



AN ANALYSIS OF THE AGENCY PERSPECTIVE ON TAX AVOIDANCE AND FIRM VALUE UNDER DIFFERENT CORPORATE GOVERNANCE STRUCTURES: THE CASE OF FIRMS IN THE PHILIPPINE STOCK EXCHANGE

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Abstract: Low tax effort has been a persistent fiscal problem in the Philippines, despite major tax reforms, partly attributable to tax avoidance. However, it is largely ignored in the literature because it is perceived as an inevitable consequence of the taxation game, arising from supposedly conflicting objectives between the government trying to maximize tax revenues and the taxpayers wishing to minimize tax liabilities and preserve firm value. Results from a System GMM Dynamic Linear Panel Data Estimation on a unique panel dataset from frequently-traded firms in the Philippine Stock Exchange, however, show that corporate tax avoidance may, at best, have no effect, and at worst, actually increase stock price crash risk and erode firm value, contrary to intuition. We posit that this may be explained by principal-agent problems inherent in corporations. Corporate tax avoidance, with its natural complexity, heightens information asymmetry that allows for managerial opportunism in the form of rent extraction and bad news hoarding, eroding firm value and increasing stock price crash risk. Furthermore, we examine whether the modified incentives arising from different corporate governance structures affect this relationship. We find that the destabilizing effect of tax aggressiveness on stock prices is pronounced in family- and group-affiliated firms, and that corporate governance structure does not affect the relationship of tax avoidance and long-term firm value. The findings imply that the aforementioned conflict between taxpayers and the government is non-existent, and that the corporate governance structure can play a role in minimizing stock price crash risk, allowing for various implications for tax policy.

Key Words: agency perspective; corporate tax avoidance; firm value; stock price crash risk; corporate governance

1. INTRODUCTION

Poor tax collection has played a large role in the fiscal woes of the Philippine government. As seen in Figure 1, tax effort has failed to keep up with economic growth during the last 15 years, depriving the government of the necessary fiscal flexibility for public services amidst a growing population. Diokno (2005) demonstrates that despite two major tax reforms in recent years, tax effort has maintained its declining trend.

However, we find that research on taxation has only focused on one actor in the taxation game - the government and tax regimes. We shift our focus to the taxpayers because tax avoidance has been a large contributing factor to this progressively declining tax effort of the Philippines. Manasan (2003) finds that tax credits and exemptions waived revenues equivalent to 37.9 billion PHP or 1.1% of GDP in the year 2000.

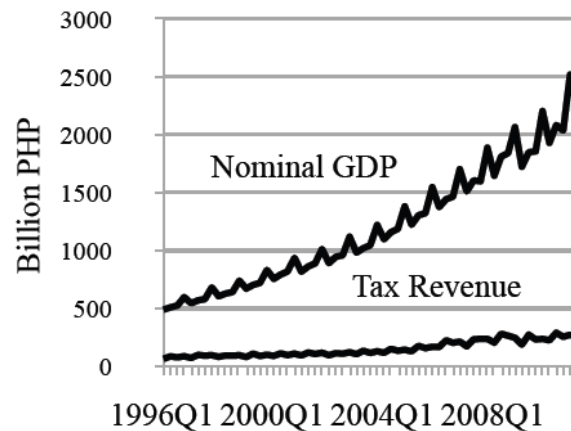


Figure 1. Quarterly Tax Effort in the Philippines, 1996Q1-2011Q1

Intuition would suggest that corporate tax avoidance activities undertaken by a firm increase shareholder value by reducing the tax liabilities and preserving the productive assets of the firm (Kim, Li, & Zhang, 2011). However, recent research incorporating agency perspectives into the relationship of corporate tax avoidance provides evidence that tax avoidance is not merely a reappropriation of wealth from the state to the shareholders, but in reality, involves self-interested managerial actors who expropriate wealth from both the state and the shareholders. Shareholders may then actually benefit from abstaining from tax avoidance activities.

The prevalence of tax avoidance in the Philippines, shown in Manasan (2003), gives rise to the importance of its analysis in relation to government policy, firm valuation, and corporate governance. Manasan (1988) asserts that tax avoidance “decreases tax revenue, impairs the distributive role of the tax system, skews the allocation of resources towards less productive activities in the economy, and consequently, undermines fiscal and monetary policies.”

This paper goes beyond the legal basis and undertakes a more pragmatic approach to characterizing tax avoidance. It explores a new perspective that is contrary to the general contention that tax avoidance activities are undertaken to enhance value. This paper considers the possibility that corporate tax avoidance erodes value and increases the risk of stock price crashes because information asymmetry and principal-agent problems provide managers with the means for engaging in self-interested non-value maximizing activities. We further explore the effect of family and group affiliation on how tax avoidance activities translate into either positive or negative firm valuation and stock price crash risk.

This paper attempts to provide empirical evidence of the valuation and volatility effects of corporate tax avoidance activities under different corporate governance structures. Thus, we pose the research questions: (a) How do corporate tax avoidance activities affect firm value and stock price crash risk for frequently-traded firms in the Philippine Stock Exchange? and (b) How does this relationship fare amidst differences in corporate governance structures in terms of family or group affiliation?



Research Objectives

This paper aims to:

1. Examine and determine the dynamics between tax avoidance, and firm value and stock price crash risk for frequently-traded firms in the Philippine Stock Exchange in the context of the principal-agent framework.
2. Examine the relationship between tax avoidance, and firm valuation and stock price crash risk in the face of different corporate governance structures.
3. Abstract economic implications relevant to issues of corporate governance, public taxation and tax avoidance activities, and firm valuation by investors.

Significance of the Study

The analysis and results of this paper are useful for corporate stockholders and management, government, and investors, among others. The establishment of the aforementioned relationships provides a pragmatic disincentive for engaging in tax avoidance activities. Stockholders, particularly those with minority interests, will be able to protect their shareholder value and minimize the risk of stock price crashes by considering the role of external monitoring and corporate governance. As for the government, eliminating the conflict of interest in tax avoidance activities will boost tax revenues and improve tax administration. Governments will also be able to evaluate the effectiveness of tax credits and exemptions, as they are primarily undertaken to increase firm value for reinvestment. Investors' accuracy in firm valuation and efficiency in financial capital markets will be enhanced with the greater transparency and the reduction of managerial obfuscation.

4. METHODOLOGY

Sample and Data Collection

We use a panel dataset that includes relevant firm-specific characteristics of publicly-listed firms in the Philippine Stock Exchange (PSE). We construct the financial information from secondary sources, namely annual financial statements of our sample firms over the eight-year period of 2003 to 2010. Our sample selection process consists of four steps: removing (a) firm-years for which data is incomplete, (b) firm-years in which firms are not frequently traded (Kim, Li, and Zhang, 2011), (c) financial firms (Liargovas and Skandalis, 2010), and (d) firm-years with losses.

Table 1. Descriptions of Variables used in the Study

Definition	
Firm Value Measures (Dependent Variable)	
NCSKEW	<p>Negative conditional skewness of firm-specific weekly returns; negative of the third moment of firm-specific weekly returns divided by the standard deviation of firm-specific weekly returns raised to the third power.</p> $NCSKEW_{it} = -\frac{n(n-1)^{3/2} \sum_{all\ w} W_{iw}^3}{(n-1)(n-2) \left(\sum_{all\ w} W_{iw}^2 \right)^{3/2}}$
TOBINSQ	<p>Tobin's q; sum of the market value of equity and book value of liabilities divided by the book value of assets.</p> $TOBINSQ_{it} = \frac{MVE_{it} + BVL_{it}}{BVA_{it}}$
Tax Avoidance Measures (Independent Variable)	
RBTD	<p>Residual Book-tax Difference; $RBTD_{it} = \mu_i + \varepsilon_{it}$ in fixed-effects regression:</p> $BTG_{it} = \beta_1 TA_{it} + \mu_i + \varepsilon_{it}$
PBTD	<p>Permanent Book-tax Difference; book-tax gap minus deferred tax expense grossed up by the statutory corporate tax rate.</p> $PBTD_{it} = BT_{it} - \frac{DTE_{it}}{r_t}$
LRETR	<p>Long-run Cash Effective Tax Rate; sum of cash taxes paid for 3 years, divided by the summation of the differences between pretax income and special items.</p> $LRETR_{it} = \frac{\sum_{k=t-2}^t CTP_{ik}}{\sum_{k=t-2}^t (Y_{ik} - SI_{ik})}$
Control Variables	
LI	Lag of the dependent variable.
DTURN	Detrended yearly stock turnover; yearly share turnover divided by shares outstanding minus its lag value.
NCSKEW	Negative Conditional Skewness of Firm-specific Weekly Returns; defined above, but lagged.
SALG	Top-line growth; net sales in the contemporaneous period divided by net sales in prior period minus 1.
SIZE	Size; log of firm's stock market capitalization
LEV	Leverage or Debt Ratio; total long-term debts divided by total assets
Corporate Governance Structure Measures (Model 2 only)	
FAMILY	Dummy variable for family affiliation; 1 if family is majority shareholder AND at least one family member is a director or an officer involved in tax matters (e.g. CEO or CFO), 0 otherwise.
GROUP	Dummy variable for group affiliation; 1 if firm engages in at least one related party transaction to a parent, subsidiary, or affiliate, 0 otherwise.

Model Specification

We specify our first model, Model (1), as follows:

$$VALVAR_{i,t} = \beta_1 VALVAR_{i,t-1} + \beta_2 TAXVAR_{i,t-1} + C' CONTROL_{i,t-1} + \varepsilon_{i,t-1}$$

where $VALVAR_{it}$ is the measure of firm value and stock price crash risk of firm i for year t ($NCSKEW_{it}$ and $TOBINSQ_{it}$). $TAXVAR_{i,t-1}$ is the lagged measure of tax avoidance of firm i for year $t-1$ ($RBTD_{i,t-1}$, $PBTD_{i,t-1}$, and $LRETR_{i,t-1}$). C' is the vector for the coefficients of the control variables and $CONTROL_{i,t-1}$ is the vector of control variables.

The error component $\varepsilon_{i,t-1}$ subsumes both firm-specific fixed effects v_i and the observation specific stochastic component e_{it} , such that $\sum_{it} = v_i + e_{it}$. The second hypothesis is tested using Model (2), which is augmented by the interaction variables representing family and group affiliation as follows:

$$VALVAR_{i,t} = \beta_1 VALVAR_{i,t-1} + \beta_2 TAXVAR_{i,t-1} + \beta_3 STRUC_i + \beta_4 (TAXVAR_{i,t-1} \times STRUC_i) + C' CONTROL_{i,t-1} + \varepsilon_{i,t-1}$$

Detailed descriptions of the variables can be found in Table 1.

Estimation Procedure and Inference Tests

The Blundell-Bond Dynamic Linear Panel Estimator, first developed and described in Blundell and Bond (1998) is used for our panel dataset and model specification. This estimator provides unique advantages, including: (a) consistency for short panels, (b) instrumentation of the dependent variable with its lagged levels and differences, eliminating autocorrelation, (c) ability to accommodate regressors that are not strictly exogenous, (d) capability to control for time invariant firm-specific effects (Blundell and Bond, 1998). We use the Arellano-Bond test for zero autocorrelation developed in Arellano and Bond (1991) to test for autocorrelation, the Variance Inflation Factor (VIF) test to test for multicollinearity.

5.RESULTS AND DISCUSSION

The results of our econometric analysis are tabulated and summarized in Table 2. Model 1 results reveal a highly significant positive relationship between $LRETR$ and the two firm value variables, $NCSKEW$ and $TOBINSQ$. However, $PBTD$ and $RBTD$ have a negative but insignificant relationship with $NCSKEW$ and $TOBINSQ$. These results support the hypothesis purported in the theoretical framework. Thus, the positive relationship between $LRETR$ and $NCSKEW$ as well as $TOBINSQ$ means that as $LRETR$ increases (more taxes paid, which indicates lower incidence of tax avoidance), stock price crash risk falls and firm value rises. Conversely, tax avoidance is seen to increase stock price crash risk (signified by $NCSKEW$) and erode firm value in the long run (signified by $TOBINSQ$). For our other measures of tax avoidance, $PBTD$ and $RBTD$, we find that there is no significant effect on stock price crash risk and firm value. This is nevertheless contrary to the intuition that tax avoidance activity should enhance firm value and stabilize stock returns. Control variables and inference tests support the robustness of estimates.

Table 2. Model 1 Results

Panel A: Blundell-Bond System GMM Estimation on NCSKEW

	TAXVAR		
	LRETR	PBTD	RBTD
<i>Tax Avoidance Variable</i>			
TAXVAR	0.0199065** (0.020)	-9.60e-12 (0.542)	-1.42e-11 (0.534)
<i>Control Variables</i>			
L1	-0.0127745 (0.763)	-0.0035525 (0.934)	-0.0063682 (0.890)
DTURN	0.0748539*** (0.008)	0.0791203*** (0.001)	0.0824496*** (0.001)
SIZE	0.1124354*** (0.006)	0.1146657** (0.019)	0.151029** (0.043)
LEV	-0.2929542 (0.656)	-0.3921036 (0.399)	-0.4553802 (0.289)
SALG	0.0000692 (0.686)	-0.0000792 (0.677)	-0.0000408 (0.827)
Constant	-2.830376*** (0.001)	-2.766732*** (0.009)	-3.574964** (0.024)
No. of Observations	650	650	650
No. of Firms	145	145	145
Overall Wald's Test	0.0031***	0.0101**	0.0131**
<i>Arellano-Bond Test</i>			
AR(1)	0.0000	0.0000	0.0000
AR(2)	0.9336*	0.8739*	0.8958*

Panel B: Blundell-Bond System GMM Estimation on TOBINSQ

	TAXVAR		
	LRETR	PBTD	RBTD
<i>Tax Avoidance Variable</i>			
TAXVAR	0.0057121** (0.032)	7.08e-13 (0.877)	1.23e-12 (0.839)
<i>Control Variables</i>			
L1	-0.0047844 (0.458)	-0.0046175 (0.476)	-0.0048104 (0.463)
DTURN	0.0569849* (0.074)	0.0530875 (0.116)	0.0521342 (0.120)
SIZE	0.1043322** (0.048)	0.0932083* (0.056)	0.1099466** (0.030)
LEV	-0.8801544 (0.302)	-0.8157927 (0.238)	-1.034076 (0.157)
SALG	0.0008804 (0.348)	0.0007814 (0.350)	0.0007968 (0.352)
Constant	-1.00843 (0.338)	-0.7198907 (0.466)	-1.063136 (0.303)
No. of Observations	650	650	650
No. of Firms	145	145	145
Overall Wald's Test	0.0018***	0.1057	0.0715*
<i>Arellano-Bond Test</i>			
AR(1)	0.0683*	0.0746*	0.0693*
AR(2)	0.5066*	0.4814*	0.4837*

* significant at the 0.10 significance level

** significant at the 0.05 significance level

*** significant at the 0.01 significance level

Figure 2. Bivariate Plots of Tax Avoidance and Firm Value Measures

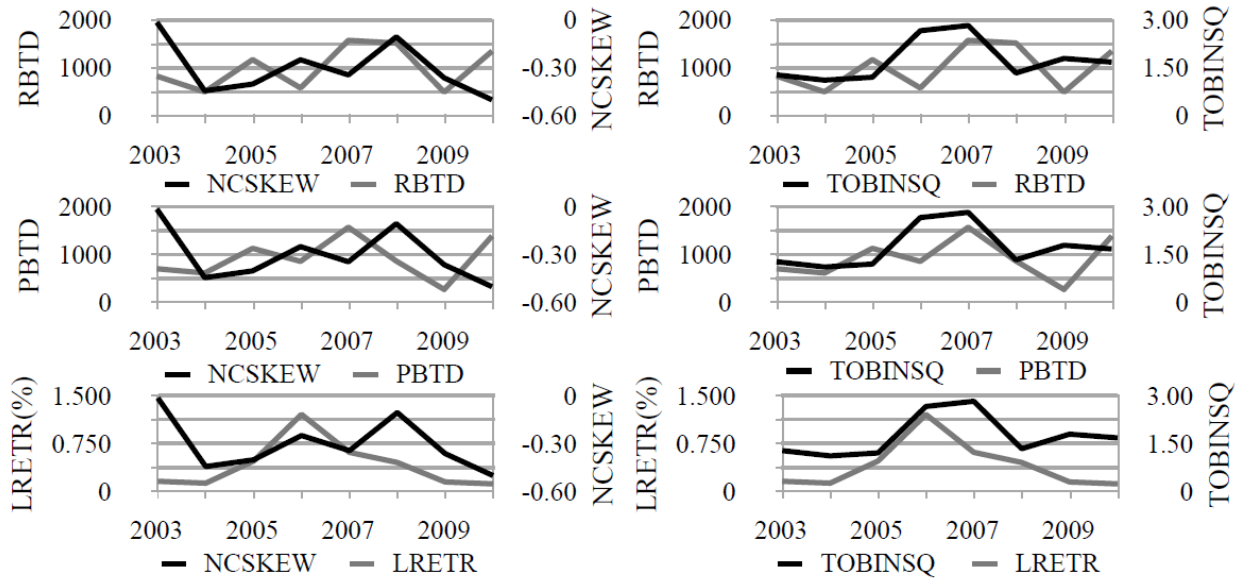


Table 3. Effect of Corporate Governance Structure: Group-Affiliated Firms

Table 4. Effect of Corporate Governance Structure: Family-Affiliated Firms

Panel A: Blundell-Bond System GMM Estimation on NCSKEW				Panel A: Blundell-Bond System GMM Estimation on NCSKEW			
	LRETR	TAXVAR PBTB	RBTD		LRETR	TAXVAR PBTB	RBTD
<i>Tax Avoidance Variable</i>				<i>Tax Avoidance Variable</i>			
TAXVAR	.0628902 (0.912)	3.57e-10 (0.154)	3.55e-10** (0.048)	TAXVAR	.0171993* (0.097)	-1.52e-11 (0.580)	-9.17e-12 (0.751)
<i>Corporate Governance Structure</i>				<i>Corporate Governance Structure</i>			
GROUP	-0.0903248 (0.820)	0.9903601** (0.042)	1.156922*** (0.007)	FAMILY	0.0753331 (0.761)	0.5339855** (0.025)	0.5467094** (0.014)
TAXVAR	-0.0434804 (0.939)	-3.67e-10 (0.143)	-3.69e-10** (0.040)	TAXVAR	.3566573*** (0.000)	4.82e-12 (0.866)	-7.04e-12 (0.819)
x GROUP				x FAMILY			
<i>Panel B: Blundell-Bond System GMM Estimation on TOBINSQ</i>				<i>Panel B: Blundell-Bond System GMM Estimation on TOBINSQ</i>			
	LRETR	TAXVAR PBTB	RBTD		LRETR	TAXVAR PBTB	RBTD
<i>Tax Avoidance Variable</i>				<i>Tax Avoidance Variable</i>			
TAXVAR	.1223375 (0.852)	1.56e-10 (0.592)	1.64e-10 (0.413)	TAXVAR	.00426 (0.731)	-2.43e-11 (0.443)	-1.09e-11 (0.743)
<i>Corporate Governance Structure</i>				<i>Corporate Governance Structure</i>			
GROUP	0.2313142 (0.617)	0.2921012 (0.608)	0.3772983 (0.450)	FAMILY	-0.1308594 (0.667)	-0.0822687 (0.765)	0.0135238 (0.958)
TAXVAR	-0.1167062 (0.859)	-1.55e-10 (0.593)	-1.63e-10 (0.416)	TAXVAR	0.0928162 (0.170)	2.85e-11 (0.388)	1.62e-11 (0.650)
x GROUP				x FAMILY			



We further examine the relationship between tax avoidance and firm value under different corporate governance structures by estimating Model 2, as summarized in Tables 3 and 4. The results show some evidence of a stronger relationship between tax avoidance and stock price crash risk for both family firms and group firms than in Model 1, as seen in the significance of the interaction variables in Panel A (NCSKEW) in Tables 3 and 4. However, we observe that the negative effect of tax avoidance on long-term firm value (TOBINSQ) is not significantly influenced by corporate governance structure, or is just as strong as the relationship established in Model 1.

6. CONCLUSIONS

Based on the results of estimating Model 1, the following conclusions may be formed: (1) in both the short-run and the long-run, the increased effective tax rate (or decreased tax avoidance activity) is associated with lower stock price crash risk and higher market valuation of the firm, and (2) in both the short-run and the long-run, book tax gaps (permanent and residual) do not seem to have significant relationships with firm value.

The following conclusions may be derived from the results of estimating Model 2: (1) in the short-run, family- and group-affiliated firms who undertake tax avoidance activity experience stronger negative impact on firm value and stock price crash risk, and (2) in the long-run, corporate governance structure does not affect the relationship between tax avoidance and firm value established in Model 1.

7. POLICY RECOMMENDATIONS

Because of the significance of the results pertaining to the nil to negative relationship of tax avoidance and market-based firm value and stock price stability, important policy implications may be abstracted.

For firms that have opportunities to avoid tax, there is now a pragmatic disincentive for engaging in tax avoidance activities, since this may be seen to increase the likelihood of stock price crashes and erode firm value both in the short run and the long run. At best, tax avoidance will not significantly add to a firm's value. It appears more beneficial for firms to abstain from tax avoidance to preserve firm value. Furthermore, shareholders can lobby to implement policies that can protect themselves from the muddled information environment that arises from tax avoidance, or be mindful of the risks introduced by investing in tax aggressive firms.

For portfolio managers, tax aggressiveness may be seen as an additional component of risk analysis, and measures of such activity may be used to increase the efficiency and accuracy of security valuation.

For the government, such a reaction from firms will lead to increased tax revenues and easier tax administration. Moreover, tax credits, allowances and exemptions, exploited by tax aggressive firms, and granted by the government to help corporations preserve firm value for reinvestment, are shown to be ineffective at best, and destructive at worst. The results prompt government to consider decreasing or discontinuing exemptions as they do not serve their purpose and decrease tax revenue.

The results on the effect of corporate governance structure should be of interest to investors, auditors, directors, regulators, tax authorities, minority shareholders and other individuals involved or



interested in a company's corporate governance regime. The results point to the possibility that expanded opportunities for tax avoidance brought about by the merger of ownership and control in family firms and related party transactions in group firms worsen the agency problem and muddle the information environment such that tax aggressiveness is more likely to be undertaken for opportunistic purposes. Therefore, investors, auditors, regulators, and tax authorities should take particular interest in tax aggressiveness of family- and group-affiliated firms as they could potentially affect their investment, audit, or investigation. Directors and shareholders, especially minority shareholders, should be wary of such activity and institute stricter monitoring of tax avoidance, so that they can effectively govern and safeguard their interest in such firms.

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