Paradise CEOs and Tax Aggressiveness

Nikolaos Antypas
University of Reading

Kevin Ow Yong
Singapore Institute of Technology

Tiffany Thng*
University College Dublin

Abstract

Global minimum corporate tax rate has been a topic of discussion at international forums such as the G7 and the OECD after the Panama and Paradise Papers leaks. Using a sample of CEOs implicated in the Paradise Papers, we examine whether Paradise CEOs are more likely to be involved in corporate tax avoidance. Our findings indicate that CEOs who are linked to offshore accounts in the Paradise Papers have a significant relation with tax avoidance firms. In addition, we document that the effect of tax avoidance is stronger with the interaction of Paradise CFOs. To establish causality, we use a Difference-in-Difference framework to contrast firms' tax avoidance behavior before and after the appointment and departure of Paradise CEOs. Our results highlight that the tax experience of Paradise CEOs is an important factor in influencing firms' tax strategies and behavior.

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*Corresponding author. Address: University College Dublin, Carysfort Avenue, Blackrock, Co. Dublin, Ireland. Email: tiffany.thng1@ucd.ie. Other author's email address: n.antypas@icmacentre.ac.uk and kevin.owyong@singaporetech.edu.sg

1   Introduction

Tax management is a critical facet of corporate strategy, where firms strategically navigate the complex terrain of tax codes to optimize their fiscal responsibilities and enhance overall financial performance. This multifaceted process involves careful planning, compliance, and risk mitigation to minimize tax liabilities within the bounds of legal frameworks. Firms often employ a range of tactics, including tax credits, deductions, and the strategic use of offshore entities, to optimize their tax positions.

Studies identify the implication of using tax shelters (Lisowsky, 2010) and the relation between firms with tax havens and tax aggressive (Chen and Lin, 2017), whereas another stream of literature shifts its focus to link managerial characteristics and tax avoidance Dyreng et al. (2010). Other papers explore various attributes of CEOs and how they influence firms' tax management, such as individual political inclination (Christensen et al., 2015; Francis et al., 2016), the degree of confidence (Chyz et al., 2019; Hsieh et al., 2023; Olsen and Stekelberg, 2016), personal tax behavior (Chyz, 2013), and whether he/she was a veteran (Law and Mills, 2017).

The closest to our paper is Kubick et al. (2020), which reveals that firms are more tax-aggressive after the appointment of executives with professional tax-related experience. However, we argue that an alternative measure of relevant tax experience, with the potential to influence firms' tax management is through engagement in the Paradise Papers. The purpose and intended nature of the Paradise Papers was to conceal the identities of the real owners. We postulate that this obfuscation may have an impact on the levels of tax management. Hence, the setting of the Paradise Papers leak allows us to link the tax experience of the CEOs and whether we observe a spillover effect of implicated CEOs ('Paradise CEOs') to the firms.

Using a name algorithm to match CEOs with a dataset of S&P1500 firms from 1993 to 2019, our results show that Paradise CEOs have a positive influence on firms' tax aggressiveness. The effect is pronounced when Paradise CFOs are present in the same firm. To establish causality,

we exploit the appointments and departures of the Paradise CEOs to address the baseline results that these CEOs are hired by tax-aggressive firms. Robustness tests show that firms are more tax-aggressive for periods 3 years after the appointments. In addition, our findings reveal that the level of tax aggressiveness remains even after the departure of Paradise CEOs. Overall, CEOs' participation in the Paradise Papers leak influences firms' tax aggressiveness.

This paper contributes to the current literature in three ways. First, it contributes to the broader discourse on executive attributes and their impact on corporate tax strategies (Christensen et al., 2015; Chyz, 2013; Chyz et al., 2019; Francis et al., 2016; Hsieh et al., 2023; Law and Mills, 2017; Olsen and Stekelberg, 2016), offering valuable knowledge for both academic and practical considerations in the field of taxation and corporate governance. Second, we find that CEOs' tax-related experience (Kubick et al., 2020), in particular, through CEOs' experience in management tax havens affects corporate tax outcomes. Finally, our study adds to the growing literature examining the movement of CEOs and their impact on tax management (Dyreng et al., 2010).

The remainder of the paper is organized as follows: Section 2 provides the background of the Paradise Papers, along with executive characteristics and tax aggressiveness. Section 3 describes the data, while Section 4 shows the model and presents both the main results, additional analyses, and robustness tests. Section 5 concludes.

2 Literature Review

2.1 Paradise Papers

In the recent light of corporate scandals, the media focuses on individuals and firms found in the Panama and Paradise Papers and attempts to reveal if they are indeed implicated in tax shelters. Many have argued the use of offshore financial centers (OCFs) as an outlet to avoid tax while it is legal to set up these subsidiaries if rightful tax obligations are met. Firms set

up subsidiaries to benefit from a reduction in taxation, relaxed regulation, and obligations[1]. Subsidiaries located in offshore financial centers often do not require parent companies to base their operations in their countries or provide many material disclosures, and yet are eligible for tax benefits. A healthy level of tax management is necessary to maximize the value of the firm. However, the lack of transparency in the subsidiary's activities makes it challenging to identify if these activities are legal. The legality of the use of tax havens is challenged as some of the largest companies in the world are found to book their profits in OFCs, resulting in paying lesser tax than they should in their home countries.

The existence of OFCs is often linked to tax havens (Lisowsky, 2010), in which corporations set up these overseas subsidiaries for the purpose of filing earnings and/or assets. Nike, Glencore, and PokerStars have been found to have avoided tax obligations or made fraudulent transactions via these tax havens. On the other hand, there can be legitimate business reasons for establishing OFC (Gould and Rablen, 2020) such as legal tax planning. Despite being legal, the association with Panama and Paradise Papers can discredit a firm's reputation due to the lack of transparency of these subsidiaries. Such discussions have moved the global minimum tax rate discussion forward.

Shortly after the Panama Papers, the debate on whether such tax schemes using OFCs have a positive or negative role in the overall economy. A letter[2] sent to global leaders signed by approximately 300 economists, including Angus Deaton, the Nobel Prize winner, and Olivier Blanchard, the former IMF chief economist, argues that 'territories allowing assets to be hidden in shell companies or which encourage profits to be booked by companies that do no business there, are distorting the working of the global economy'. Although studies investigate tax management, there is little research done to explore the impact of the association between these leaks and firms' tax behavior.

One recent paper explores the Panama Paper leaks and documents entities related to the

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[1]https://corporatefinanceinstitute.com/resources/economics/what-is-tax-haven/
[2]https://www.weforum.org/agenda/2016/05/theres-no-economic-justification-for-tax-havens-say-economists/

data leak are associated with increased firm value through the reduction of taxes and the facilitation of corruption (O'Donovan et al., 2019). A major difference in our study is that we are interested in understanding the possible spillover effects of implicated executives in the leaks.

2.2   Executive Characteristics and Tax Aggressiveness

In a review paper, Hanlon and Heitzman (2010) find that existing studies explore the impact of firm-level characteristics on tax avoidance and highlight a dearth of how individual executive attributes may influence tax avoidance. A concurrent paper contributes to the gap in the literature by illustrating that managerial effects explain the variation in tax avoidance (Dyreng et al., 2010). Results suggest that executive characteristics affect the level of tax management. Consequently, other studies examine the relation between executives (Koester et al., 2017; Kubick et al., 2020) and CEOs (Christensen et al., 2015; Chyz, 2013; Chyz and Gaertner, 2018; Francis et al., 2016; Law and Mills, 2017; Olsen and Stekelberg, 2016) on tax management.

Koester et al. (2017) reveal that managers who have a higher ability to manage resources efficiently are associated with a reduction in the firm's cash-effective tax rate. The authors also disclose that the presence of these executives leads to decreases in income tax payments as firms engage in greater tax planning activities by shifting more income to foreign tax havens with lower tax rates. More relevant to this study is a paper by Kubick et al. (2020), which documents an inverse relation between the tax-related experience of executives and the effective tax rate (i.e. more tax aggressive). The savings in tax payments stem from the use of foreign subsidiaries to a greater extent post-appointment of these tax-savvy executives.

A growing stream in the tax management literature shifts its focus to the attributes of CEOs. The argument for examining CEOs is on the grounds that CEOs not only set the tone at the top (Dyreng et al., 2010; Olsen and Stekelberg, 2016) but also possess the ability to influence and shape the tax policy of a firm (Florackis and Sainani, 2021). In addition, under

Section 302 of the Sarbanes-Oxley Act, CEOs and CFOs assume responsibility for the accuracy of the firm's financial reports and internal controls.

Christensen et al. (2015) report a negative relationship between Republican CEOs and tax aggressiveness. In a similar vein, Francis et al. (2016) find that firms managed by CEOs who are Republicans and Democrats tend to be more tax-aggressive than nonpartisan CEOs. Besides exploring the political preferences of CEOs, another personality trait of CEOs has significant effects on tax sheltering. Hsieh et al. (2023) observe a higher level of tax aggressiveness when firms have overconfident CEOs and CFOs, measured by the purchasing behavior of the executive's stock options. Using a similar measure of overconfidence, Chyz et al. (2019) find that the appointment of an overconfident CEO leads to an increase in tax avoidance. Developing an overconfident index from a function of the CEO's photo size in the annual report, wage, and stock options of Fortune 500 firms, Olsen and Stekelberg (2016) reveal that extreme overconfidence (narcissism) is related to higher levels of tax aggressiveness. CEOs who served in the military are of high integrity and are more compliant when it comes to doing good for the company (Law and Mills, 2017). With hand-collected data, the authors show that firms with these CEOs do not participate in excessive tax management. Revolving around the concept of allegiance, Chyz (2013) finds CEOs who exhibit signs of personal tax evasion of top five paid executives through backdating stock options are more prone to firms' tax sheltering activities.

Despite finding evidence that the level of corporate tax avoidance changes with the employment of CEOs, Dyreng et al. (2010) show that the executives' biographical backgrounds do not offer explanations for the variation. Boards presumably hire executives knowing ex-ante that they would implement certain corporate strategies with their experience that may potentially increase firm value. Being implicated in the Paradise Papers does not indicate that the named executive engages in fraud or tax evasion, but rather, we hypothesize that he/she has experience dealing with tax management strategies to be important enough to be named as the primary contact in the Papers. This leads to our research question:

Hypothesis: Paradise CEOs are associated with tax aggressiveness.

Prior studies delve into observable personality traits of executives and postulate that their characteristics affect their professional lives. The key difference of our paper stems from the premise that the tax management experience of the CEOs through records in the Paradise Papers has an influence on firms' tax management activities. Firms use professional business services, such as Mossack Fonseca and Appleby, to establish offshore financial centers (OFCs). These services maintain the confidentiality of their clients and activities. However, both the Panama and Paradise Papers leaks expose arrangements that were intended to be concealed but are now made public. Implicated executives are named as the main contact of the entity, usually a subsidiary of the firm that he/she manages. These executives understand the position taken when engaged in these activities, whether they are for legitimate tax planning or tax evasion. We argue that this predicament either incentivizes executives to operate within the legality of the OFCs or out of engagement in tax shelter activities. With their knowledge and involvement in OCFs, we believe that there is a higher propensity for these executives to use their experience to manage taxes as they may be emboldened to take aggressive positions because they believe they can get away with it. Hence, it would be beneficial to observe the tax experience of the executives through their participation in the Paradise Papers and whether an impact on tax avoidance arises. This presents a direct method through which tax management experience is earned.

3 Data

3.1 Paradise CEOs

Paradise Papers, a set of private offshore documents—13.4 million documents—that contain investment details of individuals and businesses across 19 tax jurisdictions from 1950 to 2016 were leaked and published. Approximately 120,000 individual names and companies, including

some notable individuals (business leaders, royalties, and politicians) and large corporations, were documented. We chose Paradise Papers instead of the Panama Papers as the former consists of Appleby and Asiaciti Trust's clients, the world's largest offshore law firm, and a reputable international financial services firm, respectively. Firms linked to the Panama Papers are a result of a document leak of clients of Mossack Fonseca, a Panamanian law firm known to accept any clients.

Prior to such leaks, the identity of the real company owners of the OFCs was concealed. We show that, with the Paradise Papers, the association of the OFCs to the parent company is established. An individual may be listed in the Paradise Papers and may or may not be linked to an entity. We merge files from the set of documents to identify the linkages between an individual and an entity. These linkages reveal the relationship between a Paradise individual and an entity. Such associations include shareholders, directors, chairmen, and presidents. O'Donovan et al. (2019) record 338 internationally listed firms implicated in the Panama Papers and find that an implicated entity is primarily connected through non-C-suite executives. In this study, using the Paradise Papers allows us to identify C-suite executives who are associated with the Paradise Papers. Our dataset consists of S&P 1500 firms implicated in the Paradise Papers and when consolidated, includes 878 firm-level observations.

To identify Paradise executives, we use Jaro-Winkler and Levenshtein distances to find the proximity between a paradise-boardex executive pair. All names are stripped to lowercase and salutations, punctuation marks, and accents are removed.

$$sim_{jaro}(s_i, s_d) = \frac{1}{3}\left(\frac{c}{|s_i|} + \frac{c}{|s_d|} + \frac{c-t}{c}\right) \tag{1}$$

$$sim_{jaro-wink}(s_i, s_d) = sim_{jaro}(s_i, s_d) + \frac{m}{10}(1.0 - sim_{jaro}(s_i, s_d)) \tag{2}$$

Calculating Jaro-Winkler requires the count of (1) common characters of the paradise-boardex pair (c), (2) characters of the paradise individual name $|s_p|$, (3) characters of the

BoardEx directors' names $|s_d|$, (4) the number character switches to obtain perfect match (t), and (5) matched characters in the first 4 characters of the pair (m). Levenshtein distance finds the total number of transformations needed to obtain one string from another.

To illustrate, we have two individuals in the Paradise Papers named 'martin m schwartz' and 'martin schwartz'. The first is a director of Therma-Wave Foreign Sales Corporation, a Barbadian entity and the second is the director[3] of another Barbadian firm, Dorel International. They generate Jaro-Winkler scores of 1 and 0.9765[4] respectively when matched to a BoardEx executive, 'martin m schwartz', whose employment history includes managing Therma Wave Inc[5]. Therma Wave Inc is the parent company of Therma-Wave Foreign Sales Corporation. The second paradise individual, Martin Schwartz, is linked to Dorel International, and records from the Paradise Papers reveal that he is also known as Martin J Schwartz.

The Levenshtein distance of the matched pair is 2 as two actions are involved in transforming 'martin m schwartz' to 'martin schwartz'. The middle name of the Paradise director, 'm', followed by space needs to be deleted. Pairs that generate Jaro-Winkler distance scores of at least 0.7 are filtered out. Arranging the data in descending Jaro-Winkler and Levenshtein distances helps remove pairs that are vastly different. Next, a manual search on the internet ensures they are the same person. This manual process produces 918 CEO and 700 CFO unique matches. We randomly check for matches with low scores and observe that these pairs are unlikely to be matched.

3.2 Tax Avoidance Variable

Similar to existing literature (Chen et al., 2010; Dyreng et al., 2008, 2010; Lennox et al., 2013), we use GAAP ETR to capture the tax avoidance as it indicates the propensity to affect the reduction of tax expense for financial accounting purposes. GAAP ETR captures the temporary

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[3]https://www.bloomberg.com/profile/person/1813941

[4]The score of the second pair, 0.9765, is calculated with $c=15$, $|s_p|=15$, $|s_d|=17$, $t=0$ and $m=4$.

[5]https://www.linkedin.com/in/martin-schwartz-342b6610/andhttps://www.twst.com/bio/martin-m-schwartz/

differences—which will eventually reverse—between the book and taxable income as the ETR should reflect firms' tax obligations in the long run. Another common measure, book-tax differences (BTD) is not used due to several reasons. Executives may be more cautious with the reporting of BTD due to its auditability by the US Internal Revenue Service (Mills, 1998). In addition, Desai and Dharmapala (2006) and Graham et al. (2012) concur that BTD can be influenced by earnings management. Compustat is the main data source for our variables and our sample period is 1993 to 2019.

In order to capture tax avoidance, the extreme behavior of tax aggressiveness, we take the bottom 25% of the GAAP ETR, calculated by Total Tax Expenses [#16] divided by Pretax Income [#170]. The smaller the value of GAAP ETR, the lesser the tax payments, and hence it is presumably related to a high probability of tax avoidance. The tax avoidance variable, $TA_{i,t}$, is equal to one if a firm falls within the bottom 25% of the GAAP ETR and zero if otherwise.

3.3 Control Variables

We include several control variables to mitigate concerns that characteristics of the firm and auditor may have an impact on tax aggressiveness. Following studies on tax avoidance (Chen et al., 2010; Lennox et al., 2013; Kanagaretnam et al., 2016), reputable auditors (Big 5), firms' fundraising activities (M&A and New Issue Indicator), performance (ROA, Salesgrowth), firms' attributes (Firm size, Firm Age, ΔWC, ΔNOA, ΔFIN, Leverage, PPE), businesses with foreign operations (Multinational) are included.

Table 1 provides an overview of the statistical summary for all variables, while Table 2 shows the breakdown of the observations into Paradise and Non-Paradise firms. The construction and definition of these variables can be found in Appendix A. Firms with Non-Paradise CEOs have larger GAAP ETR (hence less tax aggressive) than those with Paradise CEOs. These firms are smaller in size, issue more new equity, and have a higher level of leverage. Next, we proceed

9

to examine the variables in a multivariate setting.

[Insert Table 1 and Table 2 about here]

4   Empirical Analysis

We begin the analysis with a logit regression to understand the relation between firms with Paradise executives and tax avoidance. We run the following regression to estimate the baseline results:

$$TA_{i,t} = \alpha + \beta\ p\_Exec_i + \theta\mathbf{X}_{i,t} + Year\ \&\ Industry\ FE + \epsilon_{i,t} \tag{3}$$

where $TA_{i,t}$ is the tax avoidance measure of a firm at t year, the variable of interest, p_Exec_i takes the value of one if the firm's CEO/CFO is implicated in the Paradise Papers, and zero otherwise, a vector of control variables, $\mathbf{X}_{i,t}$, year and industry fixed effects, and $\epsilon_{i,t}$ is an error term. Standard errors are clustered at the firm level.

4.1   Baseline Results

Regression results reveal that Paradise CEO affects tax avoidance significantly (Table 3, Column 1), suggesting that CEOs who are implicated in the Paradise Papers are 22.5% (exp(0.203)-1) more likely to be associated with corporate tax avoidance. Although the p_CFO variable is positive, it does not display any significance. Findings provide some evidence that CFOs who are named alongside the firms' subsidiaries do not affect the aggressiveness of the firms.

[Insert Table 3 about here]

Next, we proceed to examine the interaction effect of the Paradise executives by adding both the p_CEO and p_CFO variables to the regression. We make two observations from the results in Table 3, Column 3. First, coefficients of both p_CFO and the interaction variable, p_CEO*p_CFO are insignificant with the inference that the presence of p_CFO does not miti-

10

gate[6] or exacerbate the impact Paradise CEOs have on tax avoidance. Second, when Paradise CFOs enter the picture, it appears that Paradise CEOs are 48% more likely to be found in firms with high levels of tax avoidance. The presence of both Paradise CEOs and CFOs has a detrimental effect on the impact Paradise CEOs have on the tax behavior of the firms.

Our baseline results not only provide support for Dyreng et al. (2010) that the 'tone at the top' does have an impact on firms' tax avoidance activities but also reveal that the key executive accountable for contributing to corporate tax avoidance is the CEO. In addition, our analysis is in line with the findings of Feng et al. (2011) that there is a higher chance of CEOs getting involved in accounting manipulations than that of CFOs.

4.2 Appointments and Departures of Paradise CEOs

It is possible that reverse causality may influence the baseline findings in the sense that tax-aggressive firms may hire Paradise CEOs. To establish causality, we employ a Difference-in-Difference framework.

$$TA_{i,t} = \alpha + \beta_1 Post_{i,t} + (\beta_2 \Delta CEO_i * Post_{i,t}) + \theta \mathbf{X}_{i,t} + Year \; \& \; Industry \; FE + \epsilon_{i,t} \qquad (4)$$

where subscripts i and t indicate firm and year respectively. Similar to the baseline regressions, $TA_{i,t}$ is equal to one if the firm-year GAAP ETR belongs to the bottom 25%. ΔCEO_i represents two different types of changes to a firm's CEO. First, ΔCEO_i is equivalent to the variable, *NPP*, when firms transit from a non *p_CEO* to a *p_CEO* with a control sample of non *p_CEO* to non *p_CEO* transition firms. Second, the *PNP* variable captures transitions from *p_CEO* to non *p_CEO* and control firms consist of transitions from *p_CEO* to *p_CEO*. *Post* takes the value of one for 1, 3, and 5 years after the transition year of the CEO. Year and industry-fixed effects are added to control for unobservable time-invariant and industry-specific effects that may influence tax avoidance. To allow for variation of CEOs across firms, standard

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[6]If the *p_CEO**p_CFO is negative and significant, then the influence of Paradise CFOs on Paradise CEOs lead to a decline in the probability of firms' tax avoidance level.

errors are clustered by firm level.

[Insert Table 4 about here]

The coefficient of $Post * NPP$ in Panel A, Column 1 of Table 4 is positive and significant at the 5% level, suggesting a 79.5% higher likelihood that firms show signs of tax avoidance a year after a CEO[7] with tax planning experience is appointed. The effects remain significant for the period 3 years after the transition but diminish after 5 years. An introduction of a p_CEO seems to affect the firms' tax avoidance activities in the short run before such behavior is normalized. Results imply that the new CEO may use his/her tax experience and introduce certain tax strategies that increase the tax avoidance level of the firm. The second set of results illustrates that the probability of being a tax avoidance firm cannot be explained by a p_CEO to p_CEO replacement (Panel B of Table 4). There could be 'legacy' pressure from the prior CEO to maintain the level of tax avoidance. We buttress our results to show that the experience of Paradise CEOs is related to tax avoidance.

One possible explanation of our observation is that these CEOs contribute to the tax strategies, in turn, corporate tax avoidance that manifests through their Paradise Papers experience. Findings lend support to Minnick and Noga (2010) and Kubick et al. (2020) that top management who possess knowledge from engaging in OFCs affects firms' tax avoidance efforts. Our results are in line with Dyreng et al. (2010) that the appointment of an executive has an influence on corporate tax avoidance. Overall, we reveal that the tax experience CEOs gathered from participation in the Paradise Papers has a significant impact on tax avoidance.

5   Conclusion

In this paper, we use the Paradise Papers, a leaked data set that contains investment details of individuals and businesses across 19 tax jurisdictions over six decades to examine if CEOs

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[7]In an unreported test, we find that there are no CFO effects.

implicated in the leak have an impact on corporate tax outcomes.

Our baseline results show that CEOs who were named in the Paradise Papers are more likely to be found in firms with higher levels of tax avoidance. Further, when both Paradise CEOs and CFOs are present in the same firm, they appear to exacerbate the impact of tax management. To strengthen our findings, we document that firms' tax aggressiveness persists three years post-appointment of a Paradise CEO. In addition, when a non-Paradise CEO replaces a Paradise CEO, the firm remains tax-aggressive.

A limitation of this study is the potential omission of CEOs within the Paradise Papers dataset. Efforts have been taken to comprehensively capture all CEOs implicated in the Paradise Papers. Given the vast scope of the leaked documents and the potential existence of undisclosed offshore financial activities, the study's findings are confined to the subset of CEOs whose names are matched.

Overall, the results are consistent with the idea that CEOs' attributes have an influence on corporate tax outcomes (Christensen et al., 2015; Chyz, 2013; Chyz et al., 2019; Francis et al., 2016; Hsieh et al., 2023; Law and Mills, 2017; Olsen and Stekelberg, 2016) and that CEOs use their tax experience to manage tax (Minnick and Noga, 2010; Kubick et al., 2020)

The paper fosters a deeper understanding of the challenges posed by offshore tax havens, provokes critical dialogue on the ethical considerations surrounding tax management, and provides a foundation for future research and policy initiatives aimed at fostering a fair and transparent global financial system.

Table 1
Summary Statistics

The table presents preliminary statistics of the dataset. The construction and definition of the variables are shown in Appendix A. The sample period is 1993-2019.

	Obs	*Mean*	*Min*	*Max*
Paradise CEO	37,065	0.137	0	1
GAAP ETR	29,967	0.561	0	1
Big 5 Auditor	37,066	0.927	0	1
Firm Size ($mil)	37,023	7,131.1	53.7	123,213.7
Firm Age	37,065	25.422	0	69
M&A Indicator	37,066	0.133	0	1
New Issue	37,066	0.164	0	1
ROA	37,005	0.032	-0.757	0.293
ΔWorking Capital	35,935	1.590	-975	867
ΔNon-Current Operating Assets	29,899	135.6	-1,952	4,664.7
ΔFinancial Assets	37,005	-89.7	-4,048.1	2028
Leverage	36,927	0.528	0.074	1.477
Salesgrowth	36,806	0.167	-1	584.7
PPE	36,851	0.530	0.025	1.740
Multinational	37,066	0.638	0	1

Table 2
Test of Difference

The table displays the number of firm-level observations and mean of the variables of both Paradise and Non-Paradise CEOs. The last column presents the results of the difference in means and the *t-statistics* are shown in parenthesis. Significance at the 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively. The construction and definition of the variables are shown in Appendix A. The sample period is 1993-2019.

	Non-Paradise CEOs		*Paradise CEOs*		*Test of Difference*
	N	Mean	N	Mean	
GAAP ETR	25,878	0.562	4,089	0.556	0.006**
					(-3.18)
Big 5 Auditor	31,972	0.925	5,093	0.938	-0.013***
					(-3.36)
Firm Size ($bil)	31,933	7.503	5,090	7.768	-0.265***
					(-11.01)
Firm Age	31,972	25.40	5,093	25.76	-0.386
					(-1.53)
M&A Indicator	31,972	0.132	5,093	0.138	-0.005
					(-1.05)
New Issue	31,972	0.167	5,093	0.145	0.022***
					(-4.00)
ROA	31,917	0.032	5,088	0.032	0.0007
					(-0.36)
ΔWC	30,927	2.256	5,008	-2.522	4.778
					(-1.51)
ΔNOA	25,742	126.6	4,157	191.9	-65.35***
					(-5.38)
ΔFIN	31,916	-85.2	5,089	-118.1	32.85**
					(-3.21)
Leverage	31,845	0.531	5,082	0.513	0.017***
					(-4.67)
Sales Growth	31,737	0.172	5,069	0.133	0.039
					(-0.78)
PPE	31,779	0.529	5,072	0.538	-0.009
					(-1.48)
Multinational	31,972	0.620	5,093	0.754	-0.134***
					(-18.63)

Table 3
Paradise Executives and Tax Aggressiveness

The table presents the relation between CEOs and/or CFOs who are implicated in the Paradise Papers and tax avoidance. Construction and definition of the variables are shown in Appendix A. Standard errors are clustered at the firm level and t-statistics are in parenthesis. Significance at the 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively.

Dependent Variable	Tax Avoidance		
	(1)	(2)	(3)
p_CEO	0.203***		0.392***
	(0.04)		(0.06)
p_CFO		0.120	0.318
		(0.20)	(0.25)
p_CEO * p_CFO			-0.744
			(0.42)
Big 5	-0.184**	-0.292***	-0.280***
	(0.06)	(0.07)	(0.07)
Firm Size	-0.038**	-0.002	-0.009
	(0.01)	(0.02)	(0.02)
Firm Age	0.004***	0.003	0.002
	(0.00)	(0.00)	(0.00)
M&A Indicator	-0.194***	0.012	0.016
	(0.05)	(0.07)	(0.07)
New Issue Indicator	-0.071	0.002	0.001
	(0.05)	(0.06)	(0.06)
ROA	0.610*	1.210***	1.243***
	(0.27)	(0.36)	(0.36)
ΔWC	0.000**	0.000	0.000
	(0.00)	(0.00)	(0.00)
ΔNOA	0.000***	0.000***	0.000***
	(0.00)	(0.00)	(0.00)
ΔFIN	0.000	0.000	0.000
	(0.00)	(0.00)	(0.00)
Leverage	0.334***	0.331**	0.351***
	(0.08)	(0.10)	(0.10)
Salesgrowth	0.129***	0.231***	0.237***
	(0.03)	(0.06)	(0.06)
PPE	0.562***	0.383***	0.366***
	(0.05)	(0.07)	(0.07)
Multinational	0.239***	0.247***	0.228***
	(0.04)	(0.05)	(0.05)
Constant	-1.663***	-1.974***	-1.969***
	(0.21)	(0.27)	(0.27)
Year & Industry FE	Yes	Yes	Yes
N obs	23,953	12,611	12,611
Adj-R^2	0.013	0.011	0.013

16

Table 4
Appointment and Departure of Paradise CEOs

The table shows the one, three, and five years effect of the appointment and departure of Paradise CEOs and tax avoidance. Panel A displays results when firms replace a non-Paradise CEO and appoint a Paradise CEO (NPP) while Panel B examines the impact of the replacement of a Paradise CEO by a non-Paradise CEO (PNP). Construction and definition of the variables are shown in Appendix A. Standard errors are clustered at the firm level and t-statistics are in parenthesis. Significance at the 1%, 5%, and 10% levels are indicated by ***, **, and *, respectively.

	DiD 1-year (1)	DiD 3-year (2)	DiD 5-year (3)
Panel A			
Post	0.089	0.116	0.129
	(0.09)	(0.09)	(0.09)
Post * NPP	0.585**	0.468*	0.352
	(0.21)	(0.20)	(0.21)
Constant	-1.228**	-1.279**	-1.395***
	(0.42)	(0.41)	(0.41)
Baseline Controls	Yes	Yes	Yes
Year & Industry FE	Yes	Yes	Yes
N Obs	6,493	6,507	6,486
Adj-R^2	0.019	0.019	0.020
Panel B			
Post	0.497	0.602	0.589
	(0.35)	(0.34)	(0.33)
Post * PNP	-0.262	-0.520	0.002
	(0.39)	(0.40)	(0.37)
Constant	-1.689	-2.113	-2.285
	(1.32)	(1.32)	(1.32)
Baseline Controls	Yes	Yes	Yes
Year & Industry FE	Yes	Yes	Yes
N Obs	1,088	1,073	1,083
Adj-R^2	0.064	0.071	0.077

Appendix. Definition and Construction of Variables

Variables	Definition	Papers
Tax Avoidance	Total Tax Exp[#16] / Pretax Income[#170]	Chen et al. (2010); Dyreng et al. (2010); Lennox et al. (2013)
Paradise CEO/CFO	1=if the CEO/CFO of a firm implicated in the Paradise Papers, and 0 otherwise	
Big 5	1=if the firm is auditors by a Big 5 auditor	Lennox et al. (2013)
Firm Size	Nature log of Total Assets[#6]	Lennox et al. (2013); Kanagaretnam et al. (2016)
Firm Age	The age of the company	Lennox et al. (2013)
M&A Indicator	1=if firm had an acquisition that contributed to sales[#249], and 0 otherwise	Lennox et al. (2013)
New Issue Indicator	1=f if LT Debt[#111] + New Equity[#108] is more than 20% of Total Assets, and 0 otherwise	Lennox et al. (2013)
ROA	Net Income[#172] / Total Assets[#6]	Chen et al. (2010); Lennox et al. (2013)
ΔWC	Change in Working Capital; WC is (Current Assets[#4]-Cash & ST Investments[#1]) —(Current Liab[#5]-Debt in Current Liab[#34])	Kanagaretnam et al. (2016)
ΔNOA	Change in Non-current Operating Assets; NOA is (Total Assets[#6]-Current Assets[#4] -Investment&Advances[#31])—(Total Liab[#181]-Current Liab[#5]-Total LT Debt[#9])	Kanagaretnam et al. (2016)
ΔFIN	Change in Financial Assets; FIN is: (Other Investments & Advances[#32]+ST Investment[#193]) —(Total LT Debt[#9]+Debt in CL[#34]+Pref Stock-Carrying Value[#130])	Kanagaretnam et al. (2016)
Leverage	Total Liab [#181] / Total Assets[#6]	Kanagaretnam et al. (2016)
Salesgrowth	Change in Net Sales[#12]	Kanagaretnam et al. (2016)
PPE	Property, Plant and Equipment [#7] / Total Assets[#6]	Chen et al. (2010)
Multinational	1=if Income Tax Foreign [#64] reported, and 0 otherwise	Kanagaretnam et al. (2016)

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