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Ownership structure and tax avoidance in Vietnam's listed securities firms: The moderating role of foreign directors, firm leverage, and the COVID-19 pandemic

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ABSTRACT

The purpose of this study is to investigate the connection between foreign ownership and tax avoidance among Vietnamese listed securities firms. It does this by focusing on the role of various other factors. This study uses data from 35 listed securities firms in Vietnam over a nine-year period (2015-2023). The Feasible Generalized Least Squares (FGLS) method is employed to estimate the impact of ownership structure on tax avoidance practices. The study reveals that foreign ownership plays a significant role in shaping tax avoidance practices, with greater foreign ownership leading to more aggressive tax planning strategies. We also discover that having a foreign director on boards has a stronger moderating effect, while firm leverage has a weaker moderating effect. The COVID-19 pandemic does not play a significant moderating role in the relationship between ownership structure and tax avoidance. The findings have important implications for policymakers, regulators, securities firms, and investors in Vietnam's securities market. They highlight the need for enhanced monitoring and regulation of firms with significant foreign ownership and foreign directors on board to ensure tax compliance. The results can inform investment decisions and corporate governance practices in the context of ownership structures and tax strategies.

Contribution/ Originality: This paper contributes to examining the impact of ownership structure on the tax avoidance behavior of listed securities firms in Vietnam, given the recent context of economic downturns and recovery. Research on this issue, particularly in Vietnamese securities firms, is limited.

1. INTRODUCTION

Tax administration practices worldwide face numerous challenges, among which the diversity of tax evasion and avoidance behaviors stands out. Businesses often avoid paying taxes because it is against the law and can lead to penalties. Tax evasion is the legal use of tax policies to intentionally lower tax liabilities. Some methods businesses use to optimize their tax obligations include selecting business structures to receive tax incentives, investing in projects that qualify for tax preferences, or exploiting legal loopholes in tax policy, such as deductible expenses. The study of tax avoidance behaviors and the factors that affect them is very important for figuring out how to respond to tax policies and figuring out which types of businesses tend to use the most aggressive tax avoidance strategies. This, in turn, helps identify and address gaps in national tax policies.

Ownership structure, especially foreign ownership, significantly influences corporate tax avoidance behaviour. Foreign-owned firms may adopt more aggressive tax planning techniques due to their expertise and wider access to international or sophisticated tax planning strategies (Alkurdi & Mardini, 2020; Klassen, Mescall, & Lisowsky, 2016). However, such firms might face difficulties engaging in tax avoidance because they face more reputational risks and additional scrutiny from tax authorities (Austin & Wilson, 2017; Dyreng, Hoopes, & Wilde, 2016).

The literature on ownership structure shows diverse results, with the majority of studies reporting that foreign ownership facilitates tax-related planning activities (Alkurdi & Mardini, 2020; Egger, Eggert, & Winner, 2010; Fuest & Hemmelgarn, 2005; Huizinga & Nicodème, 2006; Salihu, Annuar, & Obid, 2015); some found negative results (Badertscher, Katz, & Rego, 2013; Yoo & Koh, 2014), and some found no impact (Hasan, Kim, Teng, & Wu, 2022). The reason for the variations in results is that previous research analyzed diverse groups of enterprises across regions with varying tax policies and rates, with relatively limited studies addressing this issue for enterprises in Vietnam. Furthermore, prior studies have largely concentrated on non-financial firms during the period before the COVID-19 outbreak or within a short research period. Therefore, to fill in this gap, this study looks at both this relationship and how it affects listed securities firms in Vietnam, with COVID-19 in mind.

We investigate how ownership structure, particularly foreign ownership, influences the tax avoidance behaviors of 35 listed securities companies in Vietnam from 2015 to 2023, taking into account the moderating role of foreign directors, firm leverage, and the COVID-19 pandemic. To account for autocorrelation and heteroscedasticity issues, the Feasible Generalized Least Squares (FGLS) approach was utilized for analysis. Our results indicate that foreign ownership significantly enhances tax avoidance practices among Vietnamese securities firms. This effect is more pronounced when foreign directors are present on the board and when firms have higher leverage ratios. Conversely, the COVID-19 pandemic shows no influence on the relationship.

We chose to study securities firms in Vietnam for several reasons. First, as Vietnam transitions from a centrally planned to a market-driven economy, the government has been liberalizing foreign ownership restrictions of various sectors, including securities firms, which provides an interesting context for this study. Second, Vietnam's securities market is relatively young and rapidly developing, marked by the growing involvement of foreign investors in the country's financial sector. Third, securities firms hold a significant role in the capital market and are subject to specific regulations, potentially leading to distinct patterns of tax avoidance behavior compared to other industries.

This study contributes to the literature in several ways: first, it enhances the understanding of ownership structure and its influence on tax avoidance among securities firms in emerging markets; second, it takes into account the moderating effects of foreign directors, firm leverage, and the COVID-19 on the relationship; and third, it provides insights for policymakers and regulators in developing economies seeking to balance foreign investment attraction with effective tax governance.

The rest of the paper is organized as follows: Section 2 reviews the theoretical and empirical literature, Section 3 summarizes the data and methods, Section 4 reports and analyzes the results, and Section 5 concludes the paper.

2. LITERATURE

2.1. Theoretical Frameworks

Dyreng, Hanlon, and Maydew (2010) note that tax avoidance refers to activities that reduce income tax relative to accounting profits. However, Hanlon and Heitzman (2010) and Osuegbu (2007) emphasize that tax avoidance should be understood as the implementation of strategies involving lawful tax planning transactions to reduce tax liabilities. This planning process is part of the strategies devised by the management to achieve lower tax obligations (Martínez-Ferrero, Rodríguez-Ariza, & García-Sánchez, 2018).

Theoretical frameworks that explain the effect of foreign ownership on tax avoidance include the Agency Theory (Jensen & Meckling, 1976) and Legitimacy Theory (Dowling & Pfeffer, 1975).

Agency theory explores the dynamics between agents (Management) and principals (Shareholders and regulatory authorities), where the agent is responsible for fulfilling delegated duties (De Andres, Azofra, & Lopez, 2005). The division between ownership and control in this context can lead to conflicts of interest (Bauer, Kourouxous, & Krenn, 2018). However, Hanlon and Heitzman (2010) contend that both management and principals influence corporate tax planning. Therefore, these parties use tax avoidance to align their interests and address their concerns. Reducing agency conflicts through tax avoidance by leveraging ownership structures is essential because this feature enables principals to monitor managerial decisions, thereby increasing corporate profits or benefiting the principals themselves (Frank, Lynch, & Rego, 2009). Successful tax planning strategies increase cash flows and enhance corporate value, motivating management to participate in such activities (Bauer et al., 2018). However, such practices can result in information asymmetry and interest conflicts between management and principals regarding tax avoidance (Armstrong, Blouin, Jagolinzer, & Larcker, 2015). Therefore, according to agency theory, ownership structure affects corporate tax-avoidance behavior.

Legitimacy theory suggests that foreign ownership negatively affects tax avoidance behavior, as businesses must operate based on social norms and responsibilities (O'Donovan, 2002; Salihu et al., 2015). Hence, as part of a strategy to develop long-term partnerships in invested countries, foreign investors tend to have good tax compliance to demonstrate their social responsibility (Preuss, 2010).

2.2. Empirical Evidence

If tax evasion involves illegal activities that result in legal consequences for businesses, tax avoidance allows businesses to reduce their tax liabilities legally. This distinction has attracted significant interest from businesses, researchers, and regulatory authorities. Theoretical frameworks and findings from numerous global studies have highlighted several factors that influence tax avoidance behavior, with corporate ownership structure being a particularly notable factor. Tax avoidance is a strategy devised by both the management and business owners. However, existing studies have revealed inconsistent findings on the relationship between ownership characteristics and tax avoidance practices.

Numerous studies have shown that ownership structure significantly influences a company's tax compliance (Friese, Link, & Mayer, 2008); in other words, it affects the extent of corporate tax-avoidance activities.

Alkurdi and Mardini (2020) argue that foreign shareholders can influence various aspects of a company, including corporate income tax avoidance, by proposing tax-planning strategies. Consequently, foreign ownership is considered to have a positive effect on tax avoidance behavior (Huizinga & Nicodème, 2006). Fuest and Hemmelgarn (2005) looked at Malaysian companies and showed that foreign ownership has a positive effect on tax avoidance. This is because foreign owners can get companies to use strategies that take advantage of differences in tax laws between jurisdictions. This finding is further supported by Salihu et al. (2015) and Egger et al. (2010), who suggest that multinational corporations have access to a wider array of tax planning strategies than domestic firms because of variations in tax policies among different countries.

However, according to Badertscher et al. (2013), foreign ownership negatively affects tax avoidance behavior because foreign CEOs contribute to enhanced corporate governance, improved accountability, and reduced tax avoidance activities (Yoo & Koh, 2014). In Vietnam, a study of 621 listed companies during the period 2007–2017 by Tran (2020) revealed an inverse connection between foreign ownership and tax avoidance.

Hasan et al. (2022), in their analysis of 77 listed companies on the Dhaka Stock Exchange, revealed that ownership structure, specifically board and public ownership, affects tax avoidance activities, whereas foreign ownership has no significant impact on tax avoidance.

In summary, existing studies present mixed evidence of how ownership structure affects corporate tax avoidance. The same factor has been shown to have conflicting effects or no effect, which can be attributed to differences in the samples studied and the tax policies or rates in various regions. Most of these studies have been conducted internationally, with only a few focusing on Vietnamese enterprises. Furthermore, they primarily examined non-financial firms and did not consider corporate tax avoidance activities during the COVID-19 pandemic.

3. METHODS AND DATA

3.1. Data

We examine the relationship between ownership structure and tax avoidance using data on 35 listed securities firms in Vietnam from 2015 to 2023. We collected data from the annual and financial reports of securities firms listed on different exchanges in Vietnam, namely, HOSE (Ho Chi Minh Stock Exchange), HNX (Hanoi Stock Exchange), UPCOM (Unlisted Public Company Market), and OTC (Over-The-Counter Market).

The choice of the 2015-2023 research period for securities firms in Vietnam was based on significant regulatory changes and increased foreign investment in the sector. In 2015, the Vietnamese government enacted Decree No. 60/2015/ND-CP, relaxing foreign ownership limits and allowing foreign investors to hold up to 100% ownership of many securities companies (Vo, 2017). This policy reshaped firm governance and financial practices and influenced tax strategies. Furthermore, the 2015-2023 period witnessed increased foreign direct investment, driven by global trade agreements such as the EVFTA (European Union-Vietnam Free Trade Agreement) and CPTPP (Comprehensive and Progressive Agreement for Trans-Pacific Partnership) (World Bank, 2020), which provide a unique context for analyzing the influence of ownership on corporate behavior, particularly in tax avoidance practices.

3.2. Measure Tax Avoidance

To quantify corporate tax avoidance, we employ the traditional effective tax rate (ETR) as used in many previous studies (Armstrong, Blouin, & Larcker, 2012; Dyreng, Lindsey, & Maydew, 2009; Huseynov & Klamm, 2012). Specifically, we use the following two measures.

$$CTA1 = \frac{Total\ tax\ expenses}{Total\ pre-tax\ accounting\ income} \qquad (1)$$

$$CTA2 = \frac{Total\ tax\ paid\ over\ 3\ years}{Total\ pre-tax\ income\ over\ 3\ years} \qquad (2)$$

CTA1 and CTA2 denote measures of corporate tax avoidance. When CTA1 and CTA increase, the tax avoidance of the firm decreases. Previous literature also used other measures such as "tax expense over operating cashflow" or "cash tax paid over operating cash flow" (Lanis & Richardson, 2012; Watts & Zimmerman, 1983). However, as securities companies in Vietnam in some periods suffer from negative cash flow, which distorts the tax avoidance measure, we use only the two above-mentioned measures.

ETR measures often face criticism regarding discrepancies between the numerator and denominator, as the numerator can include corporate income tax in the current terms and other terms, while the denominator only includes earnings in the current tax period (Park, Park, & Lee, 2015). We also adopt the tax avoidance measure of D_D BTD as in Akbari, Salehi, and Bagherpour Vlashani (2018); Desai and Dharmapala (2006); and Park et al. (2015). Their approach was as follows.

$$\frac{BTD_t}{ASSET_{t-1}} = \alpha_0 + \alpha_1 \frac{TA_t}{ASSET_{t-1}} + \varepsilon \qquad (3)$$

The BTD_t is the difference between pre-tax income and estimated taxable income, where estimated taxable income equals tax expenses divided by the corporate income tax rate. TA is total accruals, calculated as net income minus operating cash flows. ASSET represents the company's total assets. ε is the residual of the model, which is used to determine tax avoidance, which is then presented in our model as CTA3. This tax avoidance measurement approach is considered more robust, as it excludes components of BTD that are unrelated to tax avoidance and isolates the portion of BTD directly attributable to tax avoidance (Desai & Dharmapala, 2006).

3.3. The Model

We estimated the influence of ownership structure on tax avoidance using the following model. Our choice of independent variables and controls is adopted from previous research, including Akbari et al. (2018), Park et al. (2015), and Salihu et al. (2015).

$$CTA_{it} = \beta_0 + \beta_1 FOREIGN_{it} + \beta_2 ROA_{it} + \beta_3 LEV_{it} + \beta_4 NOL_{it} + \beta_5 PPE_{it} + \beta_6 INTAN_{it} + \beta_7 SIZE_{it} + \beta_8 MTB_{it} + \beta_9 EXCHANGE_{it} + \epsilon_{it} \quad (4)$$

Table 1 provides a brief description of dependent and independent variables. CTA denotes Corporate Tax Avoidance, which is measured by CTA1, CTA2, and CTA3. For the ownership variable, we use FOREIGN (foreign ownership) as the main variable. Data on government ownership are quite limited, as most securities firms in Vietnam are private. The control variables include profitability, leverage, negative retained loss, fixed assets, intangible assets, firm size, market-to-book value, and the type of stock exchange on which the firm is listed. ϵ_{it} represents the random error.

Table 1. Description of variables.

Variables	Name	Description
CTA1	Tax avoidance 1	Total tax expense / Earnings before tax
CTA2	Tax avoidance 2	3-year average cash tax paid/Average 3- year average earnings before tax
CTA3	Tax avoidance 3	Tax avoidance measures as in Akbari et al. (2018) and Park et al. (2015)
FOREIGN	Foreign ownership	Percentage of foreign ownership in a company.
ROA	Return on assets	Net income / Total assets
LEV	Leverage	Total debt/ Total assets
NOL	Negative retention loss	Dummy variable, takes the value of 1 for firms with a retained loss smaller than zero and 0 otherwise
PPE	Fixed asset	Fixed assets/ Total assets
INTAN	Intangible fixed assets	Intangible assets/ Total assets
SIZE	Firm size	Log(Total assets)
MTB	Market to book value.	Market value/Equity
EXCHANGE	Stock exchange	4: OTC market; 3: UPCOM; 2: HNX; 1: HOSE

3.4. Estimation Methods

We estimate equation (4) using panel regression methods, namely Ordinary Least Squares (OLS), Fixed Effects Model (FEM), and Random Effects Model (REM). After estimating the three models, we use the F-test, Lagrange Multiplier, and Hausman test to evaluate and identify the most suitable model, which is FEM. However, further tests show that the chosen FEM model suffers from autocorrelation and heteroscedasticity issues, which we then consider using the FGLS method. We present our results obtained using the FGLS method in the next section.

4. RESULTS AND DISCUSSIONS

4.1. Descriptive Statistics

Table 2 describes the model variables. CTA1 and CTA2 show that the average rate of firms paying tax is 12.5% and 18.6%, respectively, which are below Vietnam's corporate income tax rate of 20%. Higher values of CTA1 and CTA2 reflect lower levels of tax avoidance by a firm. In contrast, CTA3 ranges from -1 to 1, with higher values corresponding to increased tax avoidance activities. Foreign ownership in securities firms in Vietnam is quite low, with an average of 13.6% and the highest foreign ownership ratio of 76.3%. The other variables show variations among the different companies in our sample.

Table 2. Descriptive statistics.

Variables	Obs.	Mean	Std. dev.	Min.	Max.
CTA1	315	0.125	0.164	-1.522	.855
CTA2	245	0.186	0.623	-2.098	8.422
CTA3	280	0	0.103	-0.839	0.938
FOREIGN	315	0.136	0.205	0	0.763
ROA	315	3.347	8.35	-32.707	40.754
LEV	315	0.297	0.259	0	0.849
NOL	315	0.752	0.432	0	1
PPE	315	0.017	0.038	0	0.269
INTAN	315	0.011	0.033	0	0.252
SIZE	315	14.005	1.532	9.621	18.053
MTB	315	1.188	.958	0.163	10.799
EXCHANGE	315	2.162	1.026	1	4

Table 3 presents the correlation matrix of the variables. The preliminary results show the positive impacts of foreign ownership on corporate tax avoidance measures.

Table 3. Pearson's correlation matrix.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) CTA1	1.000											
(2) CTA2	-0.036	1.000										
	(0.574)											
(3) CTA5	0.061	0.022	1.000									
	(0.308)	(0.729)										
(4) FOREIGN	0.093	0.009	0.012	1.000								
	(0.099)	(0.886)	(0.836)									
(5) ROA	0.201	0.064	0.609	0.052	1.000							
	(0.000)	(0.319)	(0.000)	(0.354)								
(6) LEV	0.160	-0.054	0.045	0.247	0.113	1.000						
	(0.004)	(0.404)	(0.453)	(0.000)	(0.045)							
(7) NOL	0.348	-0.073	0.175	0.088	0.430	0.230	1.000					
	(0.000)	(0.256)	(0.003)	(0.121)	(0.000)	(0.000)						
(8) PPE	-0.113	-0.033	-0.114	-0.116	-0.145	-0.243	-0.205	1.000				
	(0.045)	(0.602)	(0.056)	(0.040)	(0.010)	(0.000)	(0.000)					
(9) INTAN	-0.108	-0.020	-0.115	-0.121	-0.147	-0.220	-0.175	0.926	1.000			
	(0.055)	(0.761)	(0.054)	(0.032)	(0.009)	(0.000)	(0.002)	(0.000)				
(10) SIZE	0.326	-0.026	0.067	0.330	0.220	0.656	0.466	-0.271	-0.216	1.000		
	(0.000)	(0.684)	(0.262)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)			
(11) MTB	0.150	-0.001	0.007	0.151	0.147	0.324	0.079	-0.071	-0.084	0.246	1.000	
	(0.008)	(0.988)	(0.901)	(0.007)	(0.009)	(0.000)	(0.162)	(0.207)	(0.135)	(0.000)		
(12) EXCHANGE	-0.140	0.109	0.019	-0.114	-0.111	-0.290	-0.290	0.215	0.179	-0.611	-0.073	1.000
	(0.013)	(0.088)	(0.751)	(0.044)	(0.050)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.195)	

Note: The numbers in brackets show the p-values of the estimations.

4.2. Baseline Results

Table 4 presents the baseline findings on how foreign ownership affects tax avoidance in listed securities firms in Vietnam. Overall, the results reveal a significantly positive effect of foreign ownership on tax avoidance. In other words, firms with higher levels of foreign ownership are more likely to engage in tax avoidance. This result is consistent with the findings of Alkurdi and Mardini (2020), Salihu et al. (2015), and Egger et al. (2010). Our results support the Agency Theory argument that foreign shareholders use their influence to minimize tax liabilities, mitigate conflicts, and enhance firm value through strategic oversight and governance (Armstrong et al., 2015; Bauer et al., 2018). Furthermore, foreign shareholders can apply strategies to exploit differences in tax policies across countries, enabling the development of more diverse tax planning approaches compared to domestic firms and leveraging variations in tax regulations between nations (Salihu et al., 2015).

We also find significant impacts of ROA, SIZE, MTB, and EXCHANGE on the tax avoidance activities of listed securities companies in Vietnam. First, firms with higher profitability are more inclined to engage in tax avoidance, supporting the argument that companies with higher profits incur higher corporate income tax liabilities, making tax avoidance more appealing. Our findings support those of Aminah, Hapsari, and Khairunisa (2018); Huang, Lobo, Xie, and Wang (2016); and Jihene and Moez (2019).

Second, larger firms with greater size are less likely to engage in tax avoidance, which aligns with the findings of Alfina, Nurlaela, and Wijayanti (2018) and Jihene and Moez (2019) and supports the argument of legitimacy theory that larger firms are often prominent and easily become targets of government and public scrutiny, making the benefits gained from tax avoidance insignificant compared to the potential risks the business may face as a result of such behavior (Alfina et al., 2018). Similarly, companies with higher market value tend to avoid taxes less, consistent with the findings of Rego (2003) and Kubick, Lynch, Mayberry, and Omer (2014).

Finally, we find that firms listed on larger and strictly regulated stock exchanges (such as HOSE and HNX) exhibit higher levels of tax avoidance, which is consistent with the findings of Nguyen, Nguyen, and Pham (2021) and Pham, Nguyen, and Nguyen (2024). Firms listed on major stock exchanges must meet stringent listing standards (e.g., a minimum return on equity (ROE) of 5%) and often exhibit better financial performance. Consequently, higher profits lead to increased corporate income tax liabilities, which can further encourage firms to avoid taxes (Dang & Nguyen, 2022).

Table 4. Impact of foreign ownership on tax avoidance.

Variables	Variable name	Tax avoidance		
		CTA1	CTA2	CTA3
FOREIGN	Foreign ownership	-0.00198	-0.0174***	0.00680*
		(-0.34)	(-3.67)	(1.92)
ROA	Return on assets	-0.0000408	-0.000131*	0.000899***
		(-0.62)	(-1.80)	(4.48)
LEV	Leverage	0.00574	-0.0108*	0.00298
		(0.72)	(-1.94)	(0.77)
NOL	Negative retention loss	0.170***	0.169***	0.0027
		(37.99)	(58.31)	(0.75)
PPE	Property, plant & equipment	-0.178	-0.389***	-0.0759
		(-1.26)	(-3.94)	(-0.39)
INTAN	Intangible asset	0.251	0.561***	0.0169
		(1.15)	(3.89)	(0.08)
SIZE	Firm size	0.00430***	0.00741***	-0.00204**
		(2.67)	(8.49)	(-2.53)
MTB	Market to book value	0.000308	0.000760**	-0.00313***
		(0.76)	(2.06)	(-3.32)
EXCHANGE	Type of firm's market	0.000481	0.00176	-0.00212**
		(0.15)	(0.65)	(-1.97)
Observation		315	245	280

Note: t statistics in parentheses (* p<0.1, ** p<0.05, *** p<0.01).

4.3. Further Analysis

To further analyze the impact of ownership structure on the corporate tax avoidance practices of listed securities firms, we examine the moderating effects of foreign presence on boards, firm leverage, and the COVID-19 pandemic. The moderating effects were determined by adding interactive variables to the baseline models. Further analysis results in Tables 5, 6, and 7 confirming our baseline findings.

4.3.1. Moderating Effect of Foreign Presence on the Board

We used BOARD_F to measure foreign presence on a company's Board of Directors. BOARD_F equals 1 if the company has foreign directors on its boards and 0 otherwise. Table 5 reports the regression results, demonstrating that the presence of foreign directors amplifies the effect of foreign ownership on tax avoidance. In other words, securities firms with foreign ownership and foreign directors on boards are more inclined to adopt tax reduction strategies. The results indirectly confirm Salihu et al. (2015) and Schmid and Foedder (2021). We argue that foreign-owned firms with foreign directors on their boards have more opportunities and expertise to implement tax-saving measures effectively.

Table 5. Impact of foreign ownership on tax avoidance: The moderating effect of foreign presence on the board.

Variables	Variable name	Tax avoidance		
		CTA1	CTA2	CTA3
FOREIGN	Foreign ownership	0.00325	0.0124*	0.0136**
		(0.65)	(1.74)	(2.47)
BOARD_F	Foreign presence on board	0.166***	0.0974***	-0.0366**
		(3.74)	(3.86)	(-2.36)
FOREIGN x BOARD_F		-0.242***	-0.241***	0.0389*
		(-3.08)	(-4.12)	(1.72)
CONTROLS		Yes	Yes	Yes
Observation		315	245	280

Note: t statistics in parentheses (* p<0.1, ** p<0.05, *** p<0.01).

4.3.2. Moderating Effect of Leverage

We use the leverage ratio of companies as a moderating variable. Our findings show that foreign ownership has less of an impact on tax avoidance for companies with a higher leverage ratio. This supports Mocanu, Constantin, and Răileanu (2021) argument that companies with lower leverage ratios tend to avoid tax more. Mulyati (2019) states that firms with lower leverage ratios face fewer constraints from creditors, allowing them to adopt more aggressive tax-saving strategies.

Table 6. Impact of foreign ownership on tax avoidance: Moderating effect of leverage.

Variables	Variable name	Tax avoidance		
		CTA1	CTA2	CTA3
FOREIGN	Foreign ownership	-0.000482	-0.0322*	0.0263**
		(-0.30)	(-1.87)	(2.35)
LEV	Firm size	0.00433	-0.011	0.00478
		(1.16)	(-1.62)	(1.17)
FOREIGN x LEV		-0.00379	0.0221	-0.0331*
		(-0.17)	(0.78)	(-1.71)
CONTROLS		Yes	Yes	Yes
Observation		315	245	280

Note: t statistics in parentheses (* p<0.1, ** p<0.05).

4.3.3. Moderating Effect of the COVID-19 Pandemic

We use COVID-19 to account for the moderating impact of the COVID-19 pandemic on the influence of foreign ownership on tax avoidance. The results, shown in Table 7, indicate that the pandemic had no significant moderating effect on this relationship. As Alfaro and Chen (2012) argued, foreign ownership often creates a stable governance structure and strategic expertise. During the pandemic, these attributes may have helped firms maintain their tax-planning strategies without drastic changes.

Table 7. Impact of foreign ownership on tax avoidance: moderating effect of the COVID-19 pandemic.

Variable	Variable name	Tax avoidance		
		CTA1	CTA2	CTA3
FOREIGN	Foreign ownership	-0.0000000003	-0.0193***	0.00817**
		(-0.00)	(-4.04)	(2.20)
COVID-19	The COVID-19 pandemic	0.00000000002	0.00117***	-0.000113
		(0.00)	(2.76)	(-0.05)
FOREIGN x COVID-19		0.0253*	0.000336	-0.00702
		(1.75)	(0.07)	(-0.93)
CONTROLS		Yes	Yes	Yes
Observation		315	245	280

Note: t statistics in parentheses (* p<0.1, ** p<0.05, *** p<0.01).

5. CONCLUSION AND RECOMMENDATIONS

We investigated the effect of ownership structure, particularly foreign ownership, on the tax avoidance behavior of 35 listed securities companies in Vietnam from 2015 to 2023. The results show that foreign ownership has a positive effect on tax avoidance across all model specifications. This means that companies with higher ratios of foreign ownership are more likely to use aggressive tax-planning strategies. Further findings show that the presence of foreign directors on the board amplifies this effect, whereas firm leverage reduces it. The analysis also revealed that the COVID-19 pandemic did not significantly moderate this relationship. Regarding control variables, we found significant positive influences of profitability and types of exchange and significant negative impacts of firm size and market value on tax avoidance.

Based on the findings, we suggest the following policy considerations: First, the government needs to strengthen regulatory oversight by implementing more stringent monitoring and auditing mechanisms for securities firms with high foreign ownership, particularly firms with foreign directors on their boards. These mechanisms should incorporate regular compliance checks, comprehensive tax audits, and penalties for noncompliance behavior to ensure transparency in tax practices. Second, the government must reassess existing tax regulations (including incentives) to ensure foreign investors do not inadvertently encourage aggressive tax planning strategies. Third, given the mitigating effect of leverage on tax avoidance, the government can adjust regulations relating to firm leverage to discourage tax-avoidance behavior. From the perspective of listed securities companies in Vietnam, we also recommend that their boards of directors closely monitor tax planning strategies to avoid value-damaging effects, particularly for companies with higher foreign ownership and foreign presence on the board. Training programs can be provided for directors on international best practices in tax governance and transparency, which could further strengthen their capabilities to mitigate the risks associated with tax planning.

Although we have already tried to cover most of the issues relating to the influence of ownership structure on tax avoidance behavior, our research is limited in terms of sample size and measures of ownership. We suggest that future research examine different measures of ownership, such as institutional or family ownership, and extend the sample size to other non-listed securities firms in Vietnam.

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REFERENCES

Akbari, F., Salehi, M., & Bagherpour Vlashani, M. A. (2018). The effect of managerial ability on tax avoidance by classical and Bayesian econometrics in multilevel models: Evidence of Iran. *International Journal of Emerging Markets, 13*(6), 1656-1678. https://doi.org/10.1108/IJOEM-09-2017-0367

Alfaro, L., & Chen, M. X. (2012). Surviving the global financial crisis: Foreign ownership and establishment performance. *American Economic Journal: Economic Policy, 4*(3), 30-55. https://doi.org/10.1257/pol.4.3.30

Alfina, I. T., Nurlaela, S., & Wijayanti, A. (2018). *The influence of profitability, leverage, independent commissioner, and company size to tax avoidance.* Paper presented at the The 2nd International Conference on Technology, Education, and Social Science 2018, 102–106.

Alkurdi, A., & Mardini, G. H. (2020). The impact of ownership structure and the board of directors' composition on tax avoidance strategies: Empirical evidence from Jordan. *Journal of Financial Reporting and Accounting, 18*(4), 795-812. https://doi.org/10.1108/JFRA-01-2020-0001

Aminah, S., Hapsari, T., & Khairunisa, L. (2018). Audit quality and tax avoidance: The role of independent commissioners and audit committee's financial expertise. *Journal of Accounting Auditing and Business*, *4*(1), 15–30.

Armstrong, C. S., Blouin, J. L., Jagolinzer, A. D., & Larcker, D. F. (2015). Corporate governance, incentives, and tax avoidance. *Journal of Accounting and Economics*, *60*(1), 1–17. https://doi.org/10.1016/j.jacceco.2015.02.003

Armstrong, C. S., Blouin, J. L., & Larcker, D. F. (2012). The incentives for tax planning. *Journal of Accounting and Economics*, *53*(1-2), 391-411. https://doi.org/10.1016/j.jacceco.2011.04.001

Austin, C. R., & Wilson, R. J. (2017). An examination of reputational costs and tax avoidance: Evidence from firms with valuable consumer brands. *The Journal of the American Taxation Association*, *39*(1), 67-93. https://doi.org/10.2308/atax-51634

Badertscher, B. A., Katz, S. P., & Rego, S. O. (2013). The separation of ownership and control and corporate tax avoidance. *Journal of Accounting and Economics*, *56*(2–3), 228–250. https://doi.org/10.1016/j.jacceco.2013.08.005

Bauer, T., Kourouxous, T., & Krenn, P. (2018). Taxation and agency conflicts between firm owners and managers: A review. *Business Research*, *11*, 33-76. https://doi.org/10.1007/s40685-017-0054-y

Dang, V. C., & Nguyen, Q. K. (2022). Audit committee characteristics and tax avoidance: Evidence from an emerging economy. *Cogent Economics & Finance*, *10*(1), 2023263. https://doi.org/10.1080/23322039.2021.2023263

De Andres, P., Azofra, V., & Lopez, F. (2005). Corporate boards in OECD countries: Size, composition, functioning and effectiveness. *Corporate Governance: An International Review*, *13*(2), 197–210. https://doi.org/10.1111/j.1467-8683.2005.00418.x

Desai, M. A., & Dharmapala, D. (2006). Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics*, *79*(1), 145–179. https://doi.org/10.1016/j.jfineco.2005.02.002

Dowling, J., & Pfeffer, J. (1975). Organizational legitimacy: Social values and organizational behavior. *Pacific Sociological Review*, *18*(1), 122–136. https://doi.org/10.2307/1388226

Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2010). The effects of executives on corporate tax avoidance. *The Accounting Review*, *85*(4), 1163–1189. https://doi.org/10.2308/accr.2010.85.4.1163

Dyreng, S. D., Hoopes, J. L., & Wilde, J. H. (2016). Public pressure and corporate tax behavior. *Journal of Accounting Research*, *54*(1), 147–186. https://doi.org/10.1111/1475-679X.12101

Dyreng, S. D., Lindsey, B. P., & Maydew, E. L. (2009). Using financial accounting data to examine the effect of foreign operations located in tax havens and other countries on U.S. multinational firms' tax rates. *Journal of Accounting Research*, *47*(5), 1283–1316. https://doi.org/10.1111/j.1475-679X.2009.00346.x

Egger, P., Eggert, W., & Winner, H. (2010). Saving taxes through foreign plant ownership. *Journal of International Economics*, *81*(1), 99–108.

Frank, M. M., Lynch, L. J., & Rego, S. O. (2009). Tax reporting aggressiveness and its relation to aggressive financial reporting. *The Accounting Review*, *84*(2), 467–496. https://doi.org/10.2308/accr.2009.84.2.467

Friese, A., Link, S., & Mayer, S. (2008). Taxation and corporate governance—The state of the art. In W. Schön (Ed.), Tax and Corporate Governance. In (pp. 357–425): Berlin, Germany: Springer.

Fuest, C., & Hemmelgarn, T. (2005). Corporate tax policy, foreign firm ownership and thin capitalization. *Regional Science and Urban Economics*, *35*(5), 508–526.

Hanlon, M., & Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics*, *50*(2–3), 127–178. https://doi.org/10.1016/j.jacceco.2010.09.002

Hasan, I., Kim, I., Teng, H., & Wu, Q. (2022). The effect of foreign institutional ownership on corporate tax avoidance: International evidence. *Journal of International Accounting, Auditing and Taxation*, *46*, 100440. https://doi.org/10.1016/j.intaccaudtax.2021.100440

Huang, H. H., Lobo, G. J., Xie, H., & Wang, C. (2016). Customer concentration and corporate tax avoidance. *Journal of Banking & Finance*, *72*(11), 184–200. https://doi.org/10.1016/j.jbankfin.2016.07.018

Huizinga, H., & Nicodème, G. (2006). Foreign ownership and corporate income taxation: An empirical evaluation. *European Economic Review*, *50*(5), 1223–1244.

Huseynov, F., & Klamm, B. K. (2012). Tax avoidance, tax management and corporate social responsibility. *Journal of Corporate Finance, 18*(4), 804–827. https://doi.org/10.1016/j.jcorpfin.2012.06.005

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Jihene, F., & Moez, D. (2019). The moderating effect of audit quality on CEO compensation and tax avoidance: Evidence from Tunisian context. *International Journal of Economics and Financial Issues, 9*(1), 131–139.

Klassen, K. J., Mescall, D., & Lisowsky, P. (2016). Transfer pricing: Strategies, practices, and tax minimization. *Contemporary Accounting Research, 34*(1), 455–493. https://doi.org/10.1111/1911-3846.12239

Kubick, T. R., Lynch, D., Mayberry, M., & Omer, T. C. (2014). The effects of regulatory scrutiny on tax avoidance: An examination of SEC comment letters. *Accounting Review, 91*(6), 1751–1780.

Lanis, R., & Richardson, G. (2012). Corporate social responsibility and tax aggressiveness: An empirical analysis. *Journal of Accounting and Public Policy, 31*(1), 86–108. https://doi.org/10.1016/j.jaccpubpol.2011.10.006

Martínez-Ferrero, J., Rodríguez-Ariza, L., & García-Sánchez, I. M. (2018). The role of the board of directors in the adoption of GRI guidelines for the disclosure of CSR information. *Journal of Cleaner Production, 141*, 737–750. https://doi.org/10.1016/j.jclepro.2016.09.155

Mocanu, M., Constantin, S. B., & Răileanu, V. (2021). Determinants of tax avoidance – evidence on profit tax-paying companies in Romania. *Economic Research-Ekonomska Istraživanja, 34*(1), 2013–2033. https://doi.org/10.1080/1331677X.2020.1860794

Mulyati, R. (2019). The influence of financial leverage on tax avoidance: Evidence from Indonesian listed firms. *International Journal of Economics, Business, and Management Research, 6*(8).

Nguyen, T. T. M., Nguyen, M. T., & Pham, L. H. (2021). The effect of tax avoidance on firm value: Evidence from Vietnamese listed companies. *Journal of Asian Finance, Economics and Business, 8*(8), 389–399. https://doi.org/10.1080/23311975.2021.1930870

O'Donovan, G. (2002). Environmental disclosures in the annual report: Extending the applicability and predictive power of legitimacy theory. *Accounting, Auditing & Accountability Journal, 15*(3), 344–371. https://doi.org/10.1108/09513570210435870

Osuegbu, E. O. (2007). *Good tax planning as legal options to the illegality of tax evasion*. Paper presented at the Tax Awareness Forum for Public and Organised Private Sector, Federal Inland Revenue Service.

Park, J. H., Park, S. H., & Lee, H. Y. (2015). Managerial ability and tax avoidance: Evidence from Korea. *Journal of Applied Business Research, 31*(6), 2157–2166.

Pham, T., Nguyen, V., & Nguyen, T. (2024). The effect of corporate governance on tax avoidance: Evidence from listed firms in Vietnam. *UPG Bulletin of Economics and Finance, 13*(2), 1-15.

Preuss, L. (2010). Tax avoidance and corporate social responsibility: You can't do both, or can you? *Corporate Governance: The International Journal of Business in Society, 10*(4), 365–374. https://doi.org/10.1108/14720701011069605

Rego, S. O. (2003). Tax-avoidance activities of U.S. multinational corporations. *Contemporary Accounting Research, 20*(4), 805–833. https://doi.org/10.1506/VANN-B7UB-GMFA-9E6W

Salihu, I. A., Annuar, H. A., & Obid, S. N. S. (2015). Foreign investors' interests and corporate tax avoidance: Evidence from an emerging economy. *Journal of Contemporary Accounting & Economics, 11*(2), 138–147. https://doi.org/10.1016/j.jcae.2015.03.001

Schmid, A., & Foedder, M. (2021). Social responsibility and tax avoidance: Evidence from family firms. *Journal of International Business Studies, 52*(8), 1–22.

Tran, Q. T. (2020). Foreign ownership and investment efficiency: New evidence from an emerging market. *International Journal of Emerging Markets, 15*(6), 1185–1199. https://doi.org/10.1108/ijoem-07-2019-0573

Vo, X. V. (2017). Do foreign investors promote stock price efficiency in emerging markets? *International Review of Finance, 19*(1), 223–235. https://doi.org/10.1111/irfi.12164

Watts, R. L., & Zimmerman, J. L. (1983). Agency problems, auditing, and the theory of the firm: Some evidence. *Journal of Law and Economics*, *26*(3), 613–633. https://doi.org/10.1086/467051

World Bank. (2020). *Vietnam: Deepening international integration and implementing the EVFTA*. Retrieved from https://documents1.worldbank.org/curated/en/866871589557725251/pdf/Vietnam-Deepening-International-Integration-and-Implementing-the-EVFTA.pdf

Yoo, T., & Koh, Y. (2014). Agent or structure for principal–principal conflicts? Audit firms versus foreign ownership in the Asian context. *Asian Business & Management*, *13*(4), 309–332. https://doi.org/10.1057/abm.2014.11