School of Accounting

Executive Incentives, Corporate Governance and Tax Haven Utilisation: Evidence from Australian Financial Institutions.

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DECLARATION

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

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ABSTRACT

This study extends prior research by investigating the relation between firms' use of tax haven jurisdictions and performance-based remuneration incentives of CEOs. Additionally, I assess the moderating role of corporate governance attributes on the relation between firms' use of tax havens and the remuneration characteristics of CEOs in those firms. Based on a dataset of 1054 firm-year observations comprising publicly-listed Australian financial institutions over the 2008–2018 period, I find a positive and significant relation between firms' use of tax havens and CEOs remuneration attributes. An increase in CEO remuneration elements leads to an increase in use of tax havens by multinational financial institutions. Governance attributes of CEOs pertaining to their tenure and level of gender diversity are significantly negatively related to tax haven utilisation, and negatively moderate the relation between remuneration levels and tax haven use. The existence of female CEOs on the board, and longer serving CEOs reduce firms' reliance on tax have use and negatively moderate the relation between remuneration of CEOs and tax haven use.

Keywords: tax haven use, CEO, tenure, gender diversity, remuneration.

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GLOSSARY OF KEY ABBREVIATIONS

ASX	Australian Securities Exchange
CEO	Chief Executive Officer
CFO	Chief Finance Officer
CSR	Corporate Social Responsibility
ETR	Effective Tax Rate
GDP	Gross Domestic Product
IV	Instrumental Variables
KMP	Key Management Personnel
OLS	Ordinary Least Squares
UK	United Kingdom
US/USA	United States of America
OECD	Organisation for Economic Co-operation and Development

CHAPTER ONE
INTRODUCTION

1.1 Introduction

The statement that 'taxes are what we pay for civilized society' by Oliver Wendell Holmes[1] is of interest to stakeholders considering that tax minimisation is undertaken by firms' directors as an integral part of profit maximisation strategy (Hanlon and Heitzman 2010). Corporate tax avoidance constitutes a spectrum of transactions or arrangements that can range from a passive reduction in corporate tax payable to more aggressive forms whereby firms may establish [2]schemes designed to specifically reduce tax payable (see, e.g., Dyreng et al., 2008; Hanlon and Heitzman 2010).

Due to the globalisation of business and the rapid expansion and acceptance of social media, the effects of corporations' financial or ethical behaviour are not only felt internationally, but are also broadcast to stakeholders at a rapid pace. The worldwide movement for improved corporate governance is a result of major company failures that resulted in the establishment of [3]the Cadbury Report in the UK, Sarbanes – Oxley Act in the USA, CLERP 9 in Australia, the Dey Report in Canada as well as the OECD Principles of Corporate Governance. These regulatory principles outline the responsibilities of the board including accountability and the requirement for effective monitoring (OECD, 2004)

Remuneration attributes including those with a significant equity component are considered key drivers of director and executive behaviour. In addition, where a firm is placed in its life cycle has an effect on the resources available to managers and hence their remuneration. Dickinson (2011) determined that as firm's resource allocations and hence performance varied on a systematic base across the different stages of the firm's life cycle and that those differences influenced the aggressiveness of managers' tax avoidance behaviour. Adams and Mehran (2003) and Macey and O'Hara (2003) in their investigation of corporate

[1] Oliver Wendell Holmes Jr, in the case of CompanI ia General deTabacos de Filipinas v. Collector of Internal Revenue, 1904.

[2] Former treasurer Wayne Swan had stated in parliament that "BHP had operated at the evasion end of the tax spectrum for over a decade, " and that the figure of "$1.1Billion tax dispute regarding" the use of" its Singapore marketing hub", represented "a quarter of all disputes in which the ATO engaged." Osborne, The Australian Associated Press 2017)

[3] For example, the main components of the "Cadbury Code" are Chair of the Board be separate person/position from Chief Executive, majority of board be independent outside directors, remuneration committee be majority independent directors, audit committee consisting of majority independent directors.

governance mechanisms, determined that there was systematic variance between the corporate governance structure of financial institutions and manufacturing and concluded that governance was industry specific.

Prior research (see e.g. Dyreng et. al. 2008; Frank et. al., 2009; and Armstrong et. al., 2012) asserts that firm management characteristics and behaviour play a significant role in determining their propensity to engage in tax avoidance. Desai and Dharmapala (2006) asserted that remuneration incentives of management were major drivers of tax avoidance, particularly when firms shifted tax deductible expenses, reallocated income, used tax shelters as well as engaged in transfer mispricing.

To ensure maximisation of funds available to shareholders, firms' engaged in earnings management activities designed to reduce taxation liabilities and compliance costs. Managers' remuneration incentive structure was shown to have a significant influence on the propensity of those managers to engage in tax avoidance (Grubert and Mutti, 1991; Shackelford and Shevlin, 2001; Dhaliwal et. al., 2005; Beattie et. al., 2006).

Richardson et al (2015) examined the effect of the Global Financial Crisis of 2008 on firms' propensity to engage in tax avoidance. They determined that the effects of financial stress on firms and the utilisation of tax avoidance were co-related. Further, Minnick and Noga (2010) concluded that differing corporate governance structure were influential on the tax strategies undertaken by firms.

A number of factors influence the ability of a firm's management to ensure that not only is the entity able to report on the going concern basis but that it is also able to make a profit. Legal company tax minimisation is one of these factors and whilst this is often considered to be effective as a business practice it can also be thought to be unethical from the view point of some stakeholders. For instance, Laguir et al. (2015) found that firms that claimed to be socially responsible corporate citizens are often engaged in aggressive tax avoidance behaviour. Hanlon and Heitzman (2010) determined that a reduction in explicit taxes is a result of legitimate tax minimisation, which in turn affects the ability of governments to provide resources and jobs for society.

[4]Countries that operate as tax havens are usually considered by society to be small islands located somewhere in the Caribbean or a third world nation, whereas published lists include parts of the USA, one of the largest first world countries.

The utilisation of multinational corporation structures to enable the minimisation of taxation is facilitated by existence of low taxing jurisdictions and lenient regulations (Hanlon and Heitzman 2010). The creation of complex corporate structures is usually undertaken to firstly provide legal protection for operations, especially against government decisions, secondly to avoid possible public scrutiny of strategies and processes, thirdly to minimise taxation requirements. Previous studies that have considered the history of tax minimisation through the use of tax shelters (see e.g. Gordon, 1981, Nanadra 2008, Manaila, 2004, Palan 2009 and Buzan 2011) supported the premises that companies seek to reduce taxation payments through the use of offshore, virtual countries of residence that offered easy registration and higher levels of secrecy. [5]Anecdotally large multinational corporations are accused of paying some of the lowest amounts of corporate taxation world-wide through the exploitation of parent subsidiary structures, especially those domiciled in tax haven jurisdictions (Dyreng and Lindsey 2009).

The main characteristics of tax havens include minimal or no taxation levied on income, reduced or lack of transparency, avoidance of information sharing with other jurisdictions, the main substantive business activity being that of providing corporate services that assist in the reduction of taxation paid in other countries (OECD, 2000). Mara (2015) ascertained that the business model of tax haven countries consisted of financial servicing as a greater percentage of their gross domestic product (GDP) per capita than just offering low rates of taxation.

1.2 Motivation for Research

This research specifically investigates the relation between tax haven utilisation, a major mechanism through which tax avoidance and opacity in financial reporting and information exchange, [6] and the remuneration structure of management of Australian financial firms. There

[4]Anguilla, Aruba, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Cook Islands, Curaçao, Cyprus, Delaware (US), Dominica, Gibraltar, Guernsey, Guyana, Hong Kong, Ireland, Isle of Man, Jersey, Liberia, Lichtenstein, Luxembourg, Macao, Malta, Marshall Islands, Mauritius, Monaco, Montserrat, Nauru, Netherlands, Nevada (US), Samoa, San Marina, Seychelles Singapore, St. Kitts and Nevis St. Vincent & Grenadines, Switzerland, Taiwan, Turks and Caicos Islands, US Virgin Islands, Wyoming (US) (see Ethical consumer's list of tax havens)

[5] Google's effective tax rate was 2.4% between 2007 and 2008 due to moving the majority of its profits from the US to Bermuda via entities incorporated in the Netherlands (see Drucker, J. (2010). In 2018 the Australian government passed legislation with the purpose of reducing tax avoidance by companies using complicated structures. BHP and Rio Tinto use Singaporean subsidiaries to sell Australia iron ore to China. (Alberici 2018)

6 Corporate tax avoidance constitutes a spectrum of transactions or arrangements that can range from passive reduction in corporate tax payable to more aggressive forms whereby firms may establish schemes designed to specifically reduce tax payable (see, e.g., Dyreng et al., 2008; Hanlon and Heitzman 2010).

is a paucity of research relating management remuneration or governance attributes to corporate haven utilisation incentives.

The focus is on financial institutions because of the regulatory pressures faced by these firms, the high-level public scrutiny of these firms and given that they are [7]significant economic contributors. Additionally, financial institutions may have faced penalties for breaches in money laundering controls or non-adherence to money laundering rules and regulations and this places immense pressure on management to put resources into compliance programs. This will also extend to compliance with tax legislation and financial regulations. The recent Royal Commission into the Australian banking sector provides evidence of financial misconduct and [8]criminal activities pertaining to this sector. These strongly motivate this study given that tax haven jurisdictions act as conduits for concealment of illicit activities (e.g. tax planning, money laundering) and provide the basis for these institutions to engage in regulatory and financial arbitrage.

1.3 Objectives and Aims

The primary objective of this study is to investigate the relation between executive remuneration incentives and firms' use of tax haven jurisdictions as well as the influence of governance structure on this relationship.

The first objective of this study is to expand and complement previous research undertaken in the U.S. on the effects of remuneration incentives for managers on the level of tax avoidance measures utilised by companies. Dyreng et al., (2008) observed that the compensation incentive structure for key management personnel may be influential in determining the level and type of corporation tax avoidance due to the influence they have on the level of risk taking by a company's decision makers. In particular, the impact that structure of total remuneration i.e. the percentage of cash versus equity, has on managements' inclination to be involved in aggressive tax avoidance strategies is important. The second objective of the study is to determine what specific governance characteristics of company boards influence the relation between the nature and level of remuneration incentives and firms' use of tax havens.

[7] The Australian financial sector represents 9% of the economic output having doubled its contribution over the last 30 years, contributes $140 billion to GDP and employs in excess of 450 thousand people (Australian Treasury, 2019, Reserve Bank of Australia, 2019).

[8] Commonwealth Bank of Australia was fined in 2018 for inadequate reporting and monitoring of suspicious transactions and customers associated with possible money laundering (see Doran and Janda 2018).

1.4 Contribution of Research

This research is significant for several reasons. First, there is a paucity of research that has related remuneration incentives to tax avoidance generally, and none to tax haven use specifically. The issue with prior studies that have examined the link between tax avoidance and remuneration structures is that tax avoidance measures such as effective tax rates and differences between accounting income and taxable income are very broad and may sit anywhere on a spectrum between legally permissible reductions in income tax to tax evasion. It is therefore difficult to determine the precise channel through which remuneration incentives could impact tax avoidance or tax planning. By relating tax haven use to remuneration incentives, this study provides a more nuanced approach (see e.g. Dyreng et. al., 2008). This study also relates various types of remuneration that include at-risk cash, shares and options and total remuneration to tax haven use. Second, I draw upon the population of financial institutions in Australia to test these relations. Research into tax haven use of financial institutions has not previously been examined.

1.5 Limitations and Assumptions

There are limitations and assumptions that should be considered in relation to this study. I rely on the reporting of tax haven subsidiaries in the annual reports of financial institutions. It is possible that some of these jurisdictions may not have been reported. Also, one has to be careful in being able to generalize the findings of this research to that in other countries as the financial institutions in those countries will be subject to differing tax, financial and regulatory frameworks.

1.6 Overview of Thesis

This study extends prior research by investigating the relation between firms' use of tax haven jurisdictions and performance-based remuneration incentives of CEOs. Additionally, I assess the moderating role of corporate governance attributes on the relation between firms' use of tax havens and the remuneration characteristics of CEOs in those firms. Based on a dataset of 1054 firm-year observations comprising publicly-listed Australian financial institutions over the 2008–2018 period, I find a positive and significant relation between firms' use of tax havens and CEOs remuneration attributes. Governance attributes of CEOs pertaining to their tenure and level of gender diversity are significantly negatively related to tax haven utilisation, and negatively moderate the relation between remuneration levels and tax haven use.

Chapter 2 examines the theory and prior literature that is of relevance to the development of hypotheses and in support of the findings of this study. Chapter 3 then develops the hypotheses in conjunction with the theoretical framework. Following establishment of the research design in Chapter 4, the univariate and multivariate results are reported and discussed Chapter 5. Chapter 6 then concludes the study.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

Consistent with earlier research into the effects of employee remuneration incentives on managerial behaviour, recent researchers have utilised agency theory and corporate governance principals to determine if the levels of tax avoidance behaviour undertaken by managers is influenced by the level of risk-based incentives. A similar framework will be utilized in this study to examine the relation between tax haven utilisation and remuneration structures.

2.2 Corporate tax avoidance – nature and level

Dyseng et al., (2008) determined that the levels and nature of a corporate tax avoidance was influenced by manager's behaviour as well as a corporation's culture. They hypothesised that the actions undertaken by managers were influential on the levels of risk and internal controls utilised by firms.

Frank et al., (2009) proposed that where firms showed strong evidence of undertaking earnings management that there also was an association between aggressive tax avoidance behaviour and aggressive financial reporting. This behaviour was a consequence of the inverse nature of decision making – as taxable income was reduced; financial income was increased. It was also determined that corporate tax avoidance undertaken by key management personnel was incentivised by remuneration inducements (Watts and Zimmerman, 1990; Walsh and Ryan, 1997). However, Phillips (2003) asserted that executive bonuses were not always linked to the firm's after-tax earnings and so managers were not always motivated to undertake tax avoidance measures.

In their investigation of the relationship between the compensation of firms' tax directors and the incentive of US firms to undertake tax avoidance decisions, Armstrong e. al., (2012) found that whilst there was a negative association between a firm's level of incentive compensation offered to tax directors and the accounting tax rate, they were unable to find a significant relation between cash effective tax rates and compensation incentives of tax directors. Additionally, Armstrong et al., (2012) did not find a significant association between compensation incentives and a firm's book tax variances, thus suggesting that accounting tax expenses is more likely to provide better information on the actions undertaken by tax directors. Gaertner (2014) supported these findings when documenting a meaningful negative

relationship between the after-tax incentives of CEO's and firms' effective tax rates. CEO's and director's remuneration incentives are associated with reduced long-term tax rates (Minnick and Noga 2010). They asserted that managers have compensation incentives as a result of consequences associated with tax compliance. Dyreng et al., (2010), Rego and Wilson (2012) supported this by finding that equity-based incentives motivated managers to exhibit risky taxation planning behaviour. Their results support the premise that where firms had wider differences between book-tax and lower tax rates, managers were more likely to be compensated with larger equity-based incentives.

Taylor and Richardson (2014) ascertained thin capitalization, transfer pricing, income shifting, and tax haven utilisation are significantly associated with tax avoidance. They found that executive incentives were associated with the level of tax avoidance behaviour. Richardson et al., (2014) find that tax aggressiveness is negatively correlated with debt especially as a firm's debt strategy is affected by the aggressiveness of the firm's tax policies when determining their capital configuration. Executive incentives played a role in impacting this relation.

Whilst research has supported the premise that corporate governance is an important consideration for investors especially in regards to transparency of financial statements, reduction in levels of corruption, adequate enforcement rules, tax minimisation is not. Corporations through the use of subsidiary companies incorporated in tax haven nations achieve minimisation of global taxes, with the preponderance of multi-national companies paying the minimum amount of tax possible in all of the jurisdictions in which they conduct business (Christensen and Murphy, 2004).

Additionally, a number of previous researchers have considered tax haven utilisation and the impact on firms' tax avoidance measures including income shifting actions even though these measures may have implications for individual economies and local taxation jurisdictions (Johannesen (2014), Mara (2015), Omar and Zolkaflil (2015), Jones and Temouri (2016), Chernykh and Mityakov (2017).

2.3 Tax avoidance and corporate governance structure

Tax avoidance encompasses a spectrum of activities that are both legal and illegal (i.e. evasion). Tax haven use clearly reduces firms' tax liabilities as reflected in the study by Dyreng and Lindsey (2009) where firms that use tax havens were shown to have global effective tax rates

1.5% less than their counterparts. Thus, tax haven use sits at the aggressive end of the tax avoidance spectrum. Although their use is legal, the way in which firms rely on secrecy and lack of information exchange characteristic of tax havens, this places their use in the aggressive part of the spectrum. Tax havens, however, can be used for purposes over and above purely tax avoidance which, as the thesis explains, may include enhancement of a wider market se, generation of new financial products, capital management purposes and to obtain financial and regulatory arbitrage.

Given that tax havens are well known conduits for assisting firms in reducing their tax liabilities, a general assessment of the relation between tax avoidance and strength of governance structure is now examined. Richardson et al., (2013) determined that the connection between risk management, a firm's internal control systems and reduction in tax avoidance behaviour were influenced by higher ratios of independent directors on boards. Frank et al. (2009) theorised that this behaviour was due to the strategies undertaken by firms' management in determining the aggressiveness of a firm's operating, financing, investing and compensation policies. While Steijvers and Niskanen (2014) determined that family firms with reduced levels of share ownership by CEO'S demonstrated higher levels of tax aggressive behaviour, they undertook less tax avoidance measure than public firms.

White et. al., (2014) supported Desai's and Dharmapala's (2006) assessment that ineffective corporate governance contributed to the level of tax avoidance undertaken by firms. They determined that where there were minimum levels of monitoring of manager's decisions and behaviour, there was a robust connection between agency conflict and tax avoidance measure. In addition, Desai and Dharmapala (2006) reasoned that where firms do not have strong governance structures in place, a reduction in the propensity to utilise tax havens can be achieved by reducing managers' remuneration incentives. Chyz and White (2014) concluded that lower levels of monitoring the actions managers resulted in an existence of a link between tax avoidance and agency conflicts. The level of a firm's internal controls as well as the management of risk was influenced by CEO behaviour regarding the level and nature of a firm's tax aggressiveness.

Koethenbuerger and Stimmelmayr (2014) considered the nexus concerning shareholders and a firm's management and found that even though this relationship formed a central role in agency theory and hence corporate governance, the level of executive incentive remuneration is not fully controlled by incentive contacts or the associated tax minimization incentive.

Hanlon and Heitzman (2010) in their evaluation of the effects of corporate governance on the association between shareholders and managers, concluded that goal congruence was achieved where a reduction in a firm's income tax expense resulted in increased levels of equity-based remuneration motivating an increase in after tax returns to shareholders.

Armstrong et al. (2012) research supported Desai and Dharmapala (2006) on the linkage between the corporate governance characteristics and tax aggressiveness. Steijvers and Niskanen (2014) extended previous research to consider the level of possible influence that independent directors had on the association between levels of CEO share ownership and a firm's propensity for tax aggressive behaviour, and concluded that levels of shareholdings had a positive effect on ETR thus indicating lower levels of tax aggression.

Richardson et al., (2015) examined the effect of the Global Financial Crisis of 2008 on the propensity of firms to engage in tax avoidance and found that there was a significant relation between the effects of financial stress on firms and the utilisation of tax avoidance measures.

Minnick and Noga (2010) studied the influence that corporate governance has on a firm's tax management strategies and concluded that whilst this played an important role in tax management, different governance structures lead to different tax strategies. They also found that managers displayed sensitivity to incentives that discouraged long term horizon issues by undertaking long term tax avoidance. Lanis and Richardson (2011) provided evidence that firms' tax aggressive behaviour was influenced by the structure of the board of directors. Earlier studies (Desai and Dharmapala, 2006, Hanlon and Slemrod, 2009 Chen et. al., 2010) did not consider the level or influence of specific corporate governance mechanisms on firms' tax aggressiveness.

Richardson et al., (2013) considered the implication of a board's risk management strategy on tax aggressiveness, determining that weak corporate governance and a lack of audit related oversight contributed to tax aggressive behaviour. Prior research asserted that there is a level of ambiguity associate with boards' decision making in regards to whether these boards were displaying tax aggressive behaviour or the decisions made resulted in tax aggressiveness of the firms (Dyreng et. al., 2008, Armstrong et. al., 2012, Rego and Wilson, 2012).

2.4 Tax haven use and levels of corporate governance

Tax havens are well known loci of investment and regulatory arbitrage and hence firms' that rely on these jurisdictions for capital management purposes may help them to achieve business objectives without necessarily adhering to sound corporate governance practices (Kim and Li

2014; Rixen 2013; Rawlings 2017). Therefore, tax havens may firms' to conceal the nature and flow of funds amongst group affiliates and may use tax havens as a conduit to shift the ownership of funds across different jurisdictions. This is clearly evident in the U.S. (Homeland Security and Governmental Affairs (HSGA) 2012).

Tax havens use could affect the flow of information and in doing so generate informational asymmetry amongst stakeholders and increased levels of uncertainty, and firm value (Balakrishnan et al. 2012). Black et al. (2014) find that tax haven use of U.S. multinational firms' creates agency risk. Thus, there are greater opportunities for managerial resource diversion, misuse and financial inefficiencies including managerial rent extraction and use of resources for personal benefits. Thus, firms with tax havens are less likely to sustain strong governance practices. It is thus an empirical question as to the extent that development of strength in governance attributes diminishes the effect that remuneration structures, which could also be the by-product of agency effects, have on tax haven use.

2.5 Board diversity and levels of corporate governance

Whilst it is widely held and documented that males and females differ in their choices and predilections, Adams and Funk (2012) studied whether these differences were carried forward in to the boardroom, finding that female directors tended to be less risk averse than their male counter parts, due to being less security orientated. In addition, female directors were seen to be more altruistic and less power driven, characteristics that were influenced by their core values and hence shaped their decision making. This research contradicted earlier studies undertaken by Betz et al., (1989) who concluded that male directors were less risk averse than female directors, while Peni and Vahamaa (2010) determined that male CFOs tended to adopt a riskier approach than female CFOs.

Previous US based studies have shown that there is a positive association between earnings quality, board monitoring and female directors. Srinidhi et al., (2011) supported this showing that as the number of female directors increased so did the reported earnings quality, linking this to the plausibility that greater board monitoring was contributed to by female participation. In their research Adams and Ferreira (2009) concluded that boards that demonstrated a higher level of gender diversity were inclined to exhibit higher levels of monitoring, due to the behavioural differences of males and females. Gul et al., (2011) evaluated the transparency of firm specific information and argued that boards that

demonstrated gender diversity showed improved levels of discussion and more rigorous monitoring of the firm's disclosures.

2.5 Summary of Chapter 2

This chapter considers the previous literature that examined whether levels of tax avoidance behaviour undertaken by managers is influenced by the level of risk-based incentives and used a similar framework to examine the relation between tax haven utilisation and remuneration structures. Whilst some of the literature dates from the 1990s the majority of research has taken place in the last ten years, with US studies dominating and having relative mixed results. Richardson et al., (2013) determined that the connection between risk management, a firm's internal control systems and reduction in tax avoidance behaviour were influenced by higher ratios of independent directors on boards. A number of previous researchers have considered tax haven utilisation and the impact on firms' tax avoidance measures including income shifting actions even though these measures may have implications for individual economies and local taxation jurisdictions (Johannesen (2014), Mara (2015), Omar and Zolkaflil (2015), Jones and Temouri (2016), Chernykh and Mityakov (2017)). Adams and Funk (2012) studied whether these differences were carried forward in to the boardroom, finding that female directors tended to be less risk averse than their male counter parts, due to being less security orientated

CHAPTER THREE
THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

3.1 Introduction

This thesis examines the association between a firm's use of tax havens and remuneration structures of executives. The underlying theoretical framework of this study applies the theoretical concepts found in both corporate governance and the corporate tax/accounting literature.

3.2 Theoretical Concepts

Jensen and Meckling (1976) and Fama (1980) as supporters of the concept of agency theory, described an agency relationship between owners and managers as one where the principal (owner) delegates decision making and hence authority to the agent (professional managers). Colloquially the premise of agency theory is that individuals are self-interested wealth maximisers. This is supported by the positive accounting theorists Watts and Zimmerman (1978) who advocated that an agency problem was created by the ability of managers to make unscrupulous decisions through the use of accounting policies which reduce the profits of owners' whist either indirectly or directly increasing their own benefits, this is especially so where the agent and principal have conflicting goals and risk attitudes. Fama and Jensen (1983) and Hill and Jones (1992) supported this theory in their research, finding that instead of representing the interest of principals, the actions of agents demonstrated self–serving behaviour. To alleviate this behaviour, Desai and Dharmapala (2006) determined that alignment of managers' interest with that of owners through the inclusion of equity incentives in the remuneration package of managers may reduce tax aggressive behaviour.

Additionally, given that the corporate governance literature is centred on the concept of firms' governance behaviour through the utilisation of corporate behaviour monitoring and the characteristics of directors, resource dependent responsibilities of the boards of directors and behavioural monitoring are relevant. (Denis and McConnell, 2003). Jensen and Meckling (1976) posited that the monitoring roles undertaken by boards of directors, incorporate governance mechanisms that are designed to protect the interests of shareholders, are supported by agency theory whereby the separation of ownership and management may result in conflict of interest between the parties. Hillman et. al., (2008) determined that monitoring of

management was enhanced by the inclusion of corporate governance practices including but not limited to independence of directors, separation of the positions of chair and chief executive officer, the appointment of board committees, the inclusion of management equity reward incentives linked to ownership of the firm's stock.

When examining resource dependent theory, Wernerfelt (1984) emphasised that the individual capabilities that directors possessed and hence contributed to the ability of boards included links to other organisations and associates through private and business networks, as well as expertise, experience, differing skills and education. Through the utilisation of these capabilities, the monitoring function undertaken by boards, especially of managements stewardship regarding the firm's resources as well as provision of advice and guidance with reference to the firm's strategic decision, ensures that convergence of objectives between managers and owners is achieved (Hillman et. al., 2008).

Whilst tax planning is an important business strategy, shareholders may be concerned that in doing this, that managers could be able to allocate more of the company's profits for themselves in the form of fees. In addition, it was argued by Desai and Dharmapala (2006) that the ability for concealment of tax avoidance measure was possible via their remuneration structure. This could be alleviated by implementing effective mechanisms to overcome agency problems especially those relating to the relationship between managers and shareholders. Furthermore, the strength of a firm's governance structure would have an impact on the opportunities for managers to undertake tax minimisation planning, with Dyseng et al., (2008) observing that a firm's culture, regarding the qualities of their internal controls and governance together with the attitudes of management, influenced the corporations risk strategies and levels of tax avoidance.

Frank et al. (2009) utilised agency theory when determining that a positive relation existed between earning management use by managers and tax aggressiveness of firms. Additionally, corporate tax avoidance is impacted by the influence that incentive-based remuneration has on strategic decisions made by senior managers who hold crucial executive roles, Watts and Zimmerman (1990); Walsh and Ryan, (1997) and Brown et. al., (2014).

Fortin et. al. (2014) investigated the effect of pay performance engagement of shareholder and executive misalignment by utilising agency theory, determining that where the interests of shareholders and executives were aligned there is a positive impact on the actions of managers and directors whereas there was negligible influence asserted by non-pay performance incentives.

In their investigation of the influence of independent directors on family owned and controlled firms and tax aggressive behaviour Steijvers and Niskanen (2014) utilised the agency theory concept of goal convergence between principals (shareholders) and agents (managers) and found that there was a higher probability that firms would be engaged in tax avoidance measure where the CEO had a greater proportion of ownership. Whilst Desai and Dharmapala (2006) supported the agency theory premise that symmetry between the interests of owners and remuneration incentives of managers was more likely to lead to investment, finance and taxation decision making by managers to be riskier in nature. They conversely argued that shareholder and manager information symmetry could also result in managers acting in their own interest and hence an increase in tax avoidance measures being undertaken.

Agency theory is also associated with the role of boards in monitoring the actions of managers, this governance process is used to ensure that conflicts of interest that may arise due to the separation of management and ownership will not aversely affect the interests of the shareholders (Jensen and Meckling, 1976). Hillman et al., (2008) concluded the governance mechanisms that contributed to effective monitoring actions included but were not restricted to, majority of the board of directors being independent, that there was separation of the duties of chairperson and chief executive officer.

More recent research has considered the effect of non-shareholder stakeholders on tax aggressiveness. Lanis and Richardson (2012) compared corporations considered to participate in tax aggressive behaviour against those that did not and found that there was a positive association between levels of corporate social responsibility (CSR) disclosures and firms' tax aggressive behaviour. Whilst firms attempt to legitimise their behaviour within society by providing more information in relation to how it is a good corporate citizen, it may in fact be hiding the aggressive nature of its tax minimisation structures. In a further study Lanis and Richardson (2015) considered the actual CSR behaviour of firms and concluded that where firms demonstrated that their actual performance of CSR was superior then levels of tax avoidance undertaken were lower. Research undertaken by Watson (2015) considered the influence earnings management had on a firm's tax avoidance measures and determined that there is a positive association between CSR and tax avoidance where current or future earnings may be reduced concluding that firms are less likely to be influenced by the demands of stakeholders that do not hold the company's shares in times of resource scarcity.

One of the main premises of agency theory is that monitoring and hence influence on managers' behaviour is undertaken by boards of directors (Jensen & Meckling, 1976). Carter

et al. (2003) further suggested that better monitoring may be provided by board diversity as this leads to greater levels of independence of board members. Whilst Monks and Minow (2004) argue that increasing the level of equity held by directors is more likely to increase monitoring of managers by boards than the level of board independence, demonstrating that agency theory does not robustly support the possible fiscal benefits of diversity of boards though there may be other commercial benefits.

3.3 Hypothesis development

3.3.1 Remuneration incentives and tax haven utilisation

Inducement aimed at encouraging the participation of managers in aggressive tax behaviour is expected to be influenced by the characteristics of the remuneration contracted between firms and management. (Watts and Zimmerman, 1990). Whilst Desai and Dharmapala (2009) theorised that managers utilised various tax minimisation arrangements or strategies that enabled them to maximise their own rewards to the detriment of shareholders. There has been limited previous research undertaken in the examination of the level of impact on tax avoidance measure of US firms, the characteristics of compensation packages of executives (e.g., Phillips, 2003; Desai and Dhamapala, 2006; Rego and Wilson, 2012). A positive correlation associated with key management personnel (KMP) compensation and tax avoidance is the result of the remuneration structure of CEO's and CFO's being tied to a company's after-tax profit returns, hence the firm's management maybe incentivized to undertake tax minimisation measure to ensure reduction in the tax payable and increasing after tax profits. (Rego and Wilson, 2012). Taylor and Richardson (2014) determined that due to the necessity for a firm's management to not only apply taxation legislation but also interpret the legislation when applying strategies for the recoupment of carried forward losses and the subsequent calculation of deferred tax payable, that performance-based incentive remuneration packages influenced the calculation and estimation of the amounts. Additionally, the aggressiveness or not of these strategies was tied to the uncertainty of the estimations and the possible effect on manager's remuneration incentives, and their finding was that there is a positive relationship between levels of tax avoidance and levels of equity incentive remuneration. Armstrong et al. (2015) concluded that there was a positive relationship between managers' tax avoidance measure and remuneration incentives as managers anticipated greater compensation for accepting strategies that increased tax avoidance measure, especially where there is an association between a firm's corporate

governance structure, executive equity remuneration incentives and possible tax avoidance structure. Whilst, Rego and Wilson (2012) determined that while risk taking equity incentives was a factor linked to a firm's tax aggressiveness, and hence a positive correlation between higher levels of equity risk incentive and higher levels of tax risk, they concluded that it did not hold true that lower levels of equity risk incentives resulted in lower levels of tax avoidance risk.

Previous literature has documented a relationship between performance-based sensitivity in management's remuneration contracts and the wealth of shareholders. Jensen and Murphy (1990) found that where CEO compensation was tied to a firm's share price either through equity incentives or cash that as shareholder wealth increased then proportionately so did that of CEO's, they suggested that to resolve agency issues between managers and shareholders that boards should structure remuneration incentives that are performance or share price orientated.

Remuneration incentives were influential in motivating key management personnel to participate in corporate tax avoidance behaviour (Watts and Zimmerman, 1990; Walsh and Ryan, 1997). Whilst Phillips (2003) was unable to support this, instead finding no evidence of managers being incentivised to undertake tax avoidance decisions where their bonuses were linked to the firm's after-tax performance. In their examination of possible correlation between a firm's management performance-based compensation and tax avoidance behaviour Desai and Dharmapala (2006), determined that increased of remuneration incentives contributed towards alignment of the goal convergence of managers and shareholders especially in regards to decisions undertaken for risky behaviour associated with tax, financing and investment planning. Rego and Wilson (2012) contended that managers were motivated to by remuneration incentives to demonstrate aggressive tax planning behaviour. Armstrong et al. (2012) examined the casual association of tax director's incentives and firms' effective tax rates, demonstrating that an inverse relationship occurred concerning the remuneration incentives offered to executives and the effective tax rates used by companies.

The following directional hypothesis is proposed to test the relation between tax haven utilisation and remuneration structures

H1: All else being equal, there is a positive association between managements' remuneration and firm's level of tax haven use.

3.3.3 Corporate governance structure and tax avoidance

Corporate governance is defined by the OECD as "the procedures and processes according to which an organisation is directed and controlled "and "specifies the distribution of rights and responsibilities among the different participants in an organisation". With the result being that organisational goals and objectives are achieved when processes, procedures and practices are abided by. Dyreng et al., (2008) observed that a corporation's culture, especially with regards to levels of corporate governance and internal controls, together with the conduct of executives affected the company's levels of tax aggressiveness and risk strategies.

Huseynov and Klamm (2012) studied the effects that employing "auditor tax services" had on tax minimisation and levels of CSR reporting by firms and concluded that those with robust levels of corporate governance lowered their tax expense by the utilisation of tax fees and charitable giving. When considering corporate governance, corporate structure and executive remuneration Cheng and Frith (2005) found that where executives held larger parcels of shares in the firm, they received lower levels of salary as they were rewarded by payments of higher share dividends. This resultant linkage of share ownership and remuneration levels of executive influenced the reduction and prevention of criticism of executives based on their remuneration packages.

Dyreng et al's. (2008) found that, regardless of the effectiveness or ineffectiveness of a firm's corporate governance structures, increasing the remuneration incentives of managers resulted in a reduction in the levels of use of tax havens by firms. The conclusion therefore is that the ability of managers to manipulate the level of risk management as well as other internal controls undertaken by firms, and hence the tax aggressiveness or otherwise of firms was influenced by the levels of managerial behaviour monitoring, Dyreng et al., (2008) and Chyz and White (2014).

Previous literature on board composition has highlighted the strength added to boards by the inclusion of outside directors, Dunn et. al.,(1987) argued that independent directors placed boards in a better position to monitor and control managers behaviour, whilst Firstenberg and Malkiel (1987) and Vance (1983) concluded that independent directors brought a greater depth of experience and knowledge to firms' decision making processes. Subsequent research undertaken by Brooks et. al., (2009) found that the role and hence contribution of independent directors had not substantially changed over time. Additionally, other studies have linked a firm's financial performance and hence shareholder wealth to a greater proportion of

independent directors on boards, finding that better operating performance and return on equity where independent directors were the majority of board members, Bickley et.al. (1994), Byrd and Hickman, (1992), Subrahmanyan et al., (1997), Rosenstein and Wyatt, (1997).

In their study Finegold et al., (2007) determined that while a number of empirical studies reported a positive relationship between independent directors and a firm's performance other studies resulted in insignificant relationship between composition of boards and the resultant performance of the firm. This determination was supported by Brooks et al., (2009) when investigating Australian companies and their adherence to the recommendations of ASX's Corporate Governance Council's including those related to the appointment of independent directors, as they found that there was conflicting evidence of the effect of independent directors on economic performances of companies.

When considering the influence of non-executive directors on the tax aggressiveness of companies Lanis and Richards (2011) utilised the research of Hermalin and Weisbach and Beasley, who had separated the non-executive directors into independent and grey directors, with Beasley (1996) determining that "independent directors are outside directors who have no affiliation with the corporation other than being on the board of directors, whereas grey directors are outside directors who have some form of non-board affiliation with the corporation." When comparing tax aggressiveness of firms, their research compared firms with independent directors and grey directors and found that non-tax aggressive firms had a higher percentage of outside directors, though the percentage of grey directors were the same for both types of firms whereas the percentage of independent directors was lower for tax aggressive firms.

Previous studies into the effectiveness of independent directors have found that where independent directors constitute larger proportions of board members that superior decisions are made due to the objectivity of the independent directors as they able to bring different views to the strategic decision making of the board. (Denis and McConnell, 2003). Rao et al, (2012) considered that independent directors were more likely to be effective monitors of management's decisions and strategies due to their objectivity, less likelihood of financial gain and were motivated by subjective goals and incentives including personal reputation, this in turn increased the goal convergence with shareholders and other stakeholders. Research undertaken by Haniffa and Cooke, (2005) supported this finding, concluding that where a board was dominated by independent directors, the companies were less likely to engage in actions that were not in the interest of society. The rational of Liao et

al, (2015) was that independent directors tended to have a longer-term view of a firm's strategies and investments as they were not restrained by short-term economic aims that often impacted on the decision making of executive directors. Therefore, independent directors were more likely to engage in initiatives that had a positive societal outcome. Carter et. al., (2003) found that percentages of females and or minorities on boards decreased as the number of executive directors increased even though there is a positive relationship between board diversity including women and minorities and the value of firms.

In their study on tax holiday participation by US firms Chow et al., (2018) found that where CEOs were focused on the short term that firms were more likely to utilise foreign tax holidays offered by the US government. They also determined that this utilisation was dependent on the length of CEO tenure as well as career perspective ie early or late in a CEOs career. Previous literature that focused on retirement age of CEOs argued that as CEOs approached retirement that there was likelihood of an increase in agency problems due to the changes in CEO timelines, with those nearing retirement having a tendency to focus on a shorter time frame than principals (Holmestrom, 1982, Gibbons 1998, Murphy, 1992, Deschow and Sloan 1991).

The following non-directional hypothesis is proposed to test the impact of corporate governance structure on the relation between KMP equity incentives and corporate tax avoidance relationship on corporate tax aggressiveness:

H2: All else being equal, CEO tenure moderates the relation between management remuneration and firms' use of tax havens.

3.3.4 CEO gender and tax haven utilisation

In a "Review of the role and effectiveness of non-executive directors" undertaken by Higgs (2003) for the British Chancellor of the Exchequer and the Secretary of State for Trade and Industry, it was found that the soft skills used by women in the areas of customer care, human resources and change management, were highly relevant to board decision making, additionally in professions where women constituted a high proportion of members e.g. lawyers, accountant and consultants that the analytical skills acquired were also highly relevant and that boards should recruit from these areas to enable greater diversity of board decisions.

In their research into the governance factors that should enable the alignment of the interests of managers and shareholders Kang et al (2007) considered the diversity as well as the independence of directors. The main finding was that the boards of Australian companies

had a conservative diversity consisting mainly of males aged between 51 and 70 though the majority were independent non-executives. Whilst there is not an obligatory requirement for companies to appoint females to boards there has been an increase in female representation on boards (Lamont and Williams 2012), though the finding of Kang et al., (2007) still prevail. Interestingly a recent Australian study by Richardson et al. (2016) indicated that where the board of directors consisted of more than one female director then tax aggressive behaviour was reduced. They also asserted that due to female directors acting in a similar manner to independent directors, providing greater monitoring of board decisions coupled with being risk averse, together with being ethical and moral that their influence could result in considerable reduction in the level of tax avoidance. Carter et al., (2010) considered the affect that ethnic minority and female directors had on the decisions made by boards and found that there was a neutral effect on a firm's financial performance although the effect may differ for different boards due to differing circumstances and timing.

Richardson et al., (2015) studied the effect of gender on firms' tax avoidance behavior and found that those with female board members were less likely to engage in tax avoidance relative to their counterparts. This supported previous studies that also found that where females held executive powers, firms demonstrated less tax aggressive behavior (Bauweraerts and Vandernoot 2019; Francis et. al., 2014).

Building on research under taken by Sapienza et al., (2009) that suggested gender differences accounted for males being more inclined to make riskier career choices and undertake greater financial risk, due to masculine characteristic, Kastlunger et al., (2010) concluded that biological factors influenced the differences between male and female attitudes to tax compliance, determining that women were more risk averse and engaged in more ethical business behavior and were less likely to undertake tax evasion. They also found that there were differences between men and women in regards to tax compliance and strategy, concluding that women were more compliant than men and less likely to engage in strategic tax practices.

Boussaidi and Hamed (2015) study of Tunisian companies and the impact of governance on tax aggressiveness considered the impact of diversity on boards, finding that gender diversity coupled with ownership concentration had a significant effect on firms' tax aggressive behavior, concluding that gender had a positive effect whilst concentration of ownership had a negative effect.

The following hypothesis is proposed to test the impact of CEO gender on the relation between remuneration and tax haven use.

H3: All else being equal, CEO Gender moderates the association between CEO remuneration and tax haven utilisation by firms.

3.4 Summary of Chapter 3

The theoretical framework of this study is based on concepts found in corporate governance and the corporate tax/accounting literature. The corporate governance literature is centred on the importance of organisational goals and objectives being achieved when processes, procedures and practices are abided by, especially those concerned with the role of board members in regards to monitoring and the characteristics of board members. In previous research (see e.g. Denis and McConnell, 2003 Jensen and Meckling, 1976 and Hillman et. al., 2008) monitoring roles that protected shareholder interest were strengthened by governance practices including but not limited to independence of directors, appointment of committees, inclusion of equity incentives linked to ownership of the firm's stock, as well as separation of the position of chair and CEO. Agency theorists supported the premise that symmetry between the interests of owners and remuneration incentives of managers was more likely to lead to investment, finance and taxation decision making by managers to be riskier in nature. Dyseng et al., (2008) observed that a corporation's culture, especially with regards to levels of corporate governance and internal controls, together with the conduct of executives affected the company's levels of tax aggressiveness and risk strategies. The hypotheses proposed in this study examine the relations between governance variables, including diversity of board members, remuneration incentives and tax aggressive behaviour of firms especially in regards to the propensity to undertake tax haven utilisation as part of their tax strategies.

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CHAPTER FOUR
RESEARCH DESIGN

4.1 Introduction

The research methodology utilised in this thesis enabled the testing of the association between tax haven exploitation, and corporate governance of firms especially those linked to executive remuneration, CEO tenure and board diversity. Details of the selection of data as well as dependent variable, independent variable and control variable development is explained in the following paragraphs.

4.2 Data and sample selection

This study sampled financial firms listed in the Australian stock securities (ASX) capital markets for the 2008–2018 period. Data on Tax Haven, executive remuneration and corporate governance was hand-collected from annual reports, whilst accounting and financial data on the control variables are collected from the MorningStar database. Where there was evidence that firms did not utilise tax havens, the executive remuneration sections in their annual reports was excluded from the dataset. To reduce the influence of outliers the continuous disclosure variables have been winsorized at the first and ninety-ninth percentiles.

The following tables provide details of the sample and selection. Initially the sample consisted of 1,650 firm-year observations, firms with unavailable annual report items (585 firm-years), as well as firms with missing control variables (11 firm-years) were excluded resulting in a final sample of 1054 firm-year observations (see Table 1, Panel A). Whilst the firm's year distribution of the study sample is included in Table 1, Panel B.

Table 1: Panel A Sample selection – excluding outliers

Total sample	1650
Missing on Remuneration and controls variables	11
Total	1054

Table 1: Panel B Sample selection – observable years

Year	Freq.	Percent	Cum.
2008	68	6.45	6.45
2009	85	8.06	14.52
2010	87	8.25	22.77
2011	88	8.35	31.12
2012	87	8.25	39.37
2013	92	8.73	48.1
2014	95	9.01	57.12
2015	107	10.15	67.27
2016	110	10.44	77.7
2017	120	11.39	89.09
2018	115	10.91	100
Total	1,054	100	

4.3 Model specification and Statistical Analysis

A number and variety of statistical analyses were used to exam the hypotheses of the research. These included univariate tests undertaken on the properties of the data sample over the ten-year research period of 2008 to 2018. These tests include the descriptive statistics of standard deviation of the dependent, independent and control variables as well as the mean and median. To make sure that significant multicollinear issues did not exist the Pearson's correlation of coefficients was undertaken. The employment of multivariant test was utilised to exam for significant statistical associations between the independent and dependent variables, whilst pertinent control variables were used for firm specific characteristics.

4.4 Variable measurement

4.4.1. Dependent variable: measurements for tax haven use

In the investigation of how CEO remuneration in a given year affects tax haven utilisation in a that year, two proxies have been employed to measure tax haven utilisation. The first proxy

(TH_D) builds on prior research especially that of Taylor and Richardson (2014), by using an indicator variable that equals one if the firm has at least one subsidiary firm incorporated in an OECD (2006) listed tax haven and zero otherwise. This indicator variable is used as a proxy for the firm's use of tax havens. Following Taylor and Richardson (2014; 2015); Taylor et al., (2015) and Akamah et. al., (2018) the second proxy *(TH_Ln)* measures tax havens as the natural logarithm (one plus) the number of subsidiaries incorporated in an OECD (2006) listed tax haven. An additional measure *(TH_SUB)* considered whether a firm had foreign investments by using the total number of a firm's subsidiaries incorporated in an OECD (2006) listed tax haven scaled by the total number of foreign subsidiaries in a given year Taylor and Richardson (2014; 2015). Previous studies and professional reports have shown that a firm will always seek to place investments in countries with either lower tax rates or more lenient tax jurisdictions than the country in which they are domiciles, to avoid paying high amounts of taxation (Taylor et. al., 2018; Jones and Temouri, 2016; Richardson and Taylor, 2015). [9] This is due to tax haven subsidiaries mainly being located in foreign countries with no or low tax jurisdictions (OECD 2006).

4.4.2. Independent variables

Executive remuneration data is hand-collected from firms' annual reports, stock market filings and MorningStar filings. The data relating to CEO remunerations was taken from the corporate governance and ownership sections of the firms' annual reports. Executive remuneration is determined by the use of several different measurements for each firm in a given year (Grinstein and Hribar, 2004; Coombs and Gilley, 2005; Stanwick and Stanwick, 2001). The variable *CEO_Salary_Ln* refers to the amount of salary payed to a firm's CEO in a given year, measured by the natural logarithm of CEO salaries. Whilst CEO_Comp_Ln refers to the amount of compensation paid to each CEO and measured by taking the natural logarithm of CEO compensations. Additionally, CEO_TotRem_Ln is defined as the total amount of different types of remuneration payed to a CEO, being expressed in natural logarithm.

[9] Whilst the majority of recognized tax havens are in 3rd world countries the top 10 include parts of the United States of America, Luxembourg, The Netherlands, Singapore, The Channel Island, Monaco, Switzerland and Ireland, due to offering very low corporate tax rates, a system of easily utilised loopholes as well as other corporate incentives Damgaard et. al., (2019)

4.4.3. Control variables

In addition to dependent and independent variables, this research controls for firm identifiable variables which have commonly been recognised in prior literature to affect a firms' propensity to utilise tax minimisation measures especially tax havens. Furthermore, the variables that have been used in robustness or sensitivity tests are included.

Based on prior research of tax haven, this study includes firm-specific control variables that influence CEO remuneration. Following (Taylor et. al., 2018; Jones and Temouri 2016; Richardson and Taylor 2015), a control for firm size (*SIZE*), is measured as the natural logarithm of total assets, thus avoiding the skewedness of the data and the impact of outliers. Market to book value *(MTB)* is obtained by Market Capitalization divided by total book value of equity. In addition, (*LEV*) is included as the measured of the total short-term and long-term liabilities divided by total assets, while control for a firm's profitability is achieved by using return on assets (*ROA*). Additionally, control for firms reporting a loss *(LOSS)* is measured as an indicator variable that equals one if the firm reported a loss in the last financial year otherwise the variable is zero. Auditor characteristics have also been taken into consideration *(BIG4)* is measured as an indicator variable that equals one if the firm is audited by a big auditor firm, and zero otherwise. Governance structure is controlled for by including duality of CEO and chairman *(DUALITY)* measured as an indicator variable that equals one if the CEO and chairman are same person, and zero otherwise. Board independence *(IND_DIR_Ln)* is measured by taking the natural logarithm of independent directors on the board, with board size *(BD_Ln)* being measured as the natural logarithm of board of directors. Finally, the age of the firm *(AGE)* is considered and measured as the natural logarithm of the number of years since the firm was established.

4.5 Regression models

The following Probit Model and ordinary least squares (OLS) regression are used to examine the association between tax haven and CEO remuneration (test of Hypothesis 1):

$$TH\_D_{it} / TH\_Ln_{it} = \alpha_{0it} + \beta_{1\text{-}3}\, CEO\_REM_{it} + \beta_4\, SIZE_{it} + \beta_5\, MTB_{it} + \beta_6\, LEV_{it} + \beta_7\, ROA_{it} + \beta_8\, LOSS_{it} + \beta_9\, BIG4_{it} + \beta_{10}\, DUALITY_{it} + \beta_{11}\, IND\_DIR\_Ln_{it} + \beta_{12}\, BD\_Ln_{it} + \beta_{13}\, AGE_{it} + \beta_{14}\, YEAR_{it} + \beta_{15}\, INDUSTRY_{it} + \varepsilon_{it}$$

Eq: (1)

Where: *(TH)* is the Tax Haven and *(CEO_REM)* is the CEO remuneration variables of the firms. Other variables are defined in the Appendix A. The expectation is that a positive

coefficient on $\beta_{1\text{-}3}$ would show that the that the higher the CEO remuneration, the higher the utilisation of tax havens.

In addition, the following regression specification was developed to test H2 and H3 which posits the mediating role of length of years of service of the CEO as a CEO and CEO Gender.

$$TH\_Dit / TH\_Lnit = \alpha\ 0it + \beta 1\text{-}3\ CEO\_REMit + \beta 4\ CEO\_Tenureit + \beta 5 CEO\_REM*CEO\_Tenure\ it + B6\ SIZEit + \beta 7\ MTBit + \beta 8\ LEVit + \beta 9\ ROAit + \beta 10\ LOSSit + \beta 11\ BIG4it + \beta 12\ DUALITYit + \beta 13\ IND\_DIR\_Lnit + \beta 14 BD\_Lnit + \beta 15\ AGEit + \beta 16\ YEARit + \beta 17\ INDUSTRYit + \varepsilon it$$

Eq: (2)

$$TH\_Dit / TH\_Lnit = \alpha\ 0it + \beta 1\text{-}3\ CEO\_REMit + \beta 4\ CEO\_Gender + \beta 5 CEO\_REM*CEO\_Gender\ it + B6\ SIZEit + \beta 7\ MTBit + \beta 8\ LEVit + \beta 9\ ROAit + \beta 10\ LOSSit + \beta 11\ BIG4it + \beta 12\ DUALITYit + \beta 13\ IND\_DIR\_Lnit + \beta 14 BD\_Lnit + \beta 15\ AGEit + \beta 16\ YEARit + \beta 17\ INDUSTRYit + \varepsilon it$$

Eq: (3)

Where *CEO_Tenure* is the natural logarithm of the number of years of service of the CEO in that position, and *CEO_Gender* is an indicator variable that equals one for the firm with female CEO, and zero otherwise. If both mediating variables have a controlling effect, then the expectation is that there will be a negative and significant coefficient on the interactive variable (β_6 and β_7). Industry is included in the models because of the differences that each of the constituent sub-industries (banks, investment brokers, insurance firms and stock broking firms) may have on the results.

4.6 Summary of Chapter 4

A longitudinal study was undertaken to test the hypotheses with reference to the association between tax haven utilisation by corporations, the levels of executive remuneration as well as firms levels of corporate governance characteristics, especially CEO tenure and board diversity, and. The sample was drawn from the ASX capital markets for the 10-year period 2008 to 2018, with accounting and financial data being collected from the MoringStar database and corporate governance, executive remuneration and tax haven data being hand collected from the annual reports of firms. Statistical analysis undertaken included univariant tests on the properties of the data, descriptive statistics of standard deviation and the mean and median. The univariant tests examined significant statistical associations while Pearson's correlations are used to test for significant multicollinearity issues.

Two proxies are used to measure tax haven utilisation, the first model *(TH_D)* builds on prior research especially that of Taylor and Richardson (2014), with the second model *(TH_Ln)* measuring tax havens usage by natural logarithm. Executive remuneration has been determined by the use of several different measurements for each firm in a given year. This included salary paid, compensation paid and total amount of remuneration paid to the CEO. Additionally, the research controlled for commonly identified variables that have been shown in prior literature to affect firms' utilisation of tax minimisation, including tax havens

CHAPTER FIVE
UNIVARIATE STATISTICS

5.1 Introduction

The analysis of dependent variable (*TH*), independent variables (*CEO_REM*) and control variables (*SIZE, MTB, LEV, ROA, LOSS, BIG4, DUALITY, IND_DIR_Ln, BD_Ln, AGE*) is presented in this chapter. The Univariate Statistics shown in this chapter include descriptive statistics, the Pearson correlation results, and regression analysis.

5.2 Descriptive statistics

Table 2 reports the descriptive statistics for the dependent variable (*TH*), independent variables (*CEO_REM*) and control variables (*SIZE, MTB, LEV, ROA, LOSS, BIG4, DUALITY, IND_DIR_Ln, BD_Ln, AGE*). The mean of the main dependent variable *TH_D* is 0.23, showing that approximately 23% of the sample firms have at least one subsidiary firm incorporated in an OECD (2006) listed tax haven. The main independent variable, CEO Salary, has a mean of $325,000 and a median of $148,000. Thus, the values of the control variables are generally consistent with prior research (e.g., Taylor et al., 2018; Jones and Temouri 2016; Richardson and Taylor, 2015).

Table 2: Descriptive statistics

Variable	N	Mean	S.D.	0.25th	Mdn	0.75th
TH_D	1054	0.23	1.20	0.00	0.00	0.00
CEO Salary	1054	325.64	483.76	0.00	148.08	450.22
SIZE	1054	18.78	2.57	17.15	18.83	20.14
MTB	1054	1.76	2.37	0.83	1.04	1.71
LEV	1054	0.80	6.92	0.07	0.21	0.54
ROA	1054	-0.04	0.39	-0.01	0.04	0.08
LOSS	1054	0.88	0.32	1.00	1.00	1.00
BIG4	1054	0.59	0.56	0.00	1.00	1.00
DUALITY	1054	0.09	0.29	0.00	0.00	0.00
IND_DIR	1054	1.14	0.63	0.69	1.10	1.61
BD_SIZE	1054	1.54	0.37	1.39	1.61	1.79
AGE	1054	2.89	0.98	2.30	2.83	3.43

5.3 Correlation results

The Pearson correlation results are reported in Table 3. Consistent with the univariate analysis results, there is a positive and significant correlations between tax haven measurements *TH_D* and *TH_Ln* and the independent variables of CEO remunerations *CEO_Salary_Ln, CEO_Comp_Ln* and *CEO_TotRem_Ln* ($p < 0.01$). Furthermore, Table 4 also shows the significant correlation between independent, dependent and the control variables *SIZE, MTB, LEV, ROA, LOSS, BIG4, DUALITY, IND_DIR, BD_SIZE* and *AGE* ($p < 0.10$ or better).

5.4 Regression analysis

5.4.1. CEO Remuneration and Tax Haven Utilisation

Table 4 presents the Probit of the association between CEO remuneration (*CEO_Salary_Ln, CEO_Comp_Ln* and *CEO_TotRem_Ln*) and tax haven utilisation (*TH_D*). Consistent with H1, the finding is that the relations between utilisation of tax havens and the CEO remuneration variables are positive and statistically significant. More specifically, in models 1 to 3, that the coefficients (0.0379***, 0.0350** and 0.0519***)[10] between these variables are significant at $p < 0.05$ or better across all of the regression models. Also, the association between CEO remuneration measurements and tax haven utilisation, represented by the natural logarithm of the number of tax havens (*TH_Ln*) in models 4 to 6 and are statistically significant at 1% level across all of the regression models. The regression results are consistent with the views of transfer pricing theory, whereby firms engaging in aggressive transfer pricing activity utilise tax havens where profits are subject to relatively low (if any) corporate taxation (Desai et al., 2006).[11] This result supports the first hypothesis (H1) and is consistence with previous findings whereby there is a greater association between executive

[10] "*, **, and *** indicate significance at the 10%, 5%, and 1% levels respectively.

[11] Desai, M. A., Foley, C. F., & Hines, J. R. (2006a). The demand for tax haven operations. Journal of Public Economics, 90, 513–531.

Table 3: Correlation results.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
TH_D	1.00														
TH_Ln	0.85***	1.00													
CEO_Salary_Ln	0.15***	0.17***	1.00												
CEO_Comp_Ln	0.16***	0.22***	0.29***	1.00											
CEO_TotRem_Ln	0.18***	0.20***	0.98***	0.34***	1.00										
SIZE	0.16***	0.12***	0.33***	0.25***	0.33***	1.00									
MTB	0.03	0.00	0.16***	0.00	0.17***	-0.13***	1.00								
LEV	-0.02	-0.02	-0.05	-0.02	-0.05	-0.21***	-0.05	1.00							
ROA	0.04	0.04	0.13***	0.03	0.12***	0.40***	-0.03	-0.50***	1.00						
LOSS	0.00	0.02	-0.06*	-0.02	-0.06*	0.19***	-0.13***	0.02	0.23***	1.00					
BIG4	0.14***	0.14***	0.04	0.07**	0.06*	0.42***	-0.01	-0.06**	0.14***	0.08***	1.00				
DUALITY	0.14***	0.14***	0.08**	-0.01	0.05*	-0.19***	0.07**	-0.03	0.04	-0.05*	-0.22***	1.00			
IND_DIR	0.12***	0.08***	0.26***	0.15***	0.26***	0.62***	-0.08***	-0.11***	0.20***	0.16***	0.31***	-0.13***	1.00		
BD_SIZE	0.18***	0.16***	0.31***	0.17***	0.31***	0.47***	-0.06*	-0.07**	0.12***	0.01	0.26***	-0.16***	0.68***	1.00	
AGE	0.28***	0.17***	0.27***	0.20***	0.30***	0.34***	0.04	0.05	0.03	0.04	0.07**	-0.07**	0.30***	0.24***	1.00

**** p<0.01, ** p<0.05, * p<0.1*

remuneration consisting of several incentive measures (Salary, bonuses and pay-for-performance sensitivity) and corporate tax avoidance (Desai and Dharmapala 2006; Phillips 2003; Han-lon, Mills, and Slemrod 2005; Fabio Gaertner 2014; Taylor and Richardson 2014). Furthermore, studies suggest that risky activities increase stock return volatility and the value of stock option portfolios, with risk related incentives motivating managers to make risky investment and financing decisions (Rajgopal and Shevlin 2002). Finally, regarding the control variables, the regression coefficients for *BIG4, DUALITY, IND_DIR, BD_SIZE and AGE* are positive and significantly associated with tax haven utilisation at 1% level in all of the regression models (*TH_D* and *TH_Ln*).

Table 4: Association between CEO Remuneration and Tax Havens Utilisation

	Model 1-3			Model 4-6		
	Probit			OLS		
VARIABLES	TH_D	TH_D	TH_D	TH_ln	TH_ln	TH_ln
Constant	-4.1222***	-4.1343***	-4.1393***	-0.3914***	-0.3794***	-0.3802***
	(-5.59)	(-5.45)	(-5.62)	(-3.07)	(-3.02)	(-3.00)
CEO_Salary_Ln	**0.0379*** **			**0.0053*** **		
	(3.16)			**(3.18)**		
CEO_Comp_Ln		**0.0350** **			**0.0165*** **	
		(2.51)			**(3.19)**	
CEO_TotRem_Ln			**0.0519*** **			**0.0070*** **
			(3.98)			**(4.02)**
SIZE	0.0013	0.0027	-0.0038	0.0011	-0.0011	-0.0000
	(0.04)	(0.08)	(-0.12)	(0.22)	(-0.20)	(-0.00)
MTB	-0.0121	0.0012	-0.0208	-0.0030	-0.0008	-0.0041
	(-0.53)	(0.05)	(-0.86)	(-0.93)	(-0.27)	(-1.27)
LEV	-0.0269	-0.0117*	-0.0523	-0.0008*	-0.0006	-0.0009*
	(-0.76)	(-1.71)	(-0.40)	(-1.76)	(-1.30)	(-1.81)
ROA	-0.1160	-0.0213	-0.1371	-0.0172	-0.0043	-0.0183
	(-0.67)	(-0.13)	(-0.66)	(-0.98)	(-0.24)	(-1.03)
LOSS	-0.0419	-0.0504	-0.0479	0.0411	0.0401	0.0437
	(-0.22)	(-0.27)	(-0.25)	(1.46)	(1.48)	(1.53)
BIG4	0.5981***	0.5500***	0.6061***	0.0936***	0.0912***	0.0947***
	(4.54)	(4.36)	(4.66)	(4.11)	(4.09)	(4.18)
DUALITY	1.1424***	1.1606***	1.1088***	0.2181***	0.2238***	0.2163***
	(6.52)	(6.90)	(6.35)	(3.98)	(4.28)	(4.01)
IND_DIR	-0.4689***	-0.4554***	-0.4794***	-0.0707***	-0.0641***	-0.0694***
	(-3.38)	(-3.33)	(-3.42)	(-2.86)	(-2.63)	(-2.81)
BD_SIZE	0.7073***	0.8231***	0.6955***	0.1438***	0.1476***	0.1390***
	(3.57)	(4.22)	(3.55)	(3.34)	(3.53)	(3.25)
AGE	0.5285***	0.5260***	0.5156***	0.0464***	0.0438***	0.0434***
	(8.44)	(8.44)	(8.01)	(4.98)	(4.47)	(4.54)
YEAR	YES	YES	YES	YES	YES	YES
INDUSTRY	YES	YES	YES	YES	YES	YES
N	1054	1054	1054	1054	1054	1054
R-sq	0.2268	0.2222	0.2377	0.108	0.131	0.114

5.4.2. Effect of CEO Tenure on Tax Haven Utilisation.

Testing was undertaken to determine whether managerial reputation and experience of the CEOs moderate the association between CEO remuneration and corporate tax haven utilisation. Given that previous studies show the negative impact of CEO power and experience in terms of control over firm management, engaging in tax risk management and reporting, and higher

levels of remuneration (Bugeja et. al., 2013; Taylor and Richardson 2014), it is hypothesised that CEO reputation and experience is very importance for those in the financial industry. Specifically, CEO years of experience will reduce tax haven utilisation.

Table 5 reports the results of the regression of the interactions between CEO Remuneration and CEO Tenure reputation using different measurements for CEO remuneration. In accordance with H2, the findings were that the coefficient of the interactions between CEO tenure and CEO remuneration variables (*CEO_Salary*Tot_ CEO_Tenure, CEO_Comp* CEO_Tenure and CEO_TotComp* CEO_Tenure*) are negatively associated with the Tax Haven utilisation proxies (TH_D and TH_Ln) to a statistically significant degree, which suggests that CEO with long periods of experience have fewer Tax haven activities than those of other firms. Additionally, firms with long CEO tenure periods (*CEO_Tenure*) and CEO with higher levels of remuneration have reduced Tax Haven unitisation with an effective size of -0.2235 (-0.2454 *CEO_Salary_Ln* %+−0.0219 *CEO_Salary_Ln* CEO_Tenure*) at the 0.1% level and better. The coefficients in model and 2 and 3 for the interaction term CEO_Tenure *(*CEO_Comp_Ln and CEO_TotRem_Ln*) on Tax Haven proxy (*TH_D*) are negative and statistically significant (−0.0164*** and −0.0041**) at 10% and 1% levels. Moreover, models 4-6 presents the coefficients for the interaction term *CEO_Tenure* *(*CEO_Salary_Ln, CEO_Comp_Ln and CEO_TotRem_Ln*) on Tax Haven utilisation proxy (*TH_Ln*), and the results are consistent with models 1 and 2, and all negative at 1% levels. Overall, these results are consistent with H2 and support the argument that CEOs with longer periods of experience, prestige and reputation have a negative effect on the relationship between executive remuneration package and the tax haven utilisation. CEO status, prestige, and pride thus suppress the positive association between remunerations and tax haven utilisation. These results show that CEO tenure seriously affects individual and organizational performance.

Table 5: Interaction between CEO Remuneration and CEO Tenure and its impact on Tax Haven Utilisation.

	Model 1-3			Model 4-6		
	Probit			OLS		
VARIABLES	TH_D	TH_D	TH_D	TH_ln	TH_ln	TH_ln
Constant	-4.3852***	-4.5219***	-4.2673***	-0.4314***	-0.4297***	-0.4214***
	(-5.81)	(-5.77)	(-5.55)	(-3.36)	(-3.34)	(-3.32)
CEO_Salary_Ln	0.1044***			0.0168***		
	(4.61)			(4.62)		
CEO_Comp_Ln		0.1671***			0.0419***	
		(3.88)			(3.77)	
CEO_TotRem_Ln			0.1081***			0.0173***
			(4.96)			(4.92)
CEO_Tenure	-0.2454**	-0.0627	-0.4873**	-0.0267***	-0.0095	-0.0410***
	(-2.30)	(-1.14)	(-2.41)	(-3.09)	(-1.35)	(-4.45)
CEO_Salary*CEO_Tenure	**-0.0219***			**-0.0043*****		
	(-1.82)			**(-3.05)**		
CEO_Comp* CEO_Tenure		**-0.0680*****			**-0.0127*****	
		(-3.22)			**(-2.91)**	
CEO_TotComp* CEO_Tenure			**-0.0029**			**-0.0031****
			(-0.16)			**(-2.29)**
SIZE	0.0133	0.0058	0.0030	0.0024	-0.0003	0.0016
	(0.42)	(0.18)	(0.09)	(0.46)	(-0.06)	(0.31)
MTB	-0.0088	0.0053	-0.0199	-0.0032	-0.0002	-0.0044
	(-0.39)	(0.25)	(-0.80)	(-1.00)	(-0.08)	(-1.36)
LEV	-0.0613	-0.0112	-0.0980	-0.0005	-0.0005	-0.0005
	(-0.42)	(-1.61)	(-0.65)	(-1.16)	(-1.21)	(-1.08)
ROA	-0.0809	0.0297	-0.0904	-0.0096	0.0003	-0.0096
	(-0.36)	(0.17)	(-0.42)	(-0.57)	(0.02)	(-0.57)
LOSS	-0.0344	-0.0097	-0.0445	0.0471*	0.0435	0.0478*
	(-0.18)	(-0.05)	(-0.23)	(1.67)	(1.59)	(1.69)
BIG4	0.5579***	0.5104***	0.5721***	0.0891***	0.0836***	0.0889***
	(4.63)	(4.30)	(4.69)	(4.10)	(3.86)	(4.15)
DUALITY	1.3670***	1.1716***	1.3537***	0.2472***	0.2237***	0.2504***
	(7.66)	(6.72)	(7.40)	(4.33)	(4.08)	(4.41)
IND_DIR	-0.3646***	-0.4607***	-0.3699***	-0.0592**	-0.0649***	-0.0563**
	(-2.61)	(-3.48)	(-2.64)	(-2.46)	(-2.71)	(-2.35)
BD_SIZE	0.6129***	0.8607***	0.6206***	0.1295***	0.1491***	0.1268***
	(2.96)	(4.48)	(3.07)	(3.04)	(3.57)	(3.00)
AGE	0.5557***	0.5566***	0.5407***	0.0505***	0.0486***	0.0469***
	(8.70)	(8.71)	(8.33)	(5.46)	(4.91)	(4.94)
YEAR	YES	YES	YES	YES	YES	YES
INDUSTRY	YES	YES	YES	YES	YES	YES
N	1051	1051	1051	1051	1051	1051
R-sq	0.2545	0.2382	0.2722	0.123	0.140	0.132

5.4.3. Effect of Female Directors on Tax Haven Utilisation.

Prior studies have found that firms with female with executive power are less tax aggressive than other firms (Bauweraerts and Vandernoot 2019; Francis et. al., 2014). With Richardson et. al., (2015) studying the effect of gender on tax avoidance and finding that firms with female presence on the board of directors engage in less tax avoidance relative to their counterparts. H3 of this thesis argues that firms with female CEO's are better placed in suppressing and constraining opportunistic behavior of tax haven usage (Ruegger and King 1992; Fallan 1999, Richardson et. al., 2015 and Baldry 1987). The measurement of CEO gender used in prior studies (e.g., Olsen and Stekelberg 2016; Fallan 1999) has been included in this study. Table 6 reports the regression analysis results which consider the moderating effect of the presence of female CEOs (CEO_Gender) on the association between CEO remuneration and corporate tax haven utilisation. The coefficients for *CEO_Salary*CEO_Gender, CEO_Comp*CEO_Gender and CEO_TotComp*CEO_Gender* are negatively associated with *TH_D* and *TH_Ln*, at the 5% and 1% levels, providing support for H3. These results also suggest that female CEOs moderate the association between remuneration packages and tax haven utilisation. This result is consistent with the argument that females in top executive positions are less likely to engage in tax haven utilisation. The resistance of female CEOs to exploitation of tax haven loophole usage can therefore provide a quality assessment of tax haven risks as well as explaining attitudinal changes in regards to taxation ethics from a female perspective.

Table 6: Interaction between CEO Remuneration and CEO Gender and its impact on Tax Haven Utilisation.

	Model 1-3			Model 4-6		
	Probit			OLS		
VARIABLES	TH_D	TH_D	TH_D	TH_ln	TH_ln	TH_ln
Constant	-4.7608***	-4.5219***	-7.8191***	-0.6281***	-0.7748***	-0.6948***
	(-5.61)	(-5.77)	(-4.05)	(-4.29)	(-4.18)	(-4.66)
CEO_Salary_Ln	0.1000***			0.0478***		
	(4.01)			(3.99)		
CEO_Comp_Ln		0.1671***			0.1177***	
		(3.88)			(5.19)	
CEO_TotComp_Ln			0.3162**			0.0535***
			(2.45)			(4.69)
CEO_Gender	-0.2857	-0.0627	2.3216	-0.0442**	-0.0672*	0.0150
	(-1.07)	(-1.14)	(1.43)	(-1.97)	(-1.76)	(0.97)
CEO_Salary*CEO_Gender	**-0.0674****			**-0.0459*****		
	(-2.36)			**(-3.88)**		
CEO_Comp*CEO_Gender		**-0.0680*****			**-0.1188*****	
		(-3.22)			**(-5.20)**	
CEO_TotComp*CEO_Gender			**-0.2813****			**-0.0508*****
			(-2.17)			**(-4.52)**
SIZE	0.0151	0.0058	0.0184	0.0106*	0.0055	0.0105*
	(0.46)	(0.18)	(0.55)	(1.82)	(0.99)	(1.80)
MTB	-0.0460*	0.0053	-0.0631**	-0.0088**	-0.0045	-0.0109***
	(-1.93)	(0.25)	(-2.39)	(-2.52)	(-1.31)	(-3.05)
LEV	-0.0175	-0.0112	-0.0186	-0.0003	0.0004	-0.0003
	(-1.26)	(-1.61)	(-1.22)	(-0.70)	(0.76)	(-0.66)
ROA	-0.1170	0.0297	-0.0933	-0.0258	0.0173	-0.0207
	(-0.68)	(0.17)	(-0.54)	(-1.34)	(0.97)	(-1.11)
LOSS	-0.1164	-0.0097	-0.1154	0.0082	-0.0099	0.0067
	(-0.58)	(-0.05)	(-0.58)	(0.31)	(-0.40)	(0.26)
BIG4	0.5719***	0.5104***	0.5610***	0.0691***	0.0505***	0.0625***
	(4.62)	(4.30)	(4.60)	(4.05)	(3.37)	(3.91)
DUALITY	1.1115***	1.1716***	1.0094***	0.1960***	0.1065**	0.1599***
	(6.52)	(6.72)	(5.87)	(4.59)	(2.34)	(3.86)
IND_DIR	-0.4891***	-0.4607***	-0.5151***	-0.0730***	-0.0687***	-0.0772***
	(-3.43)	(-3.48)	(-3.55)	(-3.40)	(-3.50)	(-3.60)
BD_SIZE	0.7354***	0.8607***	0.6796***	0.1372***	0.1647***	0.1410***
	(3.61)	(4.48)	(3.37)	(3.81)	(4.74)	(3.94)
AGE	0.5564***	0.5566***	0.5692***	0.0432***	0.0426***	0.0393***
	(8.42)	(8.71)	(8.13)	(4.63)	(4.73)	(4.11)
YEAR	YES	YES	YES	YES	YES	YES
INDUSTRY	YES	YES	YES	YES	YES	YES
N	1053	1051	1053	1053	1053	1053
R-sq	0.2557	0.2684	0.2829	0.245	0.368	0.270

5.4.4. Alternative proxy measures of Tax Haven Utilisation

A robustness check of the main regression results using alternative proxy measures of tax haven utilisation was also employed in the statistics, being, total number of foreign subsidiaries (*TH_SUB*) (Richardson and Taylor 2015), specifically, *TH_SUB* was measured as the total number of tax haven foreign subsidiaries scaled by the total number of subsidiaries.

The regression results based on the alternative tax haven measurements in Table 7, are consistent with the main regression results presented in Table 4, with statistically, positive and significant coefficients being evidenced across all of the regression as shown for *CEO_Salary, CEO_Comp* and *CEO_TotComp* at 1% and %5 levels in a number of our regression models. Collectively, the evidence is consistent with our predictions between Tax Haven and CEO remuneration (H1) suggesting that CEO compensation packages can positively affect Tax Haven utilisation.

Additional Analysis:

Table 7: Association between CEO Remuneration and Tax Havens Utilisation

	(1)	(2)	(3)
VARIABLES	TH_SUB	TH_SUB	TH_SUB
Constant	1.0419***	1.1410***	1.0481***
	(2.93)	(3.46)	(2.96)
CEO_Salary_Ln	**0.0138****		
	(2.08)		
CEO_Comp_Ln		**0.0655*****	
		(2.62)	
CEO_TotRem_Ln			**0.0149****
			(2.01)
SIZE	-0.0138	-0.0277**	-0.0145
	(-1.23)	(-2.05)	(-1.27)
MTB	-0.0311***	-0.0259***	-0.0324***
	(-3.17)	(-2.80)	(-3.14)
LEV	0.0023*	0.0030*	0.0023
	(1.65)	(1.68)	(1.62)
ROA	0.1047**	0.1511**	0.1040**
	(2.06)	(2.37)	(2.03)
LOSS	0.3218***	0.3299***	0.3230***
	(4.58)	(4.19)	(4.54)
BIG4	0.1728**	0.1740**	0.1716**
	(2.28)	(2.32)	(2.27)
DUALITY	0.3009	0.3021	0.3043
	(1.45)	(1.50)	(1.46)
IND_DIR	-0.1813**	-0.1508*	-0.1798**
	(-1.98)	(-1.72)	(-1.96)
BD_SIZE	0.2075	0.1978	0.2057
	(1.16)	(1.15)	(1.16)
AGE	-0.1069***	-0.1229***	-0.1114***
	(-4.10)	(-3.99)	(-3.99)
YEAR	YES	YES	YES
INDUSTRY	YES	YES	YES
N	1053	1053	1053
R-squared	0.051	0.080	0.051

5.4.5. Instrumental variables (2SLS) regression analysis:

The results of the estimations regression (see Table 3) suggest a positive and significant association between the tax haven measures (*TH_D* and *TH_Ln*) and the proxies of CEO remuneration (*CEO_Salary, CEO_Comp* and *CEO_TotComp*). However, the sign, and/or statistical significance of these estimates may be affected by endogeneity issues (i.e., simultaneity and/or reverse causality), leading to biased regression coefficient estimates. Thus, to address this issue, an instrumental variable (IV) estimations two-stage least squares (2SLS) to re-test the main regression findings reported in Table 4 was performed. Studies (e.g., Larcker & Rusticus, 2010) show that this method is appropriate if the IVs are correlated with the endogenous regressor (here, the CEO remuneration measurements) but uncorrelated with the error term in the second-stage regression. Consistent with previous studies (e.g., Hasan et. al., 2015; Eulaiwi et. al 2016) and Al-Hadi et. al., 2016), two instrumental variables (IVs) are included to specify two CEO characteristics: a) *CEO_NCom_Mem* is a dummy variable that takes the value of 1 if the CEO is a member of the remuneration committee, and 0 otherwise; b) *CEO_Func_Dis* is a dummy variable that takes the value of 1 if there is a CEO functional disclosure in the annual report, and 0 otherwise. Several studies find that CEO membership of nomination committee and CEO function to be correlated with CEO incentives package (Bugeja et. al., 2012; Newman and Mozes 1999; Beal and Ardekani 2000) because of CEO power, functional experience and reputational concerns are corresponding with the requirements of particular firm specific strategies. Therefore, a positive association between *CEO_NCom_Mem\ CEO_Func_Dis* and CEO incentive package is expected. No study to date has shown an association between *CEO_NCom_Mem\ CEO_Func_Dis* and CEO and firm Tax Haven utilisation. Table 8 shows a positive association between our instrumental variables and CEO ownership. The coefficients of both *CEO_NCom_Mem, CEO_Func_Dis* are positive at the 1% level of significance in models 1 and 2. In the second stage, the association between CEO Salary incentives and Tax Haven in both measures is positive and significant. For models 1 and 2, the coefficients of 0.0072 and 0.0061 are significant at 10% level. This result suggests that, even after controlling for endogeneity (2SLS), the results remain unchanged.

Table 8: Sensitivity analysis endogeneity test (2SLS):

	Model 1 ***TH_D***		**Model 2** ***TH_Ln***	
	1st Stage	2nd Stage	1st Stage	2nd Stage
Intercept	-7.4898*	0.0923	-7.4898*	0.1002
	(-1.97)	(0.76)	(-1.97)	(1.07)
TH_D		**0.0072***		
		(1.66)		
TH_Ln				**0.0061***
				(1.84)
All variables in Main Specification	Yes	Yes	Yes	Yes
Industry Dummies	Yes	Yes	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes
Firm Robust	Yes	Yes	Yes	Yes
Observations	1054	1054	1054	1054
Instrumental Variables	Coff.	t-stat	Coff.	t-stat
CEO_NCom_Mem	2.1420	(3.42)	2.1420	(3.42)
CEO_Func_Dis	1.8999	(5.94)	1.8999	(5.94)
Post-estimations Test for Instrumental Variables:				
1-Predictive power partial R2				
Robust F-test		25.90		25.90
P-value		0.000		0.000
2- Underidentification test				
Anderson canon. corr. LM statistic		57.841		57.84
P-value		0.000		0.000
3- Weak identification test				
Cragg-Donald Wald rk F statistic		25.896		25.896
10% maximal IV size		19.93		19.93
4- Overidentification test				
Sargan statistic		1.211		0.434
Chi-sq(3) P-value		0.2711		0.5100
5- Endogeneity test				
Durbin-Wu-Hausman tests	2.992		3.615	
Chi-sq(1) P-value	0.0837		0.0573	

Notes: CEO_NCom_Mem is a dummy variable that takes the value of 1 if the CEO is a member of the nomination committee, and 0 otherwise; CEO_Func_Dis is a dummy variable that takes the value of 1 if a CEO functional disclosure in the annual report, and 0 otherwise. Values in bold signifies, robust results for H1 using 2sls.
The notation ***, **, and * denotes statistical significance at the 1%, 5%, and 10% levels, respectively.

5.5 Summary of Chapter 5

The results of the descriptive statistics for dependent, independent and control variables show that approximately 12% of the sample firms have a minimum of one subsidiary incorporated in a tax haven, with the main independent variable being represented in 8% of firm year observations with the control variables being consistent with prior research.

The Pearson correlation results are consistent with the univariant analysis, showing a significant correlation between the tax haven measurements and the independent variables, this is supported by the correlation shown in Table 2 between the independent, dependent and control variable.

The regression models found that the coefficients between CEO remuneration variables and tax haven utilisation are positive and statistically significant. These results are consistent with transfer pricing theory and previous finding whereby there is a greater association between corporate tax avoidance and executive remuneration that consists of several incentives. The findings between CEO tenure and CEO remuneration were that there is a negative association with tax haven utilisation, suggesting that CEO's with greater experience in the firm undertake fewer tax haven activities. Additionally, where CEO's are longer tenured and have higher remuneration there is a reduction in tax haven utilisation. Finally, the moderating effect of CEO gender is significantly negatively associated with the tax haven models *TH_D* and *TH_D,* supporting the arguments that female CEO's are less likely to engage in tax haven utilisation. In summary, an increase in CEO remuneration elements leads to an increase in use of tax havens by multinational financial institutions. Governance attributes of CEOs pertaining to their tenure and level of gender diversity are significantly negatively related to tax haven utilisation, and negatively moderate the relation between remuneration levels and tax haven use. The existence of female CEOs on the board, and longer serving CEOs reduce firms' reliance on tax have use and negatively moderate the relation between remuneration of CEOs and tax haven use.

CHAPTER SIX
DISCUSSION AND CONCLUSION

6.1 Objectives Recap

The primary objective of this research is to investigate if there is a relation between CEO remuneration and company tax haven utilisation and if certain CEO characteristics could moderate this relation.

This study expands and complements previous research undertaken on U.S. companies in determining the effects of remuneration incentives for managers on their proclivity to utilise tax avoidance activities. This was achieved through examination and observation of the impact the structure of total remuneration has on mangers inclination to undertake strategic tax aggressive behaviour including the utilisation of tax havens.

The study considers the characteristics of CEO, such as CEO tenure and gender, and their effect on the relation between tax avoidance measures and the level of CEO incentives.

6.2 Limitations and Assumptions

The research undertaken in this study is subject to limitations including, a reliance on firms providing in their annual reports information on subsidiaries that are domiciled in tax haven jurisdictions. Additionally, the collected data has been restricted to legal tax minimisation, which may not present a true and full view of the amount and range of tax avoidance measures undertaken. Also, as the data is Australian Financial Institution specific it may not be appropriate for the results of this research to be utilised for other jurisdictions due to the differences in reporting, financial regulatory and taxation requirements.

6.3 Implications and Future Research

This study has important implications for research into the financial services sector. In particular, the financial services sector has been subject to Royal Commissions and accusations regarding money laundering (see e.g. [12]Westpac Limited) and hence compliance and social responsibility of these institutions is paramount given their economic importance in society. This research highlights that Australian financial firms commonly rely on tax haven

[12] The Australian financial regulator AUSTRAC charged Westpac with 23million money laundering breaches in November 2019.

jurisdictions, and that firm managements' remuneration structure and levels play an important role in determining the extent of that use.

6.4 Contribution of this study

This study contributes to our understanding of the rationale as to why firms' use tax havens. By relating tax haven use to remuneration incentives, this study provides insights into the way in which remuneration structures can drive executives to make use of tax haven jurisdictions (see e.g. Dyreng et. al., 2008). This is important as tax havens can be used for reasons relating to tax avoidance and to assist firms' in managing their capital management initiatives. For instance, firms' often accumulate earnings offshore in tax havens to make use of regulatory and legal arbitrage opportunities, to avoid taxes and to meet future earnings expectations. This will have direct flow-on consequences in terms of executives meeting performance hurdles, and will impact their remuneration packages. Thus, executives will be incentivized to structure remuneration packages in such a way that will motivate them to meet performance hurdles, and to achieve that, there is likely to be greater reliance on the use tax havens. Second, I draw upon the population of financial institutions in Australia to test these relations. Financial institution-based research tends to be an area that is overlooked and this study contributes towards our understanding of management compliance and behavioural activities in such institutions. Overall, the models performed show that an increase in CEO remuneration elements leads to an increase in use of tax havens by multinational financial institutions. Because reverse causality may lead to bias in the regression coefficients owing to a two-way directional effect, two stage least squares was performed which demonstrates that endogeneity by way of reverse causality is not problematic in this study. Further, governance attributes of CEOs pertaining to their tenure and level of gender diversity are significantly negatively related to tax haven utilisation, and negatively moderate the relation between remuneration levels and tax haven use. The existence of female CEOs on the board, and longer serving CEOs reduce firms' reliance on tax have use and negatively moderate the relation between remuneration of CEOs and tax haven use.

In terms of future directions, further analysis of remuneration structure could be performed such as the type and number of market based and accounting based performance hurdles, and this could be related to various tax avoidance mechanics, or capital market activities and effects.

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Appendix A: Variables definitions

Variable	Description
Independent Variables	
TH_D	An indicator variable that equals one if the firm have tax havens Utilisation, and zero otherwise.
TH_LN	Natural logarithm of number of tax havens Utilisation.
TH_SUB	Total number of tax havens scaled by total number of foreign subsidiaries.
Depended Variables	
CEO_Salary_Ln	Natural logarithm of CEO salaries.
CEO_Comp_Ln	Natural logarithm of CEO Compensations.
CEO_TotRem_Ln	Natural logarithm of total CEO Remunerations.
Mediating Variables	
CEO_Tenure	Natural logarithm of the CEO's tenure (in years).
CEO Gender	An indicator variable that equals one for the firm with female CEO, and zero otherwise.
Control Variables	
SIZE	Natural logarithm of total assets.
MTB	Market Capitalization divided by total booking value of equity.
LEV	Total short-long term debt scaled by market capitalization end of the year.
ROA	Return on Assets.
LOSS	An indicator variable that equals one if the firm reported a loss in the last financial year zero otherwise.
BIG4	An indicator variable that equals one if the firm is audited by a big auditor firm, and zero otherwise.
DUALITY	An indicator variable that equals one if the CEO and chairman are same person, and zero otherwise.
IND_DIR_Ln	Natural logarithm of independent directors on the board.
BD_Ln	Natural logarithm of board of directors.
AGE	Natural logarithm of the number of years since the firm was established.