Check Your Attitude:
An Examination of Companies' Adversarial Disclosures about Tax Enforcement

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Abstract: This study examines companies' voluntary disclosures of an adversarial stance toward tax enforcement in income tax footnotes, where companies express disagreement with tax authorities or a willingness to litigate unresolved audit issues. We find that larger companies, industry leaders, and companies in industries with high litigation risk are more likely to make adversarial disclosures toward tax enforcement, and companies' tax planning activities do not solely determine such disclosures. We examine the implications of adversarial disclosures on future tax audit outcomes and find that future settlement outcomes are more unfavorable for companies with such disclosures relative to those without. Finally, our supplemental analysis suggests negative capital market consequences and increased IRS scrutiny following adversarial disclosures. Our study documents the determinants and implications of a unique aspect of companies' tax controversy management and sheds light on the interactions between taxpayers and the tax authority during the tax enforcement process.

Keywords: *adversarial tax disclosure; tax enforcement; uncertain tax positions; tax footnotes*

I. INTRODUCTION

The global tax environment has changed significantly in recent years. One notable development is that tax enforcement activities have become more frequent and stringent around the world as tax authorities attempt to bolster compliance and raise tax revenue (KPMG, 2019). These enforcement actions have led to high-profile cases such as the lawsuit filed by the European Union (EU) against Apple Inc. for tax breaks the company received in Ireland. If the EU prevails in court, Apple could be required to pay $15 billion in back taxes (Pop, 2020). In a 2023 KPMG survey of global tax directors, 52 (37) percent of the respondents consider the tax dispute environment "more challenging" ("much more challenging") based on their experience in the past three years (KPMG, 2023). Given these recent trends and the material economic impact of tax enforcement, managing tax controversy has become an important issue for most publicly traded companies (KPMG, 2019). In this study, we examine a unique aspect of the taxpayer-tax authority dynamic during the tax enforcement process: namely, voluntary disclosure of an adversarial "attitude" or stance in public financial filings, where companies openly disagree with tax authorities or explicitly express the intention to litigate if the issue under audit is unresolved.[1] We aim to understand (1) the determinants of companies' adversarial disclosures, and (2) the implications of such disclosures for tax audit outcomes.

Examining companies' adversarial disclosures about tax enforcement is important for several reasons. First, the outcome of the tax enforcement process can have significant financial consequences for companies and a direct impact on after-tax cash flows for investors. Thus, it is important to understand how companies respond to scrutiny from tax authorities and the

[1] Throughout the study, we refer to this type of disclosure as "adversarial disclosure," "adversarial tax disclosure," or "adversarial stance," interchangeably. We use the term "adversarial" because companies largely express disagreement with the tax authority on the issues under audit.

implications of their responses. To the extent a company's adversarial disclosures are informative about its level of confidence in the tax positions taken or its ability to defend these positions upon audit, the disclosures could be useful to external stakeholders such as investors or tax authorities. Second, while prior research focuses on the determinants and consequences of companies' tax planning activities, there is limited evidence on factors that influence the enforcement process itself. Our study fills this gap in the literature by examining companies' voluntary disclosure of a stance on enforcement as a unique aspect of tax controversy management (Rubin and Francis, 2021; Seidman et al., 2024).

We construct a sample of U.S. corporations from 2010 to 2019. Our sample period begins in 2010, the earliest year when machine-readable income tax footnote data are available (Hoitash et al., 2021). It ends in 2019 to avoid the potential impact of the COVID-19 pandemic, which affected how the IRS and the taxpayers resolved tax controversy (Cobabe et al., 2024). The sample period is after the implementation of FASB Interpretation No. 48 (FIN 48, now codified as ASC 740-10) in 2007, which ensures that companies face the same disclosure rules related to unrecognized tax benefits (UTBs). Because only companies subject to potential tax audits are likely to disclose an adversarial stance about tax enforcement, we restrict our sample to companies that mention a potential or ongoing tax audit in their income tax footnotes over our sample period and exclude those that explicitly state they are not undergoing an audit.

Under current SEC rules, public companies are only required to disclose the tax years that are open to statutory tax audits. However, many companies voluntarily disclose additional information, including the tax jurisdictions that could initiate audits and their stances toward current and future tax enforcement actions. While most companies use standard, neutral language such as "the balance in unrecognized tax benefits can be expected to fluctuate from period to

period" when discussing ongoing or potential tax audits, others provide additional details to express their stance. For example, when discussing the EU's lawsuit against Apple in its 2016 tax footnote, the company states that it "believes the State Aid Decision to be without merit and intends to appeal to the General Court of the Court of Justice of the European Union." To construct our variable of interest, we search companies' income tax footnotes in SEC 10-K filings using keywords that reflect an adversarial stance on tax enforcement. These keywords are developed based on manual review of income tax footnotes within a pilot sample and are subject to extensive *ex post* review.[2] We assign company-years with adversarial disclosures to the treatment group and those without such disclosures to the control group.

Because the literature has not examined adversarial, voluntary disclosures about tax enforcement, we first provide descriptive evidence on companies with such disclosures. We find that the presence of adversarial tax disclosure is not concentrated in any one industry, in high tax-avoiding companies, or in companies with specific auditors. Our first research question examines the determinants of adversarial disclosures. We find that larger companies and those that are industry leaders are more likely to make such disclosures. This finding is consistent with the qualitative evidence in Seidman et al. (2024) that companies consult with industry peers during the tax enforcement process and mimic their behavior. We also find that companies in industries with high litigation risk are more likely to make adversarial disclosures, which could be attributable to greater litigation-related expertise (Krishnan et al., 2011; Krishnan and Lee, 2009). In terms of tax planning opportunities, we find that a company's foreign activities are positively related to its adversarial disclosure, whereas capital investment is negatively related. Our evidence suggests that adversarial tax disclosures are more likely when companies also use adversarial

[2] See Section 3.2 for a detailed list of the keywords.

language in non-tax disclosures about contingencies. Lastly, our findings do not indicate that a company's internal information quality, institutional ownership, or auditors are important determinants of adversarial disclosures. Collectively, these findings suggest that a company's adversarial disclosures are related to, but not simply an outcome of, its tax planning activities, governance, or information environment.

Next, we investigate the implications of adversarial disclosures on tax audit outcomes, specifically whether the settlement is favorable or unfavorable relative to managers' expectations as reflected in their UTB accruals. To infer the favorability of the settlement outcome, we leverage the financial reporting rules that require a company to report upward (downward) adjustments to UTBs related to prior tax positions in the year of settlement if the amount settled exceeds (is lower than) the UTBs accrued. Thus, we examine future settlements as well as adjustments related to prior tax positions over a three-year period.[3] Using a sample of companies that report settlements over the three-year measurement window, we find a positive and significant relation between companies' adversarial disclosures and the extent of upward adjustments related to prior tax positions, consistent with unfavorable tax audit settlements. In contrast, we do not find that adversarial disclosures are significantly related to the extent of downward adjustments related to prior tax positions, which are indicators of favorable tax settlements. To provide corroborating evidence, we follow Finley (2019) and construct an alternative measure of tax settlement favorability. We find that companies with adversarial disclosures are more likely to report unfavorable outcomes in future settlements than companies without such disclosures. Taken together, these findings are consistent with adversarial disclosures being associated with unfavorable future settlements, which could be attributable to companies' overconfidence in their

[3] Because companies rarely disclose substantial information related to audit outcomes, we rely on the financial reporting rules to design our empirical tests.

ability to sustain the tax benefits or such disclosures being "cheap talk."

We conduct several supplemental analyses. First, we explore the strength of companies' adversarial tax disclosures. While most disclosing companies simply state that they disagree with the tax authority, some companies also use strong language such as claiming the tax authority's position to be "without merit" ("strong adversarial disclosure"). We repeat the primary analyses within the treatment sample by comparing companies with strong, adversarial disclosures to those that disclose an adversarial stance without using strong language ("weak adversarial disclosure"). Most determinants examined are not significant predictors of strong adversarial disclosures, which suggests that these determinants are most relevant to companies' decisions to make such voluntary disclosures. In contrast, we find that companies using strong language in their adversarial disclosures are more likely to report unfavorable settlements, including those involving larger dollar amounts, than companies with weak adversarial disclosures. Thus, the strength of the disclosure has incremental implications on future tax audit outcomes.

Second, we explore capital market implications by examining whether and how adversarial disclosures moderate investor responses to disclosed UTBs. Our evidence suggests that investors value UTBs more negatively in the presence of an adversarial disclosure, which is consistent with investors anticipating negative future tax cash flows due to greater uncertainty or less favorable enforcement outcomes when companies make such disclosures. Finally, we examine tax authority scrutiny and find increased IRS attention following adversarial disclosures (Bozanic et al., 2017). This finding indicates that adversarial disclosures also have regulatory implications.

Our study makes several contributions. First, while existing research has provided ample evidence on how companies change tax avoidance in response to perceived or actual tax enforcement (Atwood et al., 2012; Ayers et al., 2019; Beck and Lisowsky, 2014; De Simone et al.,

2023; DeBacker et al., 2015; Finley, 2019; Hoopes et al., 2012; Kubick et al., 2016), there is limited evidence about how each party behaves *during* the tax enforcement process. By focusing on companies' adversarial disclosures about tax enforcement, our study sheds light on companies' public revelations of their stance toward tax enforcement and provides insight into their approaches to tax controversy management—an area of increasing importance. Thus, this study adds to the emerging research that aims to understand the "black box" of the tax enforcement process.

Second, this study offers practical implications to various stakeholders. Specifically, our findings suggest that companies' adversarial disclosures are informative of future tax audit outcomes relative to managers' expectations disclosed in public financial filings. Such evidence should be of interest to investors and analysts when evaluating a company's tax uncertainty. This takeaway should also be of interest to tax authorities, who use financial statements to complement private tax return disclosures (Bozanic et al., 2017). Recent political changes have paused and, in some cases, clawed back investments in the IRS, including the $80 billion funding promised by the Inflation Reduction Act of 2022 to address the budget constraints and modernize technology (Lawder, 2025). If the IRS's resource constraints persist due to the uncertainty in future funding, the tax authority will need to approach tax audits more strategically (Nessa et al., 2020). Our findings should be relevant to the tax authority in selecting companies for tax audits. Further, given that we find potential implications of public adversarial disclosures in the form of unfavorable tax settlements, negative investor perceptions, and increased regulatory scrutiny, managers should consider these consequences when evaluating the costs and benefits of making such disclosures.

Finally, we contribute to the voluntary tax disclosure literature. Voluntary disclosure within the tax setting can be important because income tax reporting is inherently complex, and mandatory financial statement disclosures may not sufficiently enable financial statement users to

predict future tax cash flows (FASB 2006; Ehinger et al. 2019). Despite the potential benefits of tax disclosures and an increasing demand for greater tax transparency in recent years, voluntary public tax disclosures are still rare (Hoopes et al., 2024). By examining companies' voluntary disclosure of an adversarial stance toward tax enforcement, this study adds to the limited research on voluntary tax disclosure. Findings of this study should help expand our understanding of voluntary tax disclosure of different types and the corresponding implications for stakeholders.

II. RELATED LITERATURE AND RESEARCH QUESTIONS

2.1 Related literature

2.1.1 Tax enforcement and corporate tax avoidance

Tax authorities worldwide use tax audits to enforce compliance and encourage certain behavior among taxpayers. Recent enforcement actions have led to several high-profile cases where tax authorities successfully challenged certain tax planning strategies of large U.S. multinationals, resulting in tax settlements with significant economic impact on taxpayers (e.g., Pop, 2020). In the U.S., the Inflation Reduction Act of 2022 promised to provide $80 billion in funding to alleviate IRS budget constraints, enabling workforce expansion and modernization of technology and business systems. The Treasury expected this investment to generate $204 billion in tax revenues over the next decade (Ernst and Young, 2022). Consistent with these trends, a 2019 KPMG survey shows that most companies expect global tax enforcement to be more prevalent and intense in the future (KPMG, 2019). Although recent political changes may threaten the investments in the IRS (Lawder, 2025), the importance of tax controversy management persists for companies across all major industries.

A long stream of tax literature examines how taxpayers change behavior in response to perceived or actual tax enforcement. Existing studies generally find that perceptions of possible

tax enforcement (i.e., *ex ante* tax enforcement) have a deterrent effect on tax avoidance. For example, Hoopes et al. (2012) show that companies' tax avoidance decreases as perceived IRS audit probability increases. Using cross-country data, Atwood et al. (2012) find lower tax avoidance when taxpayers expect home country tax enforcement to be stronger. In another study, Kubick et al. (2016) show that companies receiving tax-related SEC comment letters subsequently reduce tax avoidance relative to those receiving *non-tax*-related comment letters. They attribute this finding to companies expecting a higher likelihood of an IRS audit of the tax positions disclosed. Other studies find that *ex ante* tax enforcement probabilities can also influence taxpayers' expectations of future tax payments. Using confidential tax return data, Ayers et al. (2019) examine companies in the IRS Coordinated Industry Case (CIC) program, which face 100 percent audit probability (i.e., audit certainty). They show that CIC participants report larger reserves for uncertain tax positions, consistent with audit certainty influencing companies' perceptions of future cash tax flows. Relatedly, Beck and Lisowsky (2014) examine participants in the IRS Compliance Assurance Process (CAP) audit program and document a U-shaped relation between CAP participation and the amount of recorded tax reserves, suggesting that tax audit probability is associated with companies' perceptions of tax uncertainty.

In addition to examining the deterrent effect of *ex ante* tax enforcement probabilities, existing studies also document how taxpayers respond to the incidence of tax enforcement actions such as tax audits. Contrary to conventional wisdom, DeBacker et al. (2015) find that corporate tax avoidance increases in the few years immediately after a tax enforcement action, followed by a sharp decrease. They interpret the U-shaped relation between actual tax enforcement and corporate effective tax rates as being consistent with Bayesian updating of audit risk. In a similar vein, Finley (2019) finds that companies with large, favorable tax settlements (relative to their

expectations) subsequently increase tax avoidance. This finding is consistent with favorable settlements signaling opportunities to avoid more taxes. Lastly, De Simone et al. (2023) examine the differential impact of tax enforcement actions on multinational and domestic companies. Using cross-country data from the OECD, they find that as home-country tax enforcement increases, domestic companies reduce tax avoidance to a greater extent than their multinational counterparts because multinational companies can increase tax avoidance in foreign jurisdictions without affecting their home-country tax avoidance. Taken together, these studies suggest that factors such as recent tax settlement outcomes and companies' tax planning opportunities can moderate the impact of actual tax enforcement actions on companies' subsequent tax avoidance.

2.1.2 Tax enforcement and taxpayer-tax authority interactions

Although the literature provides ample evidence on how *ex ante* and actual tax enforcement influence corporate tax behavior, there is limited empirical evidence on the tax enforcement process itself, likely because details on how taxpayers interact with the tax authority are largely unobservable. Recent studies have attempted to shed light on the "black box" of the tax enforcement process. Using U.S. public companies' disclosure of open tax years in income tax footnotes, Paparcuri (2020) examines the determinants and consequences of lengthy IRS tax audits. He finds that managerial horizons, institutional ownership, and companies' internal information quality are important determinants of tax audit duration. He also shows that lengthy IRS audits are costly because they are associated with higher financial statement audit fees. In another study, Cobabe et al. (2024) leverage the stay-at-home orders during the COVID-19 pandemic to examine whether in-person communication affects the ability of U.S. companies to resolve tax uncertainty with the IRS. Using driving traffic data, they identify companies with high levels of in-person communication with the IRS prior to the stay-at-home orders and document a

reduction in these companies' ability to resolve tax uncertainty after travel restrictions, relative to those with less in-person communication. Their findings suggest that the method of communication during a tax audit has implications for the resolution of tax uncertainty. Additionally, Hagerty (2022) examines the implications of the relative bargaining power of tax authorities and taxpayers on taxpayer avoidance and enforcement outcomes. She finds that following the passage of the Administrative Dispute Resolution Act of 1990, which reduces the bargaining power of tax authorities, tax avoidance increases among taxpayers. Conversely, taxpayers with greater bargaining power—proxied by (1) their willingness and ability to litigate disputes or (2) their political connections—on average achieve more favorable settlement outcomes. Finally, Seidman et al. (2024) conduct semi-structured interviews with corporate tax executives of large U.S. publicly traded companies to obtain direct insights on how corporate taxpayers experience and respond to tax audits. Contrary to tax authorities' efforts to make the tax audit process more cooperative, tax executives view tax audits as adversarial and burdensome. In response, they take actions such as forging cooperative relationships with tax agents and consulting peers to increase certainty in tax outcomes and avoid lengthy audits. Thus, their study provides nuanced information about modern tax audits through the lens of corporate taxpayers.

Our study examines companies' adversarial disclosures about tax enforcement in financial statements, with a specific focus on understanding the factors associated with such disclosures and the implications for future tax audit outcomes. Thus, our findings complement the above studies by providing initial evidence on another aspect of the taxpayer-tax authority interaction during the tax enforcement process, namely, companies' public revelation of their stances toward the tax enforcement process.

2.1.3 Voluntary tax disclosure

Ample research has examined voluntary disclosure in general, especially in non-tax settings. In comparison, the tax setting is unique because income tax reporting is inherently complex (FASB 2006), and the proprietary nature of tax disclosures is particularly acute. For example, Ehinger et al. (2024) find that managers who expect greater tax enforcement are less likely to voluntarily disclose tax information during quarterly earnings announcements and conference calls, even though such disclosures benefit analysts. In another study, Kays (2022) examines companies' responses to Australia's mandatory public tax return disclosure, which requires the Australian Taxation Office to publish select line items from private tax return filings. To mitigate the potential reputational damage of being perceived as a tax dodger, Kays (2022) finds that affected companies provide voluntary tax disclosures to complement the mandatory tax return disclosure. These studies provide initial evidence that companies carefully evaluate the benefits and costs of voluntary tax disclosures, and these disclosures, if available, are informative.

Despite increasing demand for greater tax transparency in recent years, voluntary public tax disclosures remain relatively rare (Hoopes et al., 2024). Our study advances this emerging field by examining how companies use voluntary tax disclosures in public financial filings to reveal their stance on ongoing tax enforcement. These findings deepen our understanding of various forms of voluntary tax disclosures and highlight their implications for a broad set of stakeholders.

2.2 Research questions

We examine companies' adversarial disclosures about tax enforcement, which we define as voluntary disclosures of explicit disagreement with tax authorities or willingness to litigate if the audit issue is unresolved. To empirically capture this construct, we rely on disclosures of ongoing or potential tax audits in the income tax footnotes of SEC 10-K filings.[4] Although most

[4] Although companies may disclose their stance toward tax enforcement in other outlets (e.g., conference calls), we focus on disclosures in the 10-K filings for two reasons. First, all U.S. publicly traded companies file 10-Ks, which

companies use standard, neutral language such as "the balance in unrecognized tax benefits can be expected to fluctuate from period to period" when discussing ongoing or potential tax audits, we observe variations in disclosure. For example, when disclosing proposed adjustments by the French Tax Authority regarding the deductibility of certain expenses, Gamestop Corp. stated in its 2016 10-K that "…we intend to vigorously contest the reassessment through administrative procedures. …We believe our tax positions will be sustained and have not taken a reserve for any potential adjustment based on the reassessment." Given the significance of tax enforcement actions to companies and the lack of empirical evidence on companies' disclosed stances toward tax enforcement, our first research objective is to understand what factors are associated with companies' adversarial disclosures. We compare company-years with an adversarial disclosure to those without. We formally state our first research question below, which examines the determinants of companies' adversarial disclosure.

RQ1: What are the determinants of adversarial disclosures about tax enforcement?

Our second research question examines the implications of companies' adversarial disclosures about tax enforcement on tax audit outcomes. Following Finley (2019), we define a tax audit outcome as favorable (unfavorable) if the amount settled is less (more) than managers' expectation, and we infer the favorability of the tax audit outcome through companies' accounting for UTBs. ASC 740-10 requires U.S. publicly traded companies to account for tax benefits associated with uncertain tax positions using a "two-step" approach. In the first step, companies evaluate whether a tax position is more likely than not (MLTN) to be sustained upon audit. To the

provides a consistent platform that is available for companies to reveal a tax-related stance. Second, companies are required to disclose UTB reserves in the income tax footnotes of 10-Ks. Because tax audits are important inputs to the amount of UTB reserves, it is highly likely that any companies will make adversarial disclosures about tax enforcement when explaining the current-year changes in the UTB reserves. Thus, companies' 10-K filings provide a natural place to observe adversarial disclosures.

extent the MLTN test is met, the second step requires that companies recognize the largest cumulative tax benefit with a greater than 50 percent chance of being sustained upon audit. For UTBs, companies are required to provide a detailed roll-forward schedule, which reconciles the beginning UTB balance to the ending amount due to changes in current or prior tax positions, releases in reserves due to lapses of statutory audit limits, and settlements with tax authorities.

Despite the intention of ASC 740-10 to increase consistency in how companies account for tax contingencies and to enhance comparability of this account across financial statements, variation still exists in practice. For example, De Simone et al. (2014) use the setting of a material, one-time alternative fuel mixture credit refund to hold constant the underlying transaction that gives rise to tax uncertainty. They provide convincing evidence that substantial variation exists in how companies account for UTBs post-FIN 48. The judgment required in estimating the UTB accruals makes it unclear how companies' adversarial disclosures relate to the favorability of tax audit outcomes. On one hand, if companies disclose an adversarial stance because they are confident in the technical merit of their tax positions and are able to successfully defend these positions, then the tax audit outcome is likely to be either (1) neutral (where the amount reserved approximates the amount settled), or (2) favorable, as Robinson et al. (2016) show that on average UTBs overstate the extent of tax uncertainty because companies are not allowed to consider audit probability when estimating the reserve. On the other hand, an unfavorable tax audit outcome is likely if companies are unable to sustain as much tax benefit as they expect despite the adversarial disclosures. In this scenario, adversarial tax disclosures are more likely to indicate "cheap talk" or overconfidence. We state our second research question below.

RQ2: How do adversarial disclosures about tax enforcement relate to tax audit outcomes?

III. SAMPLE SELECTION AND MEASURING ADVERSARIAL DISCLOSURES

3.1 Sample selection

We begin with all U.S.-incorporated companies in the Compustat North America database from 2010 to 2019. We end the sample before the COVID-19 pandemic that started in 2020, because recent research shows that the pandemic affected the tax enforcement process and tax authority-taxpayer interactions (Cobabe et al., 2024). Our sample period covers post-FIN 48 years so that companies face similar disclosure rules and use the same "two-step" approach in estimating UTBs—a variable of interest in examining the second research question. Following prior research, we exclude non-U.S. companies and remove flow-through entities (e.g., mutual funds, limited partnerships, etc.) and REITs because they are not subject to entity-level taxation (e.g., Phillips et al. 2003; Dyreng et al. 2008). We also require companies to have non-missing total assets and exclude utility companies because they are subject to additional regulations. We measure companies' adversarial disclosures about tax enforcement using income tax footnotes in SEC 10-K filings. Thus, we require sample observations to have machine-readable income tax footnote data from Hoitash et al. (2021), which limits our sample to begin in 2010.

To ensure that all sample companies are, at a minimum, subject to tax enforcement, we use keyword searches to remove company-years that do not even mention the word "audit" or "examination" (along with possible variations) in their income tax footnotes. We further exclude companies with a remote likelihood of being audited, defined as those that (1) explicitly disclose at least once during our sample period that they are *not* currently under any tax audit and (2) never explicitly mention that they are undergoing an audit in any year during our sample period.[5] Thus,

[5] For example, American Realty Investors, Inc. disclosed in its 2015 10-K that "there are currently no audits in progress for any tax periods." In addition, at no point during the sample period does the company disclose an ongoing audit. Thus, we consider this company to have a remote probability of audit and exclude it from the sample.

we retain companies that either explicitly mention that they are undergoing an audit or at least disclose that they are potentially subject to an audit.[6] Because companies usually reveal their stances when discussing recent or ongoing tax enforcement, these sample selection criteria ensure that all sample companies have the opportunity to voluntarily disclose their stance toward tax enforcement. These selection criteria result in a base sample of 27,890 company-years for 4,756 unique companies. Sample size varies by regression because we require additional control variables. Table 1 provides detailed sample selection procedures.

3.2 Measuring adversarial disclosures about tax enforcement

We search income tax footnotes for keywords and phrases reflecting an adversarial disclosure about tax enforcement. Specifically, these keywords and phrases are: "disagree", "has not agreed", "did not agree", "do not agree", "without merit", "no merit", "litigate", "protest", "contest", "petition", and "vigorous". We include variations of these keywords to account for tense (e.g., "protest" vs "protested") and the use of singular vs. plural object (e.g., "we" vs "the company") in disclosure. We select these keywords based on a review of income tax footnotes for a random sample of 484 company-years related to 50 companies over our sample period. If a company discloses any of the keywords in its income tax footnote, we set *Adversarial_Disc*, an indicator variable, equal to one, and zero otherwise. After identifying adversarial disclosures, we validate our classification by manually reviewing a random sample of 80 disclosures and confirm that the keyword searches accurately reflect companies' adversarial stance on tax audits. Appendix A provides examples of adversarial disclosures.

[6] We conduct an extensive review of how companies disclose their ongoing or potential audits or examinations to ensure that our classifications are accurate. We also compare company-years that we identify as being under audit with the sample of company-years undergoing IRS audits based on generative AI (Armstrong, 2023) as a supplemental accuracy check. Because Armstrong (2023) focuses solely on IRS audits, while we consider audits initiated by any tax jurisdiction (i.e., U.S. federal, U.S. state, and foreign), our comparison focuses on IRS audits only. We confirm that substantially all ongoing U.S. federal audits identified by Armstrong (2023) are classified as such in our sample. We thank Daphne Armstrong for sharing the data.

3.3 Understanding *Adversarial_Disc*: Descriptive statistics

Because adversarial disclosures about tax enforcement have not been extensively studied in the literature, we first present various sets of descriptive analyses of *Adversarial_Disc* before examining our primary research questions. Figure 1 plots the frequency of *Adversarial_Disc* by Fama-French 17 industry using the base sample (i.e., 27,890 company-years), revealing nontrivial variation in *Adversarial_Disc* across industries. For example, over 7.1 percent of companies in Textiles, Apparel & Footwear ("Clths") report an adversarial disclosure, compared to only about 2.7 percent in Retail ("Rtail"). More importantly, *Adversarial_Disc* does not appear to be concentrated in any industry, suggesting that adversarial disclosures about tax enforcement are not solely related to industry-specific tax positions.

Figure 2 plots the percentage of companies with *Adversarial_Disc* by cash effective tax rate (CETR) decile using the base sample with non-missing one-year CETRs. We do not observe *Adversarial_Disc* clustering in any specific CETR decile. Interestingly, the highest average *Adversarial_Disc* value occurs in decile four, where CETR values are between 13.0 and 18.1 percent, rather than in the lowest CETR decile, where values are below 1.3 percent. This finding suggests a nuanced relation between companies' tax planning and adversarial disclosures. In other words, *Adversarial_Disc* does not appear to simply reflect companies' tax planning activities.

The next descriptive analysis explores the relation between companies' adversarial disclosures and their external auditors. Because auditors are actively involved in the income tax disclosure process, it is possible that auditors influence companies' adversarial disclosures about tax enforcement. Figure 3 plots the distribution of *Adversarial_Disc* by audit firm.[7] Among all companies that have adversarial disclosures, 89.5 percent engage a Big 4 auditor (represented by

[7] To reduce the influence of outliers, we only include auditors with at least ten observations.

the vertical bars). Given that the majority of the sample engages a Big 4 auditor (i.e., 63.5 percent, untabulated), we also examine the prevalence of client companies with adversarial disclosures (i.e., *Adversarial_Disc* = 1) within each audit firm (represented by the dotted line). We find greater variation among smaller audit firms, mostly due to these firms having a small client portfolio (i.e., a denominator effect). For example, only 0.7 percent of *Adversarial_Disc* companies engage Plante & Moran as the auditor, but these companies represent 12.2 percent of Plante & Moran's client portfolio. Overall, this analysis does not suggest a clustering of *Adversarial_Disc* companies within a specific audit firm, which should alleviate the concern that an adversarial disclosure reflects an auditor-specific phenomenon.[8]

3.4 Issues under audit

An empirical advantage of examining companies' adversarial disclosures about tax enforcement is that we can hold the underlying event (i.e., tax audit) constant. In contrast, other types of disclosures, such as contingency disclosures, may be triggered by different underlying economic events (e.g., legal proceedings, environmental matters, etc.). Despite this empirical benefit, one challenge is that it is difficult to further control for the heterogeneity across individual tax audits and the specific issues being audited. While some companies provide information about the ongoing tax audits in tax footnotes, such disclosures are voluntary and do not provide sufficient detail to construct empirical measures that capture various aspects of the tax audits. We seek to partially overcome this limitation by providing more granular evidence on the issues under audit using hand-collected data from companies' disclosures. To allow for tractability in data collection, we identify a subsample of 294 company-years that use stronger language in their adversarial

[8] In untabulated analysis, we examine whether auditor turnover is associated with changes in companies' adversarial disclosures in the three-year periods before and after the auditor switch. We do not find significant changes in the likelihood of an adversarial disclosure following the auditor turnover. This provides additional evidence that adversarial disclosures are not purely an auditor effect.

disclosures about tax enforcement (*Strong_Adversarial_Disc*). Specifically, these companies claim that the tax authorities' positions are "without merit" or have "no merit." In some instances, they also disclose the intention to "vigorously" contest the tax authorities' challenge. We focus on this subsample because the adversarial disclosures are more salient, and these companies are more likely to provide information about the ongoing tax audit to support their strong dissent.

In Table 2, we classify specific audit issues, to the extent disclosed, and report their frequency at the individual audit level.[9] Approximately 30 percent (47 percent) of the federal (foreign) audits lack detailed disclosure for this analysis, suggesting that a nontrivial portion of sample companies are not transparent about the issues under audit even when they make a strong, adversarial disclosure. Among those that disclose sufficient information, we find that transfer pricing is a top issue for both federal (15.9 percent) and foreign (25.0 percent) tax audits. Focusing on federal audits, we find that intercompany transactions are the most frequently disclosed issue (25.0 percent), followed by issues related to tax credits (especially R&D credits) and other tax attributes (15.9 percent). For foreign audits, M&A and restructuring activities are the second most frequently mentioned issue (20.0 percent). Overall, these patterns are consistent with prior research that transfer pricing, cross-border intercompany transactions, and tax credits are issues subject to a higher likelihood of audit due to their complexity and economic significance (Towery, 2017). Our findings also demonstrate that these tax issues are commonly associated with companies' adversarial disclosures about tax enforcement.

IV. RESEARCH DESIGN AND RESULTS

4.1 Determinants of companies' adversarial disclosures

[9] Companies may disclose a tax audit over multiple years because (1) a tax audit usually lasts longer than a year, and (2) companies are required to report balance sheet items related to the prior two years in the current financial statement. To avoid the influence of duplicates, we provide descriptive statistics at the unique audit level.

4.1.1 Research design

Our first research question examines the determinants of companies' adversarial disclosures using the following linear probability model:

$$\begin{aligned} Adversarial\_Disc_{i,t} = \; & Size_{i,t} + Industry\_Lead_{i,t} + High\_Litigation_{i,t} + Foreign_{i,t} \\ & + Intangibles_{i,t} + R\&D_{i,t} + Leverage_{i,t} + NOL_{i,t} + \Delta NOL_{i,t} \\ & + Capex_{i,t} + PPE_{i,t} + Advertising_{i,t} + ROA_{i,t} + MTB_{i,t} + EqEarn_{i,t} \\ & + IIQ_{i,t} + Nontax\_Disc_{i,t} + Miss\_Nontax\_Disc_{i,t} + Big4_{i,t} \\ & + Institute\_Own\%_{i,t} + Loss_{i,t} + Fixed\ Effects + \varepsilon_{i,t} \end{aligned} \quad (1)$$

The dependent variable is *Adversarial_Disc*, as previously defined. Our control group consists of company-years without an adversarial disclosure but with a reasonable probability of being audited (i.e., *Adversarial_Disc* = 0). The selected determinants reflect company characteristics, tax planning opportunities, and the potential impact of external stakeholders. We first examine how a company's size (*Size*) and whether it is a leader in the industry (*Industry_Lead*) relate to its adversarial disclosures. These determinants are motivated by qualitative evidence in Seidman et al. (2024) that companies consider the actions of other companies when dealing with tax audits. If larger companies or industry leaders have more resources to defend their tax positions upon audit, we expect that they will be more likely to publicly disagree with the tax authority relative to smaller companies. However, Seidman et al. (2024) also provide qualitative evidence that some companies disagree with the tax authority regardless of the dollar amount of the proposed tax payments; they simply believe that the tax authority is wrong. Under this scenario, company size and industry leader status may not be significant determinants of adversarial disclosures. We also examine whether being in an industry that faces high litigation risk (*High_Litigation*) influences companies' adversarial disclosures. If litigation is less costly for companies in these industries because they have more resources and experience in litigation, it is possible that these companies are more willing to disclose an adversarial stance toward tax

enforcement, suggesting a positive relation between *High_Litigation* and *Adversarial_Disc*. In contrast, extensive research suggests that companies reduce disclosures in response to heightened litigation risk (e.g., Rogers and Van Buskirk, 2009). If they respond to tax audits in a similar manner, they might be less willing to make adversarial disclosures, suggesting a negative relation.

The next set of determinants includes various tax planning opportunities as well as factors that are shown to be associated with companies' tax avoidance. These determinants include foreign activities (*Foreign*), intangibility (*Intangibles*), research and development activity (*R&D*), leverage (*Leverage*), tax loss carryforwards (*NOL* and ΔNOL), capital expenditures (*Capex*), tangible assets (*PPE*), advertising expense (*Advertising*), profitability (*ROA*), market-to-book (*MTB*), and equity earnings (*EqEarn*). We choose to include these variables instead of using a combined measure of companies' tax avoidance level (e.g., GAAP or cash effective tax rates) because we are interested in understanding how specific types of tax planning opportunities relate to companies' adversarial disclosures. Given limited empirical evidence related to our construct of interest, we do not make directional predictions for these variables.

Prior studies show that better internal information environments facilitate tax planning (Gallemore and Labro, 2015; Laplante et al., 2021; McGuire et al., 2018). Accordingly, we consider the role of companies' internal information quality (*IIQ*). If companies with better internal information environments are more confident in their tax positions, we expect a positive relation between *IIQ* and *Adversarial_Disc*. Alternatively, if adversarial disclosures represent "cheap talk," we will not find an association between *IIQ* and *Advesarial_Disc*.

We include an indicator variable, *Nontax_Disc*, to capture a similar adversarial stance in companies' contingency disclosure (i.e., a non-tax disclosure). We expect adversarial contingency disclosures to be positively associated with adversarial disclosures about tax enforcement.

However, we do not expect *Nontax_Disc* to subsume the explanatory power of other determinants given the unique information content of companies' adversarial disclosure pertaining to the underlying tax position and tax-related financial reporting.[10] For observations without available contingency disclosures, we include an indicator variable, *Miss_Nontax_Disc*, and reset *Nontax_Disc* to zero to avoid further sample attrition.

We also include variables for whether the company engages a Big 4 auditor (*Big 4*) and the level of institutional ownership (*Institute_Own%*). Auditors are involved in the financial reporting of UTBs, and prior research provides evidence that institutional investors influence companies' tax planning strategies (e.g., Chen et al., 2019). Thus, both are important and relevant stakeholders in our setting. Lastly, we include an indicator variable for current year losses (*Loss*) in all analyses to control for potential systematic differences in how loss and profitable companies respond to tax enforcement. We include two-digit SIC industry fixed effects to control for time-invariant industry effects. Appendix B provides detailed variable definitions.

4.1.2 Results

Table 3, Panel A reports descriptive statistics related to the determinants regression. On average, 5.2 percent of sample observations make adversarial disclosures about tax enforcement (*Adversarial_Disc*). Because we include both profitable and loss observations, return on assets (*ROA*) is -0.8 (2.9) percent at the mean (median), and 28.0 percent of observations report pre-tax losses (*Loss*). Thus, it is important to control for loss observations in our regression analysis.

Table 3, Panel B presents results of estimating equation (1) to examine the determinants of companies' adversarial disclosures. We find a positive and significant coefficient on *Size*, where a

[10] In untabulated analysis, we find a positive correlation between *Adversarial_Disc* and *Nontax_Disc*. In a subsample of company-years with an adversarial contingency disclosure, only 8.0 percent also have an adversarial disclosure about tax enforcement, which suggests that *Adversarial_Disc* captures a unique tax-related stance rather than an overall disclosure style.

one standard deviation increase in *Size* is associated with a 3.36 percentage-point increase in the likelihood of making adversarial disclosures. This represents a 64.6 percent increase relative to the unconditional mean of *Adversarial_Disc*. We also find companies that are leaders in their respective industry to be more likely to have adversarial disclosures. Specifically, being an industry leader is associated with a 5.06 percentage-point higher likelihood of making adversarial disclosures. This large-sample empirical finding is consistent with the qualitative evidence in Seidman et al. (2024) that companies often seek input from peers and even mimic their approaches to tax avoidance and tax controversy management. If larger, industry-leader companies have more resources to defend their tax positions, smaller companies could wait on the industry leaders to set precedent for them. Our results also suggest that companies in industries facing high litigation risks (*High_Litigation*) are more likely to include adversarial disclosures. This finding could reflect the resources and expertise these companies have in dealing with litigation, making adversarial disclosures less costly for these companies (Hopkins et al., 2015; Krishnan et al., 2011; Krishnan and Lee, 2009). Companies facing higher litigation risk could also use such disclosure to deter tax-related shareholder litigation (Donelson et al., 2024).

We find that some tax planning opportunities are significant determinants of *Adversarial_Disc*. For example, a company's foreign activities (*Foreign*) increase the likelihood of making adversarial tax disclosures, whereas capital investments (*Capex*) decrease the likelihood. These findings could reflect variation in the likelihood of tax enforcement, the level of uncertainty, and the potential economic impact of the tax enforcement actions associated with the specific type of tax planning opportunities exploited. For example, a positive coefficient on *Foreign* could be attributable to international tax planning activities being subject to high levels of scrutiny and likely exploiting grey areas of the tax laws, whereas the negative coefficient on *Capex*

potentially reflects a relatively less uncertain tax strategy that attracts less scrutiny from the tax authority. Thus, companies relying more on foreign activities to generate tax benefits are more likely to make adversarial disclosures about tax enforcement.

Consistent with expectations, we find a significantly positive relation between *Nontax_Disc* and *Adversarial_Disc*, suggesting that companies' adversarial disclosure extends beyond tax enforcement to other non-tax disclosures. In contrast, we do not find that companies' internal information quality (*IIQ*), auditors (*Big 4*), or institutional owners (*Institute_Own%*) play an incremental role in companies' adversarial disclosures.

4.2 Adversarial disclosures about tax enforcement and audit outcomes

4.2.1 Research design

Our second research question examines how companies' adversarial disclosures about tax enforcement are associated with tax audit outcomes, specifically the favorability of the settlement relative to managers' expectations as reflected in their UTB accruals. We examine our research question using the following OLS regression:

$$\begin{aligned} Audit\_Outcome_{i,t} = \; & Adversarial\_Disc_{i,t} + UTB_{i,t} + BTD_{i,t} + Leverage_{i,t} + Size_{i,t} + ROA_{i,t} \\ & + Foreign_{i,t} + R\&D_{i,t} + lag\_ETR_{i,t} + EqEarn_{i,t} + MezzFin_{i,t} \\ & + Big4_{i,t} + Litigation_{i,t} + NOL_{i,t} + Loss_{i,t} + Fixed\ Effects + \varepsilon_{i,t} \end{aligned} \quad (2)$$

Audit_Outcome equals one of three proxies: *Settle*, *PYIncr (Unfav)*, and *PYDecr (Fav)*. We define *Settle* as the total decrease in UTBs due to settlement over a three-year window from t+1 through t+3, scaled by current year total assets (i.e., year t). Thus, *Settle* reflects the amount of settlements reported by the company in the next three years. To provide further evidence on the favorability of the tax settlement, we rely on the financial reporting rules that require companies to report the differences between the actual cash settlement and the original UTBs accrued for that tax position as changes in UTBs related to prior tax positions in the roll-forward schedule. That is,

if a company's actual settlement amount is greater (less) than its UTB reserves, it will report an upward (downward) adjustment to UTBs as related to prior tax positions upon settlement (Jennings et al., 2020; Robinson et al., 2016). As such, we complement *Settle* with *PYIncr (Unfav)* [*PYDecr (Fav)*] to capture the extent to which the settlement outcome is greater (less) than the UTB reserves, which requires an upward (downward) UTB adjustment related to prior tax positions. If adversarial disclosures are associated with unfavorable (favorable) settlement outcomes relative to managers' expectations as reflected in UTB reserves, we expect *Adversarial_Disc* to be positively associated with *PYIncr (Unfav)* [*PYDecr (Fav)*].

Because we examine audit settlement outcomes, we restrict this regression sample to company-years reporting a non-zero settlement amount over the three-year measurement window of the dependent variables. Thus, the sample size for this analysis decreases to 4,767 observations for 1,236 unique companies. We include a set of control variables related to settlements following Jennings et al. (2020), and we continue to control for *Loss* due to the inclusion of loss companies. We include industry and year fixed effects and cluster standard errors at the company level.

4.2.2 Results

Table 4, Panel A reports descriptive statistics for the variables used to estimate equation (2). Within this subsample, the average value of *Adversarial_Disc* is higher at 9.7 percent compared to 5.2 percent for the determinants sample. *Settle* is about 0.3 percent of total assets at the mean, which translates into approximately 31.4 million dollars in total settlements over the three-year measurement window. The average values of *PYIncr (Unfav)* and *PYDecr (Fav)* are both around 0.3 percent of total assets. These amounts translate to 48.0 million in upward and 46.8 million in downward adjustments over the three-year measurement window, suggesting nontrivial adjustments related to prior tax positions.

Table 4, Panel B presents the results of estimating equation (2). We find a positive and significant relation between *Settle* and *Adversarial_Disc* in column (1), suggesting that companies with adversarial disclosures experience larger future settlements than companies without such disclosures. Our estimate suggests that companies with adversarial disclosures report 50 percent more settlements with the tax authorities in the three years after making such disclosures relative to the unconditional mean of *Settle*. Importantly, we find a positive and significant coefficient estimate for *Adversarial_Disc* in column (2), where the dependent variable is *PYIncr (Unfav)*. This finding suggests that companies with adversarial disclosures also experience larger upward adjustments to UTBs related to prior tax positions. This finding is consistent with the settlement amount *exceeding* the UTBs accrued for these companies relative to those without adversarial disclosures. In addition, the coefficient in column (3) is statistically insignificant when the dependent variable is *PYDecr (Fav)*, suggesting that the magnitude of the downward adjustments in UTBs related to prior tax positions is similar for companies with adversarial disclosures and for those without. Taken together, the combined results are consistent with companies with adversarial disclosures on average experiencing more unfavorable tax audit outcomes than expected compared to those without. This finding is important to investors and other financial statement users because upward adjustments to UTBs result in negative financial reporting consequences in the form of additional tax expense, and unfavorable settlements mean more cash outflows than expected.

4.2.3 Alternative measure of audit outcomes

To complement Table 4 analysis, we also use the tax settlement favorability measure developed by Finley (2019) as an alternative proxy of tax audit outcomes. Finley (2019) examines how the favorability of large tax settlements affects companies' future tax avoidance. Similar to our study, he defines favorable (unfavorable) tax settlements as those where the amount settled

with the tax authority is lower than (exceeds) management expectations. Specifically, Finley (2019) uses unexpected accruals (releases) of the interest and penalties component of the UTB roll-forward schedule in the year of settlement as proxies for unfavorable (favorable) tax resolution outcomes. Appendix C provides details about the Finley (2019) tax favorability measure. Following Finley (2019), we create two indicator variables: *Settle (Unfav)* and *Large_Settle (Unfav)*, both equal to one for companies that report unfavorable audit outcomes in any of the three years subsequent to the adversarial disclosure. While *Settle (Unfav)* is based on all settlements reported by our sample, *Large_Settle (Unfav)* only captures settlements where the dollar amount is above the sample median, following the definition in Finley (2019). We use a three-year window because tax audits take time to resolve, and the timing of the resolution is unclear.

We re-estimate equation (2) using *Settle (Unfav)* and *Large_Settle (Unfav)* as the dependent variable, respectively. Table 5 presents results. In column (1), we find a significantly positive association between adversarial disclosure and the likelihood of experiencing unfavorable audit outcomes in the subsequent three-year period. Our estimates suggest that companies with adversarial disclosures in the current year face a 3.24 percentage-point higher likelihood of experiencing unfavorable settlement outcomes than companies without such disclosures. This result translates to a 55.5 percent increase in the likelihood of unfavorable settlement relative to the unconditional mean. In column (2), the coefficient estimate on *Adversarial_Disc* is statistically insignificant, suggesting that the likelihood of unfavorable settlement outcomes when limited to large settlement amounts does not significantly differ conditional on companies' adversarial disclosures. Overall, the results in Table 5 corroborate the findings in Table 4. Collectively, these findings suggest a positive relation between companies' adversarial disclosures about tax enforcement and the likelihood of subsequent unfavorable tax audit outcomes.

V. SUPPLEMENTAL ANALYSIS

5.1 Exploring variation in companies' adversarial disclosures

Our primary analysis examines the determinants and tax audit outcomes of companies with adversarial disclosures relative to those without. In this supplemental analysis, we explore variation in the strength of companies' adversarial disclosures. As discussed in Section 3.4, *Strong_Adversarial_Disc* is an indicator variable equal to one if a company uses strong language in its adversarial disclosure (e.g., "the tax authority's position is without merit"), and zero otherwise. We set another indicator variable, *Weak_Adversarial_Disc*, equal to one for company-years with adversarial disclosures but without specifically using strong language. Appendix A provides examples of these disclosures.

We repeat our analyses in Tables 3 through 5 within the subsample that have adversarial disclosures and further partition *Adversarial_Disc* into *Strong_Adversarial_Disc* and *Weak_Adversarial_Disc*. We report results in Table 6. Panel A presents the results of estimating equation (1), where the dependent variable is *Strong_Adversarial_Disc* and observations with *Weak_Adversarial_Disc* serve as the benchmark. This comparison offers insights into whether those making strong, adversarial disclosures are systematically different from those making adversarial disclosures but without using strong language. While we previously find that several determinants, including company size, industry leader status, litigation risk, and select tax planning opportunities, are important determinants of the adversarial disclosure choice, none of the determinants (except for prior losses) demonstrates incremental predictability of companies making a strong versus weak adversarial disclosure. When combined with findings in Table 3, the lack of significant differences in Table 6, Panel A suggests that the determinants examined are most relevant to the decision to make an adversarial disclosure about tax enforcement rather than

the strength of such disclosure.[11]

Panel B of Table 6 presents the results of re-estimating equation (2) within the *Adversarial_Disc* subsample. This analysis examines whether firms making a strong, adversarial disclosure experience differential tax audit outcomes relative to those that do not use strong language. We do not find statistically significant effects in column (1), where the dependent variable is *Settle*. This finding indicates that the magnitude of the subsequent settlements reported by companies with adversarial disclosures does not vary based on the strength of the disclosure. We do not find a statistically significant relation between *Strong_Adversarial_Disc* and *PYIncr (Unfav)* in column (2), but the coefficient estimate of interest is negative and statistically significant in column (3), where the dependent variable is *PYDecr (Fav)*. These findings suggest that companies making adversarial disclosures with strong language do not experience more unfavorable future tax settlements relative to those without. However, when the settlement outcome is favorable relative to managers' expectations, companies making strong, adversarial disclosures appear to benefit to a lesser extent than those without using strong language.

Finally, Panel C of Table 6 presents results of re-estimating equation (2) within the *Adversarial_Disc* subsample using the alternative settlement favorability measure by Finley (2019). We find a positive and statistically significant coefficient on *Strong_Adversarial_Disc* in both columns, suggesting that companies with strong, adversarial disclosures are more likely to experience unfavorable tax settlements in subsequent years relative to those making such disclosure but without using strong language. Our estimates indicate that companies with strong,

[11] In an untabulated analysis, we re-estimate equation (1) using an additional pairwise comparison, whereby we use *Strong_Adversarial_Disc* as the dependent variable and include company-years without any adversarial disclosure (i.e., *Adversarial_Disc* = 0) as the control group. We find similar results to those reported in Table 3, which provides support that the determinants are most relevant to the decision to make adversarial disclosures rather than the strength of the language once a disclosure choice is made.

adversarial disclosures have a 12.24 percentage-point higher likelihood of experiencing unfavorable future settlements. This represents an 87.68 percent increase relative to the unconditional mean. This significant relation holds when we focus only on large tax settlements in column (2). In other words, companies with strong, adversarial disclosures also face an increased likelihood of unfavorable future settlements involving large dollar amounts. Taken together, Table 6 results suggest that the strength of companies' adversarial disclosures has incremental consequences.

5.2 Adversarial disclosures and market reactions

In our second supplement test, we explore potential capital market consequences of adversarial disclosures about tax enforcement. Specifically, we are interested in whether investors consider a company's adversarial disclosure when valuing UTBs. To examine this question, we estimate the following OLS regression:

$$\begin{aligned} CAR\_10K_{i,t} = \; & UTB_{i,t} + Adversarial\_Disc_{i,t} + Adversarial\_Disc_{i,t} \times UTB_{i,t} + UE_{i,t} \\ & + \Delta ROA_{i,t} + Ln\_MVE_{i,t} + BTM_{i,t} + Leverage_{i,t} + SalesGrowth_{i,t} \\ & + Capex_{i,t} + R\&D_{i,t} + Intangibles_{i,t} + Foreign_{i,t} + Loss_{i,t} + Fixed\ Effects \\ & + \varepsilon_{i,t} \end{aligned} \tag{3}$$

We measure investor reactions to companies' disclosed UTB amount using cumulative abnormal returns (CAR) over a three-day window centered on the SEC 10-K filing date (*CAR_10K*). We expand the UTB pricing model used in prior studies (e.g., Robinson et al., 2017; Robinson and Schmidt, 2013) to include *Adversarial_Disc* and an interaction between *Adversarial_Disc* and companies' ending UTB balance (*UTB*). The coefficient on *Adversarial_Disc*×*UTB* captures the differential investor reactions to disclosed UTBs for companies with adversarial disclosures relative to those without. If investors interpret companies' adversarial disclosures about tax enforcement as a signal of their confidence in the tax positions and their ability to defend tax benefits upon tax authority challenge, we expect the

coefficient on *Adversarial_Disc×UTB* to be positive. In contrast, if investors negatively perceive companies' adversarial disclosures, we expect the coefficient to be negative. Following prior research (Robinson et al., 2017; Robinson and Schmidt, 2013), we control for companies' performance such as unexpected earnings (*UE*) and other factors that are associated with stock returns in equation (3). We include industry and year fixed effects and cluster standard errors by month-year. For this analysis, we use the baseline sample and further require non-missing variables to estimate equation (3).

Table 7 presents results. We find a statistically significant and negative coefficient on *Adversarial_Disc×UTB*. Specifically, holding the amount of *UTB* constant, our estimate indicates a 22.54 percentage-point lower three-day CAR for companies with adversarial disclosures relative to those without. We acknowledge that equation (3) is a joint test of investors' perceptions of companies' tax enforcement-related adversarial disclosures and the incorporation of such perceptions into UTB valuation. However, the findings seem to suggest that investors respond more negatively to disclosed UTBs when companies make adversarial disclosures about tax enforcement.

5.3 Adversarial disclosures and IRS attention

In our last supplemental test, we explore IRS attention as a consequence of companies' adversarial disclosures (Bozanic et al., 2017) by estimating the following OLS regression:

$$\begin{aligned} IRS\_Attention_{i,t+n} = \; & Adversarial\_Disc_{i,t} + ETR_{i,t} + CETR_{i,t} + BTD_{i,t} + UTB_{i,t} + DTA_{i,t} \\ & + DTL_{i,t} + Size_{i,t} + MTB_{i,t} + MNC_{i,t} + Leverage_{i,t} + R\&D_{i,t} \\ & + Inventory_{i,t} + Capex_{i,t} + ROA_{i,t} + \Delta NOL_{i,t} + Cash_{i,t} \\ & + Sales\_Growth_{i,t} + Intangibles_{i,t} + Fixed\ Effects + \varepsilon_{i,t} \end{aligned} \quad (4)$$

Following Bozanic et al. (2017), we define *IRS_Attention* as the natural log of one plus the number of times the IRS downloads a company's 10-K filing. Given that it is unclear how quickly the IRS will respond to companies' adversarial disclosures about tax enforcement, we estimate

equation (4) using *IRS_Attention* measured in each of the three years following companies' adversarial disclosures. If the IRS interprets companies' adversarial disclosures as an open challenge to the tax authority, we expect to find increased IRS attention to companies following such disclosure. Alternatively, if the IRS interprets such disclosures as a signal of companies' confidence in the underlying tax positions, we might observe lower attention to companies with adversarial disclosures than those without, due to the limited resources of the IRS (Nessa et al., 2020). We use the same set of control variables as those in Bozanic et al. (2017), include industry and year fixed effects, and cluster standard errors by company.

Table 8 presents the results of estimating equation (4). We find a positive and significant coefficient on *Adversarial_Disc* in two out of the three columns, suggesting that companies with adversarial disclosures are associated with greater IRS attention to their financial statements after such disclosure. This positive association persists for two years following companies' adversarial disclosures, before it becomes statistically insignificant in the third year. Using column (1) estimates as an example, we find that adversarial disclosures are associated with an 8.45 percent increase in *IRS Attention* relative to the unconditional mean (untabulated). These findings are consistent with adversarial disclosures being associated with greater IRS scrutiny, which provides additional insights into the tax authorities' perceptions of such disclosures.

VI. CONCLUSION

This study examines companies' adversarial disclosures about tax enforcement—a novel aspect of the tax enforcement process. Specifically, we focus on adversarial disclosures from companies' tax footnotes in SEC 10-K filings, where companies explicitly and publicly disagree with tax authorities or express their willingness to litigate if the issues under audit are not resolved. We provide rich descriptive evidence about these companies and find that they tend to be larger,

industry leaders, have more foreign activity, and are more likely to have similar adversarial disclosures about non-tax contingency issues. We also document varying relations between specific tax planning opportunities and companies' adversarial disclosures about tax enforcement. We next examine the implications of making adversarial disclosures and find that, on average, companies with such disclosures are more likely to experience unfavorable outcomes in future settlements than those without. Relatedly, we find some evidence that equity investors more negatively value disclosed UTBs for companies with adversarial disclosures relative to those without. These findings suggest that companies' adversarial disclosures could indicate negative future cash tax outflows. Finally, we document a positive relation between adversarial disclosures and future IRS attention, suggesting potential regulatory implications for such disclosures.

Our findings contribute to the tax literature by providing large-sample evidence on the determinants and implications of a specific type of voluntary, public disclosure about tax enforcement. Unlike prior studies that focus on the impact of perceived or actual tax enforcement actions on companies' tax avoidance, our results shed light on a specific aspect of the tax settlement process, which is relatively unexplored in the literature. In addition, our findings that companies' adversarial disclosures have implications for tax audit outcomes and subsequent tax authority scrutiny should be of interest to managers when evaluating the costs of making such disclosures and to investors when evaluating tax uncertainty. Finally, our study contributes to research examining voluntary tax disclosures, which are still relatively rare, by investigating a unique setting in which companies voluntarily reveal a stance toward ongoing enforcement.

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Appendix A: Example Companies' Adversarial Disclosures about Tax Enforcement

This appendix provides illustrative examples of companies' adversarial disclosures about tax enforcement (*Adversarial_Disc* = 1). Keywords and phrases that allow us to classify a company-year as having an adversarial disclosure are bolded, and those that allow us to further classify the disclosure as expressing strong disagreement (*Strong_Adversarial_Disc* = 1) are bolded and underlined. For parsimony, we only include relevant excerpts from the income tax footnote.

Example One: Silicon Laboratories Inc, 2017 FY 10-K filing (*Weak_Adversarial_Disc* = 1)

"…The Norwegian Tax Administration ("NTA") has completed its examination of the Company's Norwegian subsidiary for income tax matters…The Company ***disagrees*** *with the NTA's assessment and believes the Company's position on this matter is more likely than not to be sustained. The Company plans to exhaust all available administrative remedies, and if unable to resolve this matter through administrative remedies with the NTA, the Company plans to pursue judicial remedies. …"*

Example Two: Donaldson Co Inc, 2018 FY 10-K filing (*Strong_Adversarial_Disc* = 1)

"*…Currently, the Company is under examination by the IRS for fiscal years 2015 and 2016, and on May 29, 2018, the IRS proposed an adjustment related to the Company's foreign legal entity restructuring which was completed in fiscal 2015. The Company* ***disagrees*** *with the IRS proposal and believes their claims to be* ***without merit****. The Company will* ***vigorously*** *defend its position, beginning with an attempt to resolve these matters at the IRS Appellate level and through litigation if necessary. …*"

Appendix B: Variable Definitions

Variable	Description
Adversarial Disclosure Variables	
Adversarial_Disc	Indicator variable equal to one if the company's current year income tax footnote includes one of the following words or phrases: "disagree", "has not agreed", "did not agree", "do not agree", "without merit", "no merit", "litigate", "litigating", "protest", "contest", "petition", or "vigorous".
Weak_Adversarial_Disc	Indicator variable equal to one if the company's current year income tax footnote includes one of the following words or phrases: "disagree", "has not agreed", "did not agree", "do not agree", "litigate", "litigating", "protest", "contest", or "petition".
Strong_Adversarial_Disc	Indicator variable equal to one if the company's current year income tax footnote includes one of the following words or phrases: "without merit", "no merit", or "vigorous".
Other Variables	
Advertising	Advertising expense (*xad*) scaled by total assets, where advertising expense is set to zero if missing.
Big4	Indicator variable equal to one if the company has a Big 4 auditor (*au* = 4, 5, 6, or 7).
BTD	Book-tax difference, calculated as (*pi* - [(*txfed* + *txfo*)/statutory tax rate - Δ*NOL*])/*at*.
BTM	Book-to-market ratio, calculated as book value of equity (*ceq*) over market value of equity if book equity is positive, and zero otherwise.
Capex	Capital expenditures (*capx*) scaled by total assets.
CAR_10K	Cumulative abnormal stock returns in a three-day window centered on the 10-K filing date (*rdq*). We use the CRSP value-weighted portfolio as the market benchmark.
Cash	Cash holdings (*ch*) scaled by total assets.
CETR	Income taxes paid (*txpd*) scaled by pretax book income adjusted for special items (*pi* - *spi*).
DTA	Net deferred tax assets (*txndba*) scaled by total assets.
DTL	Net deferred tax liability (*txndbl*) scaled by total assets.
EqEarn	Indicator variable equal to one if equity earnings (*esub*) is greater than zero.
ETR	Income tax expense (*txt*) scaled by pretax book income adjusted for special items (*pi* - *spi*).
Foreign	Pre-tax foreign income (*pifo*) scaled by total assets, where pre-tax foreign income is set to zero if missing.
High_Litigation	Indicator variable equal to one if the company is in a high-litigation industry, based on Francis et al. (1994).

IIQ	Following McGuire et al. (2018), this measure equals the decile rank based on the firm's earnings announcement speed, calculated as the number of days between fiscal year end and earnings announcement date, multiplied by negative one and scaled by 365. Next, the decile rank is multiplied by 0.1 so that this measure is bounded by zero and one. Lastly, this measure is reset to zero if the firm reports a restatement due to unintentional errors.
Industry_Lead	Indicator variable equal to one if the company is in the top decile of market share within an industry-year group. Market share is defined as total sales divided by industry sales. Industry is defined based on the Fama-French 17 industry classifications.
Institute_Own%	Institutional ownership, measured as the total shares owned by institutions divided by the maximum shares owned per company-year.
Intangibles	Total intangible assets (*intan*) scaled by total assets, where intangibles are set to zero if missing.
Inventory	Inventory (*invt*) scaled by total assets.
IRS_Attention	Natural log of one plus the number of times the IRS downloads a company's 10-K filing.
lag_ETR	Lagged GAAP effective tax rate, calculated as lagged income tax expense (*txt*) divided by lagged pre-tax income (*pi*).
Large_Settle (Unfav)	Indicator variable equal to one if a company reports unfavorable outcomes related to large settlements based on Finley (2019) in any year between *t*+1 through *t*+3, and zero otherwise. Appendix C provides details.
Leverage	Current and long-term debt (*dlc* + *dltt*) scaled by total assets.
Litigation	Indicator variable equal to one if litigation settlement (*seta* or *setp*) is negative.
Ln_MVE	Natural log of market value of equity, which is the number of common shares outstanding (*csho*) times price per share (*prcc_f*).
Loss	Indicator variable equal to one if pre-tax income (*pi*) is less than zero.
MezzFin	Mezzanine financing, calculated as convertible debt and preferred stock (*dcpstk*) scaled by total assets.
Miss_Nontax_Disc	Indicator variable equal to one if missing contingency disclosure to construct *Nontax_Disc*.
MNC	Indicator variable equal to one for multinational companies that report non-missing foreign pretax income (*pifo*).
MTB	Market-to-book ratio, calculated as market value of equity (*csho* × *prcc_f*) over book value of equity (*ceq*) if book equity is positive, and zero otherwise.
NOL	Indicator variable equal to one if the tax loss carryforward (*tlcf*) is greater than zero.
Δ*NOL*	Change in net operating loss (change in *tlcf* from year *t*-1 to *t*, scaled by *at*).

Nontax_Disc	Indicator variable equal to one if a company's current year contingency disclosure includes any of the words or phrases that define *Adversarial_Disc*.
PPE	Gross property, plant, and equipment (*ppegt*) scaled by total assets.
PYIncr (Unfav)	Sum of UTB increases related to prior tax positions disclosed in tax footnote (*txtpospinc*) for years *t*+1 through *t*+3, scaled by total assets.
PYDecr (Fav)	Sum of UTB decreases related to prior tax positions disclosed in tax footnote (*txtpospdec*) for years *t*+1 through *t*+3, scaled by total assets.
R&D	Research and development expense (*xrd*) scaled by total assets, where research and development expense is set to zero if missing.
ROA	Pre-tax income (*pi*) scaled by total assets.
Δ*ROA*	Change in pre-tax income (*pi*) over total assets, from year *t*-1 to *t*.
SalesGrowth	One-year change in sales (*sale*) scaled by lagged sales.
Settle	Sum of settlements disclosed in tax footnote (*txtubsettle*) for years *t*+1 through *t*+3 scaled by total assets.
Size	Natural log of total assets (*at*).
Settle (Unfav)	Indicator variable equal to one if a company reports unfavorable settlements based on Finley (2019) in any year between *t*+1 through *t*+3, and zero otherwise. Appendix C provides details.
UE	Forecast error, computed as reported EPS less the median I/B/E/S analyst forecast, scaled by lagged price per share (*prcc_f*).
UTB	Ending UTB reserve (*txtubend*) scaled by lagged total assets.

Appendix B defines all variables used in regression analyses. We obtain income tax footnote data from Hoitash et al. (2021) (http://www.xbrlresearch.com/). All other variables are obtained from publicly available sources, including Compustat, CRSP, and I/B/E/S.

Appendix C: Finley (2019) Settlement Favorability Measure

In this appendix, we first provide details about the settlement favorability measure developed and examined in Finley (2019). We then describe our approach to construct *Settle (Unfav)* and *Large_Settle (Unfav)*, which we use as the dependent variables in the Table 5 analysis.

Finley (2019) Settlement Favorability Measure

Finley (2019) leverages the interest and penalties component of the UTB tabular roll-forward to measure tax settlement favorability (relative to managers' expectations). ASC 740-10 (i.e., previously FIN 48) requires that managers accrue interest and penalties associated with UTBs. In addition, if the amount of interest and penalties ultimately settled upon audit is greater (less) than the amount accrued, companies will recognize an expense (benefit) attributable to this component in the year of settlement. Thus, the amount of interest and penalties accrued in a year should be correlated with the UTBs claimed in the current year, UTBs claimed in prior years that have not been resolved, tax settlements, and statute of limitation expirations. To develop the measure of tax settlement favorability, Finley (2019) estimates the following model (see equation (1) in Finley (2019)):

$$INTPEN_{i,t} = \beta_0 + \beta_1 * CY\_UTB_{i,t} + \beta_2 * OPEN\_UTB_{i,t} + \beta_3 * SOL\_UTB_{i,t} + \varepsilon \quad \text{(A1)}$$

INTPEN is the current year interest and penalties relating to UTBs reported in the income statement. Because the model controls for the amount of interest and penalties stemming from UTB accruals for current period positions (*CY_UTB*), cumulative amount of UTBs that are unresolved at the beginning of year (*OPEN_UTB*), and UTB reversals due to statute of limitations expirations (*SOL_UTB*), the residual should then capture changes in interest and penalties that are attributable to the difference in settlement amount and the accrued amount. Specifically, a positive (negative) residual indicates that the amount accrued is less (greater) than the amount settled, suggesting unfavorable (favorable) tax settlement outcomes.

Applying Finley (2019) to our setting

To apply the Finley (2019) to our setting, we start with the base sample and impose similar sample selection criteria as reported in Table 1 of Finley (2019), including retaining only large settlements where the dollar amount settled is above the sample median. We estimate equation (A1) above and classify those with positive residuals as unfavorable tax settlements. Finally, we create an indicator variable, *Large_Settle (Unfav)*, which equals one for a company in year *t* if it has an unfavorable settlement in any year from *t*+1 to *t*+3. We use a three-year window because the timing of when a currently disclosed audit will ultimately settle is unclear.

Because the primary research question in Finley (2019) is to examine whether and how companies change tax avoidance in response to favorable versus unfavorable settlements, Finley (2019) only retains settlements of large dollar values (i.e., settlement amount is above the sample median). He argues that companies are most likely to respond to cases where settlement amounts are economically meaningful. We do not consider this sample selection criterion critical for our setting as it is unclear whether and how adversarial disclosures are related to settlement magnitude. Thus, we repeat the estimation while relaxing the requirement that considers the settlement amount. We construct another indicator variable, *Settle (Unfav)*, which equals one for a company-year if it reports an unfavorable settlement, regardless of the amount, in the following three-year window.

Figure 1
***Adversarial_Disc* by Industry**

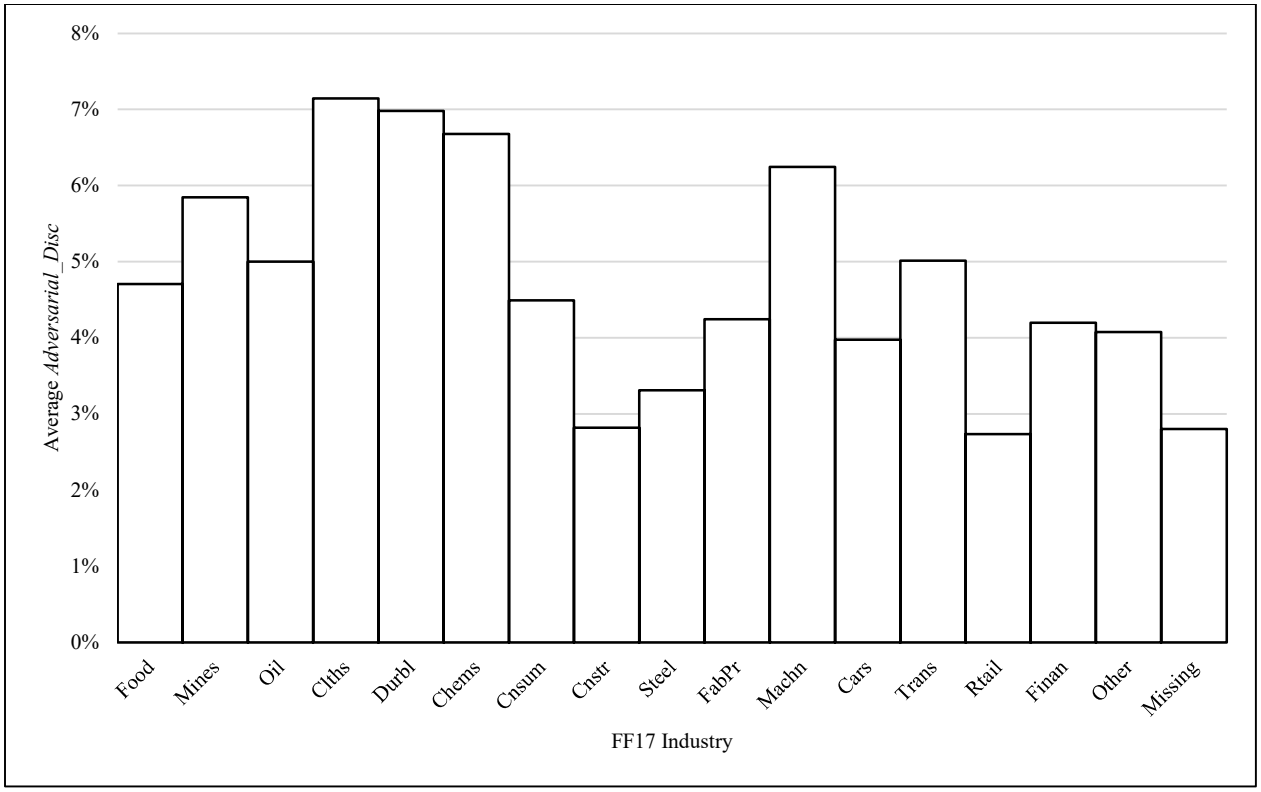
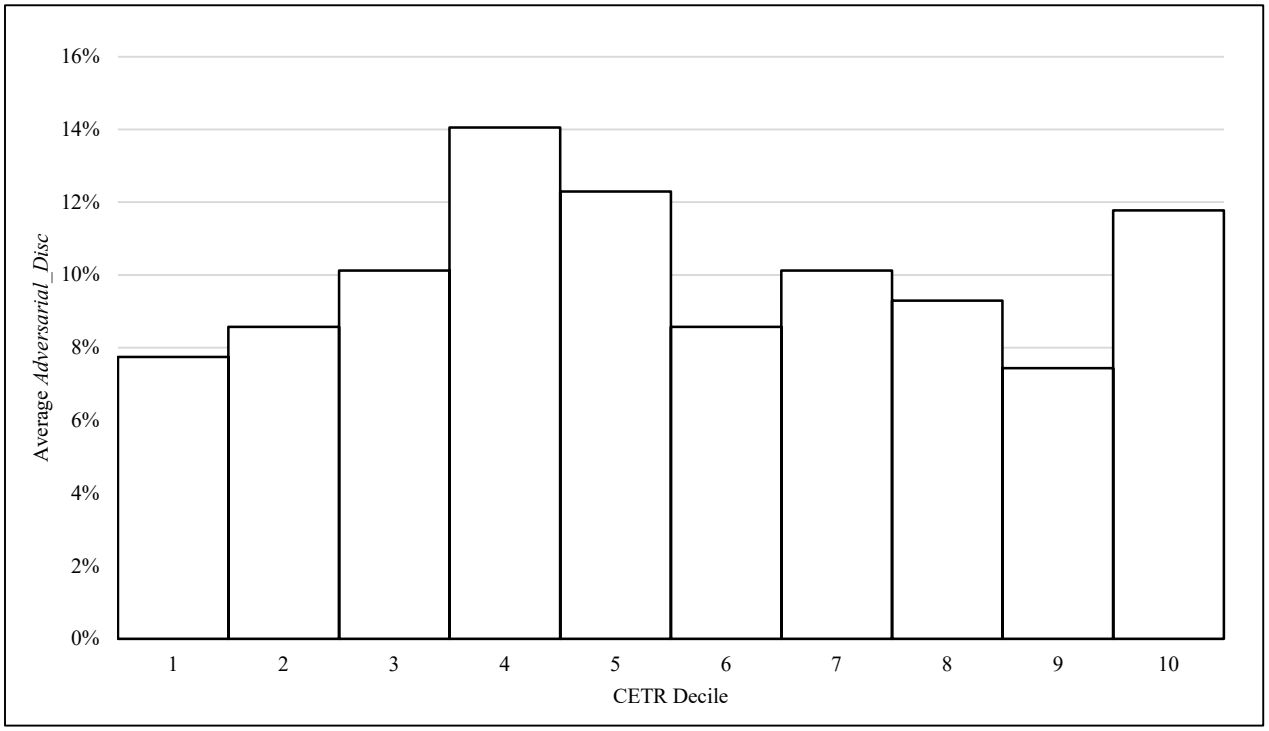


Figure 1 plots the distribution of *Adversarial_Disc* by industry. For parsimony, we use Fama-French 17 industry classifications. The bar graph represents the percentage of company-years with adversarial disclosures within each industry. See Appendix B for detailed variable definitions.

Figure 2
***Adversarial_Disc* by Tax Avoidance**

Panel A: Adversarial Disclosure by CETR Decile



Panel B: Descriptive Statistics of CETR by CETR Decile

***CETR* Decile**	***CETR* Mean**	***CETR* Median**	***CETR* Min**	***CETR* Max**
1	0.0025	0.0000	0.0000	0.0134
2	0.0382	0.0366	0.0134	0.0681
3	0.0995	0.0994	0.0681	0.1300
4	0.1564	0.1570	0.1300	0.1805
5	0.2009	0.2008	0.1805	0.2206
6	0.2413	0.2415	0.2206	0.2623
7	0.2840	0.2840	0.2623	0.3064
8	0.3310	0.3305	0.3064	0.3571
9	0.3985	0.3928	0.3571	0.4590
10	0.7266	0.6640	0.4592	1.0000

Figure 2, Panel A plots the distribution of *Adversarial_Disc* by cash effective tax rate (*CETR*) decile. Panel B reports descriptive statistics of *CETR* by *CETR* decile. *CETR* is defined as the cash taxes paid scaled by pretax income. We reset *CETR* to missing if the denominator is non-positive. We further winsorize the *CETR* value at zero and one. The bar graph in Panel A represents the percentage of company-years with adversarial disclosures (i.e., *Adversarial_Disc* = 1) within each *CETR* decile. See Appendix B for detailed variable definitions.

Figure 3
***Adversarial_Disc* and External Auditors**

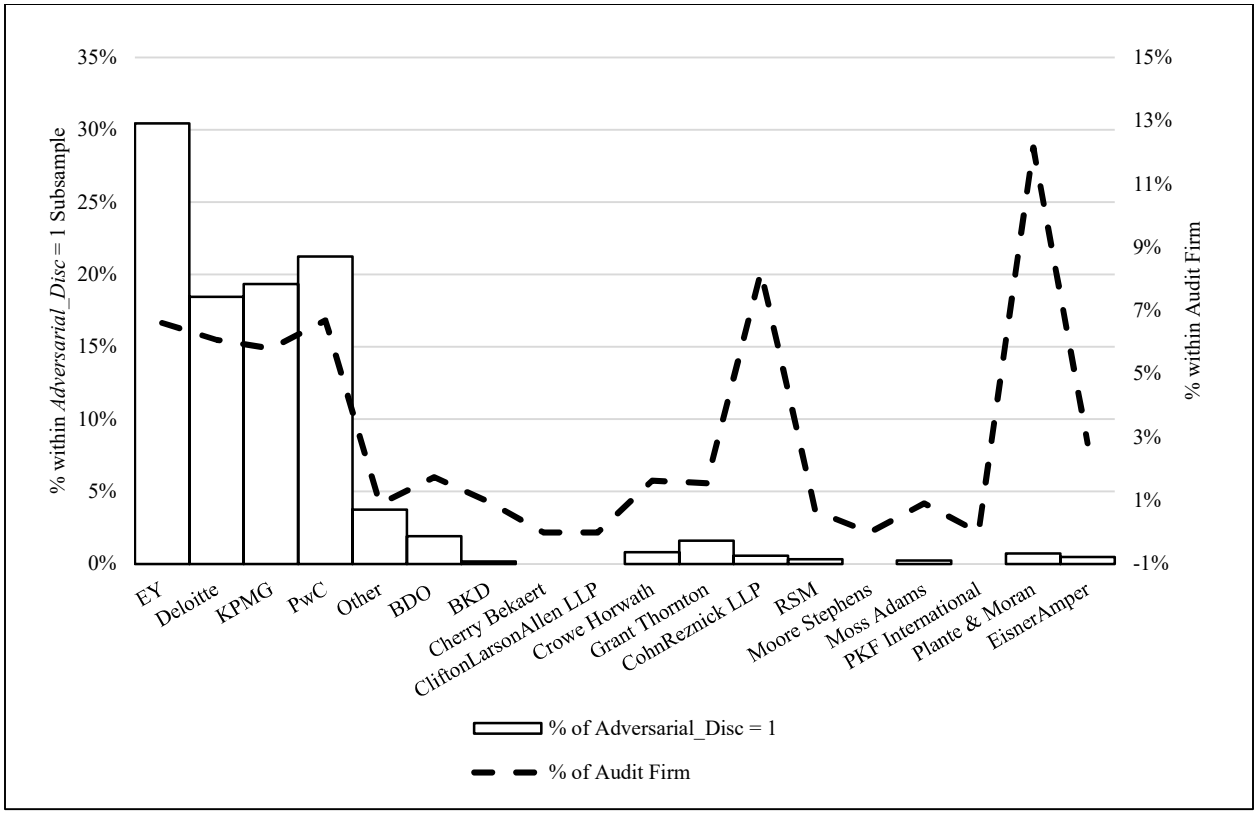


Figure 3 plots the distribution of *Adversarial_Disc* by audit firms with at least ten observations. We obtain auditor information from Audit Analytics. The bar graph and left axis represent the percentage of treated company-years (i.e., *Adversarial_Disc* = 1) that engage a specific audit firm. The line graph and right axis represent the within-audit firm percentage of company-years with adversarial disclosures (i.e., *Adversarial_Disc* = 1). See Appendix B for detailed variable definitions.

Table 1: Sample Selection

	Company-Years	Companies
Initial sample of Compustat firms, 2010 – 2019	113,690	17,731
Less:		
Non-US Firms	(33,338)	(5,160)
Subsidiaries	(1,988)	(253)
Non-corporate entities	(4,355)	(506)
Missing assets	(22,324)	(3,544)
Utilities	(1,232)	(158)
Without machine-readable income tax footnotes	(15,426)	(1,771)
Having a remote probability of being audited	(6,049)	(1,350)
***Adversarial_Disc* (Base) Sample**	**27,890**	**4,756**
Regression Sample		
Determinants test sample (Table 3)	20,512	3,807
Tax audit outcome test sample (Table 4)	4,767	1,236

Table 1 provides detailed sample selection procedures to construct the *Adversarial_Disc* sample, which serves as the starting point for the regression samples used to estimate equations (1) and (2). Additional sample attrition occurs due to requiring additional control variables or requiring non-zero settlements in the tax audit outcome test. See Appendix B for detailed variable definitions.

Table 2
Frequency of Issues under Audit

	Federal Audits		Foreign Audits	
Description of Audit Issue	**N**	**%**	**N**	**%**
Intercompany Transactions	11	25.0%	6	15.0%
Credits and Tax Attributes	7	15.9%	2	5.0%
Transfer Pricing	7	15.9%	10	25.0%
M&A and Restructuring Issues (e.g., Goodwill, Restructuring)	5	11.4%	8	20.0%
Tax Treatment of Income & Deductions	5	11.4%	2	5.0%
Income Allocation	3	6.8%	2	5.0%
Other Tax Issues (e.g., Bankruptcy, Timing Differences)	3	6.8%	3	7.5%
Financial Instruments	2	4.5%	0	0.0%
Other International Tax Issues (e.g., State Aid, Subpart F Income)	1	2.3%	3	7.5%
Fixed Assets	0	0.0%	1	2.5%
Withholding Tax	0	0.0%	3	7.5%
Total Unique Audits with Detailed Disclosure	**44**	**100%**	**40**	**100%**

Table 2 presents the frequency of issues under audit among federal and foreign audits, respectively. These statistics are based on the unique audits disclosed by a subsample of 294 company-years disclosing an adversarial stance toward tax enforcement using strong language (i.e., *Strong_Adversarial_Disc* = 1). We only include in this table audits for which companies provide detailed disclosure of the issue under audit.

Table 3
Determinants of Adversarial Disclosures about Tax Enforcement (RQ1)

Panel A: Descriptive Statistics (N = 20,512)

	Mean	S.D.	P25	Median	P75
Adversarial_Disc	0.052	0.222	0.000	0.000	0.000
Size	7.075	2.025	5.715	7.074	8.402
Industry_Lead	0.163	0.369	0.000	0.000	0.000
High_Litigation	0.323	0.468	0.000	0.000	1.000
Foreign	0.012	0.035	0.000	0.000	0.016
Intangibles	0.186	0.213	0.009	0.095	0.317
R&D	0.053	0.113	0.000	0.000	0.051
Leverage	0.223	0.220	0.036	0.166	0.346
NOL	0.650	0.477	0.000	1.000	1.000
ΔNOL	0.069	0.264	-0.001	0.000	0.017
Capex	0.036	0.045	0.006	0.021	0.046
PPE	0.382	0.407	0.066	0.241	0.581
Advertising	0.011	0.028	0.000	0.000	0.006
ROA	-0.008	0.218	-0.012	0.029	0.090
MTB	3.787	5.899	1.185	2.059	3.924
EqEarn	0.145	0.352	0.000	0.000	0.000
IIQ	0.581	0.270	0.400	0.600	0.800
Nontax_Disc	0.330	0.470	0.000	0.000	1.000
Miss_Nontax_Disc	0.038	0.190	0.000	0.000	0.000
Big4	0.726	0.446	0.000	1.000	1.000
Institute_Own%	0.685	0.292	0.486	0.769	0.912
Loss	0.280	0.449	0.000	0.000	1.000

Table 3, Panel A reports descriptive statistics for variables used in estimating equation (1). All continuous variables are winsorized at the 1st and 99th percentiles. See Appendix B for detailed variable definitions.

Table 3 (continued)
Determinants of Adversarial Disclosures about Tax Enforcement (RQ1)

Panel B: Regression Analysis

DV =	*Adversarial_Disc* = 1
Control Group =	*Adversarial_Disc* = 0
Size	0.0166***
	(4.27)
Industry_Lead	0.0506***
	(3.44)
High_Litigation	0.0368**
	(2.54)
Foreign	0.3469***
	(3.10)
Intangibles	0.0004
	(0.02)
R&D	-0.0157
	(-0.43)
Leverage	-0.0210
	(-1.35)
NOL	0.0041
	(0.49)
Δ*NOL*	-0.0032
	(-0.52)
Capex	-0.2033***
	(-3.01)
PPE	0.0190
	(1.62)
Advertising	0.1832
	(1.40)
ROA	-0.0293*
	(-1.85)
MTB	-0.0003
	(-0.78)
EqEarn	0.0097
	(0.81)
IIQ	-0.0023
	(-0.16)
Nontax_Disc	0.0355***
	(4.75)
Miss_Nontax_Disc	0.0127
	(0.72)
Big4	0.0021
	(0.32)
Institute_Own%	-0.0134
	(-0.91)
Loss	0.0034
	(0.54)
Fixed Effects	Industry, Year
N. Observations	19,254
Adjusted R-squared	0.0746

Table 3 (continued)
Determinants of Adversarial Disclosures about Tax Enforcement (RQ1)

Table 3, Panel B presents the results of estimating equation (1). The dependent variable and the subsample serving as the control group are described in the column heading. *t*-statistics are reported in parentheses below each coefficient estimate. Standard errors are clustered at the company level. *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels using two-tailed tests. All continuous variables are winsorized at the 1st and 99th percentiles. See Appendix B for detailed variable definitions.

Table 4
Adversarial Disclosures about Tax Enforcement and Tax Audit Outcomes (RQ2)

Panel A: Descriptive Statistics (N = 4,767)

	Mean	S.D.	P25	Median	P75
Adversarial_Disc	0.097	0.296	0.000	0.000	0.000
Settle	0.003	0.005	0.000	0.001	0.003
PYIncr (Unfav)	0.003	0.004	0.000	0.001	0.004
PYDecr (Fav)	0.003	0.004	0.000	0.001	0.003
UTB	0.011	0.014	0.003	0.007	0.014
BTD	0.008	0.059	-0.007	0.015	0.036
Leverage	0.250	0.202	0.089	0.226	0.357
Size	8.100	1.740	6.904	8.045	9.173
ROA	0.073	0.095	0.027	0.073	0.122
Foreign	0.025	0.039	0.000	0.013	0.044
R&D	0.026	0.043	0.000	0.003	0.032
lag_ETR	0.221	0.518	0.197	0.307	0.365
EqEarn	0.244	0.429	0.000	0.000	0.000
MezzFin	0.012	0.042	0.000	0.000	0.000
Big4	0.925	0.264	1.000	1.000	1.000
Litigation	0.123	0.328	0.000	0.000	0.000
NOL	0.713	0.453	0.000	1.000	1.000
Loss	0.144	0.351	0.000	0.000	0.000

Table 4, Panel A reports descriptive statistics for variables used in estimating equation (2), for companies with non-zero settlements. All continuous variables are winsorized at the 1st and 99th percentiles. See Appendix B for detailed variable definitions.

Table 4 (continued)
Adversarial Disclosures about Tax Enforcement and Tax Audit Outcomes (RQ2)

Panel B: Regression Analysis within Subsample Reporting Settlements

Treatment Group =		*Adversarial_Disc* = 1	
Control Group =		*Adversarial_Disc* = 0	
DV =	*Settle*	*PYIncr (Unfav)*	*PYDecr (Fav)*
	(1)	(2)	(3)
Adversarial_Disc	0.0015***	0.0016***	0.0005
	(3.85)	(3.95)	(1.51)
UTB	0.1493***	0.0686***	0.1515***
	(10.15)	(6.69)	(11.61)
BTD	-0.0024	-0.0057**	-0.0012
	(-1.11)	(-2.36)	(-0.56)
Leverage	0.0001	0.0003	-0.0000
	(0.10)	(0.53)	(-0.01)
Size	-0.0002**	0.0003***	0.0004***
	(-2.12)	(3.51)	(5.07)
ROA	0.0004	0.0057***	0.0017
	(0.32)	(3.74)	(1.14)
Foreign	0.0057*	0.0110***	0.0004
	(1.89)	(3.18)	(0.12)
R&D	-0.0000	0.0075**	-0.0028
	(-0.00)	(2.25)	(-0.84)
lag_ETR	0.0000	0.0002*	-0.0001
	(0.02)	(1.86)	(-1.10)
EqEarn	-0.0000	-0.0001	0.0000
	(-0.17)	(-0.31)	(0.10)
MezzFin	-0.0006	-0.0005	-0.0021
	(-0.23)	(-0.23)	(-1.05)
Big4	-0.0008**	-0.0002	-0.0001
	(-2.06)	(-0.51)	(-0.19)
Litigation	0.0001	-0.0001	0.0002
	(0.27)	(-0.73)	(0.95)
NOL	-0.0002	0.0003	-0.0003
	(-1.28)	(1.51)	(-1.45)
Loss	0.0000	-0.0000	0.0003
	(0.04)	(-0.05)	(0.86)
Fixed Effects	Industry, Year	Industry, Year	Industry, Year
N. Observations	4,767	4,767	4,767
Adjusted R-squared	0.2622	0.1615	0.3034

Table 4, Panel B represents the results of estimating equation (2) for companies with non-zero settlements. The treatment and control groups for each specification are described in column headings. *t*-statistics are reported in parentheses below each coefficient estimate. Standard errors are clustered at the company level. *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels using two-tailed tests. All continuous variables are winsorized at the 1st and 99th percentiles. See Appendix B for detailed variable definitions.

Table 5
Adversarial Disclosure about Tax Enforcement and Tax Audit Outcomes (RQ2): An Alternative Measure

Treatment Group =	*Adversarial_Disc* = 1	
Control Group =	*Adversarial_Disc* = 0	
DV =	*Settle (Unfav)*	*Large_Settle (Unfav)*
	(1)	(2)
Adversarial_Disc	0.0324**	0.0065
	(2.07)	(0.95)
UTB	0.1527**	-0.0381
	(2.03)	(-1.57)
BTD	-0.2224***	-0.0574***
	(-4.71)	(-3.14)
Leverage	-0.0114	-0.0059**
	(-1.49)	(-2.20)
Size	0.0328***	0.0056***
	(12.38)	(5.39)
ROA	0.1788***	0.0482***
	(3.84)	(2.69)
Foreign	0.3599***	0.0862***
	(4.48)	(2.69)
R&D	-0.0158	-0.0102
	(-0.98)	(-1.62)
lag_ETR	0.0010	0.0003
	(0.46)	(0.29)
EqEarn	0.0117	0.0040
	(1.18)	(0.99)
MezzFin	-0.0227	0.0008
	(-1.45)	(0.15)
Big4	-0.0319***	-0.0036
	(-5.46)	(-1.51)
Litigation	-0.0014	0.0002
	(-0.18)	(0.07)
NOL	-0.0104	-0.0041
	(-1.40)	(-1.31)
Loss	0.0027	0.0010
	(0.57)	(0.48)
Fixed Effects	Industry, Year	Industry, Year
N. Observations	19,913	19,913
Adjusted R-squared	0.1187	0.0200

Table 5 represents the results of estimating equation (2) where the dependent variable is replaced by *Settle (Unfav)* and *Large_Settle (Unfav)*. The treatment and control groups for each specification are described in column headings. *t*-statistics are reported in parentheses below each coefficient estimate. Standard errors are clustered at the company level. *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels using two-tailed tests. All continuous variables are winsorized at the 1st and 99th percentiles. See Appendix B for detailed variable definitions.

Table 6
Strong vs. Weak Adversarial Disclosure

Panel A: Determinants of Adversarial_Disc

DV =	*Strong_Adversarial_Disc* = 1
Control Group =	*Weak_Adversarial_Disc* = 1
Size	0.0072
	(0.31)
Industry_Lead	0.0831
	(1.02)
High_Litigation	0.0631
	(0.48)
Foreign	-0.7276
	(-1.16)
Intangibles	0.0187
	(0.13)
R&D	-0.9824
	(-1.44)
Leverage	-0.1610
	(-1.05)
NOL	0.0520
	(0.98)
Δ*NOL*	-0.1553
	(-1.28)
Capex	0.1204
	(0.12)
PPE	-0.1073
	(-0.97)
Advertising	0.2670
	(0.30)
ROA	-0.1236
	(-0.45)
MTB	-0.0010
	(-0.18)
EqEarn	0.0420
	(0.71)
IIQ	-0.1439
	(-1.12)
Nontax_Disc	0.0234
	(0.50)
Miss_Nontax_Disc	-0.0580
	(-0.78)
Big4	-0.0120
	(-0.12)
Institute_Own%	-0.1829
	(-1.48)
Loss	-0.0920*
	(-1.72)
Fixed Effects	Industry, Year
N. Observations	1,030
Adjusted R-squared	0.1986

Table 6 (continued)
Strong vs. Weak *Adversarial_Disc*

Panel B: Adversarial_Disc and Tax Audit Outcomes

Treatment Group =	*Strong_Adversarial_Disc*= 1		
Control Group =	*Weak_Adversarial_Disc* = 1		
DV =	*Settle*	*PYIncr (Unfav)*	*PYDecr (Fav)*
	(1)	(2)	(3)
Strong_Adversarial_Disc	-0.0001	-0.0001	-0.0019**
	(-0.09)	(-0.09)	(-2.26)
UTB	0.1715***	0.0970***	0.0664*
	(4.51)	(2.92)	(1.95)
BTD	-0.0101	0.0010	-0.0030
	(-1.38)	(0.07)	(-0.36)
Leverage	0.0007	-0.0014	-0.0013
	(0.30)	(-0.43)	(-0.61)
Size	-0.0005*	0.0012**	0.0005**
	(-1.78)	(2.34)	(2.52)
ROA	0.0059	0.0136	0.0032
	(0.81)	(1.52)	(0.42)
Foreign	0.0035	-0.0115	-0.0071
	(0.32)	(-0.65)	(-0.48)
R&D	-0.0189	-0.0014	0.0171
	(-1.35)	(-0.12)	(1.25)
lag_ETR	-0.0000	0.0009	-0.0002
	(-0.02)	(1.45)	(-0.56)
EqEarn	-0.0015**	-0.0011	-0.0012*
	(-2.06)	(-1.07)	(-1.82)
MezzFin	0.0252	-0.0093	-0.0112
	(0.92)	(-0.49)	(-0.72)
Big4	0.0005	-0.0019	-0.0008
	(0.28)	(-1.15)	(-0.40)
Litigation	-0.0008	-0.0026**	0.0000
	(-1.09)	(-2.41)	(0.01)
NOL	-0.0001	-0.0001	0.0022**
	(-0.17)	(-0.07)	(2.59)
Loss	-0.0016	-0.0002	-0.0006
	(-1.43)	(-0.19)	(-0.45)
Fixed Effects	Industry, Year	Industry, Year	Industry, Year
N. Observations	464	464	464
Adjusted R-squared	0.4191	0.2438	0.2566

Table 6 (continued)
Strong vs. Weak *Adversarial_Disc*

Panel C: Adversarial_Disc and Alternative Measure of Tax Audit Outcomes

Treatment Group =	*Strong_Adversarial_Disc* = 1	
Control Group =	*Weak_Adversarial_Disc* = 1	
DV =	*Settle (Unfav)*	*Large_Settle (Unfav)*
	(1)	(2)
Adversarial_Disc	0.1224***	0.0438**
	(3.54)	(2.48)
UTB	-0.3191	-0.1213
	(-0.75)	(-0.67)
BTD	-0.2674	-0.0088
	(-1.13)	(-0.08)
Leverage	-0.1275*	-0.0380
	(-1.81)	(-1.29)
Size	0.0502***	0.0067
	(4.92)	(1.20)
ROA	0.1891	0.0094
	(0.76)	(0.08)
Foreign	0.3046	-0.0451
	(0.87)	(-0.33)
R&D	0.3136	-0.0716
	(1.05)	(-0.52)
lag_ETR	0.0065	0.0018
	(0.68)	(0.61)
EqEarn	0.0437	-0.0211
	(1.05)	(-0.92)
MezzFin	-0.2497	-0.0223
	(-1.10)	(-0.17)
Big4	-0.0198	0.0065
	(-0.45)	(0.36)
Litigation	0.0497	-0.0148
	(1.29)	(-1.05)
NOL	-0.0598*	-0.0259
	(-1.78)	(-1.52)
Loss	0.0378	-0.0014
	(0.97)	(-0.12)
Fixed Effects	Industry, Year	Industry, Year
N. Observations	1,089	1,089
Adjusted R-squared	0.2094	0.0492

Table 6 presents the results of re-estimating equations (1) and (2) within the subsample of companies with adversarial disclosures. Panels A through C correspond to the analysis in Panel B of Table 3, Panel B of Table 4, and Table 5, respectively. In all panels, we compare companies disclosing an adversarial stance toward tax enforcement using strong language (*Strong_Adversarial_Disc*) to those making adversarial disclosure without strong language (*Weak_Adversarial_Disc*). *t*-statistics are reported in parentheses below each coefficient estimate. Standard errors are clustered at the company level. *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels using two-tailed tests. All continuous variables are winsorized at the 1st and 99th percentiles. See Appendix B for detailed variable definitions.

Table 7
Adversarial Disclosures about Tax Enforcement and Market Reactions

Treatment Group =	*Adversarial_Disc* = 1
Control Group =	*Adversarial_Disc* = 0
DV =	*CAR_10K*
	(1)
Adversarial_Disc	0.0013
	(0.43)
UTB	0.0142
	(0.32)
Adversarial_Disc × *UTB*	-0.2254*
	(-1.94)
UE	0.0733***
	(5.53)
Δ*ROA*	0.0132***
	(2.81)
Ln_MVE	0.0001
	(0.11)
BTM	0.0012
	(0.44)
Leverage	-0.0009
	(-0.20)
SalesGrowth	0.0019
	(1.03)
Capex	-0.0217*
	(-1.72)
R&D	0.0149
	(1.58)
Intangibles	0.0005
	(0.14)
Foreign	0.0196
	(0.70)
Loss	-0.0078***
	(-4.08)
Fixed Effects	Industry, Year
N. Observations	15,274
Adjusted R-squared	0.0130

Table 7 represents the results of estimating equation (3). The treatment group and control groups are described in the column heading. *t*-statistics are reported in parentheses below each coefficient estimate. Standard errors are clustered at the month-year level. *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels using two-tailed tests, respectively. All continuous variables are winsorized at the 1st and 99th percentiles. See Appendix B for detailed variable definitions.

Table 8
Adversarial Disclosure about Tax Enforcement and IRS Attention

Treatment Group =		*Adversarial_Disc* = 1	
Control Group =		*Adversarial_Disc* = 0	
DV =	*IRS_Attention*[t+1]	*IRS_Attention*[t+2]	*IRS_Attention*[t+3]
	(1)	(2)	(3)
Adversarial_Disc	0.1504**	0.1630**	0.0792
	(2.15)	(2.17)	(0.82)
ETR	-0.0752*	-0.0402	-0.0718
	(-1.80)	(-0.79)	(-0.93)
CETR	-0.0411	-0.1202**	-0.0725
	(-1.07)	(-2.51)	(-1.06)
BTD	0.0100	-0.2406*	-0.2186
	(0.08)	(-1.70)	(-1.41)
UTB	3.9718***	4.2529***	3.7057***
	(4.78)	(4.63)	(3.13)
DTA	0.3144	0.3632	-0.0320
	(1.05)	(1.08)	(-0.06)
DTL	-0.2473	-0.5490	-0.0974
	(-0.63)	(-1.25)	(-0.16)
Size	0.2320***	0.2286***	0.2684***
	(20.84)	(18.29)	(15.83)
MTB	0.0066*	0.0133***	0.0187***
	(1.87)	(2.85)	(2.88)
MNC	0.0500	0.0336	0.0760
	(1.34)	(0.79)	(1.31)
Leverage	-0.2284***	-0.1596*	-0.1676
	(-2.99)	(-1.90)	(-1.40)
R&D	-0.2978	0.1296	0.1025
	(-1.30)	(0.46)	(0.27)
Inventory	0.2729	0.3018	0.8205***
	(1.50)	(1.45)	(2.80)
Capex	-0.4616	-0.2167	-1.3023***
	(-1.31)	(-0.56)	(-2.58)
ROA	-0.3629***	0.0785	0.1222
	(-2.67)	(0.46)	(0.52)
Δ*NOL*	0.0219	-0.1637	-0.1902
	(0.15)	(-0.99)	(-1.06)
Cash	0.0700	0.0392	0.3330
	(0.57)	(0.26)	(1.58)
Sales Growth	-0.0837*	-0.1432***	-0.1549*
	(-1.84)	(-2.61)	(-1.75)
Intangibles	-0.0022	0.1870	0.0434
	(-0.02)	(1.61)	(0.27)
Fixed Effects	Industry, Year	Industry, Year	Industry, Year
N. Observations	4,847	2,856	1,196
Adjusted R-squared	0.2595	0.2785	0.3234

Table 8 (continued)
Adversarial Disclosure about Tax Enforcement and IRS Attention

Table 8 represents the results of estimating equation (4). The treatment and control groups for each specification are described in column headings. *t*-statistics are reported in parentheses below each coefficient estimate. Standard errors are clustered at the company level. *, **, *** indicate significance at the 0.10, 0.05, and 0.01 levels using two-tailed tests. All continuous variables are winsorized at the 1st and 99th percentiles. See Appendix B for detailed variable definitions.