

Corporate Tax Avoidance: Evidence from Vietnamese firms

Abstract: This paper examines the effect of corporate tax avoidance on firm value using a sample of Vietnamese non-financial listed firms for the period 2007 to 2018. Using fixed effect, ordinary least square and system generalised method of moment estimation, the results show a positive and statistically significant relationship between corporate tax avoidance and firm value. Our result demonstrates the bright side of corporate tax avoidance at the firm level. Further analysis shows that the positive effect of corporate tax avoidance on firm value can be intensified by the effectiveness of the board of directors in monitoring management.

Keywords Vietnam; corporate tax avoidance; agency theory; board of directors; firm value.

JEL codes: G32, G34, H26.

1. Introduction

Corporate tax avoidance (CTA) is defined as “a continuum of tax strategies”¹ in which a firm reduces explicit taxes (Hanlon and Heitzman, 2010, pp. 137). According to Chung et al. (2015), firms can engage in CTA to reduce substantial expenses from income tax and increase the cash available for reinvestment and growth. CTA can be viewed as a tax-saving device and hence enhance after-tax firm value. However, CTA comes with its costs, such as reputational cost and agency cost (Chen et al., 2014). Thus, the value implication of CTA is still ambiguous due to its costs and benefits. Prior research also provides mixed empirical results on the CTA-firm value relationship (Wahab and Holland, 2012; Inger, 2013).

Vietnam is a transition economy which shifted from a centrally –planned economy to a market-oriented economy during the Doi Moi reform in 1986. Following the Doi Moi reform, tax reform has also been implemented toward promoting competitiveness and exports, encouraging investment, and creating employment and growth. To achieve these goals, tax incentives are very generous and redundant in Vietnam. According to current law², tax incentives are applied in 57 sectors such as health care, education, high technology, agriculture, and environmental protection; 53 out of 63 provinces (undeveloped socio-economic areas) and over 300 special economic zones, high-tech, and export processing zones. However, these location-based and sector-based tax incentives can be exploited to reduce tax payment, which must be paid by corporations. A firm can transfer its resources to where the tax rates are lower by using the related party transactions. Additionally, Vietnam has confronted pervasive tax corruption and stakeholders’ perception of tax corruption, which in turn weakens voluntary tax compliance and create more opportunities for firms to avoid taxes (Nguyen, Doan and Tran-Nam, 2017). However, there is no

¹Depending on the level of aggressiveness to reduce taxes, tax avoidance “could be anywhere along the continuum” in which tax minimization (perfectly legal) is at one end and “evasion,” at the other end.

² Law on corporate income tax 2008 No 14/2008/QH12, amended by Law No. 32/2013/QH13 and Law No. 71/2014/QH13

public data and limited research on the firm's tax behaviour and how CTA affect a firm's decision making and performance in Vietnam.

Given the debate on the effect of CTA and firm value in the literature, this study investigates how CTA affects firm value using a sample of Vietnamese non-financial listed firms for the period 2009-2017. The results show a positive effect of CTA on firm value, which support the hypothesis that CTA can improve firm value. This means stockholders place a premium value on CTA due to the lack of transparency and weak tax administration in Vietnam. Our results are consistent with different proxies of CTA and firm value and empirical findings. Further, we examine the role of the board of director (BoD), as an internal corporate governance mechanism in the sustainable benefit of stockholders from CTA. Our result shows a positive joint effect of CTA and board of director on firm value in Vietnamese non-financial listed firms. The result indicates that the effectiveness of the BoD in monitoring management and protecting stockholders' benefits intensify the positive effect of CTA on firm value.

Thus, our study shed light on the "black box" of CTA's effect on firm value using a sample of Vietnamese non-financial listed firms. The result demonstrates the bright side of CTA at the firm level under the context of a transition economy with a lack of strategic commitment reform and opaque institutional environment. Further, this study extends the literature by providing evidence on the moderating role of corporate governance on the CTA- firm value relationship. In particular, while prior research focuses on ownership as a governance mechanism influencing on the stockholders' benefits from CTA, this study provides evidence that BoD can mediate CTA- firm value relationship.

The rest of the paper is organised as follows. Section 2 presents the literature reviews. Section 3 discusses the methodology, followed by data in Section 4. The empirical results and conclusion are presented in Sections 5 and 6, respectively.

2. Literature review

The prior research provides empirical evidence that the impact of CTA on firm value varies across firms, industries and countries (Inger 2003; Wahab and Holland 2012; Park et al. 2016). Using a sample of 169 UK non-financial listed firms during the period 2005-2007, Wahab and Holland (2012) find that CTA does not necessarily enhance firm value due to its excessive costs. In particular, firms might pay fees to tax consultants to design and employ tax avoidance transactions. Further, if a firm is detected as tax avoider and labelled as a “poor corporate citizen”, it can be exposed to penalties, reputational costs and political costs (Hanlon and Slemrod 2009; Mills, Nutter and Schwab 2013). Agency cost is another cost of CTA. According to Desai and Dharmapala (2006), there are agency conflicts between stockholders and managers in deciding firms’ tax planning. Managers could transfer the firm’s asset from shareholders for their personal use based on asymmetric information and complicated transactions of CTA.

While CTA comes with costs, it can also enhance firm value due to tax-saving effects (Hoofman 1961; Inger 2013; Ariff and Hashim 2014). Firms may engage in CTA because they can reduce substantial expenses from income tax and then increase the cash available for reinvestment and growth (Chung et al. 2015). Hoofman (1961) projected that CTA positively affects firm performance based on the assumption that tax costs arising from CTA are less than tax benefits. Similar to Hoffman (1961) study, Inger (2013) argues that managers actively try to divert money from the government to firms through CTA and then reinvest or return to stockholders as dividends. Using a sample of the largest US multinational firms from the 2005 Fortune 500 for the period from 1997 to 2010, the author finds that CTA generated by stock option tax deductions contribute to an increase in firm value.

Evidence from Blaylock (2011) shows that CTA positively affects the future performance of a sample of US-listed firms. For a one-standard-deviation increase in CTA³, the return on assets increased from 0.2 percent to 0.6 percent. Consistent with Blaylock (2011), Wang (2010) also finds that CTA enhances firm value in a sample of S&P 1500 firms in the 1994- 2001 period. However, this value premium placed by investors decreases in firms with less transparency. Additionally, among the limited research in developing and emerging markets, Ariff and Hashim (2014) find a positive effect of CTA on firm value in a sample of 203 Malaysian listed firms during the 2009- 2011 period. The authors find that for a one-point increase in CTA measured by the effective tax rate, the market value was expected to increase by MYR 1,976 million. This result indicates that investors view CTA as a value-enhancing activity. Using a sample of Chinese listed firms from 2002 to 2009, Wong, Kim and Lo (2015) also find empirical evidence that related-party transaction as a CTA mechanism can enhance firm value.

While China and Vietnam share similar growth pattern and economic reforms, Vietnam has underperformed China due to its lack of strategic commitment reform, industrial policy, innovative capacity building, and openness (Vu, 2008). The transaction process in Vietnam is still incomplete with many regulations, slow decision making and the opaque institutional environment under the involvement of the state in economic activities (Dinh, 2000). According to Nguyen, Doan and Tran-Nam (2017), Vietnam has also confronted pervasive tax corruption arising from the low salary of the public sector, compromising and paternalistic culture, the lack of transparency as well as the lack of a competent public sector. The authors point out that Vietnam performs poorly in terms of bribery and efforts to fight corruption as the Corruption perceptions index (CPI) in Vietnam is about 30 on a scale of 0 to 100 for the 2011 -2016 period. The evidence from a survey supported by the World Bank and Government Inspectorate of Vietnam in 2012 shows that public officials intentionally prolong time and pressure firms

³ Tax avoidance is measured by adjusted book-tax differences (Desai and Dharmapala 2006); tax shelter (Wilson 2009); and adjusted permanent book-tax differences (Frank, Lynch and Rego 2009).

with ambiguous regulations to make unofficial payments (World Bank, 2012). Likewise, over 30 percent of registered firms made an unofficial payment or believed that their firms would be unfairly treated without bribery based on a survey conducted by VCCI on more than 2,500 registered firms in 2015 (as quoted in Nguyen, Doan and Tran-Nam 2017). This pervasive tax corruption and the perception of tax corruption by many stakeholders weakens the voluntary tax compliance and create more opportunities for firms to avoid taxes. Additionally, Giang (2015) point out that penalties for tax non-compliance has not been specified and regulated at different levels. For example, taxpayers should be liable to a fine from 10% to 20% of the tax shortfalls for under-reporting tax liabilities. Thus, the penalty depends on the subjective judgment of the tax authorities. The penalty is also too light and has no deterrent effect (Giang, 2015). The combination between a lack of strict law and the bribes between firms as taxpayers and tax authorities leads to low penalty or low probability of being detected as a “tax avoider” and hence reduces the costs of CTA such as fines or reputational costs. Thus, tax avoidance may positively impact on firm value in Vietnam.

On the other hands, according to Kawor and Kportorgbi (2014), the mixed results of the value implication of CTA and the substantial benefits of stockholders from CTA might be mediated by another factor. The corporate governance feature can be a moderating factor influencing the valuation of CTA (Desai and Dharmapala 2009; Ayer et al. 2011; Tang 2017). Desai and Dharmapala (2009) study is the first study that examines the impact of governance structure on the CTA-firm value relationship. The authors suggest that CTA causes a tax-savings effect and a managerial rent diversion simultaneously. While tax savings can enhance firm value, the managerial rent diversion could decrease shareholders’ wealth as managers transfer a firm’s resources for their own purposes. They argue that the tax-savings effect is offset by the managerial extraction effect, especially in poorly governed firms in which weak governance mechanism could provide more opportunities for managerial rent diversion via CTA. Using a sample of 862 US firms in the 1993-2001 period, the authors provide evidence that CTA affects positively firm value in well-

governed firms⁴. This result indicates that the shareholders' benefits from the firm's tax avoidance activities are mitigated by agency conflicts. In other words, if shareholders can control the managers, CTA could contribute to an increase in firm value.

Using a sample of 46 countries for the period 2001 -2010, Tang (2017) finds that the CTA-firm value relationship is positive in 11 countries, but negative in two countries (Russia and Turkey) with poor corporate governance. The author explains that poor governance mechanisms might lead to the scepticism from stockholders about rent extraction activities of managers and value enhancement of CTA. In contrast, investors could reward a value premium to CTA in countries with strong governance mechanisms because they expect that tax savings will be paid back to them. Focusing on the board of directors as a characteristic of governance mechanism, Li et al. (2017) also find that the interaction coefficient between board reforms⁵ and CTA is significantly positive. In other words, the positive effect of CTA on firm value becomes significant after board reforms focusing on improving the independence of the BoD. In line with Li et al. (2017), we expect a significantly positive joint effect between BoD's effectiveness and CTA on firm value.

3. Methodology

3.1 Firm Value Corporate tax avoidance

This study uses Tobin's q as a measure of firm value because of its advantages, such as reflecting both market and accounting information and minimising issues related to stock returns (Wernerfelt and Montgomery 1988). The higher value of Tobin's q leads to higher firm value. Tobin's q is defined as follows:

⁴ Well-governed firms have institutional ownership over 0.6 (Desai and Dharmapala 2009).

⁵ Major corporate governance reforms in OECD countries during the 1993-2012 period.

$$Q_{i,t} = \frac{(L_{i,t} + PE_{i,t} + MI_{i,t}) + MV_{i,t}}{TA_{i,t}} \quad (1)$$

where $Q_{i,t}$ is Tobin's q of firm i in year t. $TA_{i,t}$, $L_{i,t}$, $MV_{i,t}$, $PE_{i,t}$, and $MI_{i,t}$ are the total assets, total liabilities, market value of equity, preferred equity, and minority interest of firm i in year t, respectively.

3.2 Corporate tax avoidance

CTA is usually inferred from the firms' financial statements because the details of the firm's tax avoidance strategies are not available and published (De Simone et al. 2016). Based on firms' financial statements and prior research, we use the book-tax difference (BTD), the difference between taxable income and accounting income to measure CTA. Due to the absence of tax data, taxable income is estimated by current tax expenses and the statutory tax rate. According to Kim et al. (2011), regardless of whether managers manipulate earnings upward or not, they are able to report taxable income at the lower amount that leads to the higher BTD. Thus, the high level of BTD implies the existence of CTA practices. Following Frank, Lynch and Rego (2009), the BTD is defined as:

$$BTD_{i,t} = \frac{PI_{i,t} - \left(\frac{Current_tax_{i,t}}{Tax_rate_{i,t}} \right)}{TA_{i,t-1}} \quad (2)$$

where $BTD_{i,t}$, $PI_{i,t}$, $Current_tax_{i,t}$, and $Tax_rate_{i,t}$ are the book-tax difference, pre-tax income, current tax expenses and the statutory tax rate of firm i in year t, respectively. $TA_{i,t-1}$ is the total asset of firm i in the previous year.

3.3 Model specifications

Based on Desai and Dhamapala (2009), we account for the lag of firm value as a major factor influencing the future value. The baseline model is:

$$Q_{i,t} = \alpha + \delta Q_{i,t-1} + \beta BTD_{i,t} + \gamma Control_{i,t} + Industry + Year + \varepsilon_{i,t} \quad (3)$$

where $Q_{i,t}$ is Tobin's q of firm i in year t; $BTD_{i,t}$ is the book-tax difference calculated by Frank, Lynch and Rego (2009). $Control_{i,t}$ is a vector of the control variables including firm size (SIZE), sale growth (GROWTH), financial leverage (LEV), fixed assets (PPE), intangible assets (INTANG), firm age (AGE) and firm risk (RISK) (Black et al. 2014; Maury and Pajuste 2005; Jiraporn et al. 2008; Connolly and Hirschey 2005; Wang 2010; Love and Klapper 2004; Tang 2017; Jo and Harjoto 2011). We also control for the effect of internal governance on firm value by institution ownership (INST) and earning management (DIS_ACC). Table 1 defines the baseline model (equation 3) variables.

[Insert Table 1 here]

We use the fixed-effect (FE) estimator to control for the time-invariant effects in our sample. To control for the existence of the unobservable industry- and year-specific confounding factors, we add a set of industry and year dummies to the baseline model. Standard errors are clustered along two dimensions (by firm and year) to control for errors heteroskedasticity and autocorrelation. We also perform Prais-Winsten regression to estimate the baseline model under the assumption that the residuals are serially-correlated.

Further, to address potential endogeneity arising from the dynamic panel data and the relationship between CTA and firm value, we use the system generalised method of moments (GMM) estimator to validate the results from FE and OLS estimation.

4. Data

To examine the relationship between CTA and firm value, we collected annual data of 751 non-financial firms listed in both Ho Chi Minh Stock Exchange (HOSE) and Hanoi Stock Exchange (HNX) as of December

2018 from Bloomberg database. The study excluded 102 financial firms from the sample due to differences in recording information in financial statements and accounting policies⁶. The final sample consists of 649 non-financial listed firms for the period 2007-2018. The study period began in 2007 when the regulation on corporate governance applicable to listed firms was enacted. Data related to the BoD was hand-collected from the firms' corporate governance reports. All the financial data are reported in Vietnamese dong (VND). To alleviate the impact of outliers on our regression results, we winsorised all data items by the top and bottom percentile.

5. Empirical results

5.1. Descriptive statistics

Table 2 reports the descriptive statistics and the pairwise correlation matrix of the variables used in our study. The average Tobin's q for our sample is 1.105, with a standard deviation of 0.551. The mean value of BTD is 0.006 and varies significantly among firms (with a standard deviation of 0.046 over seven times large than the mean). These figures indicate that BTD varies significantly among firms. An average firm in the sample has a firm size (log value of total assets) of 13.382 and sale growth of 15.3%. The overall mean of LEV is approximately 0.079, meaning that on average only about 8% of total assets is financed by long term debt. The overall average of institutional ownership is at a moderate level of 18.25%, but the series varies significantly (ranging from 0% to 81.72%).

[Insert Table 2 here]

⁶ Firms' operation are regulated by Law on enterprises, but financial firms' operations must comply with the provisions of Law on credit institutions.

5.2. Empirical results

Table 3 reports the regression results of our baseline model (equation 3) using the fixed effect, OLS and Paris-Winsten estimation, respectively.

[Insert Table 3 here]

The coefficient of BTD is positive in all columns in Table 3. In particular, the BTD's coefficient is 0.596 and significant at 1% level in column 1. This result indicates that for a one-unit increase in BTD, Tobin's q is expected to increase by 0.596. Likewise, the coefficient of BTD in column 2 (0.525) and column 3 (0.502) are significant at 5% level. As the coefficients are consistently positive and significant, we infer that our results are robust to different model specifications and are not driven by serial correlation. These results suggest that CTA can enhance firm value in Vietnamese non-financial listed firms. This corroborates the arguments of Hoofman (1961) and Inger (2013) that stockholder's benefits from tax savings of CTA are greater than its costs.

5.3. Robustness check

5.3.1. Alternative proxies of firm value

Based on Desai and Dharmapala (2009), we use the market value of equity scaled by lagged total assets as a proxy of Tobin's q to check the robustness of our regression results. We use equation (4) to examine the effect of CTA on market value:

$$MV_{i,t} = \beta_0 + \beta_1 * MV_{i,t-1} + \beta_2 * BTD_{i,t} + \beta_3 * Control_{i,t} + Industry + Year + \varepsilon_{i,t} \quad (4)$$

where $MV_{i,t}$ is the market value of equity of firm i in year t; $BTD_{i,t}$ is the book-tax difference calculated by Frank, Lynch and Rego (2009). $Control_{i,t}$ is a vector of the control variables. The variables in equation (4) are defined in Table 1.

Table 4 presents the regression results of equation (4) using MV as the dependent variable:

[Insert Table 4 here]

In Table 4, we regress MV on BTD and the control variables using FE, OLS, and Paris-Winsten estimators and report the results in columns 1, 2, and 3, respectively. Consistent with the results reported in our baseline regression in Table 3 (equation 3), the coefficients of BTD is positive and significant at 1% level in all columns in Table 4.

5.3.2. *Alternative measures of corporate tax avoidance*

Based on Desai and Dharmapala (2006), and Dyreng, Hanlon and Maydew (2008), we used discretionary total BTD (DBTD) and long-run cash effective tax rate (LCETR) as alternative proxies for CTA. First, we use DBTD as an alternative proxy for CTA. Isolating the effect of earnings management on BTD, the DBTD is extracted from the residual in the following regression:

$$BTD_{i,t} = \gamma_0 + \gamma_1 ACC_{i,t} + \epsilon_{i,t} \quad (5)$$

where $BTD_{i,t}$, and $ACC_{i,t}$ is the book-tax difference and total accrual of firm i in year t , respectively. The higher DBTD, the higher the level of CTA a firm employs.

Second, we measure CTA by LCETR. We calculate the ratio of a firm's cash payment for taxes over a five year period and the sum of its total pre-tax income over the same period. The LCETR represents the proportion of taxes and business income in the long term, and hence a firm with a lower LCETR is more likely to engage in CTA.

$$LCETR_{i,t} = \frac{\sum_{t=1}^5 CASH_TAX_{i,t}}{\sum_{t=1}^5 PI_{i,t}} \quad (6)$$

where $LCETR_{i,t}$, $CASH_TAX_{i,t}$, and $PI_{i,t}$ are the long run cash effective tax rate, cash paid for taxes, and pre-tax income of a firm i at the end of year t , respectively. The value of LCETR fall in a range from zero to one. The higher the LCETR, the lower the level of CTA a firm employs.

To check the robustness of our regression results (equation 3), we alternatively use the aforementioned proxies of CTA and firm value as the dependent variable and variable-of-interest in our baseline model.

We use equations (7) to (10) to examine the valuation implication of CTA.

$$Q_{i,t} = \delta_0 + \delta_1 * Q_{i,t-1} + \delta_2 * DBTD_{i,t} + \delta_3 * Control_{i,t} + Industry + Year + \varepsilon_{i,t} \quad (7)$$

$$Q_{i,t} = \eta_0 + \eta_1 * Q_{i,t-1} + \eta_2 * LCETR_{i,t} + \eta_3 * Control_{i,t} + Industry + Year + \varepsilon_{i,t} \quad (8)$$

$$MV_{i,t} = \theta_0 + \theta_1 * MV_{i,t-1} + \theta_2 * DBTD_{i,t} + \theta_3 * Control_{i,t} + Industry + Year + \varepsilon_{i,t} \quad (9)$$

$$MV_{i,t} = \lambda_0 + \lambda_1 * MV_{i,t-1} + \lambda_2 * LCETR_{i,t} + \lambda_3 * Control_{i,t} + Industry + Year + \varepsilon_{i,t} \quad (10)$$

where $Q_{i,t}$, $MV_{i,t}$, $BT D_{i,t}$, $DBTD_{i,t}$, and $LCETR_{i,t}$ are Tobin's q , the market value of equity, book-tax difference, discretionary book-tax difference and the long run cash effective tax rate of firm i in year t . $Control_{i,t}$ is a vector of the control variables. The variables in equations (7) to (10) are defined in Table 1.

Table 5 presents the regression results of our robustness tests (equations (7) to (10)).

[Insert Table 5 here]

The first four columns in Table 5 shows the regression results of equations (7) and (8) using FE and OLS estimation. The result shows the coefficient of DBTD is positive and significant at 1% level in column 1 (0.485) and 5% level in column 2 (0.418). The coefficient of LCETR is negative and statistically significant at 5% level in column 3 (-0.125) and 10% level in column 4 (-0.0655).

Using the same estimators and control variables, we regress MV on DBTD and LCETR and report the results (equations (9) and (10)) in the last four columns in Table 5. The coefficient of DBTD is positive and statistically significant at 1% level in columns 5 and 6 (1.144 and 1.378, respectively). Likewise, the coefficient of LCETR is -0.199 and significant at 5% level in column 7 and is - 0.149 and significant at 10% level in column 8.

Collectively, the significantly positive relationship between CTA and firm value still hold after employing different proxies of CTA and firm value.

5.3.3. *Endogeneity diagnostics*

The presence of the lag dependent variables leads to endogeneity problems, and hence the fixed effect model might be biased. To deal with the dynamic panel bias arising from the correlation between firm-level unobserved heterogeneity in the error term and the lagged value of the dependent variable, we employ the system -GMM estimation method for panel data to evaluate the impact of CTA on Tobin's q (Blundell & Bond 1998). The system GMM regression results of equations (4), (7), and (8) are reported in Table 6.

[Insert Table 6 here]

We use a set of internal instruments including the lagged levels and lagged differences of firm value, CTA, and control variables to removed firm-level unobserved heterogeneity in the error term in the first different equations and make them orthogonal to the error term. Table 6 shows the Difference-in-Hansen test and Arellano and Bond (1991) test, including first-order (AR (1)) and second-order autocorrelation (AR (2)), which shows the instruments are valid. There is no autocorrelation in the first differenced error term, and a group of instruments is exogenous. The results in Table 6 are robust to the baseline regression

results reported in Table 3. The coefficient of BTD (0.456) and DBTD (0.355) is significant at the 5% level and 10% level, respectively. The coefficient of LCETR (-0.0785) is significant at the 10% level.

5.4. *The effect of the board of directors on the valuation implication of corporate tax avoidance.*

To examine the effect of BoD on CTA-firm value relationship, we use four characteristics of the BoD, including the size of the BoD (BSIZE), independence of the BoD (NED, number of non-executive directors on the BoD), female representation (FEMALE) and CEO duality (DUA). Next, we generate the interaction term between BTD and BSIZE (BTD*BSIZE), NED (BTD*NED), FEMALE (BTD*FEMALE) and DUA (BTD*DUA) and then include each of these variables into our model to further analyse the effect of the BoD on the valuation implication of CTA. We use equations (11) to (18) to investigate the joint effect of BTD and the BoD on firm value.

$$Q_{i,t} = \varphi_0 + \varphi_1 * Q_{i,t-1} + \varphi_2 * BTD_{i,t} * NED_{i,t} + \varphi_3 * Control_{i,t} + Industry + Year + \varepsilon_t \quad (11)$$

$$Q_{i,t} = \omega_0 + \omega_1 * Q_{i,t-1} + \omega_2 * BTD_{i,t} * DUA_{i,t} + \omega_3 * Control_{i,t} + Industry + Year + \varepsilon_t \quad (12)$$

$$Q_{i,t} = \nu_0 + \nu_1 * Q_{i,t-1} + \nu_2 * BTD_{i,t} * FEMALE_{i,t} + \nu_3 * Control_{i,t} + Industry + Year + \varepsilon_t \quad (13)$$

$$Q_{i,t} = \sigma_0 + \sigma_1 * Q_{i,t-1} + \sigma_2 * BTD_{i,t} * BSIZE_{i,t} + \sigma_3 * Control_{i,t} + Industry + Year + \varepsilon_t \quad (14)$$

$$MV_{i,t} = \tau_0 + \tau_1 * MV_{i,t-1} + \tau_2 * BTD_{i,t} * NED_{i,t} + \tau_3 * Control_{i,t} + Industry + Year + \varepsilon_t \quad (15)$$

$$MV_{i,t} = \varsigma_0 + \varsigma_1 * MV_{i,t-1} + \varsigma_2 * BTD_{i,t} * DUA_{i,t} + \varsigma_3 * Control_{i,t} + Industry + Year + \varepsilon_t \quad (16)$$

$$MV_{i,t} = \rho_0 + \rho_1 * MV_{i,t-1} + \rho_2 * BTD_{i,t} * FEMALE_{i,t} + \rho_3 * Control_{i,t} + Industry + Year + \varepsilon_t \quad (17)$$

$$MV_{i,t} = \epsilon_0 + \epsilon_1 * MV_{i,t-1} + \epsilon_2 * BTD_{i,t} * BSIZE_{i,t} + \epsilon_3 * Control_{i,t} + Industry + Year + \varepsilon_t \quad (18)$$

where $Q_{i,t}$, and $MV_{i,t}$ are Tobin's q and market value of equity of firm i in year t. $BTD_{i,t} * NED_{i,t}$, $BTD_{i,t} * DUA_{i,t}$, $BTD_{i,t} * FEMALE_{i,t}$, and $BTD_{i,t} * BSIZE_{i,t}$, $DBTD_{i,t}$, and $LCETR_{i,t}$ is the interaction term between book-tax difference and number of non-executive directors on the BoD, CEO duality, female representation and the size of the BoD, respectively. $Control_{i,t}$ is a vector of the control variables. The variables in equations (11) to (18) are presented in Table 1.

Table 7 reports the regression results.

[Insert Table 7 here]

Table 7 reports the regression results using Q (the first four columns) and MV (the last four columns) alternatively as the dependent variable. The coefficient of $BTD * NED$ is 0.178 and significant at 1% level in column 1. This indicates that the effect of a one-unit increase in BTD on Tobin's q increase by 0.178 for an additional non-executive member appointed to the BoD. The significantly positive coefficient of $BTD * NED$ in column 5 means that the effect of a one-unit increase in BTD on market value also increases by 0.389 for an additional non-executive member appointed to the BoD. In other words, the positive effect of BTD on firm value is greater in firms with more non-executive directors on the BoD. This result is consistent with Lannis and Richardson (2011), and Minick and Noga (2010) that the dominance of outsiders or non-executive directors on the BoD can monitor managerial actions and strengthen the independence of the BoD to protect stockholders' interests in term of CTA.

Similarly, the coefficient of $BTD * DUA$ is statistically significant at the 1% level in both columns 2 and 6 in Table 7 (1.017 and 1.888, respectively). These results indicate that the positive effect of BTD on firm value can be intensified when the CEO is not the Chairman of the BoD. In line with Jensen (1993) and Abdul Wahab et al. (2017) arguments, separating the chairperson of the BoD and CEO position can contribute to an effective monitoring mechanism over management performance.

Further, the results in columns 4 and 8 in Table 7 show the effect of BTD controlling for female representation on firm value. The coefficient of $BTD * FEMALE$ is statistically significant and positive in both columns (0.737 and 0.1642, respectively). This means that the positive effect of BTD on firm value is greater if the BoD has at least one female member. Consistent with Richardson, Taylor and Lanis (2016), our results suggest that female members are more likely to be independent, which enhances the effectiveness of the BoD in monitoring agency conflicts between shareholders and managers in term of the tax planning strategy.

Finally, both coefficients of $BTD * BSIZE$ are significant at 1% level in columns 3 (0.121) and 7 (0.258) in Table 7. These results indicate that the effects of BTD on firm value can be intensified in firms with a larger board. This is similar to Kiel and Nicholson (2003), and Adams and Mehran (2005) findings that a large board of directors might contribute to enhancing firm value because they can provide high-quality advice for strategic decisions.

According to the Corporate Governance Circular in 2012 (Ministry of Finance, 2012), the numbers of the BoD are from five to eleven members who may not be shareholders of a listed firm in Vietnam. While there are no quotas for women on the BoD, one-third of the members must be non-executive members. Additionally, the CEO of a listed firm can be the Chairman of the BoD if the general meeting of shareholders (GMS) approves. Although many firms meet these requirements, there is a debate over the role of BoD in addressing agency conflicts and protecting stockholders' benefit (Vo and Phan 2013; Vo and Nguyen 2014). Our result is consistent with prior research (Vo and Nguyen 2014; Nguyen, Locke and Reddy 2015) which shows that the BoD's independence and female members on the BoD positively impact the firm performance and firm value of Vietnamese non-financial listed firms. Our result contrasts the findings of Vo and Phan (2013) which show that CEO could understand a firm's operation comprehensively and make better decisions if he is also the Chairman of the BoD in Vietnamese non-financial listed firms.

Based on the agency theory, our empirical result suggests that the BoD can align agency conflicts between stockholders and managers and thus motivate value-enhancing CTA in Vietnamese non-financial listed firms.

6. Conclusion

Responding to the call for further research on the “black box” of firm tax strategies, which has been increasing in recent decades, we examine how CTA influence firm value. Broadly consistent with previous studies, we find a positive impact of CTA on firm value in a sample of Vietnamese non-financial listed firms for the 2007-2018 period. This means Vietnamese non-financial listed firms perceived CTA as a tax-savings device which can transfer cash from the government to firms in the context of redundant tax incentives and lack of transparency as well as weak tax administration. Further, we consider the role of BoD in the CTA-firm value relationship. We find a positive joint effect of CTA and BoD on firm value. Our result suggests that effective BoD can reduce agency conflicts in tax planning between stockholders and managers in Vietnam. If CTA is an enhancing-value activity, its positive effect on firm value can be intensified in firms with a larger BoD, more non-executive directors on the BoD, the representation of female on the BoD, and separating CEO and BoD’s chairman role.

The finding of our study provides some practical implications for investors, firms and policymakers. First, as CTA affect positively firm value among Vietnamese non-financial listed firms, investors can benefit from insightful analyses of the firm’s tax strategy to make better investment decisions. Investors can take the efficiency of the BoD in monitoring management and protecting their interests into account when making a decision. Second, our finding suggests that non-financial listed firms can enhance firm value by improving the effectiveness of the BoD as an internal corporate governance mechanism. Each firm can consider to increase the independence of the BoD with an appropriate proportion of the non-executive directors and separate the role of CEO and BoD’s Chairman. Vietnamese non-financial listed firms can also

take into account the attendance of female members on the BoD. Women are not likely to be appointed on the BoD in Vietnam even if they have high skills, experience and knowledge. While there is no legal framework and regulation governing female representation on the BoD, our result suggests that female directors should be included in the BoD. Similar to the effect of non-executive directors of the BoD, female directors provide rigorous monitoring mechanism and contribute to the effectiveness of the BoD in protecting shareholder's interests (Adams & Ferreira 2009). Finally, this study also provides implications for policymakers in revising the current corporate governance regulations and taking further reforms to enhance the accountability to investors.

To the best of our knowledge, this is the first report of a positive effect of CTA and joint effect between CTA and BoD on firm value in Vietnam listed firms. This study sheds light on the existing literature by providing empirical evidence of the reasons driving the mixed results of the valuation implication of CTA. Future research in this field may seek to extend the explanations of how CTA can affect firm value and other factors influencing its impact on firm value using international samples.

References

- Abdul Wahab, EA, AM Ariff, M Madah Marzuki and Z Mohd Sanusi (2017). Political connections, corporate governance, and tax aggressiveness in Malaysia. *Asian Review of Accounting*, 25, 424-451.
- Adams, RB and H Mehran (2005). Corporate performance, board structure and its determinants in the banking industry. "EFA 2005 Moscow meetings", pp. 1-14. 8 August.
- Arellano, M and S Bond (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58, 277-297.
- Black, B, AG De Carvalho, V Khanna, W Kim and B Yurtoglu (2014). Methods for multicountry studies of corporate governance: Evidence from the BRIKT countries. *Journal of Econometrics*, 183, 230-240.
- Blaylock, BS (2011). Do Managers Extract Economically Significant Rents through Tax Aggressive Transactions? Oklahoma State University Working Paper.
- Blundell, R and S Bond (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87, 115-143.
- Carnahan, M (2015). Taxation challenges in developing countries. *Asia & the Pacific Policy Studies*, 2, 169-182.

Chen, X, N Hu, X Wang and X Tang (2014). Tax avoidance and firm value: evidence from China. *Nankai Business Review International*, 5, 25-42.

Chung, SG, BW Goh, KBJ Lee and TJ Shevlin (2015). Corporate tax aggressiveness and managerial rent extraction: Evidence from insider trading. Research Collection School of Accountancy Working Paper.

Connolly, RA and M Hirschey (2005). Firm size and the effect of R&D on Tobin's q. *R&D Management*, 35, 217-223.

Dechow, PM, RG Sloan and AP Sweeney (1995). Detecting earnings management. *Accounting Review*, 70, 193-225.

Desai, MA and D Dharmapala (2006). Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics*, 79, 145-179.

Desai, MA and D Dharmapala (2009). Corporate tax avoidance and firm value. *The Review of Economics and Statistics*, 91, 537-546.

De Simone, L (2016). Does a common set of accounting standards affect tax-motivated income shifting for multinational firms? *Journal of Accounting and Economics*, 61, 145-165.

Dinh, TQ and A Calabrò (2019). Asian family firms through corporate governance and institutions: a systematic review of the literature and agenda for future research. *International Journal of Management Reviews*, 21, 50-75.

Dinh, QX (2000). The political economy of Vietnam's transformation process. *Contemporary Southeast Asia*, 22, 360-388.

Dyreng, SD, M Hanlon and EL Maydew (2008). Long-run corporate tax avoidance. *The Accounting Review*, 83, 61-82.

Dyreng, SD, M Hanlon, EL Maydew and JR Thornock (2017). Changes in corporate effective tax rates over the past 25 years. *Journal of Financial Economics*, 124, 441-463.

Frank, MM, LJ Lynch and SO Rego (2009). Tax reporting aggressiveness and its relation to aggressive financial reporting. *The Accounting Review*, 84, 467-496.

Giang, NTH (2015). Legal Changes in Tax Penalties Applied to Enterprises in Vietnam in the International Integration. *VNU Journal of Science: Economics and Business*, 31, 23-32.

Hai, BX and C Nunoi (2008). Corporate governance in Vietnam: A system in transition. *Hitotsubashi Journal of Commerce and Management*, 42, 45-65.

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, 126-141.

Hanlon M and S Heitzman (2010). A review of tax research. *Journal of Accounting and Economics*, 50, 127-178.

Hoffman, WH (1961). The theory of tax planning. *The Accounting Review*, 36, 274-281.

Inger, KK (2014). Relative valuation of alternative methods of tax avoidance. *The Journal of the American Taxation Association*, 36, 27-55.

Jensen, MC (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, 48, 831-880.

Jiraporn, P, GA Miller, SS Yoon and YS Kim (2008). Is earnings management opportunistic or beneficial? An agency theory perspective. *International Review of Financial Analysis*, 17, 622-634.

Jo, H and MA Harjoto (2011). Corporate governance and firm value: The impact of corporate social responsibility. *Journal of Business Ethics*, 103, 351-383.

Kawor, S and HK Kportorgbi (2014). Effect of tax planning on firms market performance: Evidence from Listed Firms in Ghana. *International Journal of Economics and Finance*, 6, 162-168.

Kiel, GC, and GJ Nicholson (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance: An International Review*, 11, 189-205.

Kim, JB, Y Li and L Zhang (2011). Corporate tax avoidance and stock price crash risk: Firm-level analysis. *Journal of Financial Economics*, 100, 639-662.

Lanis, R and G Richardson (2011). The effect of board of director composition on corporate tax aggressiveness. *Journal of Accounting and Public Policy*, 30, 50-70.

Li, Q, EL Maydew, RH Willis and L Xu (2017). Taxes and Director Independence: Evidence from Board Reforms Worldwide. Vanderbilt Owen Graduate School of Management Working Paper No 19-12.

Lien, TTH and DA Holloway (2014). Developments in corporate governance: The case of Vietnam. *Corporate Ownership & Control*, 11, 219-230.

Love, I and LF Klapper (2002). Corporate governance, investor protection, and performance in emerging markets. *Journal of Corporate Finance*, 10, 703-728.

Maury, B and Pajuste A (2005). Multiple large shareholders and firm value. *Journal of Banking & Finance*, 29, 1813-1834.

Mills, L, S Nutter and C Schwab (2013). Do federal contractors suffer tax-related political costs?. *The Accounting Review*, 88, 977-1005.

Ministry of Finance (2012). *Circular No. 121/2012/TT-BTC dated on July 26, 2012 issuing the regulations on corporate governance which is applied to public companies*. Hanoi: Ministry of Finance.

Minnick, K and T Noga (2010). Do corporate governance characteristics influence tax management?. *Journal of Corporate Finance*, 16, 703-718.

National Assembly of Vietnam (2008). *Law No 14/2008/QH12 of June 3, 2008, on enterprise income tax*. Hanoi: National Assembly of Vietnam.

National Assembly of Vietnam (2013). *Law No. 32/2013/QH13 of June 19, 2013, on the amendments to the law on enterprise income tax*. Hanoi: National Assembly of Vietnam.

National Assembly of Vietnam (2014). *Law No. 71/2014/QH13 of November 26, 2014, on the amendments to tax laws*. Hanoi: National Assembly of Vietnam.

Nguyen, NA, QH Doan and B Tran-Nam (2017). Tax corruption and private sector development in Vietnam. *The eJournal of Tax Research*, 15, 290-311.

Nguyen, T, S Locke and K Reddy (2015). Does boardroom gender diversity matter? Evidence from a transitional economy. *International Review of Economics and Finance*, 37, 184-202.

Park, J, CY Ko, H Jung and YS Lee (2016). Managerial ability and tax avoidance: evidence from Korea. *Asia-Pacific Journal of Accounting and Economics*, 23, 449-477.

- Richardson G, G Taylor and R Lanis (2016). Women on the board of directors and corporate tax aggressiveness in Australia: An empirical analysis. *Accounting Research Journal*, 29, 313-331.
- Tang, TY (2017). The value implications of tax avoidance across countries. *Journal of Accounting, Auditing and Finance*, 34, 615-638.
- Vo, D and T Phan (2013). Corporate governance and firm performance: Empirical evidence from Vietnam. *Journal of Economic Development*, 7, 62-78.
- Vo, DH and TM Nguyen (2014). The impact of corporate governance on firm performance: Empirical study in Vietnam. *International Journal Economic and Finance*, 6, 1-13.
- Vu, K 2008. *Economic reform and growth performance: China and Vietnam in comparison*. Lee Kuan Yew School of Public Policy.
- Wahab, NSA and K Holland (2012). Tax planning, corporate governance and equity value. *The British Accounting Review*, 44, 111-124.
- Wang T (2010). Tax Avoidance, Corporate Transparency and Firm Value. PhD diss., University of Texas at Austin.
- Wernerfelt, B and CA Montgomery (1988). Tobin's q and the importance of focus in firm performance. *The American Economic Review*, 78, 246-250.
- Wilson, RJ (2009). An examination of corporate tax shelter participants. *The Accounting Review*, 84, 969-999.
- Wong, RM, JB Kim and AW Lo (2015). Are related-party sales value-adding or value-destroying? Evidence from China. *Journal of International Financial Management & Accounting*, 26, 1-38.
- World Bank and Government Inspectorate of Vietnam (2012). Corruption from the Perspectives of Citizens, Firms and Public Officials: Results of Sociological Surveys.