

**GOVERNANCE AND THE VALUE RELEVANCE OF TAX AVOIDANCE: PRELIMINARY
EVIDENCE**

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ABSTRACT

This paper provides preliminary evidence on the link between governance, tax avoidance and firm value. We examine whether tax avoidance is associated with firm value, and if so, whether the strength of the relation depends on the quality of governance. We employ effective tax rates (ETR) to measure tax avoidance and the Malaysia Corporate Governance (MCG) Index 2011 to rate firm-level governance. Findings in this paper rely on analysis using a small sample of firms from the top 100 publicly listed firms in the MCG Index. We find that tax avoidance is viewed as value-enhancing activities by investors, and that the value relevance of tax avoidance is greater for firms with higher quality governance as compared to their counterparts.

1.0 Introduction

This paper examines the link between governance, tax avoidance and firm value. Similar to any other investment opportunities faced by firm, tax avoidance decisions involve managerial discretion. While reduction of corporate tax paid to government may enhance shareholders' wealth, managers may have personal incentive to over or under invest in tax avoidance. We perceive that the strength of governance mechanisms play a role in mitigating agency problems associated with tax avoidance. We examine whether tax avoidance is associated with firm value, and if so, whether the strength of the relation depends on the quality of governance.

As tax poses a significant cost to firms, management may engage in a variety of tax avoidance activities to reduce a firm's tax burden. Examples include activities that are granted by legislature and those that are against the law. Due to the range of tax avoidance activities that can be taken by firms, there are two conflicting views on how tax avoidance affects firm value. From one perspective, shareholders should positively value tax avoidance because reduction in tax may enhance their wealth. However, when the agency cost is considered, the complex nature of tax avoidance may provide managers with shield for expropriation, thereby negatively affects the shareholders. Existing empirical evidence is consistent with these two competing perspective (e.g., Abdul Wahab and Holland 2012). Nevertheless, governance mechanisms play a role in shaping and monitoring managerial behaviour. In the context of tax avoidance, one can expect that good governance mechanisms may be able to reduce risk of appropriation by managers. If this strong governance view holds, tax avoidance is more likely to be engaged by managers to enhance shareholders wealth. Hence, a better understanding on the links between tax avoidance, governance and firm value is particularly important.

This paper provides evidence on the value relevance of tax avoidance, and whether the valuation implications vary with corporate governance. Tax avoidance is measured by effective tax rates (ETR) and the Malaysia Corporate Governance (MCG) Index is used to rate firm-level governance. Sample consists of 67 firms from the top 100 publicly listed firms in the MSWG MCG Index 2011. The results show that tax avoidance is viewed as value-enhancing activities by investors, and that the value relevant of tax avoidance is greater for firms with higher quality governance as compared to their counterparts.

Our findings contribute to the literature in the following ways. First, we add to the evidence on the value of tax avoidance from the perspective of the capital market (e.g., Hanlon and Slemrod 2009). We provide evidence on the value relevance of tax avoidance from the perspective of a developing country, which is Malaysia. As compared to the developed countries, the severe agency conflicts and weak investor protection in the developing countries increase the likelihood of higher risk of managerial rent diversion, making it important to provide evidence from the developing

countries such as Malaysia. Second, we consider the fact that investors may perceive the value of tax avoidance differently for firms with different governance structures. While many of the existing studies employ a few measures of governance in explaining the relationship between tax, governance and firm value (e.g., Abdul Wahab and Holland 2012), we use a comprehensive measure of governance to test our hypothesis. We utilize an index, the MSWG MCG index, which encompasses a board set of actions and attributes of governance and represents better picture of firm-level governance structure in the Malaysian context.

The remainder of the paper is as follows. Section 2.0 contains related literature and hypothesis development, Section 3.0 discusses the research methodology, Section 4.0 reports the results, and Section 5.0 concludes.

2.0 Related Literature and Hypothesis Development

Tax avoidance represents a wide range of tax planning strategies, including activities that are legally acceptable and more aggressive transactions that fall into the grey area. In general, firms involve in tax avoidance activities to reduce the amount of tax. Firms benefit from greater tax savings as it has positive implication on both cash and profit of the firms. Nevertheless, involvement in tax avoidance activities exposes firms to cost. Tax costs arise in the forms of fines and legal penalties, while non-tax costs exist from manager's hidden action. Besides, tax management activities involve 'political cost' where firms may be reluctant to manage taxes if such behavior can be seen as unpatriotic or as 'bad' corporate citizens. Due to the potential benefits and costs of tax avoidance, decision-makers trade off the benefits and cost in determining tax avoidance. While the term 'tax avoidance' has been broadly defined in the literature¹, we perceive tax avoidance as the reduction of explicit taxes per dollar of pre-tax accounting earnings (Hanlon and Heitzman 2010).

Corporate tax avoidance is an issue of concern in the Malaysian context. This is because corporate tax is the main and biggest contributor to the government. In 2010, corporate tax makes up to 50.64% of overall direct tax collections in Malaysia (Inland Revenue Board 2011). Nevertheless, enforcement measures are continually taken to by the Inland Revenue Board of Malaysia to eliminate tax evasion and avoidance. There are 763 civil cases amounted to taxes and penalties of RM 1,168.55 million in Malaysia during the year 2010 (Inland Revenue Board 2011). In terms of the level of tax avoidance, Malaysia can be considered as a country that has moderate levels of evasion as compared to its neighboring countries. Data from Tsakumis et al. (2007) shows that the tax evasion level² for Malaysia (31.63) is greater than Indonesia (21.37) and Singapore (13.40) but lesser than Philippines (44.50) and Thailand (53.34).

¹ Tax evasion, tax non-compliance, tax shelters.

² Measured by mean estimates of a country's shadow economy as a percentage of GDP, with higher score represent higher tax evasion level.

Tax avoidance is an area of concern because it may initiate or facilitate other fraudulent activities within a firm. Desai and Dharmapala (2006) argue that complex tax avoidance transactions can provide management with the tools, masks, and justifications for opportunistic managerial behaviours, including earnings manipulation, related party transactions, and other resource diverting activities. Despite the fact that the intersection between financial and tax reporting is importance, research on this area is relatively unexplored (Frank et al. 2009). While managers face pressures to report high financial income, they have fiduciary duties to reduce spending by reporting low taxable income (Heltzer et al. 2012). These two conflicting obligation has the potential to result in aggressive reporting. While tax avoidance at the first place is legally permissible, aggressive financial reporting may lead to aggressive and illegal taxable reporting activities. Evidence from a study by Frank et al. (2009) suggests that firms, which are aggressive in their financial reporting, are also aggressive in their taxable reporting. They find a positive relation between aggressive book reporting and aggressive tax reporting and suggest that insufficient costs exist to offset the conflicting between these two incentives. To the extent that shareholders suspect that managements who are aggressive with IRS may also be aggressive in their financial reporting, the market may grow suspicious of the accuracy of the company's financial statement (Hanlon and Slemrod 2009).

While tax avoidance has been a subject of a great deal of academic research in most developed countries over a long period of time, evidence from developing countries is rather sparse. This is a dilemma as there are cross national differences in tax evasion due to factors such as institutional, demographic, and attitudinal (Richardson 2006). Riahi-Belkaoui (2004) finds that competition laws, economic freedom, importance of equity market, and incident of violent crimes explain tax compliance behavior across 30 countries in his study. Using institutional anomie theory, Bame-Aldred et al. (2013) indicate that cultural values predicts tax evasion behavior in different countries. The effect of culture on tax evasion levels is also reflected in Tsakumis et al. (2007). Besides, in developing countries that are characterized by severe agency conflicts and weak investor protection, the risk of managerial rent diversion is more prominent. Given all this findings, there is a need to investigate further on the issue of tax evasion in Malaysia as to provide evidence from developing countries.

Examining the role of governance in relation to tax management activities is relevant for several reasons. Firstly, tax issues have made their way into the boardroom. As the boards are responsible for resource allocation, performance and increasing shareholder wealth, they have a central role in choosing tax management strategy. Tax planning can be seen as a value-maximizing activity that will result in lower taxes and improved bottom line performance. Due to that, companies with different governance structure may pursue different types of tax management. In line with this

view, Minnick and Noga (2010) find that corporate governance structure affects how a company manages tax.

Secondly, the need to consider the role of governance in taxation issues is substantiated by the views involving agency theory. In publicly listed firms, decisions about taxes are not made by shareholders (principal) directly, but rather, by their agents. In this principal-agent relationship, agents possess private information regarding the extent of legally permissible reductions in taxable income and may also use tax evasion to inflate size of the firm's tax shields (Crocker and Slemrod 2005). As the information asymmetry between managers and shareholders may facilitate managers acting in their own interest, tax activities may provide opportunity for managerial opportunism (Desai and Dharmapala 2006). Consistent with the agency cost view of tax aggressiveness, several studies indicate that firms with different governance structure exhibit differential tax avoidance behaviour. Desai and Dharmapala (2006) show that the level of incentive compensation and the level of tax sheltering are negatively associated, especially for firms with poor governance. Chen et al. (2010) find less tax aggressive behaviours in family firms, indicating that family owners are more concerned with potential price discounts as compared to potential tax savings. Taken together, these studies provide some insights into the role of incentives on tax avoidance and suggest that governance matters in taxation issues.

Hypothesis Development

The hypothesis development in this paper relies on two streams of research; the first one being the value of tax avoidance to investors and the second one is the effect of corporate governance on firm value. These two lines of research, taken together, suggest a link between tax avoidance, corporate governance and firm value. Tax avoidance has potential consequences including to shareholders of the firm. Hanlon and Heitzman (2010) suggest the following notions. If risk-neutral shareholders demand that managers take action to maximize after-tax cash flows, tax avoidance should be seen as a natural byproduct of managerial decision making. If managers optimally avoid taxes, and if investors form unbiased beliefs about the extent and payoff from tax avoidance, no association should emerge between tax avoidance and firm value. These two assumptions will only work in the condition that the right incentives are provided, the incentives work perfectly, and managers and shareholders understand all the risk and rewards of avoiding taxes. However, in the agent-principal relationship, these ideal situations do not hold because of the information asymmetry that exists between managers and shareholders.

Studies, using various measures of tax, suggest that investors do consider tax information in their investment decision (e.g., Amir and Sougiannis 1999; Bauman and Shaw 2008; Kumar and Visvanathan 2003). More relevance to our study is those that look into the effect of tax avoidance on

firm value. In theory, tax avoidance is deemed by investors to be a value-enhancing activity. Managers perform tax avoidance activities for the sole purpose of reducing corporate tax obligations. Under the synergy-motivated tax planning, tax planning activities are done by managers who act in the interest of their shareholders. Hence, reduction of transfers from shareholders to the government through tax planning activities should generally enhance the wealth of shareholder.

However, when agency cost is considered, tax planning activities may not be desirable to the shareholders as it can be subject to discretion by opportunistic managers. Desai and Dharmapala (2006) argue that tax planning, which are typically complex and opaque, provides opportunity for managerial opportunism. In this perspective, tax planning promotes lack of transparency which later provide ‘shield’ for managers to extract rent at the expense of shareholders by understating accounting profit. Further, tax avoidance activities have the potential to allow managers to pursue activities that are designed to hide bad news and mislead investors. Similar to the underlying incentives to conceal adverse operating outcome, tax avoidance activities facilitate bad news hoarding behavior for an extended period. The ability to hide and accumulate bad news, through tax avoidance activities, may consequently lead to future extreme outcomes. In short, the agency costs in tax avoidance activities may outweigh potential tax savings that accrue to shareholders.

Empirical evidence suggests that tax avoidance activities have a consequence on firm value and investors perceive tax avoidance as value-related to firms. As the information asymmetry between managers and shareholders may facilitate managers acting in their own interest, empirical evidence indicates that there is a negative relationship between the level of tax planning and firm value (Abdul Wahab and Holland 2012). Consistent with the agency perspective of tax avoidance, Kim et al (2011) find that tax avoidance is positively associated with stock price crash risk. Yet, Desai and Dharmapala (2009) find no relation between tax avoidance and firm value. Therefore, findings on the value of corporate tax avoidance activities are rather mixed. Due to the dual-perspective on the consequence of tax avoidance to firms, there are two ways on how tax avoidance and firm value can be related. If the synergy-motivated view holds, tax avoidance should be positively associated with firm value. If the agency view holds, tax avoidance should be negatively associated with firm value. Due to that, we set our first hypothesis as follows:

H₁: There is an association between tax avoidance and market value.

The perspective employed in the first hypothesis refers to the single effect of tax avoidance and does not incorporate the fact that agency costs in firms can be offset by high quality governance mechanisms. A stream of research has shown support for the relevance of high quality corporate governance in determining firm value (Klapper and Love 2004; Durnev and Kim 2005). In general, firms with better governance are more valued than their counterparts because of two reasons. First,

investors would be willing to pay more because they recognize that, with better protection of investors, more of the profits would come back to them as interest or dividend as opposed by being expropriated by the entrepreneurs who control the firm (La Porta et al. 1999). Secondly, good corporate governance may reduce the expected return on equity to the extent that it reduce shareholders monitoring and auditing cost, thus this lead to higher firm valuation. More relevant to this study are literature that relies on a comprehensive measure of corporate governance as a measure of the quality of governance. In a study in Korea, Black et al. (2006) reports a strong positive correlation between the overall corporate governance index and firms value. Gompers et al. (2003) show that the valuation of company with higher level of corporate governance) is 56 percentage points higher than those in the lower level of corporate governance). Collectively, these studies show that the quality of governance mechanisms affect shareholders wealth in a way that better governance enhances firm value.

In the context of tax avoidance, governance mechanisms may be able to constraint opportunistic behavior and provide a layer of protection for managerial rent extraction. Therefore, good governance mechanisms may help in alleviating investors' concern about the potential agency problems associated with tax avoidance. Corporate governance may be able to reduce the risk associated with potential expropriation of shareholders wealth by opportunistic managers. To disentangle this issue, we examine whether the relation between tax avoidance and firm value varies with the quality of governance mechanisms.

Using various measures of tax avoidance and governance, studies on that the impact of tax avoidance activities on investor welfare find that the impact depends on the strength of a firm's monitoring mechanisms. Hanlon and Slemrod (2009) find that news about a firm's involvement in tax shelters has a negative market reaction, but the negative reaction is less pronounced for well-governed firms. Kim et al. (2011) find that the positive relation between tax avoidance and stock price crash risk is attenuated in the events where firms have strong external monitoring mechanisms. In similar vein, Wilson (2009) finds that the stock return performance of tax sheltering firms with low anti-takeover protection is greater than non-sheltering firms during the pre-sheltering, active-sheltering and post-sheltering period. The evidence that tax-sheltering firms outperform non-sheltering firms is consistent with the view that tax sheltering is value enhancing for well-governed firms.

More related to our study is empirical evidence involving the relation between tax avoidance and firm value. Desai and Dharmapala (2009) find that their proxy for tax avoidance is only related to firm value for firms with higher levels of institutional holding or lower level of antitakeover protection. These findings indicate that in poorly governed firms, tax sheltering signals a higher possibility of managerial wealth diversion, and thus perceived by investors to add no value to the

firm. Yet, Abdul Wahab and Holland (2012) find that the governance mechanisms do not mitigate the negative relationship between tax planning and firm value even in the case of 'high governance firms'. As they rely on the proportion of non-executive directors on the board of company and percentage of shares by institutional investors as measures of governance, they attribute their findings to the possibility of ineffective corporate governance or insufficient tax related information available to shareholders.

Taken together, these findings show that governance differences explain cross-sectional variation in the consequences of tax avoidance. Most of these findings indicate that tax avoidance has net benefits in an environment where monitoring and control mechanism are effective in constraining managerial opportunism. In line with that, we tests whether the quality of governance mechanisms can further explain the variation in the relation between tax avoidance and firm value. Our second hypothesis is as follows:

H₂: The strength of governance mitigates the association between tax avoidance and market value.

3.0 Research Methodology

Our sample consists of top 100 publicly listed firms from the Malaysia Corporate Governance Index (MCG index) report 2011. The report is used as a basis of data selection because it offers a comprehensive measure of corporate governance. MCG index is developed by assessing the conformance, performance and practices of corporate governance in Malaysian publicly listed firms. As such, the index covers broad areas of governance which are relevant in the Malaysian context. The list from the index is matched with financial data and market data from the Compustat database. Our final sample is 67 firms. For each of the selected companies, financial data are collected for the year the CG Ranking is made, year 2010, which is the focus year of the analysis.

For the analysis, a firm-value model is applied. The model, originally derived from Ohlson (1995), has been widely used in value relevance studies including those that relates to tax (e.g., Abdul Wahab and Holland 2012) To cater for scale effects, we follow the approach in Easton and Sommers (2003), where all variables are deflated by the dependent variable i.e. market value three months after financial year end. For the hypotheses, the models are specified as follows:

For H₁, where a₆ tests whether TA_j is value relevant;

$$MV_j/MV_j = a_0 1/MV_j + a_1 BV_j/MV_j + a_2 EARN_j/MV_j + a_3 LEV_j/MV_j + a_4 INT_j/MV_j + a_5 SIZE_j/MV_j + a_6 TA_j/MV_j + a_7 GOV_j/MV_j + \varepsilon_j \quad (1)$$

For H₂, where a₈ tests whether the value relevance of TA_j is affected by GOV_j;

$$MV_j/MV_j = a_0 1/MV_j + a_1 BV_j/MV_j + a_2 EARN_j/MV_j + a_3 LEV_j/MV_j + a_4 INT_j/MV_j + a_5 SIZE_j/MV_j + a_6 TA_j/MV_j + a_7 GOV_j/MV_j + a_8 [TA_j \times GOV_j]/MV_j + \varepsilon_j \quad (2)$$

In the above models, the (unscaled) dependent variable, *MV*, is represented by market value three months after the fiscal year end. The period is chosen to reflect lag in disclosing annual financial statements to shareholder. The independent variables consist of financial information derived from Compustat Global Industrial/Commercial which serves as the control variables. *BV* is the book value of equity of firm *j* at the end of the fiscal year, while *EARN* is earnings before extraordinary items of firm *j* for the fiscal year. Both variables, which are the fundamental variables in Ohlson (1995), comprise the set of financial information that partly determines market value. We also include total asset, debt to equity, and intangible assets to control for Size (*SIZE*), leverage (*LEV*), and growth (*INT*). Prior studies have shown that size, leverage and growth determine firm value.

The variables of interest include *TA*, *GOV* and the interaction between those two. *TA* is derived from ETR which reflects the effectiveness of tax planning (Rego 2003). ETR is calculated by dividing total tax expense with pre-tax income. The measure is selected because it has been consistently used in tax avoidance studies (e.g., Chen et al. 2010). As low effective tax rates reflect tax avoidance behavior (Md Noor et al. 2010), *TA* is measured at one minus ETR. *GOV*, which represents the quality of monitoring mechanism governance, is derived from the ranking of corporate governance score in the MSWG MCG Index. *GOV* is a dichotomous value of one if a firm resides in the “Top 50 percent” and zero if a firm resides in “the bottom 50 percent” of the ranking.

4.0 Results

<Insert Table 1>

Table 1 provides descriptive statistics for financial and market variables used in this study for firms at the top 50 percent (GOV^{Top50}) and the bottom 50 percent of the ranking ($GOV^{Bottom50}$). In general, the GOV^{Top50} firms have greater values than $GOV^{Bottom50}$ firms. On average, the GOV^{Top50} firms have a market value (*MV*) of RM6,532.09 million as compared to the $GOV^{Bottom50}$ firms that have a market value (*MV*) of RM4,948.13 million. The mean book value (*BV*) for the GOV^{Top50} firms is RM3,648.54 million, while their mean earnings (*EARN*) is RM563.94 million. For the $GOV^{Bottom50}$ firms, the mean *BV* and *EARN* are RM2,350.33 and RM254.29 respectively. The GOV^{Top50} firms have an average total assets (*SIZE*) of RM8,877.42 million, debt to equity (*LEV*) of RM2,244.18, and intangible assets of RM880.84 million. The $GOV^{Bottom50}$ firms have an average total assets (*SIZE*) of RM5,002.85 million, debt to equity (*LEV*) of RM1,556.17, and intangible assets of RM362.19 million. The tax avoidance measure (*TA*) is almost similar for both groups with a mean of 0.78 for GOV^{Top50} firms and 0.79 for the $GOV^{Bottom50}$ firms.

<Insert Table 2>

Table 2 presents the Pearson and Spearman correlation coefficients between the dependent and independent variables. There is a negative association between *MV* and *TA* in the Pearson model, but

no association is reflected between the two in the Spearman model. Meanwhile, there is no association between *MV* and *GOV* in the Pearson model, but the two are positively correlated in the Spearman model. *MV* is strongly positively associated with *BV* and *EARN* in both models. *MV* is also significantly positively correlated with all the other independent variables (*SIZE*, *LEV*, and *INT*) in both models. This indicates that firms with higher market value have higher book value, earnings, total assets, leverage, and intangibles. Table 3 also reports the correlation coefficient between the independent variables. Except for correlations involving *BV*, *EARN* and *SIZE*, correlations between independent variables are considerably small. Thus, multicollinearity is not expected to be a problem.

<Insert Table 3>

To test our hypothesis, we employ the specifications in equation (1) and (2). The models are estimated to find (i) whether tax avoidance is value relevant (H_1), and (ii) whether the quality of governance increases the value relevance of tax avoidance (H_2). For H_1 , we expect α_6 to be significant to support our expectation that tax avoidance is value relevant, while for H_2 , α_8 is expected to be significantly positive to indicate that the quality of governance assists the market in incorporating the value of tax avoidance into stock prices. The results of the regression are presented in Table 3.

In the model that tests for H_1 , the R-squared is 97 per cent with an F-statistic of 255.987. The coefficient for *TA/MV* is significant and positive (at 10 percent level). The coefficient of 12,747 indicates that a one point increase in the tax avoidance measure is associated with RM12,746 million increase in the market value of firms. This finding is consistent with the prediction in our hypothesis. Statistical evidence shows that tax avoidance information is considered by investors in their decision. Consistent with the traditional view of tax avoidance activities, investors view tax avoidance as value enhancing activities.

In the model that tests for H_2 , the R-squared is also 97 per cent with an F-statistic of 258.044. The variable of interest, *(TAxGOV)/MV*, is significant and positive (at 10 percent level) with a coefficient of 33,540. In general, this result indicates that tax avoidance is valued by investors. However, the effect of tax avoidance on firm value differs between firms with high governance as compared to firms with low governance. For firms with high governance (GOV^{TOP50}), a one point increase in the tax avoidance measure is associated with RM44,997 million increase in the market value of firms. However, for firms with low governance ($GOV^{Bottom50}$), the same increase in tax avoidance is only associated with a market value increase of RM11,458 million. This finding is consistent with the prediction in our hypothesis. The empirical results are consistent with the findings in prior studies (e.g., Desai and Dharmapala 2009) and support the view that good monitoring and control mechanism are effective in constraining managerial opportunism surrounding tax avoidance. The value relevance of tax avoidance is greater for firms with better governance.

5.0 Conclusion

We examine the role that governance mechanisms have in the context of the relation between tax avoidance and firm value. Due to the agency problem associated with the complex nature of tax avoidance, we posit that the strength of governance mechanisms play a role in mitigating such agency costs. We find that show that tax avoidance is value relevant, and that higher quality governance positively affects the relation between tax avoidance and firm value. However, our findings have to be interpreted with caution as they are merely preliminary in nature.

We contribute to the literature by adding to the evidence on the economic consequences of tax avoidance from the perspective of a developing country. We also employ a comprehensive measure of governance in our analysis on the value relevant of tax avoidance. Future research can extend to these findings by using alternative measures of tax avoidance and utilize the unique features of firms in Malaysia. Secondly, future research may also benefit from using panel data.

Reference

- Abdul Wahab, N. S., and K. Holland. 2012. Tax planning, corporate governance and equity value. *The British Accounting Review* 44 (2):111-124.
- Amir, E. L. I., and T. Sougiannis. 1999. Analysts' Interpretation and Investors' Valuation of Tax Carryforwards. *Contemporary Accounting Research* 16 (1):1-33.
- Bame-Aldred, C. W., J. B. Cullen, K. D. Martin, and K. P. Parboteeah. 2013. National culture and firm-level tax evasion. *Journal of Business Research* 66 (3):390-396.
- Bauman, M. P., and K. W. Shaw. 2008. The Usefulness of Disclosures of Untaxed Foreign Earnings in Firm Valuation. *The Journal of the American Taxation Association* 30 (2):53-77.
- Black, B. S., H. Jang, and W. Kim. 2006. Does Corporate Governance Predict Firms' Market Values? Evidence from Korea. *The Journal of Law, Economics, & Organization* 22 (2).
- Chen, S., X. Chen, Q. Cheng, and T. Shevlin. 2010. Are family firms more tax aggressive than non-family firms? *Journal of Financial Economics* 95 (1):41-61.
- Crocker, K. J., and J. Slemrod. 2005. Corporate tax evasion with agency costs. *Journal of Public Economics* 89 (9-10):1593-1610.
- Desai, M. A., and D. Dharmapala. 2006. Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics* 79 (1):145-179.
- Desai, M. A., and D. Dharmapala. 2009. CORPORATE TAX AVOIDANCE AND FIRM VALUE. *The Review of Economics and Statistics* 91 (3):537-546.
- Durnev, A., and E. H. Kim. 2005. To steal or not to steal: Firm attributes, legal environment, and valuation. *The Journal of Finance* 60 (3):1461-1493.
- Easton, P. D., and G. A. Sommers. 2003. Scale and the Scale Effect in Market-based Accounting Research. *Journal of Business Finance & Accounting* 30 (1-2):25-56.
- Frank, M. M., L. J. Lynch, and S. O. Rego. 2009. Tax Reporting Aggressiveness and Its Relation to Aggressive Financial Reporting. *The Accounting Review* 84 (2):467-496.

- Gompers, P., J. Ishii, and A. Metrick. 2003. Corporate Governance and Equity Prices. *The Quarterly Journal of Economics* 118 (1):107-156.
- Hanlon, M., and S. Heitzman. 2010. A review of tax research. *Journal of Accounting and Economics* 50 (2–3):127-178.
- Hanlon, M., and J. Slemrod. 2009. What does tax aggressiveness signal? Evidence from stock price reactions to news about tax shelter involvement. *Journal of Public Economics* 93 (1–2):126-141.
- Heltzer, W., M. P. Mindak, and S. W. Shelton. 2012. The relation between aggressive financial reporting and aggressive tax reporting: Evidence from ex-Arthur Andersen clients. *Research in Accounting Regulation* 24 (2):96-104.
- Inland Revenue Board, M. 2011. Annual Report 2010.
- Kim, J.-B., Y. Li, and L. Zhang. 2011. Corporate tax avoidance and stock price crash risk: Firm-level analysis. *Journal of Financial Economics* 100 (3):639-662.
- Klapper, L. F., and I. Love. 2004. Corporate governance, investor protection, and performance in emerging markets. *Journal of Corporate Finance* 10 (5):703-728.
- Kumar, K. R., and G. Visvanathan. 2003. The Information Content of the Deferred Tax Valuation Allowance. *The Accounting Review* 78 (2):471-490.
- La Porta, R., F. Lopez-de-Silanes, and A. Shleifer. 1999. Corporate ownership around the world. *Journal of Finance* 54 (2):471-517.
- Md Noor, R., N. S. M. Fadzillah, and N. A. Mastuki. 2010. Corporate Tax Planning : A Study On Corporate Effective Tax Rates of Malaysian Listed Companies. *International Journal of Trade, Economics and Finance* 1 (2).
- Minnick, K., and T. Noga. 2010. Do corporate governance characteristics influence tax management? *Journal of Corporate Finance* 16 (5):703-718.
- Ohlson, J. A. 1995. Earnings, book values, and dividends in equity valuation. *Contemporary Accounting Research* 11 (2):661-687.
- Rego, S. O. 2003. Tax-Avoidance Activities of U.S. Multinational Corporations*. *Contemporary Accounting Research* 20 (4):805-833.
- Riahi-Belkaoui, A. 2004. Relationship between tax compliance internationally and selected determinants of tax morale. *Journal of International Accounting, Auditing and Taxation* 13 (2):135-143.
- Richardson, G. 2006. Determinants of tax evasion: A cross-country investigation. *Journal of International Accounting, Auditing and Taxation* 15 (2):150-169.
- Tsakumis, G. T., A. P. Curatola, and T. M. Porcano. 2007. The relation between national cultural dimensions and tax evasion. *Journal of International Accounting, Auditing and Taxation* 16 (2):131-147.
- Wilson, R. J. 2009. An examination of corporate tax shelter participants. *The Accounting Review* 84 (3).

Table 1: Descriptive Statistics

| | MV | TA | BV | EARN | SIZE | LEV | INT |
|--|----------|------|--------------|--------|----------|--------------|---------|
| GOV^{Top50} (n = 33) | | | | | | | |
| Mean | 6,532.09 | 0.78 | 3,648.5 4 | 563.94 | 8,877.42 | 2,244.1 8 | 880.84 |
| Median | 2,786.33 | 0.76 | 1,227.1 5 | 243.89 | 2,410.10 | 550.36 | 127.89 |
| Std. Deviation | 9,299.71 | 0.09 | 5,876.2 1 | 729.71 | 14,610.7 | 4,222.6 | 2,271.6 |
| Percentile s | | | | | | | |
| 25 | 1,165.30 | 0.72 | 501.90 | 114.23 | 1,065.53 | 64.18 | 4.03 |
| 50 | 2,786.33 | 0.76 | 1,227.1 5 | 243.89 | 2,410.10 | 550.36 | 127.89 |
| 75 | 8,049.95 | 0.84 | 4,511.4 2 | 800.42 | 10,266.8 | 2,680.5 | 644.29 |
| GOV^{Bottom50} (n = 34) | | | | | | | |
| Mean | 4,948.13 | 0.79 | 2,350.3 3 | 254.29 | 5,002.85 | 1,556.1 7 | 362.19 |
| Median | 1,224.98 | 0.78 | 1,170.3 7 | 135.61 | 2,014.75 | 342.59 | 24.01 |
| Std. Deviation | 10,140.0 | 0.10 | 3,885.7 4 | 417.48 | 8,638.36 | 3,819.1 | 1,141.6 |
| Percentile s | | | | | | | |
| 25 | 521.50 | 0.75 | 569.25 | 68.80 | 979.69 | 23.04 | 1.43 |
| 50 | 1,224.98 | 0.78 | 1,170.3 7 | 135.61 | 2,014.75 | 342.59 | 24.01 |
| 75 | 3,735.75 | 0.82 | 1,899.2 5 | 254.10 | 4,762.05 | 1,646.3 2 | 128.32 |
| Variable Description : | | | | | | | |
| MV is market value three months after the fiscal year end. | | | | | | | |
| BV is book value of equity of firm j at the end of the fiscal year, | | | | | | | |
| EARN is earnings before extraordinary items of firm j for the fiscal year. | | | | | | | |
| SIZE is total asset of firm j for the fiscal year. | | | | | | | |
| LEV is debt to equity of firm j for the fiscal year. | | | | | | | |
| INT is intangible assets of firm j for the fiscal year. | | | | | | | |

Table 2: Correlation Matrix

| | MV | TA | GOV | BV | EARN | SIZE | LEV | INT |
|-------------|--------------------|---------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| MV | | -0.340** (0.005) | 0.082 (0.508) | 0.762** (0.000) | 0.719** (0.000) | 0.626** (0.000) | 0.522** (0.000) | 0.659** (0.000) |
| TA | -0.163 (0.189) | | -0.027 (0.830) | -0.266* (0.030) | -0.115 (0.356) | -0.19 (0.125) | -0.118 (0.343) | -0.287* (0.018) |
| GOV | 0.275* (0.024) | -0.134 (0.279) | | 0.132 (0.289) | 0.257* (0.036) | 0.162 (0.189) | 0.086 (0.487) | 0.146 (0.240) |
| BV | 0.646** (0.000) | -0.142 (0.251) | 0.073 (0.560) | | 0.827** (0.000) | 0.945** (0.000) | 0.786** (0.000) | 0.439** (0.000) |
| EARN | 0.767** (0.000) | -0.124 (0.318) | 0.284* (0.020) | 0.769** (0.000) | | 0.806** (0.000) | 0.731** (0.000) | 0.522** (0.000) |
| SIZE | 0.643** (0.000) | -0.123 (0.323) | 0.153 (0.217) | 0.956** (0.000) | 0.777** (0.000) | | 0.890** (0.000) | 0.437** (0.000) |
| LEV | 0.508** (0.000) | -0.052 (0.677) | 0.153 (0.216) | 0.740** (0.000) | 0.619** (0.000) | 0.868** (0.000) | | 0.505** (0.000) |
| INT | 0.380** (0.001) | -.270* (0.027) | 0.208 (0.092) | 0.444** (0.000) | 0.486** (0.000) | 0.546** (0.000) | 0.623** (0.000) | |

Pearson correlations are in the upper diagonal, while Spearman correlations are in the lower diagonal. Two-tailed p-values are given in parentheses. * and ** denote significance at the 5% and 1% level respectively.

Table 3: Regression Results

| | Prediction | Test for H ₁ | | Test for H ₂ | |
|-------------------------|------------|-------------------------|-------------|-------------------------|-------------|
| | | Coefficient | t-statistic | Coefficient | t-statistic |
| 1/MV | | -3,629,223.925 | -2.632** | -3,332,685.932 | -2.561** |
| TA/MV | +/- | 12,746.393 | 6.873*** | 11,457.943 | 6.369*** |
| GOV/MV | + | -6,222.964 | -4.268*** | -31,427.568 | -3.623*** |
| BV/MV | + | 4.043 | 10.187*** | 4.358 | 11.220*** |
| EARN/MV | + | -1.101 | -0.979 | -1.406 | -1.323 |
| SIZE/MV | + | -1.443 | -5.406*** | -1.604 | -6.241*** |
| LEV/MV | - | 0.503 | 1.271 | 0.624 | 1.665 |
| INT/MV | + | 2.170 | 10.242*** | 2.422 | 11.164*** |
| (TAXGOV)/MV | + | | | 33539.537 | 2.943*** |
| Adjusted R ² | | 0.968 | | 0.972 | |
| F-Statistic | | 255.987*** | | 258.044*** | |

*, ** and *** denote significance at the 10%, 5% and 1% level, respectively.