

**Busted:**  
**Executive Misconduct and Its Implications for a Firm's Tax Avoidance**

By  
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**Abstract**

The title of 'CEO' confers upon an individual considerable influence over his or her organization, from corporate culture to financial reporting. Prior research has documented that the individual acting as CEO has a significant impact on a firm's tax planning activities – the degree to which tax is avoided and the aggressiveness of tax positions taken. With such power comes substantial responsibility – particularly in recent years, corporate CEOs have faced heightened scrutiny and accusations regarding personal behaviors outside of work. This thesis analyzes whether an accusation of personal misconduct against a CEO has a significant impact on the tax planning activities of his or her firm. Tax avoidance is an appropriate means through which to measure the impact that *personal* misconduct allegations against the CEO have on the *business*-related aspects of a company. In the context of ethical misconduct and the allegations that follow, tax avoidance is unique from other financial metrics in that it has strong ethical considerations. It may follow, therefore, that decisions made by a firm in light of alleged ethical violations by the CEO will be reflected in the firm's tax planning. I hypothesize that perceived scrutiny against a CEO for personal misconduct will motivate the firm to perform less aggressive tax avoidance in the years that follow. I examine this hypothesis through a multi-year event study which compares the change in tax avoidance for firms that experienced a CEO "violation event" against firms that did not. Through correlation and regression analyses, my results do not show significant evidence that personal misconduct allegations against a CEO influence a firm's level of tax avoidance. However, there still exists strong motivation for further research.

Key words: tax avoidance, executive misconduct, financial reporting, corporate governance, corporate ethics

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## 1. Introduction

When ethics and social responsibility are studied in a corporate context, there is often an implied dichotomy; a choice between doing what is “right,” and doing what is best for business. Rather than viewing ethics and financial performance as two independent or mutually exclusive concepts, it may be more appropriate to consider a more complex interrelationship between ethical (or unethical) behaviors of a firm and how a firm conducts its business. In particular, the individual acting as CEO wields a tremendous amount of influence over the “culture” of a company – it is often his or her words and actions that set the tone for how ethics are viewed and applied within a firm (Billings, Klein, & Shi, 2022), and in turn, have a tangible impact on financial reporting (Patelli & Pedrini, 2015). Given the high-profile nature of the position of CEO, a CEO’s personal behaviors are watched closely not only by members of his or her firm, but by the public at large. As a result, a CEO’s personal misconduct – from controversial remarks to sexual harassment or criminal behaviors – often quickly leads to public allegations and news stories. Such allegations may be even more impactful today – especially sexual misconduct allegations – in the years following the “Me Too” movement (Soergel, 2020). When someone so influential to the ethical culture and financial reporting of a company faces such public accusations for *personal* behaviors, the question that remains is what impact these accusations have on the business-related aspects of the firm.

I study this question in the context of tax avoidance (or “tax planning”). Tax avoidance may broadly be defined as taking legal measures to reduce a firm’s tax exposure (as opposed to tax *evasion*, which is a crime, and entails obtaining a lower tax bill through fraud or concealment) (Wolters Kluwer, 2020). In essence, tax avoidance is the practice of adhering strictly to the *letter* of the law in pursuit of paying less tax than was likely intended by the *spirit* of the law (Stainer,

Stainer & Segal, 1997). While minimizing a firm's tax bill may be a common and important means through which management attempts to maximize shareholder value, recent years have seen a growing public and political distaste for large and profitable corporations not paying their "fair share" (Back, 2013). In this sense, tax planning sits in an interesting ethical gray area. Views on tax avoidance range anywhere from the belief that it is never ethical, as citizens have a duty to pay fair taxes, to the belief that one in fact has an affirmative duty to avoid or evade taxes because the government is an evil actor (McGee, 2011). Stainer et al. (1997) even use the hybrid term "avoision" to emphasize the often blurred lines between legitimate planning and fraud. In sum, a corporation's decision regarding its level of tax aggressiveness is not only a financial one, but fundamentally, an ethical one. It is for this reason that tax avoidance is an appropriate means through which to measure whether there is a relationship between a CEO's personal ethical misconduct (and the allegations that follow) and the ethical decisions made at the corporate level. With this in mind, I ask: *Does a firm's relative level of tax avoidance change after personal misconduct allegations are brought against the firm's CEO?*

To answer this question, I must define "ethical misconduct" and measure tax avoidance. Notable events that may call a CEO's reputation into question or jeopardize it altogether include allegations of sexual harassment or assault, accusations of non-business-related crimes, and other workplace ethical violations. I identify these events and examine changes in tax avoidance at the CEO's firm after allegations were made public. To measure tax avoidance, I follow Dyreng, Hanlon, and Maydew (2010) and use Effective Tax Rate (ETR). ETR is computed as the ratio of income tax to pre-tax earnings, which can then be compared to the firm's "theoretical" statutory tax rate – a lower ETR demonstrates a higher level of tax avoidance. I predict that accusations which may cause a CEO to "reign in" his or her personal behaviors will lead to a similar "reigning

in” of tax aggressiveness of the associated firm. In other words, I expect tax avoidance to decrease following misconduct accusations against the CEO.

Two key observations lend legitimacy to my research question and pursuant prediction. First, *corporate*-level misconduct accusations have been shown to motivate firms to act more ethically, in fact and/or appearance. Marciukaityte, Szewczyk, Uzun, and Varma (2006) find that following accusations of corporate fraud, corporations significantly strengthen their internal controls in order to prevent future instances of fraud and the scandals that follow. This corroborates the findings of Karpoff and Lott (1993), which show that following cases of actual *and* alleged fraud, societal pressures in particular play a major role in enhancing a firm’s self-discipline. These findings raise the question of whether the deterrent effect resulting from corporate fraud allegations may be similarly seen in light of the personal behaviors of a CEO, who acts as his or her organization’s public face.

Second, prior research documents the effects a CEO can have on financial reporting. Patelli and Pedrini (2015) show that the language used by a firm’s CEO predicts the firm’s financial reporting aggressiveness. More specifically related to my study, Dyreng et al. (2010) find that individual CEOs have a significant impact on a company’s relative level of tax avoidance. The study tracked individual C-suite executives as they moved between companies and found significant changes (both increases and decreases) in firms’ levels of tax avoidance after the executives’ arrivals and departures, providing empirical evidence that major events (and perhaps to some extent, individual characteristics) affecting the CEO of a company have a direct impact on the company’s tax avoidance. In the context of my research question, one possible explanation may be that a CEO’s level of comfort in behaviors deemed ethically gray (or outright reprehensible) in his or her personal life may carry over into how he or she makes decisions

affecting the company. If misconduct accusations serve as an indicator that an individual is more likely to take greater personal risks, perhaps they may also indicate a similar willingness within a business context.

My research seeks to contribute to the discussion in several key ways. First, significant results would indicate that a CEO's off-the-job behaviors have a tangible impact on the financial undertakings of his or her company. Whether a decrease in tax avoidance following allegations could be attributed to the CEO holding a more cautious attitude and encouraging less aggressive tax planning, or to the company becoming more risk-averse in light of perceived public scrutiny, such findings would have implications for the level of interest a firm might take in its CEO's personal behaviors. Significant findings regarding tax planning may prompt additional research into other aspects of a company which are connected not only to the business, but to the CEO him or herself. Second, my research may provide more clarity regarding the connection between executives and tax avoidance by drawing a clear "line" (in this case, the bringing of misconduct allegations against a CEO), before and after which a firm's level of tax avoidance can be compared. Conducting an event study will allow for evaluating the effects of an external event, as opposed to comparing tax avoidance with other firm characteristics or financial metrics which may be interrelated. Because the event in question is one which presumably has entirely to do with the CEO's personal life and not with the business itself, significant findings would allow for a more confident claim that it is truly the CEO having an influence on a firm's tax planning. Finally, given the unique social context brought about by the "Me Too" movement, it is critical to better understand the implications of this new social climate on measurable aspects of how a firm runs its business. Significant findings would imply not only that the CEO is somehow connected to tax planning, but that public accusations and negative press against the CEO have a spillover effect on

the firm's financial activities. This would legitimize a company in taking personal misconduct allegations against its CEO more seriously, and treating its CEO's bad press as *its own* bad press – especially as society increasingly demands accountability from individuals in positions of power.

## **2. Literature Review & Hypothesis Development**

The question this thesis addresses is whether a firm's tax avoidance decreases after ethical misconduct allegations are brought against the firm's CEO. This section motivates this question by discussing how prior literature measures tax avoidance, how top executives influence organizational culture, how managerial overconfidence relates to tax planning behaviors, and finally how corporate fraud accusations, personal misconduct allegations, financial reporting, and deterrence are all related.

### *2.1. Measuring Tax Avoidance*

In existing literature, there is no single agreed-upon method to measure tax avoidance. Instead, various measures of different aspects of tax planning are used, sometimes in conjunction, to paint a broad picture of a firm's tax avoidance activities. Dunbar, Higgins, Phillips, and Plesko (2010) discuss nine alternative methods to ascertain tax avoidance, ranging from simple book-tax differences to complex formulas that consider a variety of firm-specific characteristics. Two of the more common measures are a firm's GAAP ETR and its Cash ETR (ETR methods) (Dyreng et al. 2010). The ETR methods measure tax avoidance by providing insight into how much a firm's effective (actual) tax rate departed from its statutory tax rate – a relatively lower ETR demonstrates a higher level of tax avoidance. Given that both ETR methods (GAAP and Cash) are used to describe a firm's effective tax rate, these measurements tend to correlate relatively closely with one another, but the magnitude of correlation suggests that each measures different constructs (Dunbar et al., 2010).

## 2.2. *Organizational Culture*

The significant impact that an executive has on a firm's tax planning activities (Dyregang et al., 2010) may be explained in part by the fact that "tone at the top" has a substantial impact on organizational culture. In fact, Billings et al. (2022) find that board and C-suite gender diversity alone has a significant impact on whether a firm's culture is "inclusive" or "exclusive." The tone and culture set by executives has significant implications not only for employee relations, but also for a company's financial reporting practices. Patelli and Pedrini (2015) find that the type of language used by a CEO predicts aggressive and unethical reporting. Furthermore, Rooji and Fine (2018) analyze famous cases of corporate scandals (specifically more recent ones involving Wells Fargo, Volkswagen, and BP) to establish that unethical culture has a contagion effect on a firm by promoting rule-breaking, risky behavior, and "toxic" goals throughout the organization. In this sense, unethical *culture* serves as a strong driver of unethical *behavior*. Company culture, often established in large part by a corporation's management, has tangible impacts on financial reporting, legal compliance, and overall tolerance for ethically questionable behavior.

## 2.3. *Managerial Overconfidence*

The existing body of literature has frequently studied and pointed to CEO *overconfidence* as a key factor in influencing a firm's tax aggressiveness. "Overconfidence" may encompass a variety of traits but is often characterized by optimism and risk-tolerance (Graham, Harvey, & Puri, 2013), and quantified by measures of options holdings and other investment behaviors (Chyz, Gaertner, Kausar, & Watson, 2014). Of fundamental importance to the subject, Graham et al. (2013) perform psychometric tests to find that in general, CEOs are "significantly more optimistic and risk-tolerant" than the general public. Hribar and Yang (2016) analyze the impact of managerial overconfidence on earnings forecasts and find that overconfident managers are more

likely to voluntarily make forecasts, and that these forecasts tend to be more precise (narrower). In the context of tax planning and aggressiveness, Chyz et al. (2014) find that overconfident CEOs take more aggressive tax positions and report with higher frequency that uncertain tax positions will be upheld in the event of an audit. Managerial overconfidence ultimately has tangible impacts on firm performance. Hribar and Yang (2016) conclude that overconfident managers' earnings forecasts are not only more frequently produced but more frequently missed. Schrand and Zechman (2012) describe executive overconfidence as a "slippery slope to financial misreporting" – of 49 firms subjected to SEC Accounting and Auditing Enforcement Releases, 75 percent were indicted not for intentional fraud but for misreporting resulting from "optimistic bias" that compounded on itself year after year. It may be predicted that the characteristic that leads an individual to take more aggressive financial positions (and to take them more confidently) is the same characteristic that might motivate him or her to act unethically or illegally under the belief that he or she can get away with it. With overconfidence as a potential "linking" factor, CEOs who are overconfident enough to attempt to get away with unethical behavior may be the same CEOs who are overconfident enough to take more aggressive tax positions in the first place.

#### *2.4. Fraud and Deterrence*

The hypothesis of this thesis is grounded in the general assumption that when an actor is accused of a harmful or illegal act, he will feel pressured (by society or by the government) to correct or compensate for such behavior in the future. Basis for this assumption at a corporate level can be found in prior studies. In an analysis of 132 cases of actual and alleged corporate fraud, Karpoff and Lott (1993) find that fraud allegations impose significant economic costs on a firm. However, the vast majority of these costs come not from court-imposed legal penalties, but from reputational losses, as measured by stock returns. The study concludes that social penalties and



perceptions resulting from fraud accusations may play a critical role in policing corporate behavior. These social penalties occurring at the firm level may similarly be seen at the CEO level. Baker, King, Nalick, Tempio, Gupta, and Pierce (2021) find that media reports of sexual behaviors of managers (both consensual and harassment) are associated with negative stock returns for the firm. With these social penalties in mind, Marciukaityte et al. (2006) find significant evidence that following accusations of fraud, the percentage of outside directors on corporations' boards tends to increase, indicating that such accusations motivate firms to strengthen internal controls. Considering these studies together, there is evidence that following accusations of fraud, social (reputational) pressures play a larger role in punishing the accused firm than legal penalties (Karpoff & Lott, 1993), and that these social pressures ultimately act as an effective deterrent against future transgressions by motivating tangible improvements to internal controls (Marciukaityte et al., 2006). Furthermore, negative stock market reactions to reports of CEOs' personal behaviors suggest that the investing public sees these off-the-job behaviors as a reason to be concerned about the firm, and demonstrate how social pressures may take a tangible form that a firm would seek to address. The question that remains is whether the social pressure arising from personal allegations against a firm's CEO ultimately leads to stronger internal controls or less risk taking in a way similar to fraud allegations.

### *2.5. Connecting Personal Misconduct, Fraud, and Tax Aggressiveness*

Davidson, Dey, and Smith (2015) find a positive association between a firm's CEO or CFO having a record of personal criminal charges and the likelihood of perpetrating corporate fraud. They attribute the connection to a variety of implications stemming from CEO overconfidence and the psychological reasons why one's propensity to engage in unethical behavior in one area is likely to pervade elsewhere. Furthermore, Lennox, Lisowsky, and Pittman (2013) find a significant

*negative* association between tax aggressiveness and financial reporting fraud within a firm. The findings of Lennox et al. (2013) build upon the theory that engaging in accounting fraud “reduces the benefit from being tax aggressive,” in the sense that simultaneously high book income and low tax income would attract increased IRS attention. In this sense, fraud and tax avoidance may be seen as mutually exclusive. Given these prior studies, one may draw the logical conclusion that if CEO criminal charges are associated with *more* corporate fraud (Davidson et al., 2015), and corporate fraud is associated with *less* tax avoidance (Lennox et al., 2013), CEO criminal charges may therefore be associated with a lower level of tax avoidance. This logical finding is consistent with the overall hypothesis of this paper that a firm’s CEO facing accusations of misconduct would lead to the firm “reigning in” its tax planning aggressiveness. Combining the findings and reasoning of Davidson et al. (2015) and Lennox et al. (2013), I predict that the scrutiny faced by an accused CEO would lead to a firmwide perception that the firm itself will face increased scrutiny, and that the firm will subsequently undertake less aggressive tax avoidance, which is looked upon increasingly unfavorably by the general public and regulatory community (Back, 2013).

Continuing discourse around the subject makes it difficult to accept this conclusion at face value. Lennox et al. (2013) also discuss a variety of differing theories that in total indicate that the connection between fraud and tax avoidance is still debatable. For example, Desai (2005) argues that simultaneously manipulating book income to be higher and tax income to be lower is an observable reality, enabled in large part by the “reporting opacity” (Lennox et al., 2013) which prevents adequate identification of inconsistencies. Furthermore, this theory relies upon 1) the fact that some vaguely defined “general scrutiny” of a firm will exist either in appearance or in fact as a result of the CEO’s non-work-related behaviors, and 2) this general scrutiny will have a direct

impact on tax avoidance, which is both *prima facie* legal (Wolters Kluwer, 2020) and influenced by numerous factors (Sonia & Suparmun, 2018). I seek to provide empirical clarity to this theoretical question by attempting to connect the findings of the aforementioned papers and study personal misconduct allegations and tax avoidance directly in the context of one another.

## *2.6. Hypothesis Development*

In summary, tax planning is a complex and often contentious topic, with disagreement within the literature about its definition, measurement, determinants, and consequences. While several different methods of measurement and justifications for such methods exist (Dunbar et al., 2010), evaluation of a firm's effective tax rates may create the most straightforward picture of tax aggressiveness (as employed by Dyreng et al., 2010). A variety of traits and factors may explain the effect a CEO has on a firm's tax planning, however managerial overconfidence is commonly pointed to as a driver of more aggressive tax positions (Graham et al., 2013 and Chyz et al., 2014) and of more ethically gray decision making in general (Hribar & Yang, 2016 and Schrand & Zechman, 2012). Public misconduct accusations may put a CEO's overconfidence in check – an effect that might spill over into his or her corporate decision making. An executive's words and actions greatly influence company culture (Patelli & Pedrini, 2015), which in turn has a strong influence on ethical decision making across an organization (Rooji & Fine, 2018). Accusations of fraud against an organization often lead to stronger internal controls and self-policing (Marciukaityte et al., 2006), the significance of which may be attributed substantially to societal pressure (Baker et al., 2021 and Karpoff & Lott, 1993). It may therefore be assumed that societal pressure arising from personal misconduct allegations against a CEO would have a similar deterrent effect on corporate decision making. Finally, the separate findings that criminal charges against a CEO are associated with a greater likelihood of corporate fraud (Davidson et al., 2015)

and that instances of corporate fraud tend to motivate a firm to undertake less aggressive tax planning (Lennox et al., 2013) lend legitimacy to the hypothesis that CEO misconduct allegations might lead to a firm becoming less tax aggressive.

While prior literature has studied in depth the causes and effects of tax avoidance and ethical misconduct, the field has yet to explicitly study these variables directly in context of one another. Given the findings of existing studies and the connections that may be drawn between them, I hypothesize the following:

*Hypothesis – Following allegations of personal misconduct against a firm’s CEO, that firm will undertake less tax avoidance.*

### **3. Data & Methodology**

#### *3.1. Data Collection*

I first identified instances of misconduct allegations against U.S. public company CEOs published in online news media. For a misconduct event to be included in my analysis, several criteria had to be met: 1) the event had to pertain specifically to an allegation against the CEO, as opposed to other executives, 2) the CEO’s respective company had to be based in the United States, and 3) the CEO’s respective company had to be a publicly traded company.

These criteria resulted in 32 instances of misconduct. The majority of the misconduct data used in my analysis were obtained from David F. Larcker and Brian Tayan, co-authors of “*Scoundrels in the C-Suite: How Should the Board Respond When a CEO’s Bad Behavior Makes the News?*” (2016) – a paper which analyzed the impacts of the same types of misconduct on short-term stock returns. This study produced a list of CEO misconduct events through a Factiva search for online news publications. From this data, 22 instances of misconduct met my criteria and were included in my analysis. I obtained the remaining 10 events through a combination of Google

News searches (search terms included “CEO accused” and “CEO apologizes”) and a search for relevant news articles via *EBSCOhost Business Source Premier* (keywords included “CEO,” “misconduct,” “inappropriate,” “wrongdoing,” “accusation,” and “allegations”). The 32 misconduct events spanned between fiscal years 2003 and 2018. For each event, I recorded the name of the firm whose CEO faced the allegations and the fiscal year in which the allegations were first published, producing a list of “violator firms.”

To control for potentially confounding variables (discussed below) and measure the significance of changes in tax avoidance, I paired each violator firm with a “match firm” – a similar organization that did *not* experience misconduct allegations against the CEO. For each violator firm, I produced a list of all publicly traded companies which, in the year of violation, belonged to the same industry as the violator firm (specifically, firms which had the same first two digits of the four-digit Standard Industry Classification (SIC) code). From this list of firms within the same industry, the firm which had a book value of total assets closest to the violator firm in the year of violation was selected as the match firm. Each violator firm’s matched control firm remained as the control firm for the entire analysis period (discussed below). I compiled this list of firms, including industry classification and total asset data, using Compustat.

The process of matching violator firms with control firms accomplished two key objectives: 1) control firms served as the “base case” against which violator firms could be compared in order to determine if changes in tax avoidance could truly be explained by misconduct allegations, and 2) since many notable confounds associated with a study of this nature (such as tax law changes, inflation, industry-level events, and changes in economic conditions) presumably have a roughly equal effect on similarly sized firms within the same industry, matching with control firms mitigated the impact of these potential confounds.

Once the violator firms, control firms, and years of violation had been identified, I calculated each firm's GAAP ETR and Cash ETR in the three fiscal years preceding and the three fiscal years following the event (the "analysis period"). I did not include data from the year of violation, as the time of year at which the violation happened varied between firms, and therefore may have had an inconsistent effect on tax planning (e.g., a violation occurring in January would likely provide enough time for effects on ETR to take hold before the end of the year, whereas a violation occurring in late December would not). The financial statement data needed to calculate GAAP ETR (total income taxes divided by pretax income) and Cash ETR (income taxes paid divided by pretax income) was also compiled using Compustat. To produce control variables (discussed below), I also collected from Compustat each firm's total debt, income before extraordinary items, intangible assets, and research and development (R&D) expense. Because misconduct events occurred between 2003 and 2018, financial data was collected from the period between fiscal years 2000 and 2021 to capture the full analysis period for each violation event (with the exception of one match firm, for whom, due to an irregular fiscal year, data was collected through fiscal 2022).

### *3.2. Variables & Analysis*

As referenced throughout this paper, the dependent variables that I evaluated were GAAP ETR and Cash ETR, summarized as follows:

<b>Dependent Variable</b>	<b>Description</b>
<u>GAAP ETR</u>	Total income taxes divided by pretax income.
<u>Cash ETR</u>	Income taxes paid divided by pretax income.

For each firm and year for which GAAP and Cash ETR were recorded, I applied and evaluated the following independent variables:

<b>Independent Variable</b>	<b>Description</b>
<u>Misconduct</u>	1 for violator firms, 0 for control firms.
<u>Post</u>	1 for years following the misconduct event, 0 for years preceding the misconduct event.
<u>Post x Misconduct</u>	Product of the values of Misconduct and Post; 1 only if the entry is for a violator firm <i>and</i> in any of the years following the event, otherwise 0.

Post x Misconduct, which captured the effects of both Post and Misconduct for each entry, was the variable of greatest concern to my analysis. This variable allowed me to compare the change in ETRs for violator firms from before to after a violation event relative to the same change for the control firms (those theoretically not affected by a violation event).

As discussed above, several notable confounding variables such as tax law changes and industry-level events were controlled for by the use of match firms and did not need to be represented explicitly as control variables. However, there are a variety of firm-specific metrics which may be related to tax planning and were therefore included as control variables in my analysis. Along with four financial metrics, I included two additional binary variables: Departure and Sexual. Departure was used to control for the findings of Dyreng et al. (2010) which indicate that CEO turnover itself is associated with changes in an organization's ETR. Sexual was used to provide insight into whether sexual misconduct events had a greater impact on ETR than non-sexual events. My control variables are summarized as follows:

<b>Control Variable</b>	<b>Description</b>
<u>Departure</u>	1 if the CEO quit or was fired following the event, 0 if the CEO remained in his or her role.
<u>Sexual</u>	1 if the misconduct event was related to sexual harassment or sexual assault, 0 for all other types of misconduct.
<u>LN Total Assets</u>	Natural log of total assets.
<u>Return on Assets</u>	Ratio of income before extraordinary events to total assets.
<u>Leverage</u>	Ratio of total debt including current divided to total assets.
<u>Intangible Assets</u>	Ratio of total intangible assets to total assets.
<u>R&amp;D Expense</u>	Ratio of research and development expense to total assets.

Due to unusual financial reporting events for some firms in some years, there were several extreme outliers (for example, a GAAP ETR of greater than 60,000 percent). As such, for each numerical variable (both ETRs and the financial control variables), I “Winsorized” the data – a process of eliminating significant outliers by setting anything less than the first percentile equal to the first percentile, and anything greater than the ninety-ninth percentile equal to the ninety-ninth percentile.

Finally, because of either pretax losses or tax refunds reported by certain firms in certain fiscal years, several entries were characterized by a negative ETR. While mathematically correct per the ETR formula, a company cannot in practice have a negative tax rate; such a number does not make sense. To prevent irrelevant data from influencing the results, any entries which contained a negative GAAP or Cash ETR were excluded from the analysis.

With each variable recorded for each entry, and the data adjusted per the above steps, I performed a regression analysis to compute whether the change in ETR experienced by violator firms following a misconduct event was significantly different from the change seen by control firms over the same period of time, and to what degree the change was significant. My first



regression evaluated only the significance of the change in ETR at the most basic level, without considering any control variables. The regression equation, run separately for GAAP ETR and Cash ETR as the dependent variable, was as follows:

$$(GAAP \text{ or } Cash) ETR = \beta_0 + \beta_1(Misconduct) + \beta_2(Post) + \beta_3(Post \times Misconduct)$$

I then ran the same regression (again, separately for GAAP ETR and Cash ETR) and included the control variables. The equation can be expressed as:

$$(GAAP \text{ or } Cash) ETR = \beta_0 + \beta_1(Misconduct) + \beta_2(Post) + \beta_3(Post \times Misconduct) + \beta_4- \\ 10(Controls)$$

Finally, I performed a third regression (also including all control variables) which included fixed effects for firms and years. Doing so eliminated from the results any effects which could be attributed specifically to the unique characteristics of a particular firm or fiscal year in order to evaluate only the variables I intentionally included. By nature of a fixed effects regression, any variables which were the same over the entire analysis period for a given firm were excluded (Misconduct, Sexual, and Departure – binary variables that described a characteristic of the violation and were therefore always either 1 or 0 for the entire analysis period).

### *3.3. Limitations and Assumptions*

By nature, the data concerning individual instances of CEO misconduct are A) limited in quantity, and B) must be sorted through and scraped manually. Because the sample size available for analysis is inherently limited by the number of instances that may be practicably identified, it is possible that this sample size may not be representative of the population, and that therefore, it may not be appropriate to consider statistical findings significant. Furthermore, it is only possible to examine instances of misconduct that are published in public news sources, whereas there may be numerous instances that are handled quietly and not brought to the attention of the public. In

this sense, there may be a significant reporting bias that exists within the total population of data. Because the process of financial data collection demands that such data were publicly available, I was further limited to only including publicly traded companies in my analysis. Finally, because potentially dramatic differences in tax laws exist between countries, I was only able to include United States-based firms.

As previously discussed, each violator firm's match firm was chosen based on a comparison of total assets in the year of violation. However, in several cases, the gap between the total assets of each firm widened over the analysis period (sometimes significantly), and the match firm therefore became a less accurate comparison over time, compared to other firms. Because changing the match firm throughout the analysis period would introduce too many statistical uncertainties and lead to a less reliable comparison, each violator firm had the same match firm for all six years of analysis, despite potential changes in total assets.

The necessity of collecting ETR data for the three years following the event precludes the analysis of more recent instances of misconduct allegations (those that occurred within the last three years of the writing of this thesis). While the specific period for study (based on the identified misconduct events, 2003 through 2018) is not inherently important, it is plausible that recent years' data may provide more relevant managerial implications. Specifically, the "Me Too" movement began in 2017, suggesting that in the years since 2017, allegations of sexual misconduct could be both more frequent and more impactful. Due to the collection of data for the three years following each event, and given the time of this paper's writing, I will not be able to consider any events occurring later than 2018, meaning that no more than two years of post-Me Too data are available to analyze. By matching violator firms with control firms, the effects of high-level trends like Me Too should already be effectively controlled for. However, the time frame limits the ability to fully

capture the effects of Me Too in recent years or to contrast the pre- and post-Me Too periods, substantially limiting the ability to measure the effect of this event which has a major connection to my topic.

#### 4. Results

Given the variables and methods of analysis previously described, I produced summary statistics, correlations, and regression analyses to evaluate my hypothesis. My analysis did not reveal statistically significant evidence in support of my hypothesis, however the results may still provide valuable insight.

##### 4.1. Descriptive Statistics

I first summarized the data by producing descriptive statistics tables containing high-level information for each variable, as shown in Table 1. Panel A of Table 1 shows descriptive statistics for all variables. Panel B of Table 1 summarizes the mean and standard deviation of each variable, separated first by Misconduct (1 versus 0), then Post (1 versus 0). This allowed me to view, at a high level, whether there are noticeable differences in ETR or any of the control variables between violator versus match firms, and before versus after the violation event.

Table 1: Descriptive Statistics of the Variables

##### *Panel A: Full Descriptive Statistics of the Variables*

Variable	N	Mean	St. Dev.	Median	Min	P1	P10	P90	P99	Max
GAAP ETR	321	0.187	0.460	0.249	-2.820	-2.819	0.004	0.394	1.108	1.753
Cash ETR	321	0.170	0.170	0.170	-0.429	-0.352	0.000	0.357	0.724	0.726
Sexual	321	0.283	0.451	0	0	0	0	1	1	1
Departure	321	0.654	0.476	1	0	0	0	1	1	1
LN Total Assets	321	9.285	1.873	9.429	4.402	4.549	6.744	11.597	12.624	12.627
ROA	321	0.074	0.064	0.068	-0.196	-0.089	0.012	0.142	0.306	0.306
Intangible Assets	321	0.178	0.169	0.143	0	0	0.001	0.380	0.726	0.730
Leverage	321	0.254	0.194	0.226	0	0	0.030	0.505	0.870	0.959
R&D Expense	321	0.033	0.056	0	0	0	0	0.088	0.337	0.337

*Panel B: Descriptive Statistics of the Variables Separated by Misconduct, Post*

Variable	Misconduct = 1				Misconduct = 0			
	Post = 0		Post = 1		Post = 0		Post = 1	
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.
GAAP ETR	0.153	0.538	0.163	0.570	0.224	0.448	0.208	0.155
Cash ETR	0.169	0.184	0.159	0.150	0.167	0.193	0.187	0.146
Sexual	0.275	0.449	0.275	0.449	0.279	0.451	0.307	0.464
Departure	0.650	0.480	0.663	0.476	0.663	0.476	0.640	0.483
LN Total Assets	9.305	1.987	9.367	1.943	8.930	1.840	9.584	1.671
ROA	0.089	0.069	0.070	0.083	0.069	0.048	0.067	0.047
Intangible Assets	0.156	0.123	0.165	0.145	0.184	0.190	0.208	0.204
Leverage	0.238	0.209	0.249	0.178	0.247	0.207	0.285	0.175
R&D Expense	0.038	0.069	0.029	0.036	0.032	0.049	0.033	0.065

#### 4.2. Correlations

Table 2 presents the correlation coefficients between all of the variables involved in my study. These coefficients show whether a change in one variable may be predicted by a change in another.

**Table 2: Correlations Between Variables**

	GAAP ETR	Cash ETR	Misconduct	Post	Post x Misconduct	Sexual	Departure	LN Total Assets	ROA	Intangible Assets	Leverage	R&D Expense
GAAP ETR	1											
Cash ETR	0.215	1										
Misconduct	-0.064	-0.037	1									
Post	-0.006	0.012	0.034	1								
Post x Misconduct	-0.031	-0.038	0.578	0.596	1							
Sexual	-0.002	0.046	-0.019	0.015	-0.011	1						
Departure	-0.091	0.009	0.004	-0.005	0.010	0.457	1					
LN Total Assets	0.022	-0.121	0.027	0.097	0.025	0.220	-0.059	1				
ROA	-0.014	0.042	0.091	-0.078	-0.033	-0.053	-0.070	-0.023	1			
Intangible Assets	-0.060	-0.013	-0.102	0.045	-0.044	0.229	0.045	0.309	-0.054	1		
Leverage	-0.124	-0.220	-0.056	0.062	-0.015	0.045	0.061	-0.070	-0.241	0.049	1	
R&D Expense	-0.007	-0.012	0.008	-0.040	-0.045	-0.127	-0.102	-0.046	0.055	-0.168	-0.138	1

As shown in Table 2, the results demonstrated few significant correlations between many of the variables. The most significant correlations were between Post x Misconduct and Misconduct (correlation = 0.578), and Post x Misconduct and Post (correlation = 0.596) – in both cases, a moderately strong correlation. However, because Post x Misconduct is simply the product of Post and Misconduct, such correlation is expected, and does not provide insight into the dependent variables or financial control variables. Departure and Sexual were moderately

correlated (correlation = 0.457), indicating that an instance of misconduct being sexual in nature had a moderate predictive effect on whether the CEO left his or her role following the allegations. The slightly significant correlation between GAAP ETR and Cash ETR (correlation = 0.215) corroborates the findings of Dunbar et al. (2010) which suggest that the two ETR methods measure a similar concept but still have meaningful differences. Finally, the negative correlations between Misconduct and both ETR variables (correlation = -0.064 and -0.037 for GAAP and Cash ETR, respectively), while small, may suggest that firms experiencing a violation event had a more aggressive tax planning strategy to begin with. No other variables were significantly correlated with each other – most correlation coefficients fell below 0.1.

#### *4.3. Regression Analysis*

For both GAAP ETR and Cash ETR I performed three regressions – one which included only the respective dependent variable and the three independent variables, one which also included all control variables, and one which included control variables and firm and year fixed effects. In each regression, the key variable of analysis was Post x Misconduct, as a significant P-value for this variable would indicate that, as compared to match firms, violator firms saw a significant change in ETR after a violation event. A positive coefficient for Post x Misconduct would support my hypothesis, as this would indicate that a violation event is related to an increase in ETR (a decrease in tax avoidance).

As shown in Table 3 (GAAP ETR) and Table 4 (Cash ETR), at a 95% confidence level, none of the regressions showed a significant P-value for Post x Misconduct (P-value  $\leq 0.05$ ). The regression for Cash ETR *with* controls was the closest to being significant, with a P-value of 0.229. Tables 3 and 4 show regressions for (1) No Controls, (2) With Controls, and (3) Controls and Fixed Effects. For each variable, the coefficient is shown above and the P-value below in parentheses.

Table 3: GAAP ETR Regression Tables

Variables	(1) GAAP ETR	(2) GAAP ETR	(3) GAAP ETR
Misconduct	-0.070 (0.326)	-0.074 (0.304)	
Post	-0.016 (0.831)	-0.005 (0.941)	0.105 (0.540)
Post x Misconduct	0.025 (0.810)	0.012 (0.906)	0.065 (0.554)
Sexual		0.064 (0.342)	
Departure		-0.110 (0.075)	
LN Total Assets		0.004 (0.765)	0.019 (0.866)
ROA		-0.330 (0.432)	-1.575 (0.025)
Intangible Assets		-0.231 (0.161)	0.195 (0.722)
Leverage		-0.320 (0.022)	-0.370 (0.372)
R&D Expense		-0.325 (0.492)	-0.230 (0.734)
Firm fixed effects	No	No	Yes
Year fixed effects	No	No	Yes
Observations	321	321	314
R-squared	0.004	0.038	0.275

Table 4: Cash ETR Regression Tables

Variables	(1) Cash ETR	(2) Cash ETR	(3) Cash ETR
Misconduct	0.002 (0.955)	0.007 (0.775)	
Post	0.019 (0.477)	0.036 (0.169)	-0.044 (0.400)
Post x Misconduct	-0.029 (0.444)	-0.045 (0.229)	-0.012 (0.723)
Sexual		0.038 (0.122)	
Departure		-0.013 (0.563)	
LN Total Assets		-0.016 (0.003)	0.098 (0.006)
ROA		-0.037 (0.805)	-0.248 (0.250)
Intangible Assets		0.018 (0.763)	-0.024 (0.888)
Leverage		-0.221 (0.000)	-0.212 (0.096)
R&D Expense		-0.132 (0.436)	-0.090 (0.664)
Firm fixed effects	No	No	Yes
Year fixed effects	No	No	Yes
Observations	321	321	314
R-squared	0.003	0.086	0.492

While the regressions do not provide significant evidence to support my hypothesis, several observations stand out. The first involves the coefficients of Post x Misconduct. In the case of GAAP ETR, all three regressions showed positive coefficients for Post x Misconduct, whereas for Cash ETR, all coefficients were negative. Because these coefficients are small, and the P-value shows no significance anyway, this observation is not particularly impactful to the results. At face value, however, this suggests that a violation event has an opposite effect on GAAP versus Cash ETR for violator firms (for violator firms, GAAP ETR shows less tax avoidance, whereas Cash ETR shows *more*, following a violation event). Second, for both ETR measures, the inclusion of control variables had a substantial effect on the P-value for Post x Misconduct. However, the change in P-value went in opposite directions for each ETR measure. For GAAP ETR, the no-controls P-value was 0.810, however the significance decreased when control variables were included, and the P-value increased to 0.906. For Cash ETR, the results became *more* significant with the inclusion of control variables – the P-value decreased from 0.444 to 0.229. The inclusion of firm and year fixed effects did not make the results for either measure significant (nor change the Cash ETR coefficient from negative to positive). These P-values lead to the final observation: the results for Cash ETR were dramatically more significant than the results for GAAP ETR.

## **5. Discussion**

### *5.1. Interpretation of Results*

At face value, the lack of statistical significance in my results suggests that accusations of personal misconduct against a public company CEO do not affect the tax planning efforts of the CEO's firm. Such findings may be good news for firms. The lack of impact created by scandals pertaining to the CEO's personal life, in contrast with the strong influence over tax planning wielded by CEOs in general (Dyreng et al., 2010), could indicate that corporations' governance

and monitoring systems effectively separate a CEO's personal life from his or her business decisions. In effect, the results provide evidence that tax planning, a complex and important financial activity, is not significantly impacted by this factor which arguably *should not* have an impact. Whereas Marciukaityte et al. (2006) find that allegations of *corporate-level fraud* lead to substantial enhancements of internal controls, the lack of similar findings here may demonstrate that instances of *personal misconduct*, even by a figure as important as the CEO, do not create similar firm-wide tangible impacts (aside from, in some cases, the removal of the CEO). Another interpretation may be that tax planning, despite its ethical implications and public distaste, is simply not an activity that firms feel the need to adjust in light of alleged ethical violations.

## 5.2. Future Research

With these interpretations in mind, there are several directions in which future research might go to produce more conclusive evidence.

Primarily, my own analysis was subject to a strictly limited sample size. It is difficult to accept that the statistical findings in my results answer conclusively my research question given that the available sample size may not have been representative of the population. Due to the nature of allegations against CEOs, the ability to find suitable data in public news sources is inherently limited by potentially significant reporting bias, and by the fact that the data are non-numerical and must be identified and described individually. Given the time and resources to compile a more comprehensive list of CEO misconduct allegations (potentially over a longer time period), a future study may provide results that allow for more confident interpretation.

Future research may also seek to use a different proxy through which to measure tax avoidance, or, as prior literature suggests, include several different measures of tax avoidance to paint a more comprehensive picture. While ETR is the most straightforward way to gauge a



company's tax planning, it is subject to several limitations. First, because a negative ETR cannot exist, I had to remove from my data any entries in which a company had negative pretax income or a tax refund – significant and potentially relevant financial reporting events which should but cannot be included in a study using only ETR to measure tax avoidance. Further, while ETR provides a high-level picture of whether a company is more or less tax avoidant, it may not be as robust as other measures in describing a company's tax *aggressiveness*. For this reason, the use of ETR as the dependent variable may have contributed to the lack of significance in the results – it describes *too much*, and does not isolate the areas of tax which are of greatest ethical concern and would in theory be affected by an ethical misconduct event. Prior literature strongly suggests that tax avoidance should be at least somewhat affected by events of this nature, so it is possible that conducting the same study with a measure that is more specifically tuned to tax aggressiveness or risk could yield significant results. Future research on this question may seek to use measures that are more comprehensive and descriptive of a company's tax profile than ETR, a jack of all trades but master of none.

Presuming that a revised analysis could remedy these data and measurement limitations and subsequently find significant results, a variety of future research implications would arise. First, researchers may seek to gauge other, non-tax-related financial metrics to see if CEO allegations also influence a company's broader financial activities. If significant findings were produced for other financial metrics, this would suggest that a company's CEO facing personal misconduct allegations not only potentially makes the company more risk-averse, but also somehow affects its financial reporting and/or performance at a higher level. If research into other financial metrics did not produce significant results, this may lend legitimacy to the idea that the implications of tax avoidance are not purely financial; in the face of misconduct allegations against

the CEO, companies recognize tax avoidance as something that could potentially be deemed ethically questionable and create further scrutiny, and subsequently make the decision to plan less aggressively.

## **6. Conclusion**

This thesis seeks to evaluate whether misconduct allegations against public company CEOs for personal, off-the-job behavior have a material impact on the tax planning efforts undertaken by their respective companies. Prior research finds that a CEO exerts substantial influence on the overall ethical culture and attitudes of a firm (Rooji & Fine, 2018), the firm's financial reporting aggressiveness (Patelli & Pedrini, 2015), and in one way or another, the level of tax avoidance planned for by the firm (Dyreg et al, 2010). In particular, managers characterized as overconfident tend to take more financial risks and have been shown to perform more aggressive tax planning at the corporate level (Hribar & Yang, 2016, and Chyz et al., 2014). While studies show that accusations of fraud against a corporation (whether fraud actually occurred or not) tend to motivate the corporation to strengthen internal controls (Marciukaityte et al., 2006), existing literature has yet to consider this finding in the context of the significant influence wielded by the CEO and ask whether non-business-related accusations against the CEO have a measurable impact on the financial activities of the corporation. Because tax avoidance has not only financial implications but also ethical ones (Stainer et al., 1997), it serves as an appropriate proxy through which to measure the impact of CEO allegations – an issue that is inherently ethical in nature. The results of this thesis seek to bridge the gap in existing literature by finding the connection between CEO influence, the ethics of tax avoidance, and the impact of corporate fraud allegations. The results may also have implications for the corporate world – how firms treat and prepare for accusations

made against the CEO, and how firms consider whether their tax planning efforts are decided objectively and not unduly influenced by CEO whims or unrelated negative press.

Ultimately, the regression analysis I performed showed results that were not statistically significant, suggesting that accusations against a CEO for personal misconduct do not have a material impact on his or her firm's level of tax avoidance in the years following the accusations. Such findings may suggest that corporations' monitoring and governance systems effectively separate the CEO's personal life from corporate decision making, at least with respect to tax planning. However, while this thesis seeks to start a discussion on this question, it should not yet be considered conclusively answered. While not statistically significant, the results of this study provide insights that should motivate future research into the ethical considerations of tax avoidance, how tax avoidance is linked with the CEO of a firm, and the extent to which a CEO influences the culture and financial undertakings of his or her company.

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