tax payments if undetected with the costs of penalties and interest if detected (Allingham and Sandmo 1972). If disclosing an aggressive tax position on Schedule UTP increases the probability of a position being audited, thus increasing the likelihood of detection, firms should have less incentive to claim the position. Consistent with this intuition, Graetz, Reinganum and Wilde (1986) find analytically that increasing audit probability increases compliance. Hoopes, Mescall and Pittman (2012) provide empirical evidence that tax compliance is increasing in IRS audit likelihood using aggregate audit probability data obtained from the Transactional Records Access Clearinghouse (TRAC). Anecdotally, upon the release of Schedule UTP, some tax practitioners predicted firms could become less willing to claim aggressive tax positions knowing they must report the positions directly to the IRS (Kocieniewski 2010).

However, even with increased audit risk, the magnitude of tax savings generated with tax
planning strategies is substantial. Mills, Erickson and Maydew (1998) document that large firms save an average of $4 for every $1 spent on tax planning. Firms could therefore still have incentives to continue claiming aggressive tax positions even in the Schedule UTP regime. Further, to the extent a firm views an IRS audit as a negotiation where the outcome (settlement) will lie somewhere in the range from the firm’s assessment of taxable income to the IRS’ assessment of taxable income, one strategy could be to report lower (more aggressively) so as to create a lower starting point with the goal of achieving a lower tax liability. Supporting this possibility, Blumenthal, Christian and Slemrod (2001) implement a controlled experiment where individual taxpayers in Minnesota learn before they file their return that they will be audited. They find that although low and middle-income taxpayers became less aggressive, high income taxpayers became more aggressive and reported even lower income values than in previous years. This evidence is consistent with firms being more aggressive in order to establish a lower bound for negotiation in the face of a certain audit.\textsuperscript{6} Although Schedule UTP does not guarantee a position will be audited, firms could expect the IRS to audit a disclosed position, which could encourage firms to claim more aggressive tax benefits.

Finally, there are also reasons why Schedule UTP could have no effect on a firm’s incentives to claim aggressive tax positions. First, in contrast with the initial draft of Schedule UTP, the final version does not require firms to disclose the magnitude of the aggressive tax position or an assessment of its merits. Thus, if the IRS is already aware of an aggressive tax position from previous or continual audits, disclosing the position on Schedule UTP should impose no cost on the firm. Second, Cuccia, Hackenbrack and Nelson (1995)) find that adopting more stringent tax reporting standards does not mitigate tax aggressiveness because firms find

\textsuperscript{6} In addition, the ‘tax morality’ literature suggests when a taxpayer perceives an action by a tax authority to be unfair, he (or by extension the corporate tax director) might reciprocate by engaging in more tax aggressiveness (Feld and Frey 2007).
alternative ways to justify aggressive tax positions. In a similar vein, a firm could avoid reporting an aggressive position on Schedule UTP by not recording a financial statement reserve for the position. In sum, whether Schedule UTP affects a firm’s decision to claim an aggressive tax position is an empirical question.

Because of these competing predictions, I state my hypothesis in the null form.

**H1:** Federal income tax aggressiveness does not change in response to Schedule UTP.

**The financial reporting decision**

As a first-order effect, the financial reporting decision is somewhat mechanically related to the tax compliance decision. In other words, ceteris paribus, reserves for aggressive tax positions should increase if a firm claims more aggressive tax positions and vice versa. However, because Schedule UTP only applies to tax positions for which a firm has recorded a reserve in the financial statements, firms have incentives to modify their financial reporting for tax aggressiveness. Indeed, when the Schedule UTP was released, practitioners voiced concerns that firms would change their approach to recording and measuring financial reporting for tax aggressiveness in order to avoid disclosing aggressive positions on Schedule UTP (Coder 2012).\(^7\)

Potential techniques to avoid recording a financial statement reserve include: (i) increasing the materiality threshold for recording reserves; (ii) assuming the IRS has an administrative practice of not challenging the tax position (Harvey 2010); and/or (iii) purchasing legal opinions to reclassify ‘uncertain’ tax positions as ‘certain’. Further, managers can exercise discretion in measuring and recording financial statement reserves, as evidenced by the diversity in recording and disclosing reserves for tax aggressiveness (Robinson and Schmidt 2012; De Simone, Robinson and Stomberg 2012). Provided a firm can provide sufficient support to the

---

\(^7\) In a Federal Tax Advisory published in July of 2012, Alston & Bird LLP speculated that a decline in reserves for uncertain tax positions could be explained by a firm ‘stretching its analysis to avoid reporting a tax position on the UTP schedule’. The article is published online at [http://www.alston.com/publications/](http://www.alston.com/publications/).
external auditor to justify the change in estimate, Schedule UTP could have a differential effect on tax aggressiveness and financial reporting tax reserves.

Again, because there are varying predictions for the effect of Schedule UTP on financial reporting for tax aggressiveness, I state my hypothesis in the null.

**H2:** Financial reporting for federal income tax aggressiveness does not change in response to Schedule UTP.

**Business complexity**

The primary risk of disclosing an aggressive tax position on Schedule UTP is that the IRS will investigate the position, thus potentially decreasing its value. In addition, in IRS LB&I Division Commissioner Heather Maloy’s guidance on Schedule UTP to IRS field examiners, she stated that a UTP disclosure could induce scrutiny of the same issue in a pre-Schedule UTP tax year.\(^8\) This amplifies the risk of disclosing a position on Schedule UTP. However, the prior/existing reporting initiatives discussed above have increased the IRS’ knowledge of tax planning opportunities, as evidenced by the increasing list of transactions deemed reportable transactions. The result is that a majority of aggressive tax planning strategies that have not yet been identified by the IRS now require complex business operations (e.g., operations in multiple tax jurisdictions).\(^9\) Thus, I expect the effect of Schedule UTP, if any, to be strongest for firms with high business complexity. Stated formally,

**H3:** The response to Schedule UTP, if any, is concentrated among firms with greater business complexity.

**III. RESEARCH DESIGN**

Because Schedule UTP became effective for firms in 2010, I implement a difference-in-differences approach to examine the effect of Schedule UTP on federal tax aggressiveness and

---


\(^9\) Supporting this conjecture, in 2010, the IRS merged its International Division into its Large and Mid-Sized Business Division to increase emphasis on international tax issues.
financial reporting for federal tax aggressiveness.\textsuperscript{10} I present the model with control variables below.

\[
\text{FederalTaxAgg}_{i,t} / \text{FinRepFederalTaxAgg}_{i,t} = \beta_0 + \beta_1 \ast \text{UTPRegimeInd}_{t} \\
+ \beta_2 \ast \text{MultinationalInd}_{i,t} + \beta_3 \ast \text{UTPRegimeInd}_{t} \ast \text{MultinationalInd}_{i,t} + \beta_4 \ast \text{Leverage}_{i,t} \\
+ \beta_5 \ast \text{ROA}_{i,t} + \beta_6 \ast \text{CapIntensity}_{i,t} + \beta_7 \ast \text{NOL}_{i,t} + \beta_8 \ast \text{OptionTaxBen}_{i,t} \\
+ \beta_9 \ast \text{PerfAdjDiscAccr}_{i,t} + \beta_{10} \ast \text{ln}(\text{Assets})_{i,t} + \beta_{11} \ast \text{RD}_{i,t} + \beta_{12} \ast \text{ForeignIncome}_{i,t} \\
+ \sum \beta_{13-21} \ast \text{Industry}_{i} + \varepsilon
\] (1)

I employ one measure of federal tax aggressiveness and two measures of financial reporting for federal tax aggressiveness, each scaled by book pretax income (Compustat PI). The measure of federal tax aggressiveness, \text{FederalTaxPaid}, equals the total tax reported on Line 31 of Form 1120. The first measure of financial reporting for tax aggressiveness, \text{ReserveIncrease}, equals the increase in financial statement reserves related to current year aggressive income tax positions (Compustat \text{TXTUBPOSINC}). Finally, \text{FederalTaxExpense}, equals the current federal tax expense (Compustat TXFED) reported in the financial statements. The tax reporting decision and the financial reporting decision are arguably made simultaneously, meaning that financial reporting rules for tax aggressiveness affect the decision of whether to claim an aggressive tax position, and the tax reporting decision informs the financial reporting decision. To address potentially correlated residuals, I estimate the three equations simultaneously as a system of equations.\textsuperscript{11}

Appendix A provides a simple numerical example of the relation between these three measures. Scenario 1 assumes a firm does not claim an aggressive tax position, and Scenarios 2 and 3 assume a firm does claim an aggressive tax position. However, the firm creates a reserve for the position in Scenario 2 and does not create a reserve for the position in Scenario 3. \text{FederalTaxPaid} is not affected by financial reporting reserves and therefore always reflects true

\textsuperscript{10} This difference-in-differences approach falls under the umbrella of interrupted time-series research designs (Shadish, Cook and Campbell 2002).
\textsuperscript{11} My results are inferentially the same if I estimate three separate equations using OLS.
federal tax aggressiveness, as shown in Scenarios 2 and 3 in Appendix A. However, to the extent firms are not able to recognize the full benefit of tax savings from claiming aggressive tax positions in their current financial earnings because they record reserves, *FederalTaxExpense* underestimates true federal tax aggressiveness. This explains the difference between *FederalTaxPaid* and *FederalTaxExpense* in Scenario 2. *ReserveIncrease* represents the most direct assessment of tax aggressiveness (Lisowsky et al. 2012), but it captures foreign and state and local tax aggressiveness in addition to federal tax aggressiveness (Gupta, Mills and Towery 2012). *FederalTaxPaid* enables me to test Hypothesis 1 and *ReserveIncrease* and *FederalTaxExpense* enable me to test Hypothesis 2.

I test my predictions by comparing behavior both over time (pre- versus post- Schedule UTP regime) and in the cross-section (high versus low business complexity). My time series measure, *UTPRegimeInd*, equals 1 for firm-years for which Schedule UTP is mandatory (2010) and 0 otherwise. My cross-sectional measure, *MultinationalInd*, equal to 1 if foreign pretax income (Compustat PIFO) is at least 10 percent of book pretax income (Compustat PI) and 0 otherwise (consistent with Mills and Newberry (2005)), captures business complexity.

To rule out confounding explanations for a change in behavior in the Schedule UTP regime, I also include two sets of control variables in addition to a control for consolidation differences and industry fixed effects. The first six variables represent firm characteristics associated with the incentive to claim aggressive tax positions. *Leverage* equals long-term debt (Compustat DLTT) divided by lagged total assets (Compustat AT). Interest deductions generated by leverage can be a substitute for tax aggressiveness (DeAngelo and Masulis 1980; Graham and Tucker 2006), suggesting a negative association between *Leverage* and tax aggressiveness. I include *ROA*, equal to GAAP pretax income divided by lagged total assets,
because firms have incentives to claim aggressive tax positions to shield profits from taxation. *CapIntensity* equals net property, plant and equipment (Compustat PPENT) divided by lagged total assets. Firms claiming accelerated depreciation have less need for tax aggressiveness.

*NOL* equals the net operating loss carryovers from prior tax years reported on Form 1120 Schedule K Question 12 divided by lagged total assets. Net operating losses enable firms to reduce taxable income, thus decreasing the need for tax aggressiveness. *OptionTaxBen* equals the excess tax benefit of stock options calculated using Schedule M-3 of Form 1120. Firms with excess tax benefits from stock options have reduced incentives to claim other tax benefits (Graham, Lang and Shackelford 2004). Finally, I include performance-adjusted discretionary accruals based on the Kothari, Leone and Wasley (2005) modified cross-sectional Jones (1991) model (*DAP*) to control for financial reporting aggressiveness. Firms who report aggressively for financial reporting purposes also report aggressively for tax reporting purposes (Frank, Lynch and Rego 2009). In addition, if firms have greater incentive to manage earnings using tax expense in the Schedule UTP regime, firms could find ways to record lower reserves for tax aggressiveness, thus also lowering tax expense.

The next two control variables represent firm characteristics associated with the opportunity to claim aggressive tax positions. Although the firms in my sample have at least $100 million in assets, larger firms might have more business segments thus enabling them to potentially shift income. Further, Dyreng, Hanlon and Maydew (2008) shows long-run tax avoidance is positively associated with firm size. I therefore include the log of total assets (Compustat AT). *RD* equals research and development expenses (Compustat XRD or zero if XRD missing) divided by lagged total assets. Like foreign operations, intangible assets such as research and development expenditures provide opportunities for income and expense shifting.
Finally, I control for differences between financial reporting and tax reporting consolidation rules. Under US GAAP, subsidiaries in which a parent company has at least a 50 percent ownership percentage must be consolidated into the parent company’s financial statements (FASB Statement of Financial Accounting Standards No. 94 (ASC 810), Consolidation of All Majority-Owned Subsidiaries). However, for US tax purposes, consolidation is not required and foreign subsidiaries are not consolidated into the parent company’s tax return. Thus, differences between the effect of Schedule UTP on the tax reporting decision and the effect of Schedule UTP on the financial reporting decision could be driven by different consolidation rules. I therefore include a proxy for multiple operating subsidiaries, ForeignIncome, equal to foreign pretax income (Compustat PIFO) divided by lagged total assets. All continuous variables are winsorized at the 2.5 and 97.5 percentiles.

IV. RESULTS

Sample & data sources

Schedule UTP became effective for tax years beginning on or after January 1, 2010. My initial sample includes 4,895 calendar firm-year observations in 2009 and 2010 from the IRS Business Return Transaction File (BRTF).12,13 By requiring firm-years to have at least $100 million in assets and audited financial statements, the sample includes only firms subject to Schedule UTP in 2010. Panel A of Table 1 summarizes the sample construction. I merge the tax return data with the Compustat Fundamentals Annual database on employer identification

---

12 The data made available to me for this project include: (1) selected data points from pages 1 through 5 of the US Corporate Income tax return (Form 1120); (2) Schedule UTP disclosures; and (3) selected data points from pages 1 through 3 of Schedule M-3.

13 I limit my sample period to 2009 and 2010 for two reasons. First, financial statement reserves for aggressive tax positions are only publicly observable beginning in 2007. However, including 2007 and 2008 in my sample could confound my results because the rules for measuring reserves also changed in 2007 for firms reporting under US GAAP. As mentioned in Section II, empirical evidence suggests the financial statement reserve rules caused a change in behavior. Second, 2008 falls in the heart of the financial crisis, making it difficult to interpret firm behavior in 2008. I acknowledge that including only two years of data limits the interpretation of my results, but I plan to expand my sample to 2011 and 2012 as the data become available.
number (EIN) and exclude 1,625 observations missing Compustat data. The sample excludes 1,650 observations with negative pretax income because: (i) effective tax rates are difficult to interpret for loss firms (Gupta and Newberry 1997); and (ii) eliminating loss observations limits my sample to firms relatively less affected by the financial crisis. I require observations to have non-missing data to compute all regression variables. I also require data for both 2009 and 2010 for each firm in order to compare behavior for the same firms across time. Finally, because I am most interested in firms engaged in tax aggressiveness prior to Schedule UTP, I require firms to report a current year increase in financial statement tax reserves in 2009 (prior to Schedule UTP). All firms that prepare audited financial statements (public and private) are subject to Schedule UTP. However, this final sample restriction requires me to exclude firms not filing public financial statements with the Securities and Exchange Commission because their reserves for aggressive tax positions are not publicly available. These restrictions yield a final sample of 684 calendar firm-years. In supplemental tests, I create a separate sample of 78 firm-years meeting these criteria with less than $100 million in assets.

------------------------------------------------------------------
Insert Table 1 here
------------------------------------------------------------------

Panel B of Table 1 presents the number of sample firms in each industry. I use the Fama-French 10-industry classifications with two exceptions: (i) I separate Financial firms from the ‘Other’ classification, and (ii) I combine Consumer Durables and Consumer NonDurables into one classification.\textsuperscript{14} These classifications enable me to group together firms with similar opportunities for claiming aggressive tax positions. Manufacturing, High-technology and Healthcare firms comprise over half of my sample, consistent with these firms having

\textsuperscript{14} The Fama-French industry classifications can be found in the Data Library on Ken French’s website (http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html).
opportunities to engage in tax aggressiveness.\textsuperscript{15} Firms in the ‘Other’ category include Mining, Construction, Building Management, Transportation, Hotels, Business Services and Entertainment.\textsuperscript{16}

**Descriptive analysis**

Before I formally examine firms’ response to Schedule UTP, I describe differences between the pre-Schedule UTP regime (2009) and the Schedule UTP regime (2010) for multinational and domestic firms. Table 2 presents the descriptive statistics. For multinational firms, the mean $\text{FederalTaxPaid}$ of 0.091 in 2010 is not statistically different from the mean $\text{FederalTaxPaid}$ of 0.112 in 2009. Thus, univariate evidence suggests federal tax aggressiveness did not change in response to Schedule UTP. However, the mean $\text{ReserveIncrease}$ of 0.020 in 2010 is significantly lower than the mean $\text{ReserveIncrease}$ of 0.030 in 2009, consistent with firms reporting lower reserves for aggressive tax positions in 2010. The mean $\text{FederalTaxExpense}$ of 0.151 in 2010 is significantly lower than the mean $\text{FederalTaxExpense}$ of 0.187 in 2009. Consistent with firms not recognizing the full benefit of tax savings in their financial statements because of reserves, mean $\text{FederalTaxExpense}$ is substantially higher than mean $\text{FederalTaxPaid}$ in both 2009 and 2010. These descriptive statistics provide initial evidence that although multinational firms did not claim fewer aggressive tax positions, they did change their financial reporting for aggressive tax positions by recording fewer reserves for

\textsuperscript{15} In August of 2011, Tax Notes reported that ‘By taking advantage of lax U.S. and foreign tax laws, Apple has been able to book a large share of its foreign profits in low-tax jurisdictions and greatly reduce its tax liability in the United States and other major countries where it conducts most of its real business activity’ (Tax Notes, August 1, 2011). Senator Bernie Sanders wrote in a letter published in the Wall Street Journal, ‘Many corporations, including General Electric and Exxon-Mobil, have made billions in profits while using loopholes to avoid paying any federal income taxes’ (Wall Street Journal, July 29, 2011).

\textsuperscript{16} The small percentage of wholesale and retail firms is likely due to excluding non-calendar year end firms. This percentage will increase when I incorporate non-calendar year-end data.
aggressive tax positions.\textsuperscript{17}

For domestic firms, the mean $FederalTaxPaid$ of 0.166 in 2010 is not statistically different from the mean $FederalTaxPaid$ of 0.171 in 2009. Similar to the multinational firms, the mean $ReserveIncrease$ of 0.011 in 2010 is significantly lower than the mean $ReserveIncrease$ of 0.018 in 2009, consistent with firms reporting lower reserves for aggressive tax positions in 2010. However, unlike the multinational firms, the mean $FederalTaxExpense$ of 0.252 in 2010 is not statistically different than the mean $FederalTaxExpense$ of 0.246 in 2009. This suggests the decrease in reserves for domestic firms might be driven by decreases in state and local tax aggressiveness or financial reporting for state and local tax aggressiveness. Although firms report state and local current and deferred tax expense in their financial statements, I cannot observe state and local taxes paid without access to state and local tax returns. However, I do observe total taxes paid reported in the financial statements. The mean $TotalTaxPaid$ of 0.306 in 2010 is significantly higher than the mean $TotalTaxPaid$ of 0.279 in 2009. In contrast with the multinational firms, this suggests that domestic firms claimed fewer tax benefits in the Schedule UTP regime. Because domestic firms do not claim fewer federal tax benefits in the Schedule UTP regime, this result suggests domestic firms claimed fewer state and local tax benefits in the Schedule UTP regime.\textsuperscript{18}

\textsuperscript{17}This result does not represent firms switching from claiming aggressive tax positions in 2009 to non-aggressive tax positions in 2010. If a firm must decide between claiming an aggressive tax position and a non-aggressive tax position that yield identical tax savings, the firm will always choose the non-aggressive position because the savings are less risky and thus have a higher net present value to the firm. If a firm could substitute between aggressive and non-aggressive tax positions, the firms would have done so in all years.

\textsuperscript{18}To my knowledge, no state and local jurisdictions require firms to disclose aggressive tax positions in their jurisdictions. However, some jurisdictions require firms to attach their federal tax return when filing their state and local tax return. Disclosing a position(s) on Schedule UTP could thus alert the state and local tax authority of potentially aggressive behavior.
Over 80 percent of multinational firms reported at least one tax position on Schedule UTP, while approximately 62 percent of domestic firms reported at least one tax position on Schedule UTP.\(^\text{19}\) This confirms that both sets of firms continue claiming aggressive tax positions in the Schedule UTP environment. Multinational firms reported slightly more tax positions than domestic firms. In both samples, on average, firms are more profitable and obtain greater tax benefits from stock option exercises in 2010 than in 2009. The lack of statistical significance for differences in the other control variables provides some comfort that firm operations were similar in 2009 and 2010.

**Composition of aggressive tax positions**

As mentioned in Section II, Schedule UTP requires firms to provide a concise narrative description of each federal aggressive tax position for which a firm has recorded a financial statement reserve. Per the Instructions for Schedule UTP, the description should describe the relevant facts affecting the tax treatment of the position. However, firms should not include an assessment of the merits of the position. Below are three examples of concise descriptions provided in the Schedule UTP Guidance for Preparing Concise Descriptions. These positions represent the three most common types of positions reported on Schedule UTP: (i) transfer pricing, (ii) the research and experimentation credit and (iii) business expense deductions (Coder 2011). I cannot include actual descriptions reported on Schedule UTP due to taxpayer confidentiality concerns. However, most Schedule UTP descriptions are similar in length and content to the hypothetical descriptions provided in the guidance.

\(^{19}\) The large percentage of multinational firms reporting positions on Schedule UTP does not negate the possibility that these firms modify their financial reporting for tax aggressiveness to avoid Schedule UTP reporting for some positions. These firms almost certainly claim positions of which the IRS is already aware. They could want to avoid disclosing positions not yet discovered by the IRS.
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.”

Table 3 describes the aggressive tax positions reported on Schedule UTP in each industry. The 242 sample firms filing Schedule UTP collectively reported 736 tax positions. 77.9 percent of the positions generated permanent book-tax differences, 20.0 percent generated temporary book-tax differences and 2.1 percent generated both permanent and temporary book-tax differences. The preponderance of permanent UTPs shows a large proportion of aggressive tax positions reported on Schedule UTP generate permanent tax savings. The most common positions relate to the research and experimentation credit, international transfer pricing and business deductions. Tax positions related to capitalization, depreciation and accruals generally create temporary book-tax differences because the issues concern the timing of expense deductibility or revenue recognition rather than the amount. On the other hand, tax positions related to research and experimentation, international, business deductions and mergers and acquisition activity generally create permanent differences.

The consumer durables and nondurables, manufacturing, energy, high-technology and healthcare industries are the most likely to report tax positions. Firms in the consumer durables
and nondurables, manufacturing, high technology and healthcare industries report positions related to research and experimentation, transfer pricing and business deductions, consistent with those industries having substantial foreign operations and research and development expenditures. Energy firms claim international tax positions not related to transfer pricing, consistent with uncertainty about whether foreign taxes are creditable and other foreign tax issues. A majority of the tax positions related to mergers and acquisitions are reported by construction firms (in the ‘Other’ industry category), an industry experiencing frequent merger and acquisition activity in 2010.

Table 3 suggests that aggressive tax positions reported on Schedule UTP arise from firms’ application of tax rules to their business operations and corporate structure. Accordingly, such transactions are likely disclosed elsewhere either on the tax return or in the financial statements. For example, a firm disclosing a position related the research and experimentation credit also reports the actual research and experimentation credit in their tax return, suggesting the IRS could glean this position without the Schedule UTP disclosure. This provides some support for the notion that firms are willing to disclose positions of which the IRS is already aware. Consistent with this finding, Eli Dicker of the Tax Executives Institute conjectured that the issues being disclosed on Schedule UTP are ‘not surprising’ (Luscombe 2012).

**Effect of Schedule UTP on tax aggressiveness and financial reporting for tax aggressiveness**

Table 4 presents the results from examining the effect of Schedule UTP on tax aggressiveness and financial reporting for tax aggressiveness.

<table>
<thead>
<tr>
<th>Insert Table 4 here</th>
<th>Insert Table 4 here</th>
</tr>
</thead>
</table>

Page 23
The results mirror the univariate results in Table 2. After controlling for incentives and opportunities to claim aggressive tax positions, \( \text{FederalTaxPaid} \) is no different in the Schedule UTP regime than in the non-Schedule UTP regime for either multinational or domestic firms. This suggests firms continued claiming benefits for aggressive tax positions in the Schedule UTP regime. \( \text{ReserveIncrease} \) is lower in the Schedule UTP regime for both domestic and multinational firms. Finally, \( \text{FederalTaxExpense} \) is lower in the Schedule UTP regime, but only for multinational firms. In terms of economic magnitude (untabulated), \( \text{ReserveIncrease} \) is almost 1 percentage point lower and \( \text{FederalTaxExpense} \) is 3 percentage points lower in 2010 than in 2009 for multinational firms even though \( \text{FederalTaxPaid} \) stays constant from 2009 to 2010. These results collectively suggest that firms with greater business complexity change their financial reporting for federal tax aggressiveness in response to Schedule UTP to avoid disclosing aggressive tax positions to the IRS.

The control variables are generally consistent with my predictions. \( \text{FederalTaxPaid} \) is lower for large firms with higher leverage, greater net operating loss carryforwards, greater excess tax benefits from stock options and more foreign operations. Surprisingly, in the \( \text{ReserveIncrease} \) model, only one of the control variables, \( \text{ROA} \), is statistically significant. This could be due to the exclusion of firms not reporting reserves in 2009 from my sample, thus forcing some degree of homogeneity within sample firms. \( \text{FederalTaxExpense} \) is lower for firms with higher discretionary accruals, consistent with managers who report aggressively in public financial statements recording lower federal tax expense, on average.

I conduct multiple sensitivity analyses. First, my results are robust to alternative scalars for the measures of tax aggressiveness and financial reporting for tax aggressiveness, including: (i) federal pretax income (Compustat PIDOM); and (ii) net income from includible corporations.
reported on line 11 of Form 1120 Schedule M-3 plus US, state and local and foreign income tax expense reported on Part III of Form 1120 Schedule M-3. Second, although I present a level specification for ease of interpreting the difference-in-differences approach, my results are inferentially similar and statistically significant with a changes specification.

Finally, consistent with the economy improving in 2010, mean and median GAAPPreTaxIncome are higher in 2010 relative to 2009 (although the difference in means and the difference in medians is not statistically significant). This raises the concern that changes in the scaled measures of tax aggressiveness could be driven by increases in the denominator rather than changes in the numerator. In untabulated tests, I replace the denominator to be 2010 GAAPPreTaxIncome for both 2009 and 2010 to address this concern. My results are inferentially unchanged and still statistically significant.

Supplemental tests

Contemporaneous events present a substantial threat to validity with interrupted time series research designs (Shadish et al. (2002)). In the following subsections, I present supplemental analyses below intended to rule out alternative explanations.

Earnings management

Because the U.S. economy emerged from a recession in 2010, firms might have had increased incentives to manage earnings in order to demonstrate recovery. Firms could manage earnings by recording lower reserves for tax aggressiveness, thus also lowering tax expense. Because this could explain my pattern of results, I control for earnings management in my model by including DAP and limit my sample to firms reporting profits in 2009 and 2010. If firms did manage earnings via manipulating reserves for tax aggressiveness, I expect to observe a decrease in foreign and state and local tax expense in 2010 that mirrors the decrease in federal tax
expense. Therefore, to further rule out the earnings management story, I substitute foreign and state and local tax expense for federal tax expense in Model (1). Table 5 presents the results.

카피etable 5 here

In contrast with the statistically significant lower FederalTaxExpense in the Schedule UTP regime, foreign and state and local tax expense are the same before and after Schedule UTP for both multinational and domestic firms. This provides further evidence that Schedule UTP explains the pattern of federal results. I also find that TotalTaxPaid increases for domestic firms, consistent with the univariate evidence in Table 2.

Comparison group

I next create a sample of firms exhibiting similar characteristics that are not subject to Schedule UTP. Firms with less than $100 million in assets are not required to file Schedule UTP in 2010, thus making them a viable control sample. The sample of smaller firms meeting my initial sample selection criteria is very small (n=39). Nonetheless, I implement my empirical analyses for this control sample. A similar pattern of results would suggest that an alternative contemporaneous event could be explaining my result. The untabulated results suggest that FederalTaxPaid, ReserveIncrease and FederalTaxExpense are the same before and after Schedule UTP, both in univariate and multivariate analyses. Although this could be driven by the lack of statistical power, it supports my main result that Schedule UTP contributed to the change in behavior for my main sample.

Exploratory analysis and future work

These initial findings on the effect of Schedule UTP present multiple opportunities for future research. First, to further understand the mechanism driving the effect of Schedule UTP on
firm behavior, I plan to separately examine the effect of Schedule UTP on Coordinated Industry Case (CIC) firms. CIC firms are under continuous IRS audit, and therefore arguably have a higher likelihood that a disclosed tax position will be investigated. On the one hand, if the IRS is already aware of a CIC firm’s tax positions via prior audit examinations, Schedule UTP should not affect behavior. On the other hand, if the firm claims positions of which the IRS is not aware, the risk of the IRS auditing such positions disclosed on Schedule UTP could be magnified because the IRS has already committed resources to auditing the firm.\(^{20}\)

Second, I would also like to examine the effect of Schedule UTP on Compliance Assurance Program (CAP) firms, who face different reporting incentives due to their special relationship with the IRS. Firms in the IRS CAP program disclose all uncertain federal tax issues to the IRS prior to filing their tax returns to reduce uncertainty about potential outcomes. These firms represent a strong control group because although they engage in tax aggressiveness, they should not be affected by Schedule UTP because they already disclose tax positions via the CAP program. However, there are very few CAP firms in my sample, thus making it difficult to draw inferences from tests of their behavior.

Third, the IRS has not yet adopted a penalty regime for failure to file Schedule UTP. However, auditing firms who fail to file Schedule UTP can serve as an indirect enforcement mechanism. Understanding more about the types of firms that report a financial statement reserve but choose not to file a Schedule UTP is a fruitful topic for future research, especially for firms with low federal tax payments. This could either be because the financial statement reserves relate to non-federal positions or the firm is not complying with Schedule UTP. In preliminary analysis, I find that Schedule UTP reporting is highly correlated with

\(^{20}\) To conduct this analysis, I have requested: (i) a list of firms classified as Coordinated Industry Case taxpayers during the 2010 tax year and (ii) the length of time each firm has been under continual audit.
ReserveIncrease, suggesting firms recording larger reserves are more likely to report at least one position on Schedule UTP.

Fourth, the Schedule UTP requirement will be phased in over a five-year period. Firms with at least $50 million in total assets will be required to file starting in 2012 and firms with at least $10 million in total assets will be required to file starting in 2014. Incorporating the response by smaller firms into my analyses provides much more power to test the effect of Schedule UTP on tax and financial reporting. Also, because tax incentives and tax planning opportunities could differ for smaller firms, I can examine how aggressive tax positions vary across different sizes of firms.

Finally, although a majority of my sample firms report at least one position on Schedule UTP, the number of positions and the length of the descriptions vary across firms. In future work, I will use textual analysis techniques to assess the informativeness of Schedule UTP disclosures. When 2011 Schedule UTP data become available, I can also explore how the disclosures vary from 2010 to 2011, especially given that the IRS issued more guidance on Schedule UTP compliance after examining the 2010 disclosures (see IRS Schedule UTP Guidance for Preparing Concise Descriptions). Further, comparing the informativeness of UTP disclosures with the informativeness of financial statement disclosures enable me to potentially shed new light on the incentives underlying public and private disclosure decisions.

V. CONCLUSION

A growing number of tax authorities require firms to disclose information about aggressive tax positions, broadly defined as positions that might not be sustained if challenged by the tax authority. Understanding how firms respond to such disclosure requirements provides valuable insight into the usefulness of these disclosures. This study exploits the recent
implementation of Schedule UTP to examine the effect of mandatory disclosures of tax aggressiveness to tax authorities on tax and financial reporting decisions. I present two main findings. First, the positions disclosed on Schedule UTP appear consistent with information reported elsewhere in the tax return and financial statements, supporting the notion that firms are willing to disclose positions on Schedule UTP of which the IRS is already aware. Second, although firms decrease reserves for tax aggressiveness in response to Schedule UTP, federal tax aggressiveness does not change with the adoption of Schedule UTP. The result is concentrated among firms with greater business complexity. These findings provide evidence that some firms found ways to change their financial reporting for tax aggressiveness to avoid disclosing positions unknown to the IRS on Schedule UTP. Collectively, my results suggest mandatory disclosures of tax aggressiveness to tax authorities could adversely impact the informativeness of financial statement disclosures.

There are multiple limitations to this study. First, although I make several research design choices intended to rule out confounding explanations, I cannot entirely rule out the possibility that my results are explained by some other contemporaneous event, such as firms emerging from the U.S. recession. Second, in requiring sample firm-years to report a financial reporting reserve increase prior to Schedule UTP, I omit firms who claim tax benefits and do not record a financial reporting reserve. However, I expect these firms continued claiming positions in the Schedule UTP regime. Third, because Schedule UTP is only required beginning with 2010 tax years, I cannot directly observe the specific tax positions claimed by firms prior to Schedule UTP. I therefore rely on aggregate measures of federal tax aggressiveness. As more data become available over the next year, more powerful tests can strengthen the analysis thus far.
Nonetheless, work to date provides the first evidence that private disclosures of tax aggressiveness to tax authorities affect the informativeness of financial reporting disclosures.
REFERENCES


Bonner, S., Clor-Proell, S., Koonce, L., Wang, T., 2012. Flexibility in disaggregation on the income statement. University of Southern California, Texas Christian University, University of Texas at Austin and Queen’s University working paper.


Gupta, S., Mills, L., Towery, E., 2012. FIN 48 and multistate income tax avoidance. Michigan State University and University of Texas at Austin working paper.


Jenkins, N., Pincus, M., 1998. LIFO versus FIFO: Updating what we have learned. University of Iowa working paper.


APPENDIX A

Numerical example of tax aggressiveness and financial reporting for tax aggressiveness

This appendix provides a numerical example of the relation between the measure of federal tax aggressiveness, \( \text{FederalTaxPaid} \), and the two measures of financial reporting for tax aggressiveness, \( \text{ReserveIncrease} \) and \( \text{FederalTaxExpense} \). \( \text{FederalTaxPaid} \) equals total tax reported on Line 31 of Form 1120 divided by GAAP pretax income. \( \text{ReserveIncrease} \) equals the increase in the reserve for aggressive tax positions related to positions taken in the current year divided by GAAP pretax income. \( \text{FederalTaxExpense} \) equals current federal tax expense divided by GAAP pretax income. For each of the three scenarios below, assume that a firm faces a 35 percent federal corporate income tax rate and is deciding whether to claim an aggressive tax position that would decrease its effective tax rate by 5 percent.

**Scenario 1**: The firm does not claim the aggressive tax position. In this scenario, \( \text{FederalTaxPaid} \) and \( \text{FederalTaxExpense} \) both equal 35 percent and the firm does not create a reserve because the firm does not claim the position.

<table>
<thead>
<tr>
<th>( \text{FederalTaxPaid} )</th>
<th>( \text{ReserveIncrease} )</th>
<th>( \text{FederalTaxExpense} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.0%</td>
<td>0.0%</td>
<td>35.0%</td>
</tr>
</tbody>
</table>

**Scenario 2**: The firm claims the aggressive tax position and creates a reserve for the position (\( \text{ReserveIncrease} = 5 \) percent). In this scenario, \( \text{FederalTaxPaid} \) equals 30 percent, but because the firm creates a reserve for the position, the firm does not recognize the benefit of the position in current period earnings, resulting in \( \text{FederalTaxExpense} \) of 35 percent.

<table>
<thead>
<tr>
<th>( \text{FederalTaxPaid} )</th>
<th>( \text{ReserveIncrease} )</th>
<th>( \text{FederalTaxExpense} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.0%</td>
<td>5.0%</td>
<td>35.0%</td>
</tr>
</tbody>
</table>

**Scenario 3**: The firm claims the aggressive tax position and does \( \text{not} \) create a reserve for the position (\( \text{ReserveIncrease} = 0 \) percent). In this scenario, the firm can recognize the benefit of the position in current period earnings because it does not record a reserve. Thus, \( \text{FederalTaxPaid} \) and \( \text{FederalTaxExpense} \) both equal 30 percent.

<table>
<thead>
<tr>
<th>( \text{FederalTaxPaid} )</th>
<th>( \text{ReserveIncrease} )</th>
<th>( \text{FederalTaxExpense} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.0%</td>
<td>0.0%</td>
<td>30.0%</td>
</tr>
</tbody>
</table>
### APPENDIX B

**Variable definitions**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAAPPreTaxIncome</td>
<td>Pretax book income (Compustat PI)</td>
</tr>
<tr>
<td>UnscaledFederalTaxPaid</td>
<td>Total tax reported on Line 31 of Form 1120</td>
</tr>
<tr>
<td>FederalTaxPaid</td>
<td>Total tax reported on Line 31 of Form 1120 divided by GAAPPreTaxIncome</td>
</tr>
<tr>
<td>UnscaledReserveIncrease</td>
<td>Increase in the reserve for aggressive tax positions related to positions taken in the current year (Compustat TXTUBPOSINC)</td>
</tr>
<tr>
<td>ReserveIncrease</td>
<td>Increase in the reserve for aggressive tax positions related to positions taken in the current year (Compustat TXTUBPOSINC) divided by GAAPPreTaxIncome</td>
</tr>
<tr>
<td>UnscaledFederalTaxExpense</td>
<td>Current federal tax expense (Compustat TXFED)</td>
</tr>
<tr>
<td>FederalTaxExpense</td>
<td>Current federal tax expense (Compustat TXFED) divided by GAAPPreTaxIncome</td>
</tr>
<tr>
<td>StateTaxExpense</td>
<td>Current state tax expense (Compustat TXS) divided by GAAPPreTaxIncome</td>
</tr>
<tr>
<td>ForeignTaxExpense</td>
<td>Current foreign tax expense (Compustat TXFO) divided by GAAPPreTaxIncome</td>
</tr>
<tr>
<td>TotalTaxPaid</td>
<td>Total tax paid (Compustat TXD) divided by GAAPPreTaxIncome</td>
</tr>
<tr>
<td>UTPInd</td>
<td>1 if firm reported at least one tax position on Schedule UTP and 0 otherwise</td>
</tr>
<tr>
<td>NumUTPs</td>
<td>Number of tax positions reported on Schedule UTP</td>
</tr>
<tr>
<td>Leverage</td>
<td>Long-term debt (Compustat DLTT) divided by lagged TotalAssets</td>
</tr>
<tr>
<td>ROA</td>
<td>Pretax income (Compustat PI) divided by lagged TotalAssets</td>
</tr>
<tr>
<td>CapIntensity</td>
<td>Net property, plant and equipment (Compustat PPENT) divided by lagged TotalAssets</td>
</tr>
<tr>
<td>NOL</td>
<td>Available net operating loss carryovers from prior tax years reported on Form 1120 Schedule K Question 12 divided by lagged TotalAssets</td>
</tr>
<tr>
<td>OptionTaxBen</td>
<td>35% times [the stock option deduction per tax return minus the stock option expense per income statement, both reported on Part III Line 9 of Form 1120 Schedule M-3] divided by lagged TotalAssets</td>
</tr>
<tr>
<td>PerfAdjDiscAccr</td>
<td>Performance-matched discretionary accruals based on the Kothari, Leone and Wasley (2005) modified-Jones model (Jones (1991))</td>
</tr>
<tr>
<td>TotalAssets</td>
<td>Compustat AT</td>
</tr>
<tr>
<td>ForeignIncome</td>
<td>Pretax foreign income (Compustat PIFO) divided by lagged TotalAssets</td>
</tr>
<tr>
<td>RD</td>
<td>Research and development expenses (Compustat XRD) divided by lagged TotalAssets</td>
</tr>
<tr>
<td>UTPRegimeInd</td>
<td>1 if year equals 2010 and 0 otherwise</td>
</tr>
<tr>
<td>MultinationalInd</td>
<td>1 if foreign pretax income (Compustat PIFO) is at least 10 percent of worldwide pretax income (Compustat PI) and 0 otherwise</td>
</tr>
</tbody>
</table>
FIGURE 1
Timeline of US tax disclosure environment
This table provides a summary of the sample selection process. Panel A presents the aggregate number of firm-years. Panel B shows the number of firms by industry.

### Panel A, Aggregate number of firm-years

2009 and 2010 calendar year-end observations with &ge;$100M in assets filing SEC Form 10-K  
Less: observations not matched with Compustat data  
Less: observations with negative pretax income  
Less: observations missing regression variables  
Less: firms missing 2009 or 2010 data  
Less: firms with non-positive UTB current-year increases in 2009  
Final sample

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 and 2010 calendar year-end observations with ≥$100M in assets filing SEC Form 10-K</td>
<td>4,895</td>
</tr>
<tr>
<td>Less: observations not matched with Compustat data</td>
<td>(1,625)</td>
</tr>
<tr>
<td>Less: observations with negative pretax income</td>
<td>(1,650)</td>
</tr>
<tr>
<td>Less: observations missing regression variables</td>
<td>(179)</td>
</tr>
<tr>
<td>Less: firms missing 2009 or 2010 data</td>
<td>(361)</td>
</tr>
<tr>
<td>Less: firms with non-positive UTB current-year increases in 2009</td>
<td>(396)</td>
</tr>
<tr>
<td>Final sample</td>
<td>684</td>
</tr>
</tbody>
</table>

### Panel B, Number of firms by industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Durables &amp; NonDurables</td>
<td>29</td>
<td>8.5%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>55</td>
<td>16.1%</td>
</tr>
<tr>
<td>Energy</td>
<td>13</td>
<td>3.8%</td>
</tr>
<tr>
<td>High-Technology</td>
<td>67</td>
<td>19.6%</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>15</td>
<td>4.4%</td>
</tr>
<tr>
<td>Wholesale &amp; Retail</td>
<td>20</td>
<td>5.8%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>52</td>
<td>15.2%</td>
</tr>
<tr>
<td>Utilities &amp; Financial</td>
<td>31</td>
<td>9.1%</td>
</tr>
<tr>
<td>Other</td>
<td>60</td>
<td>17.5%</td>
</tr>
<tr>
<td>Total</td>
<td>342</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
TABLE 2
Descriptive statistics

This table provides descriptive statistics for the pre-Schedule UTP and Schedule UTP regimes for multinational and domestic firms. All continuous variables are winsorized at the 2.5 and 97.5 percentiles. Asterisks ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively, for the differences between the pre-Schedule UTP and Schedule UTP regimes. See Appendix B for variable definitions.

<table>
<thead>
<tr>
<th></th>
<th>Multinational firms (MultinationalInd = 1)</th>
<th>Domestic firms (MultinationalInd = 0)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>GAAPPreTaxIncome ($M)</td>
<td>1,075</td>
<td>2,044</td>
</tr>
<tr>
<td>UnscaledFederalTaxPaid ($M)</td>
<td>24.9</td>
<td>24.3</td>
</tr>
<tr>
<td>FederalTaxPaid</td>
<td>0.112</td>
<td>0.127</td>
</tr>
<tr>
<td>UnscaledReserveIncrease ($M)</td>
<td>26.0</td>
<td>59.1</td>
</tr>
<tr>
<td>ReserveIncrease</td>
<td>0.018</td>
<td>0.026</td>
</tr>
<tr>
<td>UnscaledFederalTaxExpense ($M)</td>
<td>108.7</td>
<td>172.5</td>
</tr>
<tr>
<td>FederalTaxExpense</td>
<td>0.187</td>
<td>0.151</td>
</tr>
<tr>
<td>StateTaxExpense</td>
<td>0.028</td>
<td>0.027</td>
</tr>
<tr>
<td>ForeignTaxExpense</td>
<td>0.102</td>
<td>0.077</td>
</tr>
<tr>
<td>TotalTaxPaid</td>
<td>0.268</td>
<td>0.154</td>
</tr>
<tr>
<td>UTPInd</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NumUTPs</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.148</td>
<td>0.141</td>
</tr>
<tr>
<td>ROA</td>
<td>0.126</td>
<td>0.091</td>
</tr>
<tr>
<td>CapIntensity</td>
<td>0.408</td>
<td>0.342</td>
</tr>
<tr>
<td>NOL</td>
<td>0.001</td>
<td>0.004</td>
</tr>
<tr>
<td>OptionTaxBen</td>
<td>0.000</td>
<td>0.003</td>
</tr>
<tr>
<td>PerfAdjDiscAccr</td>
<td>-0.001</td>
<td>0.058</td>
</tr>
<tr>
<td>TotalAssets ($M)</td>
<td>11,043</td>
<td>22,786</td>
</tr>
<tr>
<td>RD</td>
<td>0.036</td>
<td>0.045</td>
</tr>
<tr>
<td>ForeignIncome</td>
<td>0.056</td>
<td>0.045</td>
</tr>
</tbody>
</table>

Page 39
TABLE 3
Composition of aggressive tax positions

This table presents the composition of aggressive tax positions reported on Schedule UTP. See Appendix B for variable definitions.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total firms</td>
<td>342</td>
<td>29</td>
<td>55</td>
<td>13</td>
<td>67</td>
<td>15</td>
<td>20</td>
<td>52</td>
<td>31</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>% filing UTP</td>
<td>70.8%</td>
<td>82.8%</td>
<td>74.5%</td>
<td>76.9%</td>
<td>91.0%</td>
<td>66.7%</td>
<td>55.0%</td>
<td>73.1%</td>
<td>54.8%</td>
<td>50.0%</td>
<td></td>
</tr>
<tr>
<td>Mean FederalTaxPaid</td>
<td>0.131</td>
<td>0.119</td>
<td>0.131</td>
<td>0.095</td>
<td>0.111</td>
<td>0.048</td>
<td>0.157</td>
<td>0.129</td>
<td>0.117</td>
<td>0.117</td>
<td>0.187</td>
</tr>
<tr>
<td>Mean ReserveIncrease</td>
<td>0.016</td>
<td>0.010</td>
<td>0.015</td>
<td>0.008</td>
<td>0.025</td>
<td>0.015</td>
<td>0.012</td>
<td>0.022</td>
<td>0.007</td>
<td>0.011</td>
<td></td>
</tr>
<tr>
<td>Mean FederalTaxExpense</td>
<td>0.205</td>
<td>0.190</td>
<td>0.157</td>
<td>0.138</td>
<td>0.180</td>
<td>0.125</td>
<td>0.248</td>
<td>0.247</td>
<td>0.244</td>
<td>0.245</td>
<td></td>
</tr>
<tr>
<td>Total Number of UTPs</td>
<td>736</td>
<td>63</td>
<td>94</td>
<td>55</td>
<td>147</td>
<td>35</td>
<td>41</td>
<td>114</td>
<td>42</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>Number of Permanent UTPs</td>
<td>573</td>
<td>50</td>
<td>76</td>
<td>38</td>
<td>133</td>
<td>18</td>
<td>27</td>
<td>95</td>
<td>24</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>Number of Temporary UTPs</td>
<td>147</td>
<td>12</td>
<td>14</td>
<td>17</td>
<td>14</td>
<td>16</td>
<td>13</td>
<td>16</td>
<td>18</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Number of Perm/Temp UTPs</td>
<td>16</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Number of R&amp;E Credit UTPs</td>
<td>160</td>
<td>16</td>
<td>30</td>
<td>&lt;=5</td>
<td>55</td>
<td>9</td>
<td>&lt;=5</td>
<td>32</td>
<td>&lt;=5</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Number of International (TP) UTPs</td>
<td>135</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>46</td>
<td>&lt;=5</td>
<td>10</td>
<td>37</td>
<td>&lt;=5</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Number of Deduction-related UTPs</td>
<td>116</td>
<td>17</td>
<td>17</td>
<td>&lt;=5</td>
<td>22</td>
<td>&lt;=5</td>
<td>10</td>
<td>15</td>
<td>7</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Number of M&amp;A UTPs</td>
<td>81</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>Number of International (non-TP) UTPs</td>
<td>56</td>
<td>6</td>
<td>9</td>
<td>16</td>
<td>8</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
</tr>
<tr>
<td>Number of Capitalization UTPs</td>
<td>56</td>
<td>&lt;=5</td>
<td>7</td>
<td>11</td>
<td>&lt;=5</td>
<td>6</td>
<td>8</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Number of Depreciation UTPs</td>
<td>32</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Number of Accruals UTPs</td>
<td>33</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>&lt;=5</td>
<td>6</td>
<td>&lt;=5</td>
</tr>
<tr>
<td>Number of Other UTPs</td>
<td>67</td>
<td>&lt;=5</td>
<td>13</td>
<td>&lt;=5</td>
<td>6</td>
<td>7</td>
<td>&lt;=5</td>
<td>8</td>
<td>13</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 4

The effect of Schedule UTP on tax and financial reporting

This table presents results from estimating simultaneous equations for the effect of Schedule UTP on tax and financial reporting. Robust standard errors are reported in parentheses. All continuous variables are winsorized at the 2.5 and 97.5 percentiles. Asterisks ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively. See Appendix B for variable definitions.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.5133 ***</td>
<td>0.0165 **</td>
<td>0.3262 ***</td>
</tr>
<tr>
<td></td>
<td>(0.0304)</td>
<td>(0.0081)</td>
<td>(0.0371)</td>
</tr>
<tr>
<td>UTPRegimeInd</td>
<td>0.0048</td>
<td>-0.0053 ***</td>
<td>0.0087</td>
</tr>
<tr>
<td></td>
<td>(0.0096)</td>
<td>(0.0018)</td>
<td>(0.0099)</td>
</tr>
<tr>
<td>MultinationalInd</td>
<td>0.0024</td>
<td>0.0083 *</td>
<td>0.0129</td>
</tr>
<tr>
<td></td>
<td>(0.0151)</td>
<td>(0.0045)</td>
<td>(0.019)</td>
</tr>
<tr>
<td>UTPRegimeInd*MultinationalInd</td>
<td>-0.0148</td>
<td>-0.0037</td>
<td>-0.0419 **</td>
</tr>
<tr>
<td></td>
<td>(0.0128)</td>
<td>(0.0033)</td>
<td>(0.0166)</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.0572 *</td>
<td>0.0009</td>
<td>-0.0850 **</td>
</tr>
<tr>
<td></td>
<td>(0.0343)</td>
<td>(0.0093)</td>
<td>(0.0411)</td>
</tr>
<tr>
<td>ROA</td>
<td>0.0049</td>
<td>-0.0578 ***</td>
<td>0.1725 ***</td>
</tr>
<tr>
<td></td>
<td>(0.0717)</td>
<td>(0.0132)</td>
<td>(0.0646)</td>
</tr>
<tr>
<td>CapIntensity</td>
<td>-0.0214</td>
<td>-0.0013</td>
<td>-0.0405 **</td>
</tr>
<tr>
<td></td>
<td>(0.0169)</td>
<td>(0.0042)</td>
<td>(0.0181)</td>
</tr>
<tr>
<td>NOL</td>
<td>-4.0962 ***</td>
<td>0.0999</td>
<td>-1.8972</td>
</tr>
<tr>
<td></td>
<td>(1.1988)</td>
<td>(0.2748)</td>
<td>(1.1982)</td>
</tr>
<tr>
<td>OptionTaxBen</td>
<td>-3.1575 ***</td>
<td>-0.3146</td>
<td>-1.2849</td>
</tr>
<tr>
<td></td>
<td>(1.1791)</td>
<td>(0.2663)</td>
<td>(1.1286)</td>
</tr>
<tr>
<td>PerfAdjDiscAccr</td>
<td>-0.0349</td>
<td>-0.0011</td>
<td>-0.2400 **</td>
</tr>
<tr>
<td></td>
<td>(0.0873)</td>
<td>(0.0214)</td>
<td>(0.0975)</td>
</tr>
<tr>
<td>ln(Assets)</td>
<td>-0.0399 ***</td>
<td>0.0008</td>
<td>-0.0074 *</td>
</tr>
<tr>
<td></td>
<td>(0.0031)</td>
<td>(0.0009)</td>
<td>(0.0041)</td>
</tr>
<tr>
<td>RD</td>
<td>-0.1679</td>
<td>0.0622</td>
<td>0.1093</td>
</tr>
<tr>
<td></td>
<td>(0.1443)</td>
<td>(0.0406)</td>
<td>(0.1608)</td>
</tr>
<tr>
<td>ForeignIncome</td>
<td>-0.6027 ***</td>
<td>0.0272</td>
<td>-1.0873 ***</td>
</tr>
<tr>
<td></td>
<td>(0.1653)</td>
<td>(0.0562)</td>
<td>(0.1969)</td>
</tr>
</tbody>
</table>

Industry fixed effects: Yes, Yes, Yes
N: 684, 684, 684
R-squared: 0.3763, 0.1543, 0.2357
This table presents multivariate results for the effect of Schedule UTP on state and local tax expense, foreign tax expense and total taxes paid. Standard errors are reported in parentheses. All continuous variables are winsorized at the 2.5 and 97.5 percentiles. Asterisks ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively. See Appendix B for variable definitions.

<table>
<thead>
<tr>
<th>DV:</th>
<th>Domestic firms</th>
<th>DV:</th>
<th>Domestic firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>StateTax</td>
<td>Foreign TaxExpense</td>
<td>TotalTax Paid</td>
<td>StateTax</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.0513 ***</td>
<td>0.0620 ***</td>
<td>0.3151 ***</td>
</tr>
<tr>
<td>(0.0095)</td>
<td>(0.0235)</td>
<td>(0.0547)</td>
<td>(0.0102)</td>
</tr>
<tr>
<td>UTPRegimeInd</td>
<td>-0.0030</td>
<td>-0.0012</td>
<td>0.0258</td>
</tr>
<tr>
<td>(0.0027)</td>
<td>(0.0068)</td>
<td>(0.0158)</td>
<td>(0.0031)</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.0124</td>
<td>0.0317</td>
<td>-0.0728</td>
</tr>
<tr>
<td>(0.01)</td>
<td>(0.0248)</td>
<td>(0.0577)</td>
<td>(0.0111)</td>
</tr>
<tr>
<td>ROA</td>
<td>0.0185</td>
<td>-0.4324 ***</td>
<td>0.0266</td>
</tr>
<tr>
<td>(0.0227)</td>
<td>(0.0564)</td>
<td>(0.1313)</td>
<td>(0.017)</td>
</tr>
<tr>
<td>CapIntensity</td>
<td>-0.0078</td>
<td>0.0056</td>
<td>-0.0544 *</td>
</tr>
<tr>
<td>(0.0052)</td>
<td>(0.0129)</td>
<td>(0.0301)</td>
<td>(0.0049)</td>
</tr>
<tr>
<td>NOL</td>
<td>0.4520</td>
<td>-0.0890</td>
<td>-0.1597</td>
</tr>
<tr>
<td>(0.3696)</td>
<td>(0.9181)</td>
<td>(2.1386)</td>
<td>(0.3564)</td>
</tr>
<tr>
<td>OptionTaxBen</td>
<td>-0.4402</td>
<td>1.2519</td>
<td>-6.4900 ***</td>
</tr>
<tr>
<td>(0.3837)</td>
<td>(0.9532)</td>
<td>(2.2203)</td>
<td>(0.3732)</td>
</tr>
<tr>
<td>PerfAdjDiscAccr</td>
<td>0.0066</td>
<td>-0.0912</td>
<td>-0.1044</td>
</tr>
<tr>
<td>(0.0246)</td>
<td>(0.0611)</td>
<td>(0.1424)</td>
<td>(0.0241)</td>
</tr>
<tr>
<td>ln(assets)</td>
<td>-0.0019 *</td>
<td>0.0043 *</td>
<td>0.0015</td>
</tr>
<tr>
<td>(0.001)</td>
<td>(0.0024)</td>
<td>(0.0057)</td>
<td>(0.0012)</td>
</tr>
<tr>
<td>RD</td>
<td>0.0934 **</td>
<td>-0.2324 **</td>
<td>0.0451</td>
</tr>
<tr>
<td>(0.0446)</td>
<td>(0.1107)</td>
<td>(0.2578)</td>
<td>(0.0388)</td>
</tr>
<tr>
<td>ForeignIncome</td>
<td>-0.1943 ***</td>
<td>0.9946 ***</td>
<td>-0.9633 ***</td>
</tr>
<tr>
<td>(0.0485)</td>
<td>(0.1204)</td>
<td>(0.2805)</td>
<td>(0.3866)</td>
</tr>
</tbody>
</table>

Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
N | 316 | 316 | 316 | 368 | 368 | 368 |
R-squared | 0.1856 | 0.3888 | 0.1435 | 0.0422 | 0.0832 | 0.1021 |
ERIN M. TOWERY, CPA
Department of Accounting
McCombs School of Business
The University of Texas at Austin
1 University Station B6400
Austin, TX 78712-0211
Phone: (646) 464-2744
Email: erin.towery@phd.mccombs.utexas.edu

EDUCATION
The University of Texas at Austin Austin, TX
Doctoral Candidate in Accounting August 2008 – Present
Major Area: Taxation

The University of Texas at Austin Austin, TX
Master in Professional Accounting August 2005
Concentration: Taxation

Auburn University Auburn, AL
Bachelor of Science in Business Administration December 2003
Major: Accounting

WORKING PAPERS
“The evolution of capital structure and operating performance after leveraged buyouts: Evidence from U.S. corporate tax returns”, with Jonathan Cohn and Lillian Mills
Recipient of 2012 Charles River Associates Award for the Best Paper on Corporate Finance; Under second round review at Journal of Financial Economics

“FIN 48 and multistate income tax uncertainty”, with Sanjay Gupta and Lillian Mills
• Invited conferences: 2009 American Accounting Association Annual Meeting and 2009 University of Illinois Tax Symposium

DISSERTATION
“How do disclosures of tax aggressiveness to tax authorities affect reporting decisions? Evidence from Schedule UTP”, November 2012

WORK-IN-PROGRESS “The motives and consequences of private-to-private leveraged buyout transactions” with Jonathan Cohn

“Too good to be true? Analysts’ Income Tax Forecast Errors for Firms with Low Effective Tax Rates”, with Bridget Stomberg, University of Texas at Austin work-in-progress

RESEARCH INTERESTS
Tax Compliance; Financial Reporting; Corporate Finance

TEACHING INTERESTS
Corporate and Partnership Taxation; Multi-Jurisdiction Taxation; Financial Accounting

TEACHING
The University of Texas at Austin Austin, TX Assistant Instructor Summer 2011
Teaching evaluations (5 point scale) for Fundamentals of Financial Accounting:
- Overall Instructor Rating   4.8
- Course Well Organized      4.9
- Communicated Information Effectively  4.9
- Showed Interest in Student Progress 4.8
- Assignments and Tests Returned Promptly 5.0
- Student Freedom of Expression  4.7
- Course of Value to Date     4.9
- Overall Course Rating      4.6

Created a SAS, STATA, and WRDS research training curriculum for first-year Accounting doctoral students; delivered in 2009 and 2010

CONFERENCE AND WORKSHOP PRESENTATIONS
University of Texas at Austin Road Paper Workshop, 2012, Presenter
American Accounting Association Annual Meeting, 2012, Discussant
University of Texas at Austin Brownbag, 2012, Presenter
American Accounting Association Annual Meeting, 2011, Presenter and Discussant
UNC Tax Symposium, 2011, Presenter
University of Texas at Austin Brownbag, 2010, Presenter
American Accounting Association Annual Meeting, 2009, Presenter
University of Texas at Austin Brownbag, 2008, Co-Presenter

UNIVERSITY OF TEXAS REPRESENTATIVE
Doctoral Internationalization Consortium in Accounting, Chapel Hill, NC, 2009

CONFERENCES ATTENDED
University of Texas Accounting PhD Reunion Conference, Austin, TX, 2012
Alternative Investments Conference, Austin, TX, 2012
XBRL US National Conference, Austin, TX, 2012
Western Finance Association Annual Meeting, 2012
AAA-ATA Mid-Year Meeting, New Orleans, LA, 2012
Utah Winter Finance Conference, Snowbird, UT, 2012
UNC Tax Symposium – Kenan-Flagler Business School, Chapel Hill, NC, 2012
University of Illinois Tax Symposium, Chicago, IL, 2011
American Accounting Association Annual Meeting, Denver, CO, 2011
AAA-ATA Mid-Year Meeting and Doctoral Consortium, Washington, D.C., 2011
UNC Tax Symposium – Kenan-Flagler Business School, Chapel Hill, NC, 2011
American Accounting Association Annual Meeting, San Francisco, CA, 2010
IRS Research Conference, Washington, D.C., 2010
Intersection of Economics & Psychology in Accounting Research Conference, Austin, TX, 2010
AAA-ATA Mid-Year Meeting and Doctoral Consortium, Denver, CO, 2010
UNC Tax Symposium – Kenan-Flagler Business School, Chapel Hill, NC, 2010
American Accounting Association Annual Meeting, New York, NY, 2009
Lone Star Conference, Austin, TX, 2009
Accounting and Corporate Governance Conference, Austin, TX, 2009
Conference on Financial Economics and Accounting, Austin, TX, 2008

DOCTORAL WORK

APPOINTMENTS

Research and Teaching Assistant for Taxes and Business Strategy
Internal Revenue Service Research and Workload Identification Disclosure Clearance
Dr. Lillian Mills

Research and Teaching Assistant for Introduction to Taxation
Dr. Jeri Seidman

Teaching Assistant for Financial Statement Analysis
Dr. Brian White

Teaching Assistant for Fundamentals of Financial Accounting
Dr. Patricia Libby

HONORS & AWARDS

Deloitte Foundation Doctoral Fellowship, 2011
University of Texas Graduate School Continuing Fellowship, 2011-2012
Fred Moore Assistant Instructor Award for Teaching Excellence, 2011-2012
McCombs Research Excellence Grant, June 2010
University of Texas McCombs School of Business Doctoral Fellowship, 2009-Present
University of Texas Pre-Emptive Recruiting Fellowship, 2008-2009
Ernst & Young Travel Grant for ATA Doctoral Consortium, 2010 and 2011

RESEARCH SERVICE

Discussant, American Accounting Association Annual Meeting, 2011-2012
Reviewer, American Accounting Association Annual Meeting, 2011-2012
Selected to participate in private FASRI roundtable discussion of FIN 48, January 2011
Student leader and coordinator for Texas Tax Readings Group (http://www.mccombs.utexas.edu/tax-readings-group/); 2009-2012
Reviewer, ATA JATA Conference Committee, 2010-2011
Reviewer, ATA Research Resources and Methodologies Committee, 2009-2011
Member, American Accounting Association
Member, AAA American Taxation Association

PROFESSIONAL EXPERIENCE

Huron Consulting Group
Associate (Senior) – Financial & Economic Consulting Practice
New York City, NY 2007-2008

PricewaterhouseCoopers LLP
Tax Associate – Investment Management Practice
New York City, NY 2005-2007

PricewaterhouseCoopers LLP
Tax Intern – Financial Services Practice
Houston, TX Spring & Summer 2004
<table>
<thead>
<tr>
<th>PROFESSIONAL</th>
<th>Certified Public Accountant, Tennessee</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERTIFICATIONS</td>
<td>University of Texas 2011 Summer Statistics Institute – Time Series Course</td>
</tr>
<tr>
<td></td>
<td>University of Texas 2010 Summer Statistics Institute – Bayesian Statistics Course</td>
</tr>
</tbody>
</table>