Impact of Corrupt Tax Auditors and Tax Advisors on Taxpayer Compliance

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**Abstract**

We examine the impact on taxpayer compliance of corrupt auditors seeking bribes from audited taxpayers in the form of either a percentage of taxes and penalties payable or a percentage of income reported. The first experiment examines a setting where a taxpayer can choose to report lower or higher income in the presence of a collusively corrupt auditor seeking bribes from audited taxpayers in lieu of unpaid taxes and penalties. Our experimental results show that overall taxpayer compliance is reduced in the presence of a collusively corrupt auditor demanding bribes at levels up to the legally sanctioned penalty plus unpaid taxes for under-reporting.

We then examine taxpayer compliance in the presence of a coercively corrupt tax auditor where the coercive auditor demands bribes of audited taxpayers as a percentage of the income reported in addition to any unpaid taxes and penalties. We find that taxpayer compliance increases under such coercive auditors, but that such increases are not monotonic in the levels of bribe requested.

The second experiment examines whether the involvement of a professional tax advisor increases or decreases the percentage of income reported compared to the baseline compliance in the presence of a corrupt tax auditor. If the tax advisor serves more as a gatekeeper and moral authority, the percentage of income reported by the taxpayer client could increase. However, if the tax advisor serves to provide legitimacy to the noncompliant behavior of the taxpayer, then the percentage of income reported by the taxpayer client could decrease. Our experimental results show that in the absence of corrupt auditors, tax advisors are better at improving taxpayer compliance.

**Key Words:** Corrupt Tax Auditors, Tax Compliance, Tax Advisors, Experimental Economics.
1. Introduction

Underreporting of income (or tax evasion) is reasonably prevalent. Tax authorities counter this trend with tax audits and assessing penalties when the taxpayer is found to be underreporting income for tax purposes. Corrupt tax auditors can demand bribes at levels up to the legally sanctioned penalty plus unpaid taxes for under-reporting while tax advisors can provide a business cover for underreported taxes and collect a fee for their service. Tax auditors and tax advisors differ on many dimensions. Tax auditors work on behalf of governments to ensure (if they are not corrupt) that taxpayers are complying with the tax code and to collect the right amount of taxes (no more and no less). By contrast, a tax advisor is an advocate of the taxpayer (their client) and works to reduce their taxes as much as possible. A tax advisor may serve as a moral gatekeeper and refuse to accept clients that chronically underreport incomes since his professional license and future insurance premiums may be at stake if he develops a reputation for attracting dishonest clients.

In most industrialized countries, estimated compliance rates seem high given the low audit rates (Alm, 2012; Graetz and Wilde, 1985; Skinner and Slemrod, 1985). Non-economic factors such as social norms and interactions of taxpayers with others involved in the tax compliance process are presumed to have a significant influence on taxpayer compliance (Alm, 2012; Pickhardt and Prinz, 2014).

The presence of corrupt tax auditors can influence taxpayers’ compliance. It is a major issue in jurisdictions such as India, Taiwan and Thailand, as well as many Latin American countries (Hindriks, Keen and Muthoo, 1999; Sharma and Gunasekar, 2019; Trogler, 2005). Western industrialized countries such as Greece, Cyprus, Italy, Portugal and Spain are also not immune to this phenomenon (Litina and Palivos, 2016). Hindriks, Keen and Muthoo (1999,
p.396) refer to some high-profile tax evasion cases in Italy, U.K. and the U.S. In 2018, the Canada Revenue Agency dismissed seven officials for allegations of fraud and corruption involving senior team leaders and auditors at the tax-collection agency, with such high-profile cases of misconduct constituting just a fraction of the total instances of “high-risk misconduct” reported every year at the Canadian tax agency (Leblanc, 2018). Corruption and tax evasion often co-exist and reinforce each other (Amundsen, 1999; Barreto and Alm, 2003). With globalization, the impact of corruption on tax evasion is of concern to everyone around the world. DeBacker, Heim, and Tran (2015) find that the cultural norms of owners of capital from foreign jurisdictions can affect the compliance decisions of U.S. corporations, potentially making the latter less complaint and less responsive to enforcement efforts in the US. A global survey on fraud by Ernst and Young suggests that rich developed countries are not immune from corruption (Nelson, 2014), especially in the presence of corrupt or coercive tax auditors/collectors (Hindriks et al 1999). Recent studies document survey participants from the US and Western Canada expressing concerns regarding increasing levels of corruption in their respective jurisdictions (Transparency International, 2017; Transparency International Canada, 2018). Interestingly, 21% of the survey participants in the US believed that the tax elite – including the “Secretary of the Treasury, Inland Revenue Service and local government tax officials” – were corrupt (Transparency International, 2017).

Explicit corruption among tax auditors is often not as evident or prevalent in some jurisdictions. In this context, tax advisors may be relied upon as an alternate measure for reducing taxes payable and penalties if audited (Tullock, 1996). An OECD (2008) study into the role of tax intermediaries suggests that “aggressive tax planning typically requires the involvement of the professional” advisor. While this experimental study is not restricted to
contexts of aggressive tax planning, our context does allow for the presence of the intermediary
tax advisor offering a veneer of tax legitimacy. Detection of under-reported income by tax
auditors can be mitigated if taxpayers retain professional tax advisors to challenge tax auditors
with appropriate filing of documents and more sophisticated arguments based on knowledge
of tax law. Lee (2001) considers such behavior by taxpayers as self-insuring, and the amount
of under-reporting detected by the tax auditor in his model depends on the taxpayer’s self-
insurance. Such self-insurance can improve a taxpayer’s position (Gauthier and Goyette 2014).
The tax advisor also offers to a limited extent his own professional liability insurance in case
the advice to the taxpayer is misleading or directly results in a higher tax liability that was not
conveyed as part of the advice. It therefore follows that a tax advisor’s services could
potentially mitigate tax penalties, and therefore tax advisory fees may serve as a substitute for
additional taxes and penalties or even as a substitute for bribes imposed by a corrupt tax
auditor.\(^1\)

Research on the impact of the presence of corrupt tax auditors and tax advisors on
taxpayer compliance is sparse. A corrupt tax auditor upon auditing a taxpayer can benefit the
taxpayer by seeking a bribe in return for ignoring income evaded by the taxpayer, thereby
saving the taxpayer from having to pay the larger unpaid tax and penalty thereon. Such
corruption is considered ‘collusive’ and arises when corrupt public auditors and private
taxpayers collude to share rents generated by illicit under-reporting of income.

Public tax auditors in countries such as India, Taiwan, and Thailand, as well as some
Latin American countries, can also engage in ‘coercive’ corruption (Hindriks, Keen and

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\(^1\) An example where a tax advisor may improve taxpayers’ general compliance behavior is when the advisor turns
down a tax engagement with a client who seems inconsistent or not as forthcoming since the costs of retaining such
a client may be higher than the benefits (fees earned).
Muthoo, 1999; Marjit et al, 2000; Sharma and Gunasekar, 2019; Trogler, 2005). Under such corruption, a public official can coerce a private taxpayer into paying bribes above and beyond the taxes owed just to get a tax clearance or an opinion that the taxpayers have paid the assessed and correct amount of taxes. Coercive corruption is extortionary and involves the public tax auditor demanding bribes with the implicit threat of harassing the taxpayer with false claims of over-reported income. The private taxpayer may agree to pay coercive bribes in order to avoid the harassment of further audit scrutiny and the associated uncertainty of outcome that can be costly to the taxpayer regardless of whether she has truthfully reported her income. Such coercive bribes are often more ambiguous, and taxpayers are significantly averse to the uncertainty of such coercive bribes (Shleifer and Vishny, 1993). Sequeira and Djankov (2010) present survey data of corruption at ports to document how firms spend eight times more than the bribe requested just to avoid coercive harassment by corrupt public officials.

Coercive corruption may motivate taxpayers to under-report their incomes since better behavior is not rewarded if they are falsely implicated by coercive auditors. Alternatively, moderate amounts of coercive corruption may motivate taxpayers to be relatively more compliant in an attempt to create a moral distance between themselves and the corrupt tax auditor. Coercive corruption is facilitated by the power, tools or techniques that public tax auditors possess to over-state taxable incomes of private taxpayers. Hindriks et al (1999, p. 396) give examples of techniques that could be implemented by a coercive auditor: disallow or challenge legitimate deductions; charge tax on non-taxable incomes or initiate lies about the taxpayer’s characteristics such as the floor space of the taxpayer’s shop or the number and age of dependents.

While appeal procedures offer some safeguards against over-assessment, they are not
perfect nor costless. Coercive tax auditors can also impede the effectiveness of appeals with intimidation of even more harassment. Coercive corruption or extortion may be made more difficult when the underlying information on which it is based is hard or tangible. For example, hard evidence may allow the corrupt tax auditor to conceal the evidence and pretend he has found no conclusive evidence so as to continue his harassment of the taxpayer. However, the corrupt auditor may not be able to forge hard evidence. Khalil, Lawarrée and Yun (2010) offer an example in the setting of police investigating driving under impairment and state that the police officer “may ignore a tainted blood sample but cannot create one” (p. 180). The authors point in this context of driving under impairment that “[I]ncentive to deter bribery may lead a corrupt officer to extort innocent drivers” (p. 179). Mishra and Mookherjee (2013) explore collusive and coercive corruption in a setting of pollution where firms choose how much to pollute as well as the level of reported pollution.  

While collusion refers to corrupt tax auditors demanding bribes for fully or partially overlooking the incidence of underreported income by private taxpayers, coercive corruption or extortion refers to corrupt tax auditors extracting bribes against the threat of over-reporting the private taxpayer’s income and falsely accusing them for tax evasion. The first type of corruption is cooperative while the latter is antagonistic. The encounter between a private taxpayer and a public tax auditor is rife with both kinds of corruption.

Collusive corruption is usually cost-reducing for taxpayers while coercive corruption is usually cost-increasing for taxpayers. Both types of corruption can co-exist. Corrupt public tax

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2 This pollution setting may be more realistic than the coercive tax auditor in the context of developed countries given the soft nature of pollution metrics.
auditors who engage in both have greater bargaining power and can end up distorting private taxpayers’ incentives to under-report their incomes. While collusive bribery can “grease the wheels” in poorly incented workplaces, coercive bribery only leads to inefficiencies and “alienation of citizens from their government” (Klitgaard, 1997). As a result, tax authorities need to take measures to protect taxpayers from possible harassment that can be manifested by reporting more income than actually earned.

Arguably, coercive corruption or extortion may be a bigger problem in developing countries with its reliance on soft evidence compared to the developed countries reliance on hard evidence. Developing countries may also face more coercive tax auditors because of weak judicial institutions that lack the capacity to discover the truth or to uncover and sanction coercive tax auditors. Hard-information-based contracts allows accountants, lawyers and courts to intervene in potential extortion cases much more readily, while softer information makes it more difficult and expensive to appeal the corrupt auditor’s decision. However, some harassment by corrupt tax auditors may be hard to avoid since the tax systems of most jurisdictions (including developed countries) presume taxpayers assessed in audits to be guilty until they prove themselves to be innocent. The onus of proving innocence is on the taxpayers and not the tax auditors since taxpayers uniquely possess the information to determine their incomes and associated tax liabilities. Taxpayers’ reservation payoffs are affected once they consider the costs associated with proving their innocence.

Based on social norms theory (Cialdini, Reno, and Kallgren, 1990) and social identity

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3 Popular literature often does not distinguish between these two types of corruption and treats them both as illegal or immoral. As shown by the results of this study, the differences between these two types of corruption can be obfuscated in popular literature by not considering the nuances.

theory (Tajfel, 1982; Tajfel and Turner, 1979, 1986) from psychology and economics, we expect the presence of a collusive tax auditor to reduce taxpayer compliance while the presence of a coercive tax auditor could increase taxpayer compliance.

Compared to the benchmark effect of a corrupt tax auditor, taxpayers may be relatively more or less compliant in the presence of a tax advisor. If the tax advisor is regarded as a gatekeeper and moral authority, the percentage of income reported by the taxpayer could increase. In contrast, if the tax advisor is seen as legitimizing tax evasion, then the percentage of income reported by the taxpayer client could decrease. In this context, tax advisory fees may serve as a substitute for unpaid taxes and penalties, or even as a substitute for bribes imposed by the corrupt tax auditor.

Accountants and other tax advisors are arguably principal contributors to the tax avoidance industry, benefit greatly from its continuity, and have capacity to reduce the extent of tax avoidance (but often do not). This echoes similar normative claims by Russell and Brock (2016). Thus, tax advisors as gatekeepers can be compared in an experimental setting to the role of tax auditors.

We conduct two experiments utilizing tax terminology and a between- and within-subjects design to examine the impact of the presence of a corrupt tax auditor on taxpayer compliance and the relative impact of the presence of a tax advisor compared to the presence of a corrupt tax auditor on individual taxpayer compliance. We have two types of corrupt auditors in our experiment: collusive and coercive. Experiment participants in both studies were either 4th year undergraduate accounting majors or first year graduate students pursuing their Master of Accountancy degree in a prestigious North American business school.
The first experiment examines the impact of the presence of a corrupt auditor who seeks in collusion with audited taxpayers different levels of bribes in lieu of unpaid taxes and penalties for unreported income. Once the taxpayer knows that she is being audited by a collusive corrupt auditor, she can report higher income to reduce the corrupt auditor’s bribe on any potential under-reported income even if this reduces her after-tax income. Such a taxpayer could also under-report income since the bribe never exceeds the unpaid taxes and penalty (otherwise nobody would agree to pay a bribe), and this could increase her after-tax income. Our experimental results show that while the mere presence of a collusive corrupt auditor (where such presence confers no economic benefit to the taxpayer) has no impact on taxpayers’ compliance, the presence of such an auditor conferring economic benefits to the taxpayers (by accepting bribes less than the legally sanctioned penalty plus taxes payable) reduces overall taxpayer compliance. In other words, a collusively corrupt auditor may end up being in the tax-minimizing citizen’s best interest if the auditor asks for a bribe less than the level of taxes owed plus penalties, and is not coercive.

This first experiment is extended by shifting from a collusive corrupt tax auditor to a coercively corrupt tax auditor. Once the taxpayer knows that she is being audited by a coercively corrupt tax auditor, she can either report lower income to reduce the coercive auditor’s requested bribe (since the bribe is a percentage of reported income) or report higher income to create a moral distance between herself and the coercive auditor, even though the latter leads to an increase in the coercive auditor’s bribe and potentially reduce her own after-tax income. Modelling the harassment or extortion costs as (partly) a function of income is consistent with Marjit et al (2000).

Our experimental results show that moderate bribes demanded in addition to taxes and
penalties by a coercive auditor improved compliance. However, such improvements in compliance disappeared with higher levels of bribe demanded.

Our second experiment examines, by holding the economic benefits to taxpayers constant, whether the presence of a professional tax advisor (and in the absence of a corrupt tax auditor) increases or decreases the percentage of income reported as compared to the percentage of income reported in the presence of a collusively corrupt auditor. Our experimental results show that the percentage of income reported in the presence of a tax advisor (and in the absence of a corrupt auditor) is significantly higher compared to the percentage of income reported in the presence of the corrupt auditor.

Our study contributes to the existing literature on taxpayer compliance in multiple ways. Prior literature notes that interactions of taxpayers with others involved in the tax compliance process, including tax auditors and tax advisors, can have a significant influence on taxpayer compliance (Alm, 2012; Pickhardt and Prinz, 2014). However, prior literature has not differentiated between the impact of the mere presence of corrupt tax auditors with no economic consequences on taxpayers versus the impact of the presence of corrupt auditors coupled with economic benefits accruing to taxpayers, on taxpayer compliance. Our results indicate that when the economic benefit to taxpayers is held constant, the mere presence of a corrupt tax auditor may have no impact on taxpayers’ compliance behavior. It is only when the presence of a collusively corrupt tax auditor confers economic benefits to taxpayers that the compliance behavior the latter is adversely affected. Thus, our results indicate that the mere presence of corrupt tax auditors in positions of authority may not necessarily adversely affect overall tax compliance in a society. We also contribute to existing literature on taxpayer compliance by showing that the impact of the presence of a collusively corrupt auditor may not
be the same as the impact of the presence of a coercively corrupt auditor. More specifically, we find that while the presence of a corrupt auditor can reduce taxpayer compliance, the presence of a coercively corrupt tax auditor who demands moderate bribes can have a surprisingly positive impact on taxpayer compliance. Our results also show that the presence of collusively corrupt auditors and tax advisors may have qualitatively similar impact on taxpayers’ decisions on how much income to report to the tax authorities. However, we also additionally show that the relative compliance is higher in the presence of a tax advisor compared to the compliance in the presence of collusive and, by extension, coercively corrupt tax auditors.

To the best of our knowledge, this is the first study to examine in an experimental context the impact of the presence of a collusively corrupt auditor, a coercively corrupt auditor and a tax advisor, respectively, on taxpayers’ compliance.

Our results have policy implications as well. Governments and tax authorities with limited budgets often have to make choices about where to target their enforcement. Our results suggest that in an environment where corruption is endemic, reducing the economic benefits that a corrupt tax auditor can offer a taxpayer can reduce non-compliance. Our results also suggest that governments should be aware of the type and level of corruption in their tax administration so they can implement appropriate corrective action. Our results also suggest that the involvement of tax advisors could be encouraged since they may have a positive impact on overall tax compliance.

The rest of the paper is organized as follows. Section 2 described the literature, theory and our model, while Section 3 describes the experiments with its participants and settings. Section 4 describes the results and concluding remarks are summarized in Section 5.
II. The Model

Taxpayer against a corrupt auditor

We model in an experimental setting a rational taxpayer who knows her income, the tax law, the penalty for under-reporting income, the probability of being audited by a corrupt auditor, and the probability of successfully being detected for under-reporting income. Such a taxpayer must decide how much of her income to report to the tax authority in the presence of a tax auditor who is corrupt.

The taxpayer earns income of $Y$ and decides to report $aY$ where $0 \leq a \leq 1$ and pays a proportional income tax equal to $t \cdot aY$\(^5\). The taxpayer is audited with a fixed probability of $p$. If found to have under-reported income, the taxpayer faces a penalty $s$ in addition to the unpaid tax liability uncovered by the tax auditor, where $s \geq 1$ so that the taxpayer pays at least twice the amount of taxes evaded [$t(Y - aY)$]. We fix $s = 1$ for simplicity (or a penalty equal to the unpaid tax liability), and therefore the fine plus taxes owed equals $(s+1)t(Y - aY)$ or $2t(Y - aY)$.

If the unpaid tax liability [$t(Y - aY)$] was $1$, then the unpaid tax liability plus penalty would be $2$.

The taxpayer faces a corrupt auditor with a fixed probability $k$, where $k$ can be interpreted as the level of corruption in the tax system. Settings of $k = 0$ would imply no corruption and $k = 1$ would imply that all tax auditors are corrupt\(^6\). If audited by a corrupt tax auditor, the taxpayer can escape the penalty $s$ and tax $t$ on the unreported income by paying a bribe in the amount of $b \cdot s \cdot t + c \cdot t$ on the income evaded of $(Y - aY)$, where $0 < b < 1$ and $0 < c < 1$.

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\(^5\) Note that $(Y - aY)$ is the amount of income evaded. Higher evasion levels make corruption more profitable for corrupt auditors. Higher levels of under-reporting could also increase the bribe $(b)$ when audited by a corrupt tax auditor, especially for systems with higher prevalence of corrupt auditors.

\(^6\) To simplify the experimental task, we assume that all auditors are corrupt ($k=1$).
1. In other words, the bribe is a positive amount that is less than the officially sanctioned penalty and tax on the unreported income, since otherwise no taxpayer would pay the bribe, unless coercion is involved.\textsuperscript{7} We assume that the auditor knows or is able to detect the true income of the taxpayer during the audit. We ignore additional costs involved in conducting the audit. We fix $b = \frac{1}{2}$ and $c = 1$ for simplicity in our Positive treatment as described below. The taxpayer is assumed to be able to afford paying the bribe, and therefore ready to engage with a corrupt tax auditor. This setting with $b < 1$ and $c = 1$ ensures that the taxpayer is always better off when audited by a collusively corrupt tax auditor. This finding is consistent with the game theoretic model of Singh (2008). Our model predicts that taxpayers will reduce the percentage of income reported ($\alpha$) under collusively corrupt tax auditors because such auditors will offer taxpayers an opportunity to pay a lower bribe ($b < 1$) than the required higher penalty ($s > 1$) for under-reporting income.

The presence of the corrupt tax auditor can also change taxpayer compliance for non-economic reasons. According to Gino, Ayal and Ariely (2009) observing others’ behavior may change one’s own dishonesty by affecting the saliency of the ethical nature of the contemplated decision. Thus, compared to their perception about the unethical nature of tax evasion in the absence of corrupt tax auditors, the presence of corrupt tax auditors may influence taxpayers to perceive tax evasion as being less unethical. The change in perception can make taxpayers less compliant in the presence of corrupt tax auditors.

Observing the unethical behavior of another person can also change the observer’s understanding of social norms relating to such dishonest behavior (Cialdini and Trost, 1998).

\textsuperscript{7} If $b = 1$, and $c = 1$, the taxpayer should report as if there were no corrupt tax auditors (even if corrupt auditors exist in the system) because the taxpayer does not benefit from being audited by a corrupt tax auditor. We test this expectation in our Exact Same treatment as described below.
Cialdini, Reno, and Kallgren (1990) posit two types of social norms: descriptive norms and injunctive norms. Descriptive norms influence the decisions people make in specific situations, while injunctive norms influence the decisions that people either approve or disapprove of in specific situations. According to norm-focus theory, (Cialdini et al., 1990; Reno, Cialdini and Kallgren, 1993), the specific norm that comes into play depends on the social context involved.

In the context of tax evasion, the presence of corrupt tax auditors may change taxpayers’ perception regarding the appropriate social norms relating to such behavior. Alm (2012) notes that there seems to exist a social norm of tax compliance that can be affected by the institutions that individuals face. In the context of this paper, taxpayers may perceive tax auditors as authority figures. Furthermore, the bribe proposed by the collusively corrupt tax auditor could also be advantageous to the taxpayer. Thus, the taxpayer in this context is susceptible to be influenced by descriptive norms rather than injunctive norms. In such situations, taxpayers may view tax auditors as being pragmatic and like themselves, and thus may tend to identify themselves with the tax auditors and emulate their behavior. According to social-identity theory (Tajfel, 1982; Tajfel and Turner, 1979, 1986), group members use their own group to maintain and enhance a positive social identity and self-esteem, and therefore are impelled to confirm to the norms that provide them with an in-group identity. Consequently, the presence of collusively corrupt tax auditors may indicate to taxpayers that tax evasion is socially acceptable, potentially making them less compliant. It is in this context that the presence of a corrupt tax auditor could influence the taxpayer to reduce compliance even when the corrupt auditor does not confer any incremental monetary advantage (Exact Same treatment). In our Almost Same and Positive treatments, the impact of
the presence of corrupt tax auditors on reducing taxpayer compliance could be greater since such presence is also economically beneficial to the taxpayer (being only marginally beneficial in the *Almost Same* treatment while being relatively significant in the *Positive* treatment).

In contrast, the presence of a coercive tax auditor (Pest) may impel taxpayers to attend to injunctive norms. The bribe demanded by the coercive tax auditor acts as an additional tax, thereby leaving the taxpayer with a lower after-tax income. In the presence of such a monetary disadvantage to the taxpayer, the taxpayer may be more susceptible to focus on the unethical nature of the requested bribe and potentially disapprove of such a request. Further, social-identity theory would suggest that taxpayers in this context could view the coercive tax auditor as an out-of-group member and may want to distance themselves from the unethical behavior of the tax auditor to maintain a distinctive and positive social identity (Brewer, 1993; Tajfel and Turner, 1986). Consequently, taxpayers may increase their reported income in the presence of a coercive tax auditor, at least when such increased tax compliance is not overtly monetarily burdensome on them.⁸

The coercively corrupt tax auditor in our setting demands a bribe as a percentage of the reported income and not the actual income. We call such a corrupt tax auditor a *Pest*. In our specific experimental model, the *Pest* demands a bribe of 10% of reported income. We investigate in our experimental setting whether the existence of a *Pest* increases or decreases the percentage of income reported. We also examine whether a *Double Pest* demanding a

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⁸ While this study is silent on distribution issues of collusive and coercive corruption, we cite Hendriks et al (1999, p/397) who conclude that corruption is “unambiguously regressive: the richest have most to gain from evading taxes and are least vulnerable to extortion (because it is harder to credibly over-report their incomes),” whilst the poor “have few taxes to evade and their incomes more plausibly be over-reported.”
bribe equal to 20% of reported income increases or decreases the percentage of income reported. It is much more monetarily disadvantageous to the taxpayer to be compliant in the face of a 20% bribe compared to a 10% bribe. Therefore, taxpayers may be less inclined to morally distance themselves by increasing their compliance from the coercively corrupt auditor in the face of a 20% bribe compared to the situation where the extortionary bribe is only 10% of reported income.

We are interested in seeing whether taxpayer compliance changes with the presence of a corrupt tax auditor and the level of bribes requested. We therefore propose the following hypotheses in alternate forms.

H₁: Taxpayer compliance will depend on the presence or absence of a collusively corrupt tax auditor.

H₂: Taxpayer compliance will depend on the level of bribe requested by the coercive corrupt tax auditor.

H₃: Taxpayer compliance will be different between the presence of a collusive tax auditor and a coercive tax auditor.

**Taxpayer compliance and the tax advisor**

Tax professionals are often involved with or even initiate aggressive tax planning that can potentially slide into tax evasion. Russell and Brock (2016) document an extensive list of historical anecdotes of tax planning products and services offered by major accounting firms that were eventually found to have violated the tax law. According to Sikka and Hampton (2005, 333), aggressive tax shelters were directly marketed to taxpayers via cold calls with bonuses for staff making the most sales. Many government studies (e.g., PAC 2013; PSI 2003; PSI 2005; and PSI 2006) confirm such evidence of wrongdoing by major professional tax advisors obtained under oath, and for which major fines were levied on the offending
professional services firms.

Perkins (2010) argues that tax lawyers can both facilitate tax evasion as well as serve as gatekeepers for tax authorities, but that this dual role can sometimes muddle up the net impact of their involvement. Wakolbinger and Haigner (2009) demonstrate in an experimental setting that peer advice – especially from low-compliance participants – reduces taxpayers’ compliance rate. Boadway, Marceau and Mongrain (2002) show in their theoretical model that sophisticated tax evasion requiring collaboration of at least two taxpayers can be facilitated by a professional tax advisor to come up with a win-win outcome for both taxpayers at the expense of the tax authority.9

A tax advisor may therefore act more like a gatekeeper interested in accurate tax reporting or an advocate for the client who is more interested in reporting the lowest taxable income possible. Relying on the tax advisor’s guidance could either reduce the probability of getting caught by a tax audit or reduce the “moral cost” (or both). Individuals may use “moral wiggle room” to act in their self-interest when they have conflicting motivations (Dana, Weber and Kuang 2007; Haisley and Weber 2010) or take advantage of the “moral wiggle room” when a tax advisor is involved, and this could lead to less compliance.

The tax advisor is presumed to be familiar with how the tax authority resolved similar compliance issues with his other taxpayer clients, and therefore improve the taxpayer’s reporting decisions. The tax advisor also offers (to a limited extent) her own professional liability insurance in case the advice is misleading or directly results in a higher tax liability.

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9 This joint tax evasion is different from the legally permissible multilateral tax planning (as coined by Scholes and Wolfson 1992) which takes into account the tax positions and objectives of all contracting parties (and not just the tax authority), both in the present and the future.
that was not conveyed as part of the advice. It therefore follows that a tax advisor’s services could potentially mitigate tax penalties, and therefore tax advisory fees may serve as a substitute for tax penalties or even as a substitute for bribes imposed by the corrupt tax auditor.

We examine in an experimental setting using a within-subjects design, whether the presence of a professional tax advisor (in the absence of a corrupt auditor) increases or decreases the percentage of income reported compared to the percentage of income reported in the presence of a collusively corrupt tax auditor.\textsuperscript{10} Holding the benefit to the taxpayer from the presence of the tax advisor and tax auditor constant, the relative impact on taxpayers’ compliance in these two different settings may not be clear. From a norm-focus theory perspective, the presence of either the tax advisor or the collusively corrupt tax auditor could influence taxpayers to focus on descriptive norms. However, tax auditors may be viewed as being more authoritative than tax advisors, and thus better able to guarantee the final tax liability position of the taxpayers upon being audited. Taxpayers may therefore prefer bribing the tax auditor compared to engaging a tax advisor and may be more comfortable being less compliant in the presence of the collusively corrupt tax auditor. On the other hand, engaging a tax advisor may provide taxpayers with a veneer of legitimacy to behavior that may arguably be considered tax evasion. From a social-identity theory perspective (described earlier), taxpayers may be better able to maintain or enhance a positive social identity and self-esteem in the presence of a tax advisor, where the latter is

\textsuperscript{10} We restrict our focus to the special case where the taxpayer hires the tax advisor after she finds out that she is being audited (as opposed to hiring at the time of filing the tax return). The main reason for setting the timing of this decision is to maintain the taxpayer’s economic benefit from the presence of a tax advisor to be identical to the economic benefit to engaging with a corrupt tax auditor. Tax advisors offer their services to taxpayers who have been selected for audit scrutiny by tax authorities (Barrett Tax Law, 2019; Farber Tax Solutions, 2019; Koroll and Company, 2019).
regarded as an in-group member. In this context, the tax advisor may be viewed as legitimizing tax evasion compared to the tax auditor. If this were the case, the percentage of income reported by the taxpayer client could decrease in the presence of the advisor compared to the presence of the auditor. We therefore test the following hypothesis in alternate form.

H₄: Taxpayers’ compliance in the presence of a tax advisor will be different from their compliance in the presence of a collusively corrupt tax auditor.

III. Experiments

Experiment I: Compliance in the Presence of Corrupt Auditor

A computer-based experiment using z-Tree (Fischbacher, 2007) was conducted in which 142 fourth-year undergraduate and first-year graduate students enrolled in advanced financial accounting and managerial tax planning courses at a major North American university participated. Of the 142 participants, 98 indicated that they had filed a tax return, with the mean period of filing tax returns being 3.8 years. The experiment was conducted over 17 different sessions with an average of eight participants per session. The students took an average of 75 minutes to complete the experiment and earned on average of $15 per hour. Participants were told not to disclose the details of the experiment to any other students who may participate in subsequent sessions. Instructions on steps and decisions to be taken by the participants were conveyed via the computer. To further familiarize the participants with the

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¹¹ Thus, while all our participants were students, they nonetheless included individuals with diversity of tax filing experience. Further, many of our master’s level students had returned to university after being in the job market for several years. Our master’s program includes non-traditional students with backgrounds from the sciences and humanities, thus our subject pool was not entirely made-up of accounting undergrads alone. Finally, many of our undergraduate students had summer jobs, and therefore taxable incomes to report and taxes to pay.
experiment, three practice rounds were administered each session during which participants gained familiarity over the experimental details. These practice rounds did not count towards their final earnings. An experimental currency lira was used, where 100 liras equaled one Canadian dollar.

Participants were provided with an initial endowment of 500 liras for showing up for the experiment. Their cumulative earnings from the experiment were added to or subtracted from their initial endowment and the final amount was paid to them by cheque.

Participants were provided with an income of 100 liras for each round of the experiment.\(^{12}\) Participants were then asked to report to the tax authority any portion from zero to 100 percent of their income and pay a 30% income tax on the income reported. After the reporting of their income, participants faced the possibility of their income being audited with a probability of 30%. The audit uncovered all undisclosed income in that period with a probability of one. Upon being audited, participants had to pay taxes on the unreported income plus a penalty of 100% of the unpaid tax. Each round was independent of the other rounds, and the decisions of other participants had no effect on the economic payoff to a particular participant.

Participants were then asked to report the percentage of their incomes to the tax

\(^{12}\) We decided on endowing our participants with identical incomes instead of requiring them to earn their income to reduce the duration of the experiment to within 75 minutes. In our experience, 90 minutes is the maximum length that participants can engage in an experiment before fatigue sets in. Second, most of our students commute thereby placing a premium on their time. The average earnings from the experiment was designed to reflect opportunity costs. Earned historical income instead of endowed income could potentially introduce another source of variance amongst participants that we wanted to avoid: differences in incomes and associated wealth. In a tax compliance context such as ours, the impact of requiring participants to earn their income versus endowing them with income is uncertain. Past research on the impact of earned income versus endowed income on tax compliance decisions offers mixed results (Alm, Jackson and McKee, 2004; Boylan and Sprinkle, 2001; Bühren/Kundt, 2013; Choo, Fonseca and Myles, 2014; Durham, Manly, and Ritsema, 2014; Kirchler, Muehlbacher, Hoelzl and Webley, 2009).
authority over 16 independent rounds, consisting of two components of eight rounds each. The first component of eight rounds had no corrupt auditor, while the second component of eight rounds included a corrupt auditor. The type of corrupt auditor was tested using a between-subjects treatment and included the following three different treatments:

Positive: This type of collusively corrupt auditor demanded taxpayers to pay a bribe equal to the taxes owed plus half the penalties required under the law (i.e., $c = 1$ and $b = \frac{1}{2}$). If the tax assessed on unreported income was $1 and the penalty equal to 100% of the assessed tax, then an uncorrupt auditor would require taxpayers to pay $2, while a Positive corrupt auditor would demand $1.50.

Almost Same: In this case, $b = 0.9$, and $c = 1$, and therefore the taxpayer (in the above context) would be asked to pay a bribe of $1.90 consisting of $1 in unpaid taxes and $0.90 in penalty. In this treatment, the cash outflow required to pay the bribe was almost, but not exactly, the same as the cash outflow resulting from refusing to pay the bribe. We administered this treatment to examine whether taxpayers’ compliance would be affected by the modest economic benefit conferred on them by the presence of the collusively corrupt tax auditor.

The economic benefit was made large enough to overcome the psychological or mental cost to

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13 To control for order effects, we administered separate sessions reversing the within-subjects auditor/no auditor treatment by introducing the corrupt auditor in the first eight rounds, followed by no corrupt auditor in the next eight rounds for approximately half of the participants in the Pest and Positive between-subjects treatments. Preliminary analysis did not reveal any order effects. Therefore, we did not reverse the order of administering the auditor/no auditor in the within-subjects treatment for the remaining three treatments: Double Pest, since it was similar to the Pest treatment, and the Exact Same and Almost Same treatments since they are similar to the Positive treatment. Our preliminary analysis shows that the order in which the corrupt auditor was introduced did not affect our results. As a result, we combined the data for a specific treatment and lined up the data such that eight rounds with no corrupt auditor was listed first, and the other data listed next. Our analysis reported below is based on this rearranged dataset. Our decision not to reverse the order of administering the auditor/no auditor within-subjects treatment for some of our between-subjects treatments meant that the number of participants in those three treatments (24 in the Double Pest treatment, 25 in the Exact Same treatment and 17 in the Almost Same treatment) was less than the number of participants in the other two treatments (40 in the Positive treatment and 36 in the Pest treatment).
taxpayers of changing their compliance behavior, but not large enough to provide a significant economic advantage to them.

*Exact Same:* In this case, \( b = 1 \), and \( c = 1 \), and therefore the taxpayer (in the above context) would be asked by the corrupt auditor to pay a bribe of $2 consisting of $1 in unpaid taxes and $1 in penalty. This treatment imposes exactly the same cash outflows on taxpayers regardless of whether the auditor is corrupt or not. We administered this treatment to examine whether taxpayers’ compliance is affected by the mere presence of a collusively corrupt tax auditor, where such presence confers no economic benefits to taxpayers. When there is no difference in taxpayers’ monetary outcomes from the presence or absence of a collusively corrupt tax auditor, then the research question being examined is whether psychological factors and social norms alone can affect taxpayers’ compliance.

*Pest:* In this case, the taxpayer would have to pay 10\% of the income reported as a bribe if audited by a *Pest* auditor in addition to the taxes and penalty due on the unreported income. In other words, the bribe would have to be paid regardless of whether any unreported income was assessed. In this case, the 10\% bribe acts as an additional tax or levy on the reported income of the participant. In the above context, the taxpayer would have to pay \( 0.1Y + 2t(Y- αY) \). We administered this treatment to examine whether taxpayers’ compliance is affected by the presence of a coercively corrupt auditor who imposes a modest economic cost to taxpayers.

*Double Pest:* In this case, the taxpayer would have to pay 20\% of the income reported as a bribe if audited by a *Double Pest* auditor in addition to the taxes and penalty due on the unreported income. In the above context, the taxpayer would have to pay \( 0.2Y + 2t(Y- αY) \). We administered this treatment to examine whether taxpayers’ compliance is affected by the presence of a coercively corrupt auditor who imposes a significant economic cost to taxpayers.
Experiment II: Compliance in the presence of Tax Auditor vs Professional Advisor

A computer-based experiment with similar economic incentives and similar participants (as in the Positive treatment from Experiment I) was designed using z-Tree and conducted to assess whether the presence of a collusively corrupt tax auditor versus the presence of a professional tax advisor (and a non-corrupt tax auditor) had any differential impact on taxpayers’ compliance in terms of the percentage of income they reported. This experiment was conducted using 47 new participants over six different sessions with an average of eight participants per session. Of the 47 participants, 27 indicated that they had filed a tax return, having filed a tax return for a mean period of 3.72 years. The experiment took an average of 75 minutes to complete and students earned on average $15 per hour. As with Experiment I, participants were told not to disclose the details of the experiment to any other students who may participate in subsequent sessions. Instructions on steps and decisions to be taken by the participants were conveyed via the computer. Participants were asked to decide on the percentage of their income they want to report to the tax authority, first in the presence of a corrupt tax auditor (for 8 rounds), and then in the presence of a tax advisor (and a non-corrupt tax auditor) which could reduce taxpayers’ uncertainty regarding the tax liability (also for 8 rounds). Differences in percentage of income reported between these two contexts were tracked over the 16 rounds to see if learning was taking place, and the differences were computed and analyzed.

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14 We achieve this change by framing the bribe as either a payment of a fee to a tax advisor versus a payment of a bribe to a corrupt tax auditor (see the Appendix for details). Everything else was kept constant to achieve a single manipulation.

15 The order of the presence of the tax auditor and tax professional was reversed for approximately half of the participants. No order effects were detected, and therefore data from all participants were combined for subsequent data analysis.
IV. Results

Experiment I: Compliance in the Presence of a Corrupt Auditor

Data Analysis

We are primarily interested in finding out if and how the presence or absence of a corrupt auditor affected participants’ tax reporting behavior. Our dependent variable is the difference between the average compliance (as measured by income reported as a proportion of income earned) in some of the rounds with and without the corrupt auditor. Since there could be learning occurring in the early rounds of each of the two sets of eight rounds with and without the corrupt auditor, using data from all eight rounds in our analysis would mean using data affected by such learning and thus bias our results. On the other hand, using data from only the last one or two rounds of each set (7th and 8th in the first set and 15th and 6th in the second set) is also beset with the problem of random variation in behavior across individual rounds, and the end-of-experiment behavior that may likely affect compliance decisions in the last few rounds in each set. Therefore, we present and analyze results using averages over the last four (three) rounds from the two sets respectively.\footnote{We also conducted the tests presented in the paper using data from all eight (two, one) round(s) in the presence and absence of the corrupt auditor. We present differences in results obtained using these data in later footnotes.} Our data analysis using these differences is both within-subjects (i.e., we examine whether these differences are significant within each between-subjects treatment), as well as between-subjects (i.e., we examine whether the difference in differences are also significant).

Figure 1 provides the average percentage income reported in the absence and presence of the corrupt auditor respectively by each of our five different between-subjects treatments,
and further separated by the order in which the within-subjects treatment of the presence of a corrupt auditor was administered in the case of the *Positive* and the *Pest* treatments. While there is variation in the level of compliance across the different treatments, we are not interested in such variation. Rather, we are interested in whether or not the presence or absence of a corrupt auditor made a difference to the compliance of our participants, and whether such differences are significantly different between the five between-subjects treatments (i.e., difference-in-difference). Note that the direction of change in compliance in the presence and absence of the corrupt auditor is identical irrespective of the initial level of compliance and order of administering our within-subjects treatment in the *Positive* (i.e., Positive v. Reverse Positive) and *Pest* (Pest v. Reverse Pest) treatments. Therefore, we believe our results are not due to mean reversion from extreme initial compliance levels and we therefore believe that the initial difference in compliance between the different between-subjects treatments has no impact on the inferences made in our study.

*Within-Subjects Difference:*

Panel A of Table 1 provides the mean difference in the percentage of income reported in the last four (three) rounds in the absence and presence of the corrupt auditor by each of our three between-subjects treatments. Our main results reported in Panel B of Table 1 show if such differences are statistically significant. Specifically, Panel B of Table 1 shows that the percentage of income reported (compliance) declined when participant taxpayers faced the *Positive* auditor (at statistically significant levels with \( p \) values less than or equal to .01 for both difference measures). In the *Positive* treatment, the percentage of income reported declined by an average of 11.00 (12.25) percent between the last four (three) rounds in the

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17 We also conducted non-parametric tests and all the results and inferences remain identical to those discussed in the paper.
presence and absence of the corrupt auditor respectively, suggesting that a lower aggregate tax liability and penalty convinced taxpayers to deal with the collusively corrupt auditor thereby increasing their tax noncompliance.

As reported in Table 1, compliance also declined in the presence of the Almost Same auditor for both difference measures. The percentage of income reported declined by an average of 12.10 (14.73) percent between the last four (three) rounds in the presence and absence of the corrupt auditor respectively.\(^\text{19}\) However, such a decline was only marginally significant with \(p\)-values less than 0.10 (see Panel B of Table 1).\(^\text{20}\) This result is nonetheless interesting and relevant given that there was only a marginal reduction in the aggregate tax liability plus penalty (compared to the legally sanctioned rules) in the presence of such an auditor. This behavior suggests that the economic gains need not be significant for taxpayers to make a deal with corrupt auditors and may also be explained by transaction costs avoided by the taxpayer in having their tax audit completed by an understanding Almost Same corrupt auditor rather than having to deal with a non-corrupt auditor and face the uncertainty of having to pay the full taxes and penalties owed.

In the case of the Exact Same auditor, the percentage of income reported also decreased for both difference measures – as shown in Panel 1 of Table 1. The percentage of income reported declined by an average of 8.63 (9.10) between the last four (three) rounds in the absence and presence of the corrupt auditor respectively.\(^\text{21}\) However, neither of these

\(^{18}\) In other words, the percentage of income reported declined from an average of 70.83 and 71.65 in the first stage to an average of 59.83 and 59.40 in the second stage.

\(^{19}\) In other words, the percentage of income reported declined from an average of 65.65 and 64.88 in the first stage to an average of 53.55, and 50.16 in the second stage.

\(^{20}\) Results were insignificant at the 0.10 level when data from all eight (two, one) round(s) were used.

\(^{21}\) In other words, the percentage of income reported declined from an average of 66.29 and 65.19, in the first stage to an average of 57.66 and 56.09, in the second stage.
differences was statistically significant, suggesting that in the absence of any economic gains from dealing with the corrupt auditor, tax morale was not impacted by the mere presence of a corrupt auditor. This kept the participants indifferent between dealing with a corrupt tax auditor and a non-corrupt tax auditor. However, as the results from the Almost Same treatment show, the economic benefit due to the presence of the collusively corrupt auditor need only be marginal for the taxpayer to make a deal with a corrupt auditor. We were able to reject the null form of $H_1$ in the case of Positive and Almost Same treatments at a $p$-value of 0.01 and 0.1 respectively, but not for the Exact Same treatment.

In the case of a Pest coercive auditor, compliance actually improved for both difference measures as reported in Panel 1 of Table 1. Taxpayers increased the percentage of income reported by an average of 7.80 (8.08) percent between the last four (three) rounds in the absence and presence of the coercively corrupt auditor, respectively. Such behavior may not be in the interest of the taxpayers, suggesting that when the economic cost is marginal, taxpayers may improve their compliance to distance themselves morally from a coercively corrupt Pest auditor as suggested by social-norm and social-identity theories. That is, taxpayers may find a coercively corrupt Pest auditor to be morally repugnant and want to create a moral distance between themselves and such an auditor. They may strive to achieve this moral distance by increasing their compliance, even though such increased compliance leads to higher taxes and higher bribes.

Finally, in the case of a Double Pest corrupt auditor, compliance remains the same both

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22 In other words, the percentage of income reported declined from an average of 49.39 and 50.20 in the first stage to an average of 57.19 and 58.29, in the second stage.
23 Results were insignificant at the 0.10 level when data from all eight rounds were used, significant with a $p$-value of 0.02 when data from the last two rounds were used, and significant with a $p$-value of 0.10 level when data from the last round was used.
in the presence and absence of the coercively corrupt auditor as shown in Panel 1 of Table 1. Both difference measures are insignificantly different from zero, thereby allowing us to reject H2 – i.e., the impact on compliance of the presence of a coercive tax auditor does depend on the level of the bribe demanded: 10% versus 20%. 24 Seeking to create a moral distance between themselves and the Double Pest auditor is relatively costly compared to the cost of creating a moral distance between themselves and the Pest auditor above. Thus, our participants in the Double Pest treatment appear not to have used relatively higher compliance as a mechanism to achieve such moral distance. This result suggests that taxpayers will be willing to bear only moderate economic costs to increase their compliance in a bid to maintain a positive self-image of themselves.

**Between-Subjects Differences**

From the within-subjects results above, it is clear that while the presence of a collusively corrupt auditor had a consistently significant negative impact on the compliance of participants in the Positive treatment, the effect was opposite in the presence of the coercively corrupt auditor in the Pest treatment. To explore whether or not such an impact was significantly different from each other, we conducted a difference-in-difference analysis. As reported in Tables 2 and 3, the between-subjects analysis of the difference-in-difference measures across the five treatments using data from the last four and last three rounds respectively in the absence and presence of the corrupt auditor indicates that the impact of the presence or absence of the corrupt auditor on the participants’ compliance behavior is significantly different in the Positive treatment as compared to the impact on compliance

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24 In other words, the percentage of income reported changed from an average of 64.43 and 64.42 in the first stage to an average of 63.43 and 60.97 in the second stage.
behavior in the *Pest* treatment, allowing us to reject H<sub>3</sub> - i.e., taxpayer compliance is different in the presence of a collusive tax auditor compared to in the presence of a coercive tax auditor. The between-subjects analysis of the difference-in-difference measure of the mean compliance in the last three rounds in the absence and presence of the corrupt auditor also shows that in addition to the mean compliance in the *Pest* treatment being significantly different from the mean compliance in the *Positive* treatment, it is also significantly different from the mean compliance in the *Almost Same* treatment, thereby allowing us to reject H<sub>3</sub>. All other comparisons are insignificant and have not been presented.

Data on the following control variables were collected: gender, age, marital status, having children, history of having filed a previous tax return, number of years that tax returns had been filed historically, whether taxpayers believed that paying taxes was a moral issue, and whether taxpayers believed that taxes should always be paid. None of the control variables with the exception of gender were statistically significant in explaining taxpayers’ compliance. While females were overall significantly more compliant than males, this difference did not change the results presented in the paper.

**Experiment II: Compliance in the Presence of Tax Advisor (without Corrupt Auditor)**

Figure 2 shows that the percentage of income reported is significantly higher in the

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25 When data from all eight (two, one) rounds are used, the mean within-subjects difference in compliance in the *Positive* treatment is different from the mean within-subjects difference in compliance in the *Pest* treatment with a p-value of 0.04 (0.02, 0.12). Likewise, the mean within-subjects difference in compliance in the *Pest* treatment is significantly different from the mean within-subjects difference in compliance in the *Almost Same* treatment with a p-value of 0.04 only when data from the last two rounds are used. Other comparisons are insignificant.

26 Despite the insignificance of these control variables in explaining the behavior of our participants in the laboratory, we believe that our experiments were successful in capturing the tax compliance behavior of our participants and that they did not view the experiment as merely a game. We base this conclusion on the fact that our participants’ behavior was not motivated solely by economic concerns, as exemplified by their behavior in the *Pest* and *Double Pest* treatments. While in the former treatment they increased their compliance in the presence of the coercively corrupt auditor, such increase in compliance vanished in the *Double Pest* treatment.
presence of a tax advisor (and absence of a corrupt tax auditor) compared to the percentage of income reported in the presence of a corrupt tax auditor alone.

Within-subjects data analysis similar to those performed for Experiment I was done to analyze the results from Experiment II. The results from our within-subjects t-tests show that the presence of a professional advisor improved taxpayer compliance (i.e., they reported a higher percentage of income to the tax authority), while the presence of a collusively corrupt tax auditor reduced taxpayer compliance (See Table 4). The percentage of income reported increased by an average of 11.15 and 11.89 percent in the presence of the tax advisor (and non-corrupt tax auditor) compared to the case where a collusively corrupt tax auditor alone was present, thereby rejecting $H_4$. These results suggest that taxpayers may have wanted to reduce their uncertainty and may have felt more confident about their final tax liability in dealing with a collusively corrupt tax auditor - i.e., participants may have believed that their tax liability situation would be accepted by the collusively corrupt tax auditor as being final, and not be susceptible to being reassessed subsequently if they dealt with another tax auditor. Furthermore, these results could also reflect that taxpayers are aware that tax advisors (compared to tax auditors) are more susceptible to legal and professional penalties if found abetting tax evasion. The relatively higher confidence in public tax auditors may therefore impel taxpayers to decrease their compliance by decreasing the percentage of income reported. In contrast, while a tax advisor may be able to provide legitimacy for reducing the income reported, he cannot provide fail-proof insurance that their tax return will not be re-assessed again. Thus, while the presence of a tax advisor may not lead to improved taxpayer compliance, it could lead to an overall higher level of compliance compared to compliance in

\[27\] The percentage of income reported increased from 48.65 and 48.96 in the presence of the corrupt tax auditor to 59.80 and 60.85 in the presence of a tax advisor and non-corrupt tax auditor.
the presence of a collusively corrupt tax auditor.

Data on the following control variables were collected: gender, age, marital status, having children, history of previous tax return filing, number of years that tax returns had been filed historically, whether taxpayers believed that paying tax was a moral issue, and whether taxpayers believed that taxes should always be paid. None of these control variables significantly influenced our participants’ tax compliance behavior.28

V. Conclusion

Both collusively corrupt tax auditors and private tax advisors can increase taxpayer compliance by serving as gatekeepers or monitors. However, both these actors can also reduce tax compliance if their self-interest trumps public interest and professionalism. In the case of collusively corrupt public tax auditors, taxpayers’ compliance could decrease if the bribes requested by corrupt auditors are lower than the taxes and penalties that taxpayers seek to avoid.29

The impact of the corrupt auditor was examined in an experimental setting by examining taxpayer compliance behavior across different levels of bribes paid in lieu of (in the case of collusively corrupt auditors) or in addition to (in the case of coercively corrupt auditors) taxes and penalties owed on the unreported income. We examined within-subject income reported over several rounds in the presence and absence of the corrupt auditor and find that

28 Again, despite the lack of significance of these control variables in explaining the behavior of our participants in the laboratory, we believe that our participants did not view the experimental task as a mere game but did respond to the treatment conditions as intended. Specifically, if the participants had viewed the experimental task as a mere game, they would not likely have shown any difference in behavior in the presence of the tax advisor vis-à-vis the presence of the corrupt auditor, given that the economic outcomes were identical in both cases.

29 Taxpayers’ revealed preference for paying a bribe to the corrupt auditor instead of paying the unpaid tax and penalty thereon to the government may not be inconsistent with a right-wing ideology that may create a preference to give money to a person than to a government.
under-reporting of income increases (or taxpayer compliance declines) in the presence of a collusively corrupt auditor with the amount of bribe requested (in relation to the under-reporting penalty to be overlooked with the bribe). In other words, the presence of a corrupt auditor demanding bribes at levels up to legally sanctioned penalties and unpaid taxes reduces taxpayer compliance. We find that the mere presence of a collusively corrupt auditor who offers no economic benefit to the taxpayers had no impact on taxpayer compliance.

In contrast, tax compliance was shown to increase in the presence of a coercively corrupt tax auditor, but the compliance was not monotonic in the levels of bribes sought by the coercively corrupt tax auditor. Taxpayer compliance initially improves when the coercively corrupt auditor asks for a bribe equal to a percentage of income reported without reducing any taxes or penalty owing. This could be a result of taxpayers wanting to distance themselves morally from the corrupt auditor following the predictions of social-norm and social-identity theories. However, compliance does not improve further, but actually decreases with monotonic increase in the coercive bribes, suggesting that at some stage, taxpayers stop being relatively compliant since any attempt to create a moral distance between themselves and the corrupt auditor imposes a significant economic cost to them.

In the case of professional tax advisors, compliance could decrease if they are able to provide legitimacy to the noncompliance behavior of the taxpayers. This experimental study examined the impact of a collusively corrupt auditor on taxpayer compliance, and a comparison of the relative impact of the role of a collusively corrupt auditor and a tax advisor on taxpayer compliance. The latter comparison allows us to compare the role of these two
agents and assess whether they can serve as substitutes to some extent.\footnote{From a government’s perspective, bribes demanded by a corrupt auditor are clearly a deadweight loss since they are not likely to be reported and taxed as income. In contrast, tax advisory fees are at least somewhat recouped by taxing the advisor on their income, and potential penalties are collected by the government.}

In our within-subjects test, compliance was higher in the presence of a tax advisor (and a non-corrupt tax auditor) compared to compliance in the presence of a collusively corrupt tax auditor alone, all else being held equal. This suggests that the tax advisor serves as a gatekeeper. Such behavior may also suggest that taxpayers consider dealing with the corrupt tax auditor as a better alternative for resolving their final tax liability – perhaps because the corrupt auditor has the power to bypass penalties, while the tax advisor is still bound by the law and cannot evade penalties.

Our study is subject to several limitations. While our two experiments used the language of tax compliance, our laboratory findings may not be generalizable to the outside world. Furthermore, the behavior of our participants from 4th year undergraduate or master’s accountancy programs with tax-filing experience may not represent the tax-filing behavior of taxpayers at large. While we rely on theories from sociology and psychology to arrive at our hypotheses and to make sense of our findings, we do not fully offer evidence supporting the impact of such sociological and psychological influences on our participants’ behavior in the laboratory. Finally, while we provide economic incentives linked to the decisions made by our participants in the laboratory, such economic incentives may not be sufficient to motivate the behavior of our participants.
References


London School of Economics.


Appendix

EXPERIMENT I: INSTRUCTIONS TO PARTICIPANTS IN THE POSITIVE TREATMENT WITH THE CORRUPT AUDITOR

WELCOME TO THE EXPERIMENT ON THE ECONOMICS OF DECISION MAKING

WE WILL USE AN EXPERIMENTAL CURRENCY - LIRA - IN THIS STUDY WHERE 100 LIRE = $1 CANADIAN.

YOU ARE INITIALLY PROVIDED WITH AN INITIAL SHOW-UP FEE OF 500 LIRE (EQUIVALENT TO $5 CANADIAN).

You will earn some income in lire each period. Your task will be to decide how much of that income to report to the tax authority. You can choose to report any amount from zero to the full amount of your income for the period.

You will pay tax on the income reported by you. The tax to be paid will be calculated using the tax rate for the period disclosed to you. You will not pay tax on the income not reported by you.

Once you have made your choice on the income to be reported, your report will be audited at a probability equal to the audit rate disclosed to you. A random number generator will be utilized to determine whether your income report will be audited. If the random number generated is equal to or less than the disclosed audit rate, your income report will be audited. Otherwise, your income report will not be audited. The probability of being audited in a period is random and is independent of both the probability of being audited in other periods, as well as the probability of others being audited.

IF YOUR INCOME REPORT IS NOT AUDITED:

After-tax income retained = Income earned in the period - the tax paid in the period.

IF YOUR INCOME REPORT IS AUDITED:

If you are audited, you will have to additionally pay (i) the unpaid tax on the unreported income, and (ii) penalty (calculated as a percentage of the unpaid tax).

After-tax and after-penalty income retained = Income earned in the period - tax paid on the income - penalty on the unpaid tax in the period.

THERE WILL BE THREE PRACTICE PERIODS BEFORE THE ACTUAL PERIODS BEGIN. YOUR DECISIONS IN THE PRACTICE ROUNDS WILL NOT IMPACT YOUR EARNINGS FROM THIS EXPERIMENT.

YOUR TOTAL AFTER-TAX AND AFTER-PENALTY EARNINGS IN LIRE AT THE END OF THE EXPERIMENT WILL BE PAID TO YOU IN CANADIAN DOLLARS AT THE RATE OF 100 LIRE = 1 $ CANADIAN.
CHANGE IN THE EXPERIMENTAL DETAILS:

Everything will remain the same as before EXCEPT WHEN YOU GET AUDITED.

IF AUDITED IN A PERIOD: The tax auditor may offer to accept a bribe equal to the tax owed by you on the unreported income + ONLY HALF of the penalty owed by you (I.E., YOU SAVE HALF OF THE PENALTY PAYABLE BY AGREEING TO PAY THE BRIBE).

You can either ACCEPT or DECLINE the request for a bribe.

IF YOU ACCEPT THE BRIBE REQUEST: You have to additionally pay only the bribe requested.

Your after-tax and after-bribe income from that period = your income for the period - tax paid by you - the bribe you agreed to pay.

IF YOU DO NOT ACCEPT TO PAY THE BRIBE REQUEST: You have to additionally pay the tax owed by you on the unreported income + the FULL penalty on such unpaid taxes.

Therefore, your income after tax and penalty from that period = your income for the period - tax on the full income - the penalty on the unpaid tax.
EXPERIMENT II: INSTRUCTIONS TO PARTICIPANTS IN THE CORRUPT AUDITOR VS. TAX PROFESSIONAL TREATMENT

WELCOME TO THE EXPERIMENT ON THE ECONOMICS OF DECISION MAKING

WE WILL USE AN EXPERIMENTAL CURRENCY LIRA IN THIS EXPERIMENT USING LIRE AS THE CURRENCY AND WHERE 100 LIRE = $1 CANADIAN

YOU WILL BE INITIALLY PROVIDED WITH AN INITIAL SHOW-UP FEE OF 500 LIRE, WHICH IS EQUIVALENT TO $5 CANADIAN.

You will earn income in Lire each period. Your task will be to decide how much of your income to report to the tax authority. You can choose to report any amount from zero to the full amount of your income for the period.

You will pay tax on the income reported by you. The tax to be paid will be calculated using the tax rate for the period disclosed to you. You will not pay tax on the income not reported by you.

Once you have made your choice on the income to be reported, your report will be audited at a probability equal to the audit rate disclosed to you. A random number generator will be utilized to determine whether your income report will be audited. If the random number generated is equal to or less than the disclosed audit rate, your income report will be audited. Otherwise, your income report will not be audited. The probability of being audited in a period is random and is independent of both the probability of being audited in other periods, as well as the probability of others being audited.

IF YOUR INCOME REPORT IS NOT AUDITED:

After-tax income retained = Income earned in the period - the tax paid by you in the period.

IF AUDITED IN A PERIOD: The tax auditor will offer to accept a bribe equal to the tax owed by you on the unreported income + ONLY HALF of the penalty owed by you (i.e., YOU SAVE HALF OF THE PENALTY PAYABLE BY agreeing TO pay the bribe)

You can either ACCEPT or DECLINE the bribe request.

IF YOU ACCEPT THE BriBE REQUEST: You have to pay the additional bribe requested.

Your after-tax and after-bribe income retained for the period = your income earned for the period - tax paid by you - the bribe you agreed to pay.

IF YOU DO NOT ACCEPT THE BriBE REQUEST: You have to pay the additional tax owed by you on the unreported income + the FULL penalty on such unpaid taxes.

Therefore, your income after tax and penalty retained for the period = your income earned for the period - tax on the full income - the penalty on the unpaid tax.

THERE WILL BE THREE PRACTICE PERIODS BEFORE THE ACTUAL PERIODS BEGIN.
YOUR DECISIONS IN THE PRACTICE ROUNDS WILL NOT IMPACT YOUR EARNINGS FROM THIS EXPERIMENT.

YOUR TOTAL EARNINGS IN LIRE AT THE END OF THE EXPERIMENT WILL BE PAID TO YOU IN CANADIAN DOLLARS AT THE RATE OF 100 LIRE = 1 $ CANADIAN.
CHANGE IN THE EXPERIMENTAL DETAILS

Everything will remain the same as before EXCEPT WHEN YOU GET AUDITED.

IF AUDITED IN A PERIOD: A tax advisory firm will offer you a tax planning scheme that will reduce your entire penalty. The cost of this tax planning scheme is half the penalty imposed by the tax authority. Therefore, if you acquire the tax planning services, you will have to additionally pay the tax owed by you on the unreported income plus an advisory fee to the firm equal to HALF of the original penalty assessed on you (THE NET RESULT IS THAT YOU SAVE 50% OF THE ORIGINAL PENALTY ASSESSED BY ENGAGING THE TAX ADVISORY FIRM).

You can either ACCEPT or DECLINE the services of the tax advisory firm.

IF YOU ACCEPT THE SERVICES OF THE TAX ADVISORY FIRM: You have to pay the tax owed on the unreported income + a fee to the firm equal to half of the penalty originally assessed on you.

Your after-tax and after-fee income retained for the period = Income earned in the period - tax paid on that income - the advisory fee.

IF YOU DO NOT ACCEPT THE SERVICES OF THE TAX ADVISORY FIRM: You have to pay the tax owed by you on the unreported income + the FULL penalty on such unpaid taxes.

Therefore, your income after tax and penalty from that period = Income earned in the period - tax on that income - the penalty on the unpaid tax.
Figure 1
Experiment 1: Percentage of Income Reported in the Absence and Presence of a Corrupt Auditor
Figure 2
Experiment 2: Percentage of Income Reported by Treatment

Notes:
Percentage Reported denoted the percentage of income reported by the participants in each of the eight rounds in the two treatments – the first in the presence of the corrupt auditor and the second in the presence of the tax advisor and the absence of the corrupt auditor.
<table>
<thead>
<tr>
<th>Difference in Mean Compliance</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last 4 rounds (1st set - 2nd set)</td>
<td>40</td>
<td>11.00</td>
<td>26.13</td>
<td>4.13</td>
</tr>
<tr>
<td>Last 3 rounds (1st set - 2nd set)</td>
<td>40</td>
<td>12.25</td>
<td>26.77</td>
<td>4.23</td>
</tr>
<tr>
<td><strong>Almost Same Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last 4 rounds (1st set - 2nd set)</td>
<td>17</td>
<td>12.10</td>
<td>28.55</td>
<td>6.92</td>
</tr>
<tr>
<td>Last 3 rounds (1st set - 2nd set)</td>
<td>17</td>
<td>14.73</td>
<td>33.67</td>
<td>8.17</td>
</tr>
<tr>
<td><strong>Exact Same Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last 4 rounds (1st set - 2nd set)</td>
<td>25</td>
<td>8.63</td>
<td>33.66</td>
<td>6.73</td>
</tr>
<tr>
<td>Last 3 rounds (1st set - 2nd set)</td>
<td>25</td>
<td>9.10</td>
<td>34.84</td>
<td>6.97</td>
</tr>
<tr>
<td><strong>Pest Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last 4 rounds (1st set - 2nd set)</td>
<td>36</td>
<td>-7.80</td>
<td>24.44</td>
<td>4.07</td>
</tr>
<tr>
<td>Last 3 rounds (1st set - 2nd set)</td>
<td>36</td>
<td>-8.08</td>
<td>24.57</td>
<td>4.09</td>
</tr>
<tr>
<td><strong>Double-Pest Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last 4 rounds (1st set - 2nd set)</td>
<td>24</td>
<td>.60</td>
<td>20.17</td>
<td>4.12</td>
</tr>
<tr>
<td>Last 3 rounds (1st set - 2nd set)</td>
<td>24</td>
<td>3.44</td>
<td>21.62</td>
<td>4.41</td>
</tr>
</tbody>
</table>
Table 1 (Continued)
Panel B: T-tests of Significant Difference from Zero

<table>
<thead>
<tr>
<th>Difference in Mean Compliance</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
<th>Mean Difference</th>
<th>90% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Positive Treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last 4 rounds (1st set - 2nd set)</td>
<td>2.66</td>
<td>39</td>
<td>.01</td>
<td>11.00</td>
<td>4.04</td>
</tr>
<tr>
<td>Last 3 rounds (1st set - 2nd set)</td>
<td>2.89</td>
<td>39</td>
<td>.01</td>
<td>12.25</td>
<td>5.12</td>
</tr>
<tr>
<td>Almost Same Treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last 4 rounds (1st set - 2nd set)</td>
<td>1.75</td>
<td>16</td>
<td>.10</td>
<td>12.10</td>
<td>.01</td>
</tr>
<tr>
<td>Last 3 rounds (1st set - 2nd set)</td>
<td>1.80</td>
<td>16</td>
<td>.09</td>
<td>14.73</td>
<td>.47</td>
</tr>
<tr>
<td>Exact Same Treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last 4 rounds (1st set - 2nd set)</td>
<td>1.28</td>
<td>24</td>
<td>.21</td>
<td>8.63</td>
<td>-2.89</td>
</tr>
<tr>
<td>Last 3 rounds (1st set - 2nd set)</td>
<td>1.31</td>
<td>24</td>
<td>.20</td>
<td>9.11</td>
<td>-2.82</td>
</tr>
<tr>
<td>Pest Treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last 4 rounds (1st set - 2nd set)</td>
<td>-1.92</td>
<td>35</td>
<td>.06</td>
<td>-7.80</td>
<td>-14.68</td>
</tr>
<tr>
<td>Last 3 rounds (1st set - 2nd set)</td>
<td>-1.97</td>
<td>35</td>
<td>.06</td>
<td>-8.08</td>
<td>-15.00</td>
</tr>
<tr>
<td>Double-Pest Treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last 4 rounds (1st set - 2nd set)</td>
<td>.15</td>
<td>23</td>
<td>.89</td>
<td>.60</td>
<td>-6.45</td>
</tr>
<tr>
<td>Last 3 rounds (1st set - 2nd set)</td>
<td>.78</td>
<td>23</td>
<td>.44</td>
<td>3.44</td>
<td>-4.12</td>
</tr>
</tbody>
</table>

Notes:
*Difference in Mean Compliance* represents the differences in the average percentage of income reported by participants in the relevant rounds from the two sets where the first set is without the corrupt auditor present and the second set is with the corrupt auditor present.
Table 2
Experiment 1
Panel A: Tests of Between-Subjects Effects using Difference in Mean Compliance between Last 4 Rounds in 1st Set and Last 4 Rounds in 2nd Set

Dependent Variable: *Difference in Mean Compliance in Last 4 Rounds (1st set - 2nd set)*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>8895.09(^a)</td>
<td>4</td>
<td>2223.77</td>
<td>3.14</td>
<td>.02</td>
</tr>
<tr>
<td>Intercept</td>
<td>3115.56</td>
<td>1</td>
<td>3115.56</td>
<td>4.39</td>
<td>.04</td>
</tr>
<tr>
<td>Treatment</td>
<td>8895.09</td>
<td>4</td>
<td>2223.77</td>
<td>3.14</td>
<td>.02</td>
</tr>
<tr>
<td>Error</td>
<td>97140.11</td>
<td>137</td>
<td>709.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>108530.44</td>
<td>142</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>106035.21</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R-Squared = .084 (Adjusted R-Squared = .057)

Panel B: Estimated Means using Difference in Mean Compliance between Last 4 Rounds in 1st Set and Last 4 Rounds in 2nd Set

Dependent Variable: *Difference in Mean Compliance in Last 4 Rounds (1st set - 2nd set)*

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Mean</th>
<th>Std. Error</th>
<th>90% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Double Pest</td>
<td>.60</td>
<td>5.44</td>
<td>-8.40</td>
</tr>
<tr>
<td>Exact Same</td>
<td>8.63</td>
<td>5.33</td>
<td>-.19</td>
</tr>
<tr>
<td>Pest</td>
<td>-7.80</td>
<td>4.44</td>
<td>-15.15</td>
</tr>
<tr>
<td>Positive</td>
<td>11.00</td>
<td>4.21</td>
<td>4.03</td>
</tr>
<tr>
<td>Almost Same</td>
<td>12.10</td>
<td>6.46</td>
<td>1.41</td>
</tr>
</tbody>
</table>
Table 2 (Continued)
Experiment 1
Panel C: Significant Pairwise-Comparisons using Difference in Mean Compliance between
Last 4 Rounds in 1st Set and Last 4 Rounds in 2nd Set

<table>
<thead>
<tr>
<th>Treatment (I)</th>
<th>Treatment Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig. b</th>
<th>90% Confidence Interval for Difference b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pest Positive</td>
<td>-18.80*</td>
<td>6.12</td>
<td>.03</td>
<td>-34.78 - 2.82</td>
</tr>
</tbody>
</table>

Notes:
* Difference in Mean Compliance in Last 4 Rounds (1st set - 2nd set) represents the difference in the average percentage of income reported by participants in the last four rounds of the two sets, the first set without the corrupt auditor present and the second set with the corrupt auditor present respectively.
* The test of significant difference in Panel C is based on estimated marginal means.
* The mean difference is significant at the .1 level.
* Adjustment for multiple comparisons: Bonferroni.
Table 3
Experiment 1
Panel A: Tests of Between-Subjects Effects using Difference in the Mean Compliance between Last 3 Rounds in 1st Set and Last 3 Rounds in 2nd Set

Dependent Variable:  *Difference in Mean Compliance in Last 3 Rounds (1st set - 2nd set)*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>10335.02&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
<td>2583.75</td>
<td>3.31</td>
<td>.013</td>
</tr>
<tr>
<td>Intercept</td>
<td>5115.59</td>
<td>1</td>
<td>5115.59</td>
<td>6.54</td>
<td>.012</td>
</tr>
<tr>
<td>Treatment</td>
<td>10335.02</td>
<td>4</td>
<td>2583.75</td>
<td>3.31</td>
<td>.013</td>
</tr>
<tr>
<td>Error</td>
<td>107094.83</td>
<td>137</td>
<td>781.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>121493.89</td>
<td>142</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>117429.85</td>
<td>141</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> R-Squared = .088 (Adjusted R-Squared = .061)

Panel B: Estimated Means using Difference in the Mean Compliance between Last 3 Rounds in 1st Set and Last 3 Rounds in 2nd Set

Dependent Variable:  *Difference in Mean Compliance in Last 3 Rounds (1st set - 2nd set)*

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Mean</th>
<th>Std. Error</th>
<th>90% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td><em>Double Pest</em></td>
<td>3.44</td>
<td>5.71</td>
<td>-6.01</td>
</tr>
<tr>
<td><em>Exact Same</em></td>
<td>9.11</td>
<td>5.59</td>
<td>-.15</td>
</tr>
<tr>
<td><em>Pest</em></td>
<td>-8.08</td>
<td>4.66</td>
<td>-15.80</td>
</tr>
<tr>
<td><em>Positive</em></td>
<td>12.25</td>
<td>4.42</td>
<td>4.93</td>
</tr>
<tr>
<td><em>Almost Same</em></td>
<td>14.73</td>
<td>6.78</td>
<td>3.50</td>
</tr>
</tbody>
</table>
### Table 3 (Continued)

**Experiment 1**

Panel C: Significant Pairwise-Comparisons using Difference between Last 3 Rounds in 1st Set and Last 3 Rounds in 2nd Set

**Dependent Variable:** Difference in Mean Compliance in Last 3 Rounds (1st set - 2nd set)

<table>
<thead>
<tr>
<th>Treatment (I)</th>
<th>Treatment (J)</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>90% Confidence Interval for Difference&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pest</td>
<td>Positive</td>
<td>-20.33*</td>
<td>6.42</td>
<td>.02</td>
<td>-37.11 - 3.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pest</td>
<td>Almost Same</td>
<td>-22.81*</td>
<td>8.23</td>
<td>.06</td>
<td>-44.30 - 1.32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

*Difference in Mean Compliance in Last 3 Rounds (1st set - 2nd set)* represents the difference in the average percentage of income reported by the participants in the last three rounds of the two sets, the first set without the corrupt auditor present and the second set with the corrupt auditor present respectively.

* The mean difference is significant at the .1 level.

<sup>b</sup>. Adjustment for multiple comparisons: Bonferroni.
Table 4
T-tests of Significant Difference from Zero

<table>
<thead>
<tr>
<th>Difference in Mean Compliance</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>90% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last 4 rounds (1st set -2nd set)</td>
<td>-3.32</td>
<td>46</td>
<td>.002</td>
<td>-11.15</td>
<td>-16.79, -5.52</td>
</tr>
<tr>
<td>Last 3 rounds (1st set -2nd set)</td>
<td>-3.34</td>
<td>46</td>
<td>.002</td>
<td>-11.89</td>
<td>-17.87, -5.92</td>
</tr>
</tbody>
</table>

Notes:
*Difference in Mean Compliance* represents the difference in the average percentage of income reported by participants in the relevant rounds of the two sets, the first set with the corrupt auditor present and the second set with the tax advisor present (and without the corrupt auditor).