Decoding Unrecognized Tax Benefits: An Analysis of Critical Audit Matter Reports

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Abstract: We investigate whether an additional tax-related disclosure, a critical audit matter (CAM) report citing the tax accounts, improves the informativeness of reported unrecognized tax benefits (UTBs) and is associated with future UTB settlements. Uncertain tax positions have significant implications for firm risk and value, but the results of prior research suggest UTB disclosures do not provide as much information about the true uncertainty of these positions as standard setters had hoped. We posit that supplemental information from the audit team can enhance UTB disclosures and identify firms whose reported UTBs are associated with more uncertain tax positions. Consistent with this notion, we find that, for a given level of UTB additions, the appearance of tax accounts in the CAM report is associated with increases in the likelihood and magnitude of future UTB settlements. This effect is particularly strong the first time a tax account is mentioned in firms' CAM reports. These results suggest that tax-related CAM reports provide an ex ante signal to identify firms that are more likely to incur future tax settlements. In additional tests, we find purchasing tax services from the auditor or hiring a tax expert auditor alleviates this effect, indicating that auditors' abilities to assess the uncertainty of the underlying positions play an important role in our findings. Our results suggest that the CAM report improves the informativeness of UTB disclosures, demonstrating how signals from different sources, in this case, the auditor and manager, can be combined to generate unique insights. Moreover, our study extends research on the potential benefits of CAM reports because we show that this disclosure helps identify firms that are more likely to have future tax settlements.

Keywords: Unrecognized tax benefits, ASC 740, Critical audit matters, IRS settlements

JEL Codes: G10; M41; H26

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INTRODUCTION

FASB Accounting Standards Codification Topic 740 (ASC 740, formerly FIN 48) requires firms to book a reserve, or unrecognized tax benefit (UTB), for tax positions that are more likely than not to be challenged by revenue authorities. In contrast to expectations (e.g., Blouin and Robinson 2014; Mills, Robinson, and Sansing 2010), mixed empirical evidence suggests that UTB disclosures alone are not a clear indicator of the uncertainty underlying firms' tax positions (e.g., Bozanic, Thornock, and Williams 2017; Gupta, Mills, and Towery 2014; Robinson, Stomberg, and Towery 2016). Beginning in 2019, the Public Company Accounting Oversight Board (PCAOB) requires audit firms to disclose the client accounts that require the most subjective or complex judgment in a critical audit matter (CAM) report. Tax accounts often appear in CAM reports (Drake, Goldman, Lusch, and Schmidt 2023) because tax positions are complex and determining their effect on income is difficult (e.g., see Microsoft's 2020 CAM report).[1] This study investigates whether this additional tax-related disclosure increases the informativeness of reported UTBs and identifies firms whose UTBs reflect more uncertain tax positions. Specifically, we examine if, for a given level of UTB additions, the appearance of tax accounts in the CAM report is associated with increases in the likelihood and magnitude of future UTB settlements.

This research question is important for two reasons. First, uncertain tax positions have significant implications for firm risk and value, but managements' UTB disclosures do not clearly convey the true uncertainty of firms' tax positions (e.g., Ciconte, Donohoe, Lisowsky, and

[1] Microsoft's 2020 CAM report mentions the income tax liability related to a transfer pricing issue and states, "the Company remains under IRS audit, or subject to IRS audit, for tax years subsequent to 2003. While the Company has settled a portion of the IRS audits, resolution of the remaining matters could have a material impact on the Company's financial statements." Other tax-related CAM reports in our sample use similar language, suggesting tax accounts appear in CAM reports because of uncertainty about their potential effect on firms' financial positions.

Mayberry 2024; Guenther, Matsunaga, and Williams 2017). This study aims to determine whether supplemental information from the audit team can improve financial statement users' abilities to interpret these disclosures and identify firms with uncertain tax positions susceptible to audit. Second, we extend research that examines the informativeness of CAM reports. While still early, research offers little evidence that CAM reports are value relevant – on average, investors do not respond to CAM report releases (e.g., Anding, Blay, and Bozanic 2022; Burke, Hoitash, Hoitash, and Xiao 2021). Instead of studying the release of the CAM report as a whole, our study examines the appearance of specific accounts within the CAM report, the tax accounts, to determine whether these disclosures provide useful information to financial statement users. Thus, while prior research provides inconclusive evidence regarding the value of UTB and CAM disclosures when considered separately, we examine whether combining these distinct disclosures generates useful information that allows stakeholders to identify firms with more uncertain tax positions.

Conceptually, the UTB represents the amount of claimed tax benefits managers expect to lose upon revenue authority audit, indicating greater uncertainty. However, prior research does not consistently link UTBs with risk or negative firm outcomes (e.g., Guenther et al. 2017; Koester 2012; Lisowsky, Robinson, and Schmidt 2013; Robinson and Schmidt 2013), suggesting differences in firms' interpretation of the standard may reduce this account's informativeness. Moreover, ASC 740 does not differentiate between UTBs booked for positions that are almost certain to be challenged successfully and UTBs booked by conservative managers for positions that are likely to be settled for a smaller amount. In contrast, because tax-related CAMs are issued by the independent auditor, they are unaffected by management's interpretation and application of ASC 740. In addition, these reports indicate that the tax accounts require management and auditors

to make significant subjective or complex judgments.[2] Thus, CAM reports could distinguish between UTBs related to conservative accounting and UTBs related to more uncertain positions. If these reports identify firms with tax positions that are more uncertain, we expect firms with tax-related CAM reports to have a higher likelihood and magnitude of future UTB settlements.

However, it is unclear whether tax-related CAM reports will be associated with future UTB settlements for at least two reasons. First, prior research finds that financial reporting policies affect the recording of tax reserves, leading to inconsistent treatment of similar tax positions across firms (De Simone, Mills, and Stomberg 2014). Thus, for a given level of UTB additions, it may be difficult to determine the actual uncertainty of tax positions, even using CAM reports. Second, CAM reports are required, annual disclosures in which the auditor identifies financial statement accounts involving the most subjective or complex judgment. Interpreting tax law requires judgment, so CAM reports may reference tax accounts, even if the positions are not uncertain. In either case, future UTB settlements will not be associated with tax-related CAM reports.

Following prior literature, we examine the initial release of required CAM reports (e.g., Hollie and Yu 2021; Burke et al. 2021) and select observations from 2019 at the intersection of the Compustat and Audit Analytics databases that report an increase in UTBs in 2017, 2018, and/or 2019. Our main variable of interest is the interaction between increases in UTBs from 2017 – 2019 and an indicator variable equal to one if the firm's 2019 CAM report references a tax account (Drake et al. 2023). By regressing this variable on UTB settlements in the subsequent year, we investigate the association between the incidence of a tax-related CAM and the likelihood and

[2] For example, Microsoft's 2020 CAM report states, "given the complexity and the subjective nature of the transfer pricing issues that remain unresolved with the IRS, evaluating management's estimates relating to their determination of uncertain tax positions required extensive audit effort and a high degree of auditor judgment, including involvement of our tax specialists." Other CAM reports in our sample use similar language.

magnitude of future UTB settlements, for a given level of prior UTB additions.[3] We focus on the interaction term to hold constant the effect of the level of firms' reported UTBs on revenue authorities' audit selection and procedures and to study how tax-related CAM reports affect the mapping of prior UTB additions into future UTB settlements.

Our results suggest tax-related CAMs provide an ex ante signal of firms whose reported level of UTBs reflect tax positions that are more uncertain. Specifically, we find that, for a given level of prior UTB additions, the appearance of a tax account in the CAM report increases both the likelihood and magnitude of future settlements with revenue authorities. These results suggest that tax-related CAM reports provide new information about firms' uncertain tax positions that is useful for identifying firms likely to incur future tax settlements. In contrast, we do not find a significant, direct association between prior UTB additions and the likelihood or magnitude of future tax settlements. Consistent with previous inconclusive evidence regarding whether the level of UTBs conveys information about the uncertainty/risk of firms' tax positions (e.g., Guenther et al. 2017; Hutchens and Rego 2015; Koester 2012), this result suggests UTB disclosures alone are insufficient to identify truly uncertain tax positions. In combination, our findings indicate that tax-related CAM reports, an additional tax-related disclosure provided by the independent auditor, improve the usefulness of UTB disclosures and are relevant to financial statement users.

Because these reports are generated by the auditor, whose characteristics could affect the signal provided by the tax-related CAM report, we explore whether features of the auditor (e.g., tax expertise) and audit firm-client relationship (e.g., the purchase of audit-provided tax services, APTS) impact our results. When we split our sample on these two dimensions, we find that, for a

[3] CAM reports can reference specific tax accounts (e.g., the UTB) or the tax accounts more generally. Because there is no clear guidance with respect to the level of granularity that these reports must use for a particular account, we follow Drake et al. (2023) and include all CAM reports that reference the tax accounts in our sample to ensure that we capture every report that could provide a signal about the uncertainty of firms' tax positions.

given level of prior UTB additions, the presence of a tax-related CAM is associated with a higher likelihood and larger magnitude of future UTB settlements when the client does *not* purchase tax services from their auditor or does *not* hire a tax-expert auditor. These results suggest this additional tax-related disclosure is a stronger signal of situations where a revenue audit could be more successful when the auditor may struggle to assess the uncertainty of clients' tax positions.

A common challenge of audit-related research is selection bias resulting from differences in client characteristics (Lawrence, Minutti-Meza, And Zhang 2011; Minutti-Meza 2013; DeFond et al. 2017). To mitigate this concern in our study, we examine an entropy-balanced sample (e.g., DeFond and Lennox 2017), which is balanced on all covariates, and continue to find that, for a given level of prior UTB additions, tax-related CAMs are associated with a greater magnitude of future UTB settlements. We also conduct two other tests to mitigate potential alternative explanations. First, to rule out the possibility that our results are due to some other simultaneous event, not the issuance of a tax-related CAM report, we conduct a placebo test where we randomly assign firms to the tax-related CAM treatment group. Second, to demonstrate that our results are due to the issuance of a tax-related CAM report, specifically, rather than a CAM report, in general, we conduct a falsification test using non-tax-related CAM reports. We do not find significant results in either setting, which provides additional evidence that our findings relate to the signal provided by the tax-related CAM report about the uncertainty of firms' tax positions.

Our main tests focus on the initial release of required CAM reports in 2019, but we also extend our sample through 2023 to investigate whether subsequent tax-related CAM reports also signal uncertainty of firms' tax positions. We continue to find that, for a given level of prior UTB additions, the appearance of a tax account in the CAM report is associated with a higher likelihood and magnitude of future settlements with revenue authorities. However, this effect is strongest the

first time the auditor mentions the tax accounts in a CAM report. These results suggest all tax-related CAM reports provide information about firms' uncertain tax positions, but the initial mention of the complexity/subjectivity of the tax accounts is the most informative.

This study contributes to the literature and practice in several ways. First, we extend the literature on ASC 740 and UTBs by identifying a new tax-related disclosure that can be used to discern when reported UTBs are related to more uncertain tax positions. Specifically, our results suggest that tax-related CAM reports improve the informativeness of UTB disclosures, providing an ex ante signal stakeholders can use to identify firms that are more likely to incur future tax settlements. Second, we contribute to research that examines the benefits of CAM reports. Early work finds that the initial CAM reports lack value relevance (e.g., Brasel, Doxey, Grenier, and Reffett 2016; Burke et al. 2021), but recent research suggests the information content within CAM reports could be useful to investors (Anding et al. 2022). We extend this line of inquiry and demonstrate that the accounts mentioned in the CAM report are important. Specifically, CAM reports that highlight the tax accounts enable financial statement users to identify firms that are more likely to incur future tax settlements, thus providing additional evidence of the disclosure value of CAM reports.

Finally, we contribute to the disclosure literature by examining whether combining disclosures from different sources can generate unique insights relative to considering the information in isolation. Prior research provides mixed evidence on the value relevance and information content of UTB disclosures and CAM reports; however, our study demonstrates that combining these two disclosures improves our ability to identify firms with more uncertain tax positions. Our approach of combining multiple disclosure signals to better understand a company could be useful to other researchers in different settings.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

2.1 Background on ASC 740 and Uncertain Tax Benefits

As enacted, ASC 740 standardizes accounting for uncertain tax positions, which are positions that are likely to be challenged by tax authorities and for which some (or all) of the tax benefit may be disallowed. Prior to ASC 740, there was significant variation in how firms accounted for these positions; thus, this standard seeks to improve "relevance and comparability in the financial reporting of income taxes" (FASB 2006), ultimately providing financial statement users with a more accurate picture of firms' potential tax liabilities. Under ASC 740, to be recognized in the financial statements, firms' tax positions must meet two criteria. First, a tax position must meet the recognition threshold (i.e., the position is more likely than not to be sustained upon revenue authority audit). If the tax position fails this threshold, firms cannot record any of the position's tax benefit in the financial statements (i.e., the firm records the full amount of tax benefit claimed on the tax return as a UTB). If the tax position meets the recognition threshold, the firm proceeds to the measurement phase and records a tax benefit in the financial statements equal to the greatest amount that is more than 50 percent likely to be upheld if challenged. Any remaining tax benefit from the position claimed on the tax return is recorded as a UTB. Thus, under ASC 740, firms report tax positions on the financial statements at the value that is likely to be upheld by taxing authorities (FASB 2006).

Uncertain tax positions arise because the tax law must generalize to a wide variety of situations and taxpayers. Thus, managers use judgement to determine how to apply the relevant statutes to specific transactions. While the application of the tax law to some transactions is straightforward (e.g., the treatment of municipal bond interest), it can be more subjective in other circumstances (e.g., the tax classification of research and development expenditures). In these

nuanced situations, differences in the interpretation of the tax law by revenue authorities and taxpayers cause disagreement about the treatment of a tax position, generating an uncertain tax position and the possibility that the tax benefit will be denied. Firms that undertake uncertain tax positions have a higher risk of incurring a larger future tax liability if the tax position is successfully challenged. Under ASC 740, financial statement users must be alerted in advance of these potential situations. That is, UTBs should provide financial statement users with information about firms' potential future tax liabilities and the riskiness of eventual tax settlements. Moreover, the level of reported UTBs could serve as a signal to tax authorities that the firm is engaging in risky tax positions that it believes may not be upheld.

2.2 Prior Research on the Discretion in Recording Unrecognized Tax Benefits

Perhaps surprisingly, evidence regarding whether the level of UTBs provides a benefit to tax authorities for challenging tax positions is mixed. For example, although Gleason, Markle, and Song (2023) document that the reporting requirements of FIN 48 (ASC 740) improved the relevance of income tax expense for some firms, Robinson et al. (2016) find that only about a quarter of UTBs result in tax settlements. Moreover, some studies find that UTBs are associated with an increase in firm value (Koester 2012; Koester, Lim, and Vigeland 2015), which is inconsistent with the notion that UTBs identify firms with more uncertain tax positions, and thus, that UTB disclosures aid IRS revenue audits (e.g., Blouin and Robinson 2014).

One potential reason for the disconnect between our expectations of the information that UTB disclosures should provide and the empirical results is that prior research finds that, even after the implementation of ASC 740, firms continue to exercise considerable discretion when booking tax reserves (i.e., De Simone et al. 2014; Cazier, Rego, Tian, and Wilson 2015; Towery 2017). For example, despite the FASB's objective of increased comparability in accounting for

income taxes, De Simone et al. (2014) find significant differences in financial reporting decisions for a subset of firms that all face the same tax situation. Specifically, they find wide variation in the amount of tax benefits included on the financial statements, as well as in the UTB recorded, for a particular tax credit claimed by paper manufacturers. De Simone et al.'s (2014) results highlight why it might be difficult for investors and taxing authorities to use UTBs to identify uncertain tax positions – UTBs are subject to managers' accounting preferences. Because UTBs can vary with the level of reporting conservatism or aggression applied by the manager, financial statement users have an incomplete picture of the underlying uncertainty of firms' tax positions.

2.3 Prior Research on Critical Audit Matter Reports

Beginning in 2019, the PCAOB requires audit firms to publicly disclose the client accounts that require the most subjective or complex judgment in a CAM report (AS 3101). The primary goal of this new reporting standard is to provide useful, incremental audit-related information to financial statement users (PCAOB 2019). However, the PCAOB also suggests that this additional disclosure might improve the audit and financial reporting quality of the accounts discussed in the CAM reports (PCAOB 2017).

Prior to the adoption of AS 3101, other countries, such as the United Kingdom, Hong Kong, and China, implemented expanded audit reporting standards. Empirical evidence from these settings suggests expanded reporting does not provide incremental information to investors, but it may have alternative benefits. For example, Guitierrez et al. (2018) do not find that expanded audit reports in the U.K. benefit investors, but Lennox, Schmidt, and Thompson (2023) determine that the reason for their result is that investors are already aware of the financial reporting risks. Thus, auditors' disclosures were not helpful to investors because they did not contain new information. Similarly, Liao et al. (2019) do not find that expanded audit reports in Hong Kong and China

provide incremental benefits to investors, nor do they improve audit quality. However, Reid, Carcello, Li, and Neal (2019) document an increase in financial reporting quality following the implementation of expanded audit reports in the U.K., suggesting the standard's implementation may yield secondary benefits.

As in the other countries, the initial empirical evidence in the U.S. suggests the adoption of AS 3101 and the associated CAM disclosures do not provide incremental information to the market (Burke et al. 2021). Evidence on their effect on financial reporting quality is also mixed. For example, Dee, Luo, Wang, and Zhang (2023) find firms receiving a CAM have a lower likelihood of internal control weaknesses. After examining several financial reporting quality metrics that could be associated with tax-related CAMs, Drake et al. (2023) find firms receiving a tax-related CAM in 2019 exhibit greater tax accrual quality and record higher tax reserves. However, Tan and Yeo (2022) find firms with a closer (more distant) auditor-client relationship report more (less) aggressive estimates when a CAM is disclosed, suggesting the nature of the auditor-client relationship may determine whether the CAM is viewed as a forewarning to investors or a constraint on managers. Similarly, in the U.K. setting, Lynch, Mandell, and Rousseau (2022) show that, when firms purchase more APTS, auditors report fewer tax-related key audit matters. Thus, the benefit of CAM reports to financial statement users is still unclear.

The mixed results of prior research might be explained by the fact that most studies examine the existence of expanded audit reporting/CAM report, not the information included in the report. In contrast, Anding et al. (2022) examine the CAM report's *content* and find that diversity in the topics and text included in the CAM report is associated with increased audit effort and an equity market reaction. Their findings suggest the potential benefit of CAM disclosures lies in the report's details; thus, we focus on a specific account mentioned in the CAM reports (i.e., the

tax accounts) to investigate a setting where financial statement users and other stakeholders could benefit from additional information about firm activities (i.e., uncertain tax positions).

2.4 Hypothesis Development

Conceptually, UTBs represent the amount of claimed tax benefits managers expect to lose upon revenue authority audit. Thus, the expectation is that the level of UTBs reflects the uncertainty of firms' tax positions, which should be associated with higher future tax settlements and increased firm risk. However, prior empirical research finds that only about one-quarter of reported UTBs are ultimately converted to settlements (Robinson et al. 2016). Moreover, the level of UTBs is not consistently associated with firm risk or other negative firm outcomes. For example, Lisowsky et al. (2013) find that the level of UTBs is associated with tax shelters, but Guenther et al. (2017) and Hutchens and Rego (2015) do not find an association between the level of UTBs and future firm risk or current firm risk, respectively. UTBs predict future cash tax outflows (Ciconte et al. 2024), but are also associated with higher firm value (Koester 2012; Koester et al. 2015). These inconsistent results suggest the uncertainty indicated by the level of UTBs varies by firm, making these disclosures challenging to evaluate. However, these findings are interesting because they imply differences in firms' interpretations of ASC 740, due to managers' accounting preferences and allowed discretion in reporting, could reduce this account's informativeness.

Tax-related CAMs could be useful for interpreting firms' UTBs because they provide more information about firms' tax positions. These reports offer two primary benefits. First, they signal that a significant amount of judgment and discretion is required to determine the impact of the tax accounts on income. For example, Apple Inc.'s 2020 CAM report includes a CAM for uncertain tax positions which states, "Apple Inc. uses significant judgment in the calculation of tax liabilities in estimating the impact of uncertainties in the application of technical merits and complex tax

laws." Therefore, tax-related CAMs are issued when tax positions are more uncertain because their ultimate outcome is difficult to determine. Second, these reports are generated by the independent audit firm. Thus, they are unbiased assessments of the difficulty of reporting the results for specific accounts, which are unaffected by management's interpretation and application of ASC 740.

Tax-related CAMs might also provide information to differentiate between UTBs reported due to conservatism and UTBs reported due to uncertain tax positions. Specifically, firms' tax accounting policies could affect the likelihood that the auditor includes the tax accounts in the CAM report. For example, an auditor may be less likely to issue a tax-related CAM for an audit client that takes a conservative approach and routinely over-reserves for uncertain tax positions. If the appearance of tax accounts in CAM reports indicates that the firm has tax positions that are more uncertain or easily challenged, we expect firms with tax-related CAM reports to be associated with a higher likelihood and magnitude of future UTB settlements.

However, it is unclear whether the mention of tax accounts in the CAM report is indicative of more uncertain tax positions for at least two reasons. First, prior research demonstrates that financial reporting policies affect how tax reserves are recorded, leading to inconsistent treatment of similar tax positions across firms (De Simone et al. 2014). These inconsistencies imply that reporting aggressiveness or conservatism could affect the UTB disclosure, which likely contributes to the previously documented, insignificant association between the level of UTBs and tax uncertainty (e.g., Guenther et al. 2017; Hutchens and Rego 2015). Thus, it is difficult to determine the actual uncertainty of tax positions based on the level of reported UTBs. If tax-related CAM reports do not improve our ability to identify firms with relatively more uncertain tax positions, then we will not find an association between future UTB settlements and tax-related CAM reports.

Second, CAM reports are a required disclosure that identifies the accounts that involve the most subjective judgement. When firms have few complex or risky accounts, auditors do not have many options for completing the required disclosure. In these situations, the tax accounts are a reasonable choice for the auditor to include in the CAM report due to the discretion and judgement required to interpret tax law. Thus, the CAM report may reference the tax accounts, even if the firm's tax positions are not particularly uncertain. In these instances, the tax-related CAM reports are unlikely to provide information about the true uncertainty of the underlying tax positions generating the reported UTBs, and thus, will not be associated with future UTB settlements.

Given the competing predictions discussed above, we state our hypothesis in the null form:

H1: The presence of a tax-related CAM report will not affect the likelihood or magnitude of future UTB settlements, given the level of firms' prior UTB additions.

RESEARCH DESIGN

3.1 Measuring Tax-Related CAM Reports and Unrecognized Tax Benefits

To address our research question, we examine the effect of the incidence of a tax-related CAM report, given the prior level of reported UTBs. We identify firms with tax-related CAM reports using *TAX CAM*, an indicator variable equal to one when a tax account appears in the initial CAM report in 2019 (Drake et al. 2023). Consistent with prior research (e.g., Burke et al. 2021; Drake et al. 2023), we focus on the initial CAM report because it offers the most salient signal that a financial statement account is highly subjective or complex. The repeated inclusion of an account in CAM reports in subsequent years may be less meaningful to financial statement users because they had been previously made aware of the risks associated with that account. Moreover, by focusing on the 2019 CAM reports, we examine a clean sample of accelerated filers, whereas in subsequent periods, auditors are also required to provide a CAM report for nonaccelerated filers (AS 3101). The CAM reports can reference specific tax accounts (e.g., the UTB) or tax accounts

more generally. There is no clear guidance regarding the level of granularity of accounts to include in a CAM report, and many reports do not identify a specific tax account. For example, within our sample of 170 tax-related CAM reports, only 58 percent reference a specific tax account(s). Thus, following concurrent research on tax accounts in expanded audit reports (Drake et al. 2023; Lynch et al. 2022), we examine all CAM reports that reference any tax account to ensure that we capture every report that could provide a signal about the true uncertainty of firms' tax positions.

We measure the firm's potential exposure to uncertain tax positions using the level of prior year UTB additions, following Dyreng, Hanlon, and Maydew (2019). Specifically, *PYUTBADDS* is measured as the sum of UTB additions from 2017-2019 scaled by total assets at the beginning of 2019.[4] The variable of interest in our analysis is the interaction of *TAX CAM* and *PYUTBADDS.* Using this term, we examine whether the incidence of a tax-related CAM report improves the informativeness of UTB disclosures, controlling for the impact that the level of prior UTBs might have on revenue authority audits. This design also allows us to examine how the appearance of a tax account in the CAM report affects the mapping of prior UTB additions into future UTB settlements. Prior work finds that, on average, only a small percentage of UTBs are ultimately settled (Robinson et al. 2016); however, our study can provide evidence regarding whether auditors' additional tax-related disclosures identify firms likely to have larger UTB settlements.

3.2 Empirical Design

To test our hypothesis, we examine how the mention of the tax accounts in the 2019 CAM report affects the likelihood and magnitude of future UTB settlements using the following model:

$$SETTLEMENTS_{it+1} = \beta_0 + \beta_1 PYUTBADDS_{it} + \beta_1 TAX\ CAM_{it} + \beta_1 PYUTBADDS{*}TAX\ CAM_{it} + \sum \beta_m Controls_{mit} + Industry\ FE + \varepsilon_{it}. \quad (1)$$

[4] Our results are unchanged if we scale by total assets reported at the end of the year instead.

SETTLEMENTS represents one of two dependent variables. First, we examine the existence of a future UTB settlement using *SETTLEMENT IND,* an indicator variable equal to one for firms that settle a UTB in 2020 and equal to zero otherwise. Second, we examine the amount of future UTB settlements reported using *SETTLEMENTS,* which is measured as reported UTB settlements for 2020 scaled by beginning of the year total assets.[5] Together, these variables allow us to investigate how the likelihood and magnitude of firms' future UTB settlements vary with tax-related CAMs disclosed in the current year's audit report (i.e., for 2019).

The variable of interest in our model is the interaction between *TAX CAM* and *PYUTBADDS*, both of which are defined above. If tax-related CAM reports identify firms with more uncertain tax positions, then we expect, for a given level of prior UTB additions, firms with tax-related CAMs disclosed in 2019 will be associated with a higher likelihood and magnitude of future UTB settlements than firms without tax-related CAMs disclosed in 2019. However, if CAM reports do not identify firms with more uncertain tax positions, then we will not find an association between tax-related CAM reports and the likelihood and magnitude of future UTB settlements.

To isolate the effect of the tax-related CAM report, we control for a variety of other factors that could affect future UTB settlements. Specifically, we control for the effect of prior UTB settlements on future UTB settlements by including *PRIOR SETTLEMENTS,* the sum of UTB settlements from 2017-2019 scaled by beginning of the year total assets, which helps us mitigate concerns about the pre-disposition of firms' tax strategies to UTB settlements. In other words, we control for the likelihood that prior UTB settlements are an indicator of future UTB settlements to rule out the alternative explanation that tax accounts appear in CAM reports due to prior settlements as opposed to the actual uncertainty of current tax positions. We also include *GAAP*

[5] In Section 5, we extend the window of measurement for future settlements to further account for the time lag present in the revenue audit/negotiation process. Our inferences using alternative windows are the same.

ETR to control for the influence of tax avoidance on revenue audit decisions and settlements with tax authorities.

In addition, following prior work (e.g., Drake et al. 2023; Dyreng et al. 2019; Hoopes et al. 2017), we control for characteristics that could affect firms' tax planning using IRS audit probability (*IRS AUDIT RATE*), firm size (*SIZE*), and performance (*PTROA*). Because foreign activity can increase firms' exposure to uncertain tax positions, we control for operations in a foreign country (*MULTINATIONAL*), as well as the amount of income the firm earns in foreign jurisdictions (*FOREIGN INCOME*). Because losses can affect tax planning, we control for the presence of tax loss carryforwards (*NOL*) and the change in tax loss carryforwards relative to the prior year (*CHANGE NOL*). Moreover, we control for firm characteristics known to be associated with tax planning and avoidance (e.g., Mills, Erickson, and Maydew 1998), such as the market-to-book ratio (*MTB*), leverage (*LEVERAGE*), and research and development expense (*R&D*). We also control for capital intensity (*PPE*), the amount of capital expenditures (*CAPEX*), intangible intensity (*INTANGIBLES*), and the length of the firm's operating cycle (*OPCYCLE*). Finally, we include *BIG4* to control for the potential that the size of the auditor could affect characteristics of the CAM reports. We also control for differences across industries by including Fama-French 49 industry fixed effects in our models.[6] See Appendix A for detailed descriptions of all variables.[7]

DATA AND EMPIRICAL RESULTS

4.1 Data and Sample

We obtain financial statement data from the Compustat North America Annual database and audit report information from Audit Analytics. AS 3101 applied to U.S. firms beginning in

[6] We do not include year fixed effects or cluster standard errors by firm because we only examine the first CAM report released in 2019. Thus, our sample includes only one firm-year observation per firm.
[7] Our results are robust to winsorizing all continuous variables at the 1st and 99th percentiles.

2019, and, following prior literature, we examine the initial release of CAM reports (e.g., Hollie and Yu 2021; Burke et al. 2021). This research design choice ensures the greatest likelihood that the CAM report provides new information to financial statement users, as subsequent reports mentioning the same accounts are unlikely to have as significant an effect. Moreover, this choice allows us to investigate a sample of accelerated filers before expanded audit reporting also applied to nonaccelerated filers (AS 3101). We construct our sample by selecting all 2019 U.S. firm-year observations that report an increase in UTBs in 2017, 2018, and/or 2019. We remove observations with insufficient data to calculate our dependent variables and controls. These restrictions yield a final sample of 703 firm-year observations for 2019. Table 1 presents our sample selection procedures.

[INSERT TABLE 1 HERE]

4.2 Descriptive Statistics

Table 2 presents the descriptive statistics for our sample. We find that approximately 24 percent of the sample has a CAM report that mentions at least one tax account, which is similar to the incidence of tax-related CAM reports in concurrent work (e.g., Drake et al. 2023). Mean (median) additions to UTBs over the period 2017-2019 are 0.65 (0.26) percent of total assets, indicating a moderate increase in the tax reserve for firms in our sample. Moreover, almost 40 percent of the firms in our sample report a UTB settlement during 2020, and total settlements are around 0.03 percent of total assets. Consistent with AS 3101 initially applying only to large, accelerated filers, our sample is comprised of large (mean natural logarithm of total assets is 8.22), profitable (average return on pre-tax income of 4.7 percent), multinational firms (97 percent of the sample) that engage a Big Four accounting firm as their auditor (95 percent of the sample).

[INSERT TABLE 2 HERE]

Table 3 displays the Pearson correlations for the variables used in the primary analysis. In univariate analyses, *TAX CAM* is positively associated with both the incidence of a future UTB settlement and the amount of future settlements at the 10 percent significance level, which suggests that tax-related CAM disclosures could provide additional information about the true uncertainty of firms' tax positions. However, we do not find a significant correlation between *PYUTBADDS* and either the incidence or amount of a future settlement, which is consistent with the mixed results in prior literature regarding the information conveyed by the level of UTBs about the uncertainty of firms' tax positions (e.g., Ciconte et al. 2024; Guenther et al. 2017).

[INSERT TABLE 3 HERE]

4.3 Results – The Effect of Tax-Related CAM Reports on Future UTB Settlements

Table 4 presents the results of our hypothesis test using Eqn. (1). Specifically, we examine whether the presence of a tax account in the current CAM report is associated with the likelihood and magnitude of future UTB settlements, for a given level of prior UTB additions. In Column (1), we examine the likelihood of future UTB settlements and find a significant, positive coefficient estimate on the interaction term, *PYUTBADDS*TAX CAM* (coeff. = 7.1742, $p < 0.10$), after controlling for various other determinants of UTB settlements (e.g., Dyreng et al. 2019). This result suggests that, for a given level of prior UTB additions, firms whose current CAM report mentions the tax accounts are more likely to have a future UTB settlement. In Column (2), we examine the magnitude of future UTB settlements and also find a significant, positive coefficient estimate on the interaction term, *PYUTBADDS*TAX CAM* (coeff. = 0.0156, $p < 0.05$). Thus, for a given level of prior UTB additions, the incidence of a current tax-related CAM report is associated with a larger magnitude of future UTB settlements. In combination, these results suggest that tax-related

CAM reports serve as an ex ante signal for external stakeholders to identify firms with more uncertain tax positions and a greater risk of future tax settlements.

[INSERT TABLE 4 HERE]

We do not find significant associations between *PYUTBADDS* and the likelihood or magnitude of future tax settlements, which suggests two conclusions.[8] First, our findings are consistent with inconclusive evidence on the information the level of UTBs conveys about the risk/uncertainty of firms' tax positions (e.g., Guenther et al. 2017; Hutchens and Rego 2015; Koester 2012). As in prior work, our results imply that, to identify truly uncertain tax positions, financial statement users need information beyond the reported level of UTBs. That is, if the uncertainty of tax positions could be discerned from the level of UTBs, then the likelihood and magnitude of future UTB settlements should be associated with the level of prior UTB additions.[9] Second, the positive association between prior UTB additions and future UTB settlements is only present among firms with a current tax-related CAM, which indicates that these tax positions are more uncertain relative to the tax positions underlying the UTBs of firms whose CAM reports do not reference the tax accounts. Thus, tax-related CAM reports clarify UTB disclosures and identify firms likely to have stronger mapping of prior UTB additions into future UTB settlements. In combination, our findings suggest that tax-related CAM reports, an additional tax-related disclosure provided by the independent auditor, strengthen the signal provided by UTB disclosures about the uncertainty of firms' tax positions and are relevant and useful to external stakeholders.

[8] In untabulated tests, we also document an insignificant association between *PYUTBADDS* and the likelihood and magnitude of future UTB settlements when we remove *TAX CAM* and the interaction term from the model.
[9] To further ensure that our results are not affected by the size of the UTB reserve, we re-estimate Eqn. (1) separately for firms in each tercile of the level of prior UTB additions. We do not find any evidence to suggest that our main results are driven by a particular subsample of the level of prior UTB additions. Thus, the signal that tax-related CAM reports provide about the likelihood and magnitude of future tax settlements does not appear to be impacted by the size of firms' prior UTB additions or the associated revenue audit procedures.

4.4 Results – Characteristics of the Auditor and Audit Firm-Client Relationship

The CAM reports are generated independently by the audit firm. Therefore, characteristics of the audit firm could impact the signal provided by the tax-related CAM report. To analyze the effect of the audit firm on the information conveyed by the tax-related CAM, we conduct two cross-sectional tests to examine whether our main results vary with features of the auditor or audit firm-client relationship. Specifically, we focus on the provision of APTS and auditor tax expertise because these are two audit firm characteristics likely to affect the auditor's ability to audit the firm's tax accounts and determine the likely effect of firms' tax positions on income.

First, we examine whether our results vary depending on the firm's purchase of tax services from their audit firm. Prior research consistently demonstrates that APTS create synergies, or knowledge spillover, that enhance the financial reporting quality of the tax accounts. For example, Seetharaman, Sun, and Wang (2011) find that firms that purchase APTS have fewer tax-related restatements, and Krishnan and Visvanathan (2011) find a negative association between tax fees paid to the incumbent auditor and earnings management. De Simone, Ege, and Stomberg (2015) find higher internal control quality in the presence of APTS, and they argue that this result is due to accelerated audit firm awareness of material transactions. Perhaps most relevant to our study, Gleason and Mills (2011) find that APTS improve firms' estimates of tax reserves. Given this evidence, we expect the effect of tax-related CAMs on future UTB settlements to vary with the purchase of APTS due to the audit firm enjoying greater knowledge of the firm's tax positions.

To conduct this analysis, we separately estimate Eqn. (1) for firm-year observations that do and do not purchase tax services from their audit firm. Columns (1) and (3) of Table 5 report the results for firm-year observations that do not purchase tax services from their auditor, while Columns (2) and (4) present the results for the subsample of observations that do hire their audit

firm for tax services. We continue to find positive and significant coefficient estimates on the interaction term, *PYUTBADDS*TAX CAM*, in Columns (1) and (3). Thus, for a given level of prior UTB additions, the presence of a tax-related CAM is associated with a higher likelihood and larger magnitude of future UTB settlements for clients that do *not* purchase tax services from the audit firm (i.e., when *APTS* = 0). For firms purchasing tax services, the incidence of a tax-related CAM does not affect the likelihood or magnitude of future UTB settlements. These results indicate that the tax-related CAM disclosure is a more salient signal when the audit firm likely has less knowledge of a firm's tax positions, and therefore, greater difficulty assessing them.

[INSERT TABLE 5 HERE]

Second, we examine whether our results vary when the audit firm is considered a tax expert for the firm's industry. McGuire, Omer, and Wang (2012) provide evidence that auditor tax expertise affects firms' tax avoidance behavior. Specifically, firms that hire tax-expert audit firms engage in greater tax avoidance, which suggests that the expertise of the audit firm is associated with firms' tax planning. Given this prior evidence, we expect the effect of the presence of a tax-related CAM on future UTB settlements to vary with the tax expertise of the audit firm due to the audit firm enjoying a greater understanding of the firm's tax planning.

To conduct this analysis, we separately estimate Eqn. (1) for firm-year observations that do and do not hire a tax expert audit firm.[10] In Table 6, Columns (1) and (3) report the results for firm-year observations that do not hire a tax expert audit firm, while Columns (2) and (4) present the results for the subsample of observations that do hire a tax expert audit firm. Similar to our previous results, we continue to find positive and significant coefficient estimates on the

[10] Following (McGuire et al. 2012), we determine tax expertise at the industry-city level by the share of tax fees collected within the audit firm's city. Specifically, we define an audit firm as being a tax expert if its share of tax fees within the industry and city is greater than 20 percent of the total tax fees collected.

interaction term, *PYUTBADDS*TAX CAM*, in Columns (1) and (3). These results suggest that, for a given level of prior UTB additions, the presence of a tax-related CAM is associated with a higher likelihood and larger magnitude of future UTB settlements for clients that do *not* hire a tax expert audit firm (i.e., when *TAX EXPERT* = 0). For firms hiring a tax expert audit firm, the incidence of a tax-related CAM does not affect the likelihood or magnitude of future UTB settlements. Thus, consistent with our results in Table 5, Table 6's findings suggest that the additional tax-related disclosure is a more salient signal for stakeholders in settings where the auditor likely has a more difficult time assessing a firm's tax positions due to a lesser understanding of its tax planning.

[INSERT TABLE 6 HERE]

ADDITIONAL ANALYSES

5.1 Selection Bias and Alternative Explanations

We conduct several additional analyses to provide more support for our conclusions, including three tests to mitigate concerns about alternative explanations for our results. First, audit-related research is challenging due to selection bias resulting from differences in client characteristics (Lawrence et al. 2011; Minutti-Meza 2013; DeFond et al. 2017). Our study is also subject to these challenges because it is possible that certain firm characteristics influence the likelihood of a tax account appearing in the CAM report. For example, some firms' operations create more complex tax situations, making those firms more likely to receive a tax-related CAM report. Alternatively, other firms, such as manufacturing firms, may have very few accounts that require subjective judgment. In these cases, the audit firm may be more likely to report a tax account in the CAM report because the report is required and, even if the tax positions are not very uncertain, they are likely the most subjective of the firm's accounts. Thus, various firm situations could impact the likelihood of tax accounts being mentioned in the auditor's CAM report.

To mitigate this concern within our sample, we examine an entropy-balanced sample, following DeFond et al. (2017). After the balancing procedure, which incorporates all control variables, we do not find any significant differences in the mean values of the variables included in our model for firms with and without a tax account mentioned in the CAM report. Using this sample, we re-estimate Eqn. (1) and report the results in Table 7. Consistent with our main analysis, we find a significant, positive coefficient estimate on the interaction between *TAX CAM* and *PYUTBADDS* ($p < 0.10$) when *SETTLEMENTS* is the dependent variable, which suggests that, for a given level of prior UTB additions, tax-related CAMs are associated with a greater magnitude of prior UTB additions resulting in future settlements. Although no longer significant ($p = 0.11$), we also continue to find the incidence of a tax-related CAM is associated with a higher likelihood of future settlements. Thus, overall, the potential for selection bias due to differences in observable firm characteristics does not appear to influence our conclusions.

[INSERT TABLE 7 HERE]

Second, to mitigate the possibility that our results are not due to the issuance of a tax-related CAM report, but rather to some other simultaneous, confounding event, we also conduct a placebo test. In this test, we randomly assign firms to the treatment group and re-run our main analyses. Specifically, because 24 percent of our sample has a tax-related CAM, we randomly assign 24 percent of our sample to the treatment group of having a tax account mentioned in their CAM report. This assignment is determined irrespective of the actual accounts disclosed in the CAM report. Then, we re-estimate Eqn. (1) using this sample where the designation of *TAX CAM* = 1 has been randomly assigned and report the results of this analysis in Panel A of Table 8.

We do not find a significant coefficient estimate on the interaction term in either column in Table 8, Panel A (both $p > 0.10$). Thus, we fail to find evidence that the appearance of a tax

account in the CAM report affects the likelihood or magnitude of future UTB settlements when the treatment effect has been randomly assigned. Our results do not hold for the placebo test, which confirms the conclusions we draw from our main analysis. Specifically, this analysis supports the argument that tax-related CAM reports provide a signal about the uncertainty of firms' tax positions and the likelihood of future tax settlements.

Third, we conduct a falsification test using non-tax-related CAM reports to ensure that our results are due to the issuance of a *tax-related* CAM report, rather than the release of *any* CAM report. Specifically, we substitute *GOODWILL CAM* for *TAX CAM* in our analyses. *GOODWILL CAM* is an indicator variable equal to one when the CAM report references the goodwill account in 2019 and zero otherwise. We select goodwill as the account of interest for this falsification test because the percentage of firms with CAMs related to goodwill is similar to the number of firms with tax-related CAM reports. We re-estimate Eqn. (1) substituting *GOODWILL CAM* for *TAX CAM* and report the results of this analysis in Panel B of Table 8.

As in Table 8, Panel A, we do not find a significant coefficient estimate on the interaction term in either column (both $p > 0.10$). Thus, we fail to find evidence that the appearance of the goodwill account in the CAM report affects the likelihood or magnitude of future UTB settlements. Because our results do not hold in this sample, this test supports the conclusions we draw from our main analysis and indicates that our findings are due to the incidence of a tax-related CAM report, specifically, rather than the release of a CAM report, in general.

[INSERT TABLE 8 HERE]

5.2 Extended CAM Reporting Period

Consistent with prior research (e.g., Burke et al. 2021; Drake et al. 2023), we focus on the initial CAM report because it offers the most salient signal of the subjectivity or complexity of a

specific account within the financial statements. However, although the repeated inclusion of an account in CAM reports in subsequent years may be less meaningful because financial statement users had previously been made aware of the risks associated with that account, it is possible that the subsequent reports still provide relevant information. Thus, in this analysis, we extend our sample period through 2023 to investigate whether subsequent tax-related CAM reports also serve as a signal of the uncertainty of firms' tax positions.

As shown in Table 9, using the extended sample, we continue to find that, for a given level of prior UTB additions, the appearance of a tax account in the CAM report increases both the likelihood and magnitude of prior UTB additions resulting in future tax settlements (both $p < 0.05$). However, this effect is driven by the first issuance of a tax-related CAM report rather than by all tax-related CAM reports (both $p < 0.05$). These results suggest tax-related CAM reports provide information about firms' uncertain tax positions beyond the year of report implementation, but the initial mention of the complexity/subjectivity of the tax accounts is the most informative.

[INSERT TABLE 9 HERE]

5.3 Difference-in-Difference Design

The results presented thus far support our argument that tax-related CAM reports serve as a signal of the uncertainty of firms' tax positions and the likelihood that firms will face future UTB settlements. However, one could argue that prior settlement activity or inherent firm characteristics are contributing to our results. We mitigate these concerns to the extent possible in our main analyses by controlling for prior UTB settlements and observable firm characteristics likely to affect reported UTBs and tax settlements. In this section, we discuss our additional analysis utilizing a difference-in-differences research design that further addresses concerns about firm characteristics driving our results. Specifically, this approach allows us to treat the initial release

of the CAM reports as an exogenous shock to the external information environment, thereby permitting examination of what this new information reveals about UTB disclosures.

To conduct this analysis, we augment our sample with additional years of data so that our sample period spans from 2017-2022, yielding a balanced panel. We create an indicator variable equal to one for firm-years 2020-2022 to identify the post-CAM report period. In addition, we modify the definition of *TAX CAM* for this analysis such that it is an indicator variable equal to one for firms that receive a tax-related CAM report at any point during 2019-2022, rather than just the initial report year. We then re-estimate Eqn. (1) using a difference-in-differences approach, where our variable of interest is the three-way interaction term, *PYUTBADDS*TAX CAM* POST*.

The results of our analyses suggest that, on average, firms receiving a tax-related CAM report during our sample period are associated with a higher likelihood and magnitude of incurring a future UTB settlement, relative to firms that do not receive a tax-related CAM report during our sample period. However, in the post-CAM period, these same firms experience a decline in the likelihood of settlements and pay smaller settlement amounts. Thus, we continue to find evidence that tax-related CAM reports are useful for identifying firms whose reported UTBs indicate more uncertain tax positions. However, using this design and altering the definition of *TAX CAM*, we find firms have fewer settlements and pay less in settlements to tax authorities in the post-CAM period, which might be due to firms learning from the initial settlement experiences and altering their approach to interacting with tax authorities after the initial release of the CAM reports.

5.4 Settlement Favorability

In our main analyses, we consider the incidence and reported value of future UTB settlements without regard to the settlement's favorability to the firm. In this analysis, we consider whether the additional information provided by tax-related CAM reports is associated with the

favorability of UTB settlements. UTB settlements are considered favorable if the firm retains more tax benefits from the tax position than it initially expected (Finley 2019), and settlement favorability is determined by the amount of the settlement and management's UTB reserve. If tax-related CAM reports identify firms with uncertain tax positions that are under-reserved (adequately reserved) for the settlement of those positions, these firms could owe larger (smaller) settlements to the IRS than the firm's tax reserves, resulting in a higher likelihood of unfavorable (favorable) settlements in the presence of the tax-related CAM.

To examine this issue, we calculate two measures of settlement favorability and replace our dependent variables in Eqn. (1). First, following Robinson et al. (2016), we use an indicator variable denoting an unfavorable settlement, which is equal to one if actual settlements (i.e., the release of UTBs through settlements plus adjustments to prior year positions) exceed expected settlements (i.e., releases of UTBs through settlements) over the period *t+1* to *t+3*. Second, following Finley (2019), we define settlements as unfavorable when the residual from a regression of interest and penalties related to UTBs on factors unrelated to tax settlements is positive. Using these dependent variables, we fail to find a significant coefficient estimate on *PYUTBADDS*TAX CAM* (both $p > 0.10$, untabulated), which suggests that the inclusion of the tax accounts in the CAM report is not associated with the favorability of future UTB settlements. Thus, firms with tax-related CAM reports do not appear to be under-reserved for uncertain tax positions relative to firms without tax-related CAM reports.

5.5 Alternative Specification for UTB Settlements

In our main analysis, we examine how UTB additions from the period 2017-2019 map into UTB settlements in 2020. The offsetting time periods for these variables approximates the timeline over which prior UTB additions are ultimately settled with the taxing authority. However, we

acknowledge that that timeline is not uniform for all recorded UTBs across all firms. Therefore, we also extend the window over which the likelihood and magnitude of future settlements is measured to further account for the time lag present in the audit/negotiation process. Specifically, we re-define our dependent variable to measure future UTB settlements one-, two-, and three-years after UTB additions (i.e., over the period 2020-2022), separately and in aggregate, to capture a wider range of settlement timing. Our inferences using these alternative variable definitions are similar to those that we obtain in our main analysis, suggesting that our inferences are not sensitive to accounting for additional lags in the timing of settlements.

5.6 UTB Lapses

In our main analysis, we focus on one way that uncertain tax positions are resolved with the tax authority – UTB settlements. However, uncertain tax positions can also be resolved through lapses in the statute of limitations. In these cases, the firm can release the UTB reserve because the tax positions are no longer subject to audit. Lapses occur for positions that remain unaudited, which might suggest they are less uncertain. Therefore, we expect, for a given level of prior UTB additions, the incidence of a tax-related CAM report will either be unassociated or negatively associated with the likelihood and magnitude of future UTB lapses. To examine our expectation, we substitute a measure of UTB lapses for *SETTLEMENTS* and re-estimate Eqn. (1). Specifically, following Holt et al. (2023), we measure UTB lapses as an indicator variable equal to one for firm-years with a non-zero UTB lapse that also report a larger than median UTB lapse scaled by beginning of the year total assets. Consistent with our expectations, we do not find a significant coefficient estimate on the interaction term when UTB lapses is the dependent variable. Thus, tax-related CAM reports do not clarify UTB disclosures for tax positions that are likely to lapse without being audited, consistent with these reports identifying firms with more uncertain tax positions.

CONCLUSION

ASC 740 (FIN 48) requires firms to book UTBs for tax positions that are more likely than not to be challenged by revenue authorities; thus, we expected this account would convey information about the uncertainty of firm's tax positions. However, evidence regarding the information provided by the level of UTBs is inconsistent (e.g., Koester 2012; Lisowsky et al. 2013; Hanlon, Maydew, and Saavedra 2017; Dyreng et al. 2019). In this study, we investigate whether an additional tax-related disclosure provided by the independent auditor, a tax-related CAM report, increases the informativeness of reported UTBs and is associated with future tax settlements.

To examine this question, we investigate whether the presence of tax accounts in the current CAM report is associated with an increased likelihood and magnitude of future tax settlements for a given level of prior UTB additions. We provide evidence that the appearance of tax accounts in CAM reports is associated with a greater likelihood and magnitude of future UTB settlements. This effect is particularly strong the first time a tax account is mentioned in firms' CAM reports. These results suggest that tax-related CAM reports provide an ex ante signal to identify firms with more uncertain tax positions that are more likely to incur future tax settlements. Moreover, we demonstrate that APTS and hiring an auditor with tax expertise both mitigate this effect, likely due to knowledge spillover and an increased understanding of firms' tax planning.

This study makes several contributions to the literature and practice. First, this study contributes to the literature on ASC 740 and UTBs by demonstrating that the new tax-related CAM disclosure clarifies UTB disclosures and provides more information about the underlying uncertainty of firms' tax positions. Second, we extend research that examines potential benefits of CAM reports. In contrast to prior work, we demonstrate these reports are useful to external

stakeholders as an ex ante signal about uncertain tax positions and future tax settlements, which may be informative to the PCAOB as it considers whether there were any unintended benefits of expanded audit disclosure. Moreover, CAM reports may be useful to tax authorities as they allocate audit resources. Our study also contributes to the disclosure literature by demonstrating that combining disclosures from different sources can generate unique insights relative to considering the information in isolation. Finally, our study has practical implications for market participants because we provide evidence of an ex ante signal that identifies firms with a higher likelihood of future tax settlements, which suggests these firms adopt more uncertain tax positions.

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APPENDIX A	
Variable Definitions	
VARIABLE	**DEFINITION**
SETTLEMENTS	2020 settlements with tax authorities scaled by beginning of year assets. ($TXTUBSETTLE_{t+1}/AT_t$)
SETTLEMENT IND	= 1 for firms with a 2020 settlement with tax authorities, otherwise = 0. ($TXTUBSETTLE_{t+1}$ not missing or equal to zero)
PYUTBADDS	Sum of 2017-2019 increases in unrecognized tax benefits scaled by beginning of year assets. (($TXTUBPOSINC_t$+$TXTUBPOSINC_{t-1}$+$TXTUBPOSINC_{t-2}$)/AT_{t-1})
TAX CAM	= 1 for firms with a 2019 Tax CAM, otherwise = 0.
FIRST CAM	= 1 for firms with a Tax CAM reported for the first time, otherwise = 0.
REPEAT CAM	= 1 for firms with a Tax CAM who previously also had a Tax CAM, otherwise = 0.
GOODWILL CAM	= 1 for firms with Goodwill reported in their CAM report, otherwise = 0.
PRIOR SETTLEMENTS	Sum of 2017-2019 settlements with tax authorities scaled by beginning of year assets. (($TXTUBSETTLE_t$+$TXTUBSETTLE_{t-1}$+$TXTUBSETTLE_{t-2}$)/AT_{t-1})
IRS AUDIT RATE	The 2019 IRS audit rate for corporate income tax returns based on firm size (total assets).
GAAP ETR	Tax expense scaled by pretax income. (TXT_t/PI_t)
SIZE	Natural log of assets. ($\ln(AT_t)$)
PTROA	Pretax income scaled by beginning of year assets. (PI_t/AT_{t-1})
MULTINATIONAL	= 1 for firms with nonmissing non-U.S. income ($PIFO_t$) or non-U.S. taxes paid ($TXFO_t$), otherwise = 0.
FOREIGN INCOME	Non-U.S. pretax income scaled by beginning of year assets. ($PIFO_t/AT_{t-1}$)
NOL	= 1 for firms with nonmissing, positive tax loss carry forwards ($TLCF_t>0$), otherwise = 0.
CHANGE NOL	Change in tax tax loss carry forward scaled by beginning of year assets. ($TLCF_t/AT_{t-1}$)
MTB	Ratio of market value of equity to book value of equity. (($CSHO_t$x$PRCC_F_t$)/CEQ_t)
LEVERAGE	Total debt scaled by beginning of year assets. ((DLC_t+$DLTT_t$)/AT_{t-1})
R&D	Research and development expense (set to zero when missing) scaled by beginning of year assets. (XRD_t/AT_{t-1})
INTANGIBLES	Intangible assets (set to zero when missing) scaled by beginning of year assets. ($INTAN_t/AT_{t-1}$)
PPE	Total property, plant, and equipment scaled by beginning of year assets. ($PPENT_t/AT_{t-1}$)
CAPEX	Capital expenditures scaled by beginning of year assets. ($CAPX_t/AT_{t-1}$)

APPENDIX A, CONTINUED	
Variable Definitions	
VARIABLE	**DEFINITION**
OPCYCLE	Natural log of the firm's operating cycle, calculated as (receivables x 365) scaled by sales plus (inventories x 365) scaled by cost of goods sold. $\ln(1+(((365 \times RECT_t)/SALE_t)+((365 \times INVT_t)/COGS_t)))$
BIG4	= 1 for firms audited by the Big 4 (AU), otherwise = 0.
GOODWILL_CAM	= 1 for firms with a 2019 Goodwill CAM, otherwise = 0

TABLE 1
Sample Selection

This table provides the sample construction procedure for the full sample. The variables are constructed using data from the Compustat North America Annual and Audit Analytics databases from 2017 – 2020. Our final sample of observations are for fiscal year 2019 to examine how firm characteristics from 2017 – 2019 map into UTB settlements in 2020.

Compustat 2019 firm observations with UTB increases in t, t-1, and/or t-2	1,700
Require a match to Audit Analytics Data	(710)
Require non-missing observations for control variables	(287)
Final Sample	703

TABLE 2
Descriptive Statistics

This table presents descriptive statistics for the variables used in the main analysis. All variables are defined in Appendix A.

	Mean	SD	P25	Median	P75
SETTLEMENTS	0.0003	0.0009	0.0000	0.0000	0.0002
SETTLEMENTS IND	0.3969	0.4896	0.0000	0.0000	1.0000
PYUTBADDS	0.0065	0.0160	0.0010	0.0026	0.0070
TAX CAM	0.2418	0.4285	0.0000	0.0000	0.0000
PRIOR SETTLEMENTS	0.0017	0.0121	0.0000	0.0002	0.0011
IRS AUDIT RATE	0.1447	0.1155	0.0711	0.0711	0.1995
GAAP ETR	0.5557	8.4851	0.0513	0.1826	0.2381
SIZE	8.2230	1.6129	7.0781	8.0699	9.2357
PTROA	0.0470	0.1566	0.0114	0.0575	0.1068
MULTINATIONAL	0.9730	0.1623	1.0000	1.0000	1.0000
FOREIGN INCOME	0.0238	0.0571	0.0000	0.0111	0.0417
NOL	0.9388	0.2398	1.0000	1.0000	1.0000
CHANGE NOL	0.0350	0.3215	-0.0061	0.0000	0.0106
MTB	4.1442	19.0408	1.9241	3.2392	6.3565
LEVERAGE	0.3776	0.3407	0.1601	0.3250	0.4943
R&D	0.0632	0.1088	0.0000	0.0161	0.0803
INTANGIBLES	0.3457	0.3639	0.0962	0.2820	0.5259
PPE	0.2417	0.2365	0.0892	0.1547	0.3196
CAPEX	0.0382	0.0362	0.0142	0.0268	0.0497
OPCYCLE	4.7436	0.9250	4.2476	4.7797	5.2072
BIG4	0.9459	0.2263	1.0000	1.0000	1.0000

TABLE 3
Correlations

This table presents pairwise correlations. Bold print indicates a correlation is significant at at least the 10% level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
(1) *SETTLEMENTS*	1.000																				
(2) *SETTLEMENT IND*	**0.415**	1.000																			
(3) *PYUTBADDS*	0.023	(0.030)	1.000																		
(4) *TAX CAM*	**0.157**	**0.112**	0.032	1.000																	
(5) *PRIOR SETTLEMENTS*	**0.209**	**0.113**	0.012	**0.128**	1.000																
(6) *IRS AUDIT RATE*	**0.164**	**0.350**	**(0.075)**	**0.216**	**0.128**	1.000															
(7) *GAAP ETR*	(0.003)	0.031	0.033	(0.028)	(0.007)	0.004	1.000														
(8) *SIZE*	**0.172**	**0.414**	**(0.133)**	**0.234**	**0.110**	**0.900**	0.018	1.000													
(9) *PTROA*	0.030	**0.132**	**(0.096)**	**0.146**	0.018	**0.163**	(0.011)	**0.216**	1.000												
(10) *MULTINATIONAL*	**(0.144)**	0.010	0.027	0.012	0.016	(0.034)	0.010	(0.021)	**0.122**	1.000											
(11) *FOREIGN INCOME*	0.052	**0.159**	**(0.068)**	**0.264**	**0.100**	**0.163**	(0.023)	**0.190**	**0.479**	**0.069**	1.000										
(12) *NOL*	0.014	0.025	0.051	**0.089**	0.021	0.062	0.011	**0.086**	**(0.204)**	(0.043)	0.019	1.000									
(13) *CHANGE NOL*	(0.021)	**(0.066)**	**0.094**	(0.058)	0.008	**(0.080)**	0.004	**(0.156)**	**(0.430)**	(0.043)	**(0.182)**	0.028	1.000								
(14) *MTB*	0.041	0.046	(0.000)	(0.037)	(0.033)	0.014	(0.011)	(0.018)	0.029	0.001	0.039	**(0.072)**	0.004	1.000							
(15) *LEVERAGE*	(0.038)	(0.034)	**0.094**	(0.026)	(0.035)	**0.082**	(0.012)	0.006	0.055	0.056	(0.027)	(0.017)	0.044	**(0.086)**	1.000						
(16) *R&D*	(0.024)	**(0.199)**	**0.369**	**(0.130)**	(0.014)	**(0.324)**	(0.035)	**(0.446)**	**(0.411)**	(0.047)	**(0.214)**	**0.090**	**0.219**	**0.094**	(0.021)	1.000					
(17) *INTANGIBLES*	0.005	**0.114**	(0.043)	0.007	(0.005)	**0.105**	0.013	0.044	0.001	**0.091**	0.041	0.048	**0.117**	(0.036)	**0.273**	**(0.120)**	1.000				
(18) *PPE*	(0.047)	**(0.089)**	**(0.083)**	(0.057)	(0.047)	0.061	(0.026)	0.028	**0.088**	(0.011)	0.017	**(0.105)**	(0.035)	0.013	**0.253**	**(0.154)**	**(0.204)**	1.000			
(19) *CAPEX*	(0.038)	(0.049)	(0.039)	**(0.072)**	(0.020)	(0.037)	(0.014)	**(0.070)**	**0.072**	0.018	**0.067**	**(0.134)**	0.007	0.051	**0.128**	(0.024)	**(0.177)**	**0.695**	1.000		
(20) *OPCYCLE*	0.047	**0.064**	0.010	**0.066**	0.010	**0.065**	(0.020)	**0.108**	**(0.085)**	(0.001)	(0.019)	**0.068**	**0.080**	(0.021)	**(0.126)**	0.033	(0.048)	**(0.280)**	**(0.224)**	1.000	
(21) *BIG4*	0.015	0.053	0.021	0.003	0.022	**0.171**	0.013	**0.181**	0.023	(0.040)	0.023	0.044	0.004	(0.008)	**0.072**	(0.017)	(0.002)	0.034	**(0.071)**	(0.033)	1.000

TABLE 4
Tax CAMs and Future UTB Settlements

This table presents the OLS regression results from examining the impact of *TAX CAM* on the association between *PYUTBADDS* and our two UTB settlement variables, *SETTLEMENT IND* (Column 1) and *SETTLEMENTS* (Column 2). *T*-statistics are reported in parentheses, and symbols ***, **, and * denote *p*-value significance at the 1%, 5%, and 10% level, respectively.

	(1) *SETTLEMENT IND*	(2) *SETTLEMENTS*
PYUTBADDS	0.5406	0.0003
	(0.452)	(0.115)
TAX CAM	-0.0610	0.0001
	(-1.212)	(1.322)
PYUTBADDS x TAX CAM	7.1742*	0.0156**
	(1.870)	(1.967)
PRIOR SETTLEMENTS	2.2549	0.0127***
	(1.541)	(4.210)
GAAP ETR	0.0005	0.0000
	(0.229)	(0.015)
IRS AUDIT RATE	-0.6586*	-0.0003
	(-1.806)	(-0.380)
SIZE	0.1698***	0.0001*
	(6.106)	(1.839)
PTROA	0.0153	0.0001
	(0.106)	(0.327)
MULTINATIONAL	-0.0548	-0.0010***
	(-0.496)	(-4.268)
FOREIGN INCOME	0.4519	-0.0005
	(1.260)	(-0.673)
NOL	-0.0052	-0.0001
	(-0.068)	(-0.550)
CHANGE NOL	0.0073	-0.0000
	(0.124)	(-0.167)
MTB	0.0017*	0.0000
	(1.845)	(1.282)
LEVERAGE	0.0046	-0.0000
	(0.077)	(-0.231)
R&D	0.1432	-0.0005
	(0.587)	(-0.920)
INTANGIBLES	0.0983*	0.0001
	(1.804)	(0.718)
PPE	-0.2468**	0.0001
	(-1.993)	(0.242)
CAPEX	1.0809	0.0006
	(1.567)	(0.449)
OPCYCLE	-0.0075	-0.0000
	(-0.332)	(-0.657)
BIG4	-0.0404	-0.0001
	(-0.515)	(-0.728)
CONSTANT	-1.1905**	-0.0006
	(-2.402)	(-0.546)
Fixed Effects	FF49	FF49
Observations	703	703
Observations where *TAX CAM* = 1	170	170
Adjusted R^2	0.293	0.167

TABLE 5
Cross Sectional Split on APTS

This table presents the results from examining whether the effect of *TAX CAM* on future UTB settlements (*SETTLEMENT IND*, Columns 1 and 2 and *SETTLEMENTS*, Columns 3 and 4) varies with the purchase of APTS. *T*-statistics are reported in parentheses, and symbols ***, **, and * denote *p*-value significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)	(4)
	SETTLEMENT IND	*SETTLEMENT IND*	*SETTLEMENTS*	*SETTLEMENTS*
APTS	=0	>0	=0	>0
PYUTBADDS	0.2752	2.4702	0.0002	0.0017
	(0.221)	(0.856)	(0.080)	(0.288)
TAX CAM	-0.2399	-0.0734	-0.0015***	0.0001
	(-1.202)	(-1.307)	(-3.446)	(0.907)
PYUTBADDS x TAX CAM	46.7100**	5.0842	0.3380***	0.0063
	(2.074)	(1.072)	(6.953)	(0.662)
PRIOR SETTLEMENTS	124.7243***	1.9590	0.2386***	0.0125***
	(3.714)	(1.303)	(3.291)	(4.176)
GAAP ETR	-0.0094	0.0008	-0.0000	-0.0000
	(-1.600)	(0.352)	(-0.830)	(-0.008)
IRS AUDIT RATE	-1.2668	-0.6632	-0.0001	-0.0002
	(-1.390)	(-1.574)	(-0.040)	(-0.265)
SIZE	0.1395**	0.1731***	0.0000	0.0001*
	(2.151)	(5.287)	(0.013)	(1.705)
PTROA	-0.0990	0.0125	0.0001	0.0001
	(-0.321)	(0.065)	(0.211)	(0.141)
MULTINATIONAL	-0.0411	-0.1000	-0.0008*	-0.0012***
	(-0.224)	(-0.689)	(-1.953)	(-4.170)
FOREIGN INCOME	0.2896	0.6509	-0.0004	-0.0003
	(0.496)	(1.420)	(-0.306)	(-0.278)
NOL	-0.0561	-0.0059	0.0005	-0.0002
	(-0.227)	(-0.067)	(0.888)	(-1.140)
CHANGE NOL	-0.1034	0.0155	-0.0001	-0.0000
	(-0.575)	(0.239)	(-0.315)	(-0.114)
MTB	0.0021	0.0020*	0.0000	0.0000
	(1.174)	(1.787)	(0.939)	(1.144)
LEVERAGE	-0.0251	0.0321	0.0001	-0.0001
	(-0.252)	(0.395)	(0.562)	(-0.482)
R&D	0.3052	-0.0768	-0.0002	-0.0011
	(0.782)	(-0.227)	(-0.287)	(-1.565)
INTANGIBLES	0.0589	0.0962	0.0002	0.0001
	(0.308)	(1.555)	(0.427)	(0.543)
PPE	-0.1755	-0.1889	-0.0003	0.0003
	(-0.585)	(-1.294)	(-0.492)	(0.892)
CAPEX	0.4576	0.3897	0.0028	-0.0015
	(0.313)	(0.451)	(0.878)	(-0.872)
OPCYCLE	0.0213	-0.0086	0.0000	-0.0000
	(0.442)	(-0.324)	(0.298)	(-0.432)
BIG4	0.2566*	-0.1733	0.0005*	-0.0002
	(1.919)	(-1.502)	(1.843)	(-0.965)
CONSTANT	-0.3933	-1.0878**	-0.0001	-0.0004
	(-0.625)	(-2.065)	(-0.048)	(-0.407)
Fixed Effects	FF49	FF49	FF49	FF49
Observations	136	567	136	567
Observations where *TAX CAM* = 1	18	152	18	152
Adjusted R^2	0.581	0.297	0.602	0.196

TABLE 6
Cross Sectional Split on Auditor Industry Expertise

This table presents the results from examining whether the effect of *TAX CAM* on future UTB settlements (*SETTLEMENT IND*, Columns 1 and 2 and *SETTLEMENTS*, Columns 3 and 4) varies depending on whether the firm hires a tax expert auditor. *T*-statistics are reported in parentheses, and symbols ***, **, and * denote *p*-value significance at the 1%, 5%, and 10% level, respectively.

	(1) *SETTLEMENT IND* Non-Tax Expert	(2) *SETTLEMENT IND* Tax Expert	(3) *SETTLEMENTS* Non-Tax Expert	(4) *SETTLEMENTS* Tax Expert
PYUTBADDS	-1.4433	0.6655	0.0004	0.0011
	(-0.352)	(0.508)	(0.053)	(0.397)
TAX CAM	-0.2375*	-0.0767	-0.0003	0.0000
	(-1.845)	(-1.254)	(-1.357)	(0.388)
PYUTBADDS x TAX CAM	36.5218**	4.8299	0.1248***	0.0139
	(2.525)	(0.964)	(4.421)	(1.315)
PRIOR SETTLEMENTS	29.0440**	2.1146	0.0717**	0.0125***
	(1.991)	(1.390)	(2.519)	(3.921)
GAAP ETR	-0.0029	0.0012	-0.0000	0.0000
	(-0.571)	(0.514)	(-0.242)	(0.080)
IRS AUDIT RATE	0.1013	-0.8876**	0.0005	-0.0003
	(0.139)	(-1.980)	(0.356)	(-0.276)
SIZE	0.1363***	0.1814***	0.0000	0.0001
	(2.650)	(5.098)	(0.222)	(1.408)
PTROA	0.0470	0.0029	0.0002	0.0000
	(0.150)	(0.017)	(0.344)	(0.068)
MULTINATIONAL	0.0906	-0.0847	-0.0010**	-0.0011***
	(0.434)	(-0.578)	(-2.448)	(-3.673)
FOREIGN INCOME	0.1527	0.7532	-0.0008	-0.0004
	(0.271)	(1.518)	(-0.745)	(-0.369)
NOL	-0.1044	0.0079	0.0001	-0.0002
	(-0.771)	(0.077)	(0.375)	(-0.984)
CHANGE NOL	-0.0093	0.0132	-0.0001	-0.0001
	(-0.053)	(0.204)	(-0.358)	(-0.373)
MTB	0.0005	0.0022*	0.0000	0.0000
	(0.347)	(1.720)	(0.100)	(1.221)
LEVERAGE	-0.0384	0.0458	-0.0000	-0.0001
	(-0.467)	(0.484)	(-0.029)	(-0.556)
R&D	0.6581	-0.1224	0.0007	-0.0012*
	(1.570)	(-0.387)	(0.914)	(-1.831)
INTANGIBLES	0.0080	0.0986	-0.0000	0.0001
	(0.074)	(1.374)	(-0.081)	(0.665)
PPE	-0.2149	-0.1892	-0.0005	0.0004
	(-0.860)	(-1.200)	(-1.031)	(1.152)
CAPEX	0.2964	0.8453	0.0037	-0.0010
	(0.228)	(0.975)	(1.467)	(-0.565)
OPCYCLE	0.0044	-0.0220	-0.0000	-0.0000
	(0.120)	(-0.715)	(-0.545)	(-0.021)
BIG4	-0.0237	-0.0718	0.0000	-0.0003
	(-0.251)	(-0.386)	(0.260)	(-0.786)
CONSTANT	-0.0900	-1.2139**	0.0010	-0.0004
	(-0.192)	(-2.123)	(1.085)	(-0.374)
Fixed Effects	FF49	FF49	FF49	FF49
Observations	214	489	214	488
Observations where *TAX CAM* = 1	41	129	41	129
Adjusted R^2	0.443	0.310	0.361	0.204

TABLE 7
Entropy Balancing

This table presents regression results from examining the impact of *TAX CAM* on the association between *PYUTBADDS* and our two UTB settlement variables, *SETTLEMENT IND* (Column 1) and *SETTLEMENTS* (Column 2), using an entropy balanced sample. *T*-statistics are reported in parentheses, and symbols ***, **, and * denote *p*-value significance at the 1%, 5%, and 10% level, respectively.

	(1) *SETTLEMENT IND*	(2) *SETTLEMENTS*
PYUTBADDS	1.6310	-0.0037
	(1.050)	(-0.863)
TAX CAM	-0.0737	0.0000
	(-1.618)	(0.173)
PYUTBADDS x TAX CAM	5.1102	0.0240*
	(1.592)	(1.651)
PRIOR SETTLEMENTS	1.8634**	0.0136***
	(2.418)	(8.147)
GAAP ETR	-0.0061	-0.0000
	(-0.944)	(-0.966)
IRS AUDIT RATE	-0.5837	-0.0003
	(-1.489)	(-0.310)
SIZE	0.1857***	0.0001
	(6.639)	(1.319)
PTROA	-0.1540	-0.0004
	(-0.853)	(-0.785)
MULTINATIONAL	-0.1792	-0.0010
	(-1.514)	(-1.538)
FOREIGN INCOME	0.7119	-0.0025
	(1.645)	(-1.216)
NOL	0.0890	0.0000
	(0.919)	(0.078)
CHANGE NOL	0.0371	-0.0000
	(0.490)	(-0.039)
MTB	0.0017***	0.0000
	(3.146)	(0.863)
LEVERAGE	0.0559	0.0002
	(0.645)	(0.856)
R&D	0.2097	0.0019
	(0.454)	(1.001)
INTANGIBLES	0.2157***	0.0000
	(2.965)	(0.024)
PPE	-0.0461	0.0002
	(-0.242)	(0.288)
CAPEX	0.3535	-0.0012
	(0.340)	(-0.367)
OPCYCLE	-0.0183	-0.0001**
	(-0.649)	(-2.185)
BIG4	-0.0969	-0.0002
	(-1.130)	(-1.320)
CONSTANT	-1.4117***	-0.0002
	(-5.659)	(-0.251)
Fixed Effects?	FF49	FF49
Observations	703	703
Adjusted R^2	0.401	0.284

TABLE 8
Panel A - Placebo Test

This table presents the results for the regression examining the impact of *PLACEBO*, which is equal to one for the randomized placebo variable, on the association between *UTB* and our two UTB settlement variables, *SETTLEMENT IND* (Column 1) and *SETTLEMENTS* (Column 2). *T*-statistics are reported in parentheses, and symbols ***, **, and * denote *p*-value significance at the 1%, 5%, and 10% level, respectively.

	(1) *SETTLEMENT IND*	(2) *SETTLEMENTS*
PYUTBADDS	1.0882	0.0020
	(0.935)	(0.827)
PLACEBO	-0.0159	-0.0001
	(-0.338)	(-0.575)
PYUTBADDS x PLACEBO	1.7485	0.0018
	(0.417)	(0.209)
PRIOR SETTLEMENTS	2.2332	0.0134***
	(1.526)	(4.389)
GAAP ETR	0.0005	-0.0000
	(0.245)	(-0.105)
IRS AUDIT RATE	-0.6395*	-0.0001
	(-1.750)	(-0.137)
SIZE	0.1701***	0.0001*
	(6.091)	(1.938)
PTROA	0.0145	0.0001
	(0.099)	(0.405)
MULTINATIONAL	-0.0589	-0.0010***
	(-0.531)	(-4.244)
FOREIGN INCOME	0.4981	-0.0001
	(1.401)	(-0.143)
NOL	-0.0123	-0.0001
	(-0.161)	(-0.499)
CHANGE NOL	0.0015	-0.0000
	(0.026)	(-0.130)
MTB	0.0017*	0.0000
	(1.839)	(1.152)
LEVERAGE	-0.0041	-0.0001
	(-0.069)	(-0.470)
R&D	0.1172	-0.0006
	(0.467)	(-1.120)
INTANGIBLES	0.1053*	0.0001
	(1.930)	(0.741)
PPE	-0.2455**	0.0001
	(-1.976)	(0.224)
CAPEX	1.1037	0.0004
	(1.598)	(0.313)
OPCYCLE	-0.0083	-0.0000
	(-0.364)	(-0.701)
BIG4	-0.0277	-0.0001
	(-0.354)	(-0.782)
CONSTANT	-1.1970**	-0.0006
	(-2.407)	(-0.582)
Fixed Effects	FF49	FF49
Observations	703	703
Adjusted R^2	0.290	0.153

TABLE 8 (continued)
Panel B – Non-Tax-Related CAM Test

This table presents the results for the regression examining the impact of *GOODWILL CAM*, which is equal to one if Goodwill appears in the initial CAM report, on the association between *UTB* and our two UTB settlement variables, *SETTLEMENT IND* (Column 1) and *SETTLEMENTS* (Column 2). *T*-statistics are reported in parentheses, and symbols ***, **, and * denote *p*-value significance at the 1%, 5%, and 10% level, respectively.

	(1) *SETTLEMENT IND*	(2) *SETTLEMENTS*
PYUTBADDS	0.9947	0.0021
	(0.849)	(0.857)
GOODWILL_CAM	0.0254	0.0000
	(0.505)	(0.186)
PYUTBADDS x GOODWILL_CAM	3.5748	0.0011
	(0.722)	(0.106)
PRIOR SETTLEMENTS	2.2985	0.0135***
	(1.572)	(4.420)
GAAP ETR	0.0001	-0.0000
	(0.043)	(-0.156)
IRS AUDIT RATE	-0.6168*	-0.0001
	(-1.685)	(-0.111)
SIZE	0.1680***	0.0001*
	(5.990)	(1.933)
PTROA	0.0282	0.0001
	(0.193)	(0.403)
MULTINATIONAL	-0.0635	-0.0010***
	(-0.574)	(-4.274)
FOREIGN INCOME	0.4727	-0.0001
	(1.330)	(-0.165)
NOL	-0.0140	-0.0001
	(-0.184)	(-0.509)
CHANGE NOL	0.0089	-0.0000
	(0.152)	(-0.099)
MTB	0.0017*	0.0000
	(1.870)	(1.148)
LEVERAGE	-0.0015	-0.0001
	(-0.026)	(-0.429)
R&D	0.1673	-0.0005
	(0.683)	(-1.063)
INTANGIBLES	0.1044*	0.0001
	(1.918)	(0.718)
PPE	-0.2407*	0.0001
	(-1.938)	(0.249)
CAPEX	1.1289	0.0005
	(1.633)	(0.317)
OPCYCLE	-0.0083	-0.0000
	(-0.365)	(-0.704)
BIG4	-0.0353	-0.0001
	(-0.449)	(-0.791)
CONSTANT	-1.1769**	-0.0006
	(-2.368)	(-0.584)
Fixed Effects	FF49	FF49
Observations	703	703
Adjusted R^2	0.291	0.153

TABLE 9
Expanded Sample

This table presents the results from examining the effect of *TAX CAM* on future UTB settlements (*SETTLEMENT IND*, Columns 1 and 3 and *SETTLEMENTS*, Columns 2 and 4) using an expanded sample of firm years from 2019 through 2023. Columns 3 and 4 separate *TAX CAM* into first time tax-related CAMs (*FIRST CAM*) and repeat tax-related CAMs (*REPEAT CAM*). *T*-statistics are reported in parentheses, and symbols ***, **, and * denote *p*-value significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)	(4)
	SETTLEMENT IND	*SETTLEMENTS*	*SETTLEMENT IND*	*SETTLEMENTS*
PYUTBADDS	0.1492	0.0001	0.1083	0.0000
	(0.452)	(0.085)	(0.327)	(0.004)
TAX CAM	-0.0033	0.0001		
	(-0.155)	(1.051)		
PYUTBADDS x TAX CAM	4.2817***	0.0117**		
	(2.817)	(2.058)		
FIRST CAM			-0.0385	-0.0000
			(-1.230)	(-0.232)
PYUTBADDS x FIRST CAM			6.7553***	0.0203**
			(2.888)	(2.335)
REPEAT CAM			0.0329	0.0002*
			(1.273)	(1.695)
PYUTBADDS x REPEAT CAM			3.1718	0.0065
			(1.620)	(0.891)
PRIOR SETTLEMENTS	2.7004***	0.0193***	2.8193***	0.0194***
	(3.469)	(6.646)	(3.610)	(6.692)
GAAP ETR	0.0001	0.0000	0.0001	0.0000
	(0.188)	(1.346)	(0.327)	(1.413)
IRS AUDIT RATE	0.5808***	-0.0008*	0.5549***	-0.0008*
	(4.514)	(-1.654)	(4.299)	(-1.685)
SIZE	0.0924***	0.0001***	0.0926***	0.0001***
	(9.968)	(3.318)	(9.973)	(3.264)
PTROA	-0.0137	-0.0000	-0.0101	-0.0000
	(-0.516)	(-0.427)	(-0.377)	(-0.402)
MULTINATIONAL	0.0130	-0.0003*	0.0041	-0.0003*
	(0.263)	(-1.826)	(0.082)	(-1.880)
FOREIGN INCOME	0.5161***	-0.0003	0.4687***	-0.0004
	(4.037)	(-0.604)	(3.660)	(-0.751)
NOL	0.0022	-0.0000	0.0012	-0.0000
	(0.078)	(-0.391)	(0.043)	(-0.399)
CHANGE NOL	0.0074	-0.0000	0.0106	-0.0000
	(0.347)	(-0.284)	(0.496)	(-0.178)
MTB	-0.0000	-0.0000	-0.0000	-0.0000
	(-0.563)	(-0.034)	(-0.624)	(-0.043)
LEVERAGE	0.0123	0.0001	0.0166	0.0001
	(0.530)	(1.497)	(0.715)	(1.633)
R&D	0.0016	-0.0004	0.0031	-0.0004
	(0.022)	(-1.316)	(0.041)	(-1.380)
INTANGIBLES	0.0301	0.0000	0.0329*	0.0000
	(1.531)	(0.273)	(1.673)	(0.243)
PPE	-0.1866***	-0.0002	-0.1681***	-0.0001
	(-3.765)	(-0.971)	(-3.388)	(-0.805)
CAPEX	0.2597	0.0000	0.2623	-0.0001
	(0.961)	(0.028)	(0.971)	(-0.086)

(continued on next page)

TABLE 9 (continued)

OPCYCLE	-0.0215***	-0.0000	-0.0220***	-0.0000
	(-2.764)	(-0.563)	(-2.821)	(-0.613)
BIG4	-0.0277	-0.0000	-0.0186	-0.0000
	(-1.152)	(-0.112)	(-0.772)	(-0.045)
CONSTANT	-0.2505	-0.0006	-0.3033	-0.0005
	(-1.284)	(-0.791)	(-1.555)	(-0.757)
Fixed Effects	FF49&YR	FF49&YR	FF49&YR	FF49&YR
Observations	3,815	3,815	3,815	3,815
Observations where *TAX CAM* = 1	681	681		
Observations where *FIRST CAM* = 1			275	275
Observations where *REPEAT CAM* = 1			406	406
Adjusted R^2	0.291	0.049	0.285	0.048