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"A REVIEW OF CORPORATE TAX AVOIDANCE"

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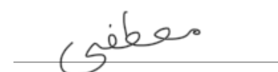

Table of Contents

1. Introduction 6

2. Definitions and Origins of Tax Avoidance Research 7

Individual Tax Compliance 9

Corporate Tax Compliance 9

3. Measures of Tax Avoidance 11

Tax Returns vs Financial Statements: Comparing Differences 12

The Difference Between Non-Conforming and Conforming Tax Avoidance 13

3.1. Effective Tax Rate Based Measures 13

GAAP ETR 14

Current ETR 15

Cash ETR 16

Long-run Cash ETR 17

Cash flow ETR 18

3.2. ETR Differential 19

3.3. DTAX 19

3.4. Book-tax Differences Based Measures 20

Total BTD 21

Temporal BTD 23

Discretionary Total BTD 24

Discretionary Permanent BTD 26

Tax Effect BTD 27

3.5. Unrecognized Tax Benefits 27

3.6. Tax Shelter Firms 29

3.7. Henry and Sansing's Measure 31

4. Determinants of Tax Avoidance 32

4.1. Firm-level Characteristics 33

Firm Size 33
Capital Intensity 35
Firm Leverage 36
Firm Profitability 38
Multinational Operations 39
4.2. Ownership Structures 40
Family Firms 41
Corporate Ownership 43
4.3. Corporate Governance 45
Firm-level Governance 45
(a) Board of Directors and Gender Diversity 45
(b) Internal Control and Information System 47
Executive Compensation 49
(a) After-tax Income-based Incentives 49
(b) Equity-based Incentives 51
Transparency and Disclosure 53
Ethical Standards and Corporate Social Responsibility 54
Agency Framework 56
Internal Audit 57
4.4. External Factors 58
Public Pressure 58
External Audit 59
Labor Unions 61
Tax Authorities 63
Social Networks 65
(a) Connections with politicians 65
(b) Connections with suppliers 66
(c) Connections with other entities 67

Markets......67

(a) Labor Market......67

(b) Product Market......68

(c) Financial Distress......69

5. Consequences of Tax Avoidance 70

5.1. Capital Structure: Debt and Equity Costs 70

5.2. Firm Value 71

5.3. Reputational Damage and Stock Reactions 72

5.4. Accounting Fraud and Legal Implications 73

6. Conclusion 75

Bibliography 77

1. Introduction

Corporate tax avoidance is a critical and underexplored subject that demands further research and investigation. Despite its significance, the field of tax research, in general, remains relatively limited. Due to the universal pursuit of self-interest, nearly everyone endeavors to maximize earnings, generate higher profits, and consequently, minimize their tax obligations. Individuals and companies alike actively seek methods to circumvent paying excessive taxes. Therefore, it is imperative to engage in continuous research and discourse on tax avoidance, particularly as tax laws evolve and authorities intensify their crackdown on aggressive tax practices.

Tax avoidance involves legally reducing tax liability through actions like incorporating a business or using deductions and credits, while tax evasion refers to illegal behavior. Scholars have varying definitions of tax avoidance and tax aggressiveness. (Hanlon & Heitzman, 2010) define tax avoidance as the reduction of explicit taxes through legal transactions, while (Dyreng, Hanlon, Maydew, & Thornock, 2017) propose a broader definition that includes any action leading to a long-term reduction in the cash effective tax rate, even if not considered improper. (Martinez, 2017) illustrates the spectrum of tax aggressiveness, ranging from tax planning to aggressive tax planning, abusive tax planning, and tax fraud. Tax planning involves minimizing tax obligations within the confines of the law, while aggressive tax planning exploits ambiguous tax regulations. Abusive tax planning involves actions that violate the law or challenge the legal framework. The level of tax aggression corresponds to the taxpayer's desire to reduce explicit taxes, but it also raises the risk of scrutiny by tax authorities. Nonetheless, distinguishing between acceptable tax planning and aggressive avoidance poses an ongoing challenge. Continued research and discussion on tax avoidance are essential as tax laws evolve and authorities crack down on aggressive practices.

Early studies on individual tax compliance showed how progressive tax systems influence taxpayer behavior (Harberger, 1964). Factors such as income level and the certainty of detection were found to impact tax compliance rates (Allingham & Sandmo, 1972). Research also explored the interplay between avoidance and evasion in individuals' decision-making processes (Slemrod & Yitzhaki, 2002). Understanding corporate tax compliance is more complex due to the size, complexity, and diverse stakeholders involved. Scholars have examined tax avoidance from an agency perspective, considering incentives for management (Slemrod, 2004); (Chen & Chu, 2005). The effectiveness of policies on tax avoidance depends

on whether penalties are imposed on the corporation or tax officers (Crocker & Slemrod, 2005). Recommendations include aligning the interests of the firm with shareholders and stakeholders through incentives, effective corporate governance, strong tax authorities, and transparency systems (Hanlon & Heitzman, 2010); (Desai, Dyck, & Zingales, 2007).

This paper is structured into several sections, each addressing distinct aspects related to corporate tax avoidance. The initial section examines the definitions and origins of tax avoidance research. Moreover, the discussion encompasses individual tax avoidance, in addition to corporate tax avoidance, to provide a comprehensive understanding of the subject matter. Moving forward, the subsequent section reviews the various methodologies and indicators employed to gauge the extent of tax avoidance by corporations. Following that, the thesis proceeds to explore the determinants of corporate tax avoidance. Through an in-depth analysis of multiple studies, it elucidates the factors influencing corporations' decisions to engage in tax avoidance practices. Finally, the paper concludes by exploring the consequences of corporate tax avoidance.

2. Definitions and Origins of Tax Avoidance Research

Tax avoidance is widely defined as the legal usage of tax laws to reduce one's tax liability, whereas tax evasion involves illegal behavior. Tax avoidance typically takes place within the law, and involves actions such as incorporating a business, investing in certain assets, or making use of deductions and credits. However, the definitions of tax avoidance and tax aggressiveness are not universally accepted, according to (Hanlon & Heitzman, 2010), they define tax avoidance as the reduction of explicit taxes. They argue that tax avoidance transactions are usually deemed legal after they have taken place and that the behavior in question generally involves legal transactions (such as municipal bond[1] investment) as well as the possibilities for legal challenges and convictions concerning uncertain tax positions.

On the other side, (Dyreng, Hanlon, & Maydew, 2008) suggest a broader definition tax avoidance. That is, tax avoidance is any action taken by a company that results in a reduction of their cash effective tax rate over a long period such as ten years, even if such actions are not

[1] A major advantage of municipal bonds for corporations is that their interest is tax-free. This tax exemption reduces the overall cost of borrowing for corporations and can help them lower their taxable income. By investing in municipal bonds, corporations can take advantage of the tax benefits and potentially increase their after-tax return on investment compared to investing in taxable bonds.

necessarily considered improper. This definition includes provisions in the tax code that allow and/or encourage such reductions, as well as actions taken by firms that may fall into ambiguities in the law. It highlights the long-term impact on tax rates and acknowledges that certain actions, although legally permissible, can lead to substantial tax benefits. While there is a general consensus that tax avoidance is legal, the line between acceptable tax planning and aggressive tax avoidance remains blurry. As tax laws continue to evolve, and regulatory authorities crack down on aggressive tax practices, the need for continued research and discussion on tax avoidance will remain crucial for policymakers, scholars, and taxpayers alike.

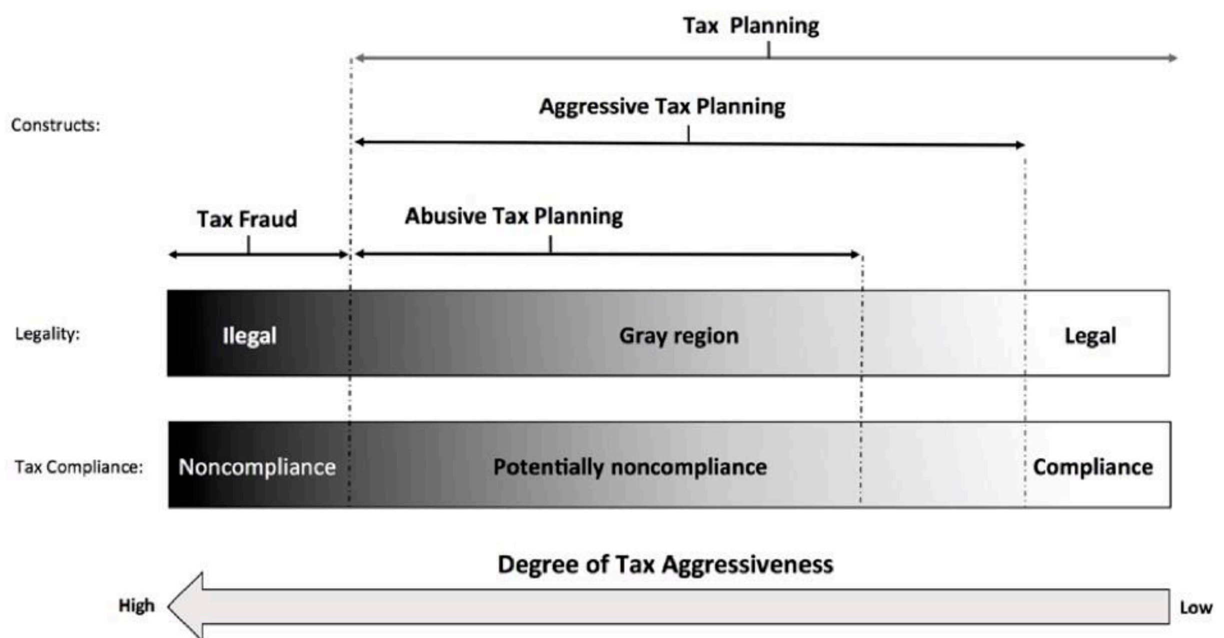

Figure 1. Degree of Tax Aggressiveness and Tax Planning by (Martinez, 2017).

The degrees of tax aggressiveness, as presented by (Martinez, 2017) as a visual representation in the above figure, drawing inspiration from the work of (Lietz, 2013), encompass a spectrum ranging from tax planning to aggressive tax planning, abusive tax planning, and ultimately, tax fraud. Tax planning entails using legal methods to take advantage of tax laws' exclusions and concessions in order to reduce one's tax liabilities. It focuses on minimizing tax obligations and maximizing tax expenses within the confines of the law. As these techniques become more prevalent and legitimate, they evolve into aggressive tax planning, where businesses take advantage of tax regulations that are ambiguous or subject to different interpretations. These actions may be seen by tax authorities as potentially abusive even if they are still within the law. Abusive tax planning crosses the boundary between lawful tax planning and tax evasion because it involves actions that violate the law, contest the legal framework, or entail peculiar commercial transactions. It is crucial to remember that unquestionably unlawful tax evasion should not be confused with abusive tax planning. Regardless of whether the methods are

lawful, the level of tax aggression reflects the taxpayer's desire to lower explicit taxes. The fiscal risk of transactions being ignored by tax authorities rises as tax aggressiveness develops.

Individual Tax Compliance

The early literature on tax reporting behavior has primarily focused on individual tax compliance and tax avoidance. One such seminal study by (Harberger, 1964) explored individual tax avoidance, demonstrating that progressive tax systems can lead taxpayers to alter their behavior to minimize their tax liability. This research serves as a basis for further exploration into individual tax avoidance. In a related study on individual tax compliance, (Allingham & Sandmo, 1972) examined how different factors, such as income level, the size of the tax burden, and the certainty of detection influenced the likelihood of compliance. They found that income level played a significant role, with higher-income individuals exhibiting higher tax compliance rates due to the greater consequences associated with non-compliance. Conversely, individuals with lower incomes were more likely to engage in tax avoidance, as the costs of doing so were relatively low compared to their tax burden. The study also highlighted the impact of the certainty of detection, with a higher probability of being caught leading to higher tax compliance rates, indicating the effectiveness of deterrence through punishment.

(Slemrod & Yitzhaki, 2002) conducted another noteworthy study that delved into the integration of avoidance and evasion into individuals' decision-making processes. Their research explored various behavioral responses to taxes and examined their effects on incidence, optimal progressivity, and the most effective combination of income and consumption taxes. This study expanded the understanding of individual tax reporting behavior by considering the interplay between tax avoidance and tax evasion strategies. Collectively, these studies provide a foundation for comprehending individual tax reporting behavior and the factors that influence it. They shed light on the impact of progressive tax systems, income levels, tax burden, certainty of detection, and behavioral responses to taxes.

Corporate Tax Compliance

Corporate tax planning is much more complicated than individual tax behavior due to the large size of firms, their complex operations and ownership structures, and the need to satisfy multiple stakeholders such as investors, tax authorities, customers, and the public. (Slemrod, 2004) was one of the first to consider corporate tax avoidance from an agency perspective. He noted that a different approach is necessary to grasp the tax-avoidance strategies of large,

publicly traded companies. He argued that the assumption of risk aversion[2], which is often used in the case of individual taxpayers, does not apply in the same way to large companies. His study also discussed that the agency's view of corporate tax avoidance should be extended to include not only the shareholders and the management but also the government and other stakeholders. He proposed that the government should place greater emphasis on monitoring the behavior of management and the structure of the firm to ensure that the tax avoidance strategies employed are consistent with the public interest and should also use incentives to encourage the management to align the interests of the firm with those of the shareholders and other stakeholders.

On the other hand, (Chen & Chu, 2005) examined corporate tax avoidance through a principal-agent model, focusing on the incentives for management to engage in tax avoidance activities. They highlighted the principal-agent relationship between shareholders and management as a driving force for tax avoidance. They looked at the incentives for managers to engage in income shifting and asset restructuring and similar to (Slemrod, 2004), (Chen & Chu, 2005) proposed that the government should use incentives to encourage the management to align the interests of the firm with those of the shareholders and other stakeholders.

Another study by (Crocker & Slemrod, 2005) explored corporate tax avoidance from an agency perspective by analyzing the incentives for corporate tax officers to engage in tax minimization activities. They found that the effectiveness of policies on tax avoidance depends on whether the corporation or the officer is penalized. While penalties on the tax officer can reduce evasion, they can also increase the conflict between shareholders and the tax officer, resulting in less efficient outcomes.

(Hanlon & Heitzman, 2010) challenged the notion of rewarding managers for making tax-efficient decisions and proposed that owners should create incentives to encourage managers to avoid taxes when advantageous. They suggested using explicit or implicit contracts that link pay to after-tax returns or stock prices to motivate tax-efficient behavior.

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[2] Risk aversion is a behavior or attitude where an individual prefers to minimize potential losses over maximizing potential gains. This means that they tend to choose safer options or investments with lower returns but lower risks, over more speculative options with higher returns but also higher risks.

(Desai, Dyck, & Zingales, 2007) highlighted the importance of a strong tax authority in monitoring and enforcing tax compliance, which can reduce the incentives for managers to engage in tax avoidance. They recommended that the government use incentives to align the interests of the firm with those of the shareholders and other stakeholders while imposing penalties on tax avoidance activities and rewarding compliance. The study also emphasized the need for a system of disclosure and transparency to facilitate the detection and investigation of tax avoidance cases.

Corporate tax compliance poses unique challenges compared to individual tax behavior, primarily due to the complexity of large firms, their operations, and ownership structures, as well as the diverse array of stakeholders involved. The studies reviewed shed light on various aspects of corporate tax avoidance from an agency perspective, highlighting the need for a comprehensive approach that considers not only shareholders and management but also the government and other stakeholders. the studies emphasize the role of incentives in aligning the interests of the firm with those of shareholders and other stakeholders, proposing the use of explicit or implicit contracts to encourage tax-efficient behavior. Furthermore, effective corporate governance, coupled with a strong tax authority, plays a vital role in reducing incentives for tax avoidance, with penalties and rewards promoting compliance and the need for transparency and disclosure systems to facilitate the detection and investigation of tax avoidance cases.

3. Measures of Tax Avoidance

Tax avoidance strategies are commonly employed by individuals and corporations worldwide to minimize their tax liabilities within the bounds of the law. These strategies involve various techniques aimed at reducing tax obligations by manipulating the nature, source, timing, or classification of income. For example, taxpayers use a number of techniques to reduce their tax obligations by fiddling with the sorts of revenue they get. These tactics could fall under one of three categories of income tax planning actions. First, taxpayers may try to change their income from one category to another in order to benefit from a more favorable tax treatment. People could, for instance, attempt to transform their regular income into capital gains in order to reduce their tax burden. Second, taxpayers try to reclassify income based on elements like its source or nature in order to move money from one pocket to another. This may affect the tax rate, the ability to write off costs, or the availability of tax breaks. Finally, taxpayers try to re-allocate income by timing the recognition of income to coincide with advantageous tax rates. This entails either accelerating or delaying the recognition of revenue in accordance with

projected changes in tax rates. These forms of income tax planning techniques show how creative individuals may be in lowering their obligations while being within the law (Scholes, et al., 2016).

Corporate tax avoidance presents a significant challenge in terms of calculation and measurement due to the complex strategies adopted by companies to reduce tax liabilities. The tax literature encompasses a diverse range of measures that are constantly evolving, further complicating the assessment of tax avoidance levels. Each measure possesses its strengths and limitations, contributing to the difficulty in accurately quantifying the extent of tax avoidance. Consequently, a comprehensive understanding of a company's tax practices often requires the utilization of multiple measures to obtain a more comprehensive perspective. This section delves into the various tax avoidance measures discussed in the literature, aiming to enhance our understanding of this complex phenomenon.

Tax Returns vs Financial Statements: Comparing Differences

When it comes to measuring tax avoidance, there are two main sources of companies' tax information that can be used: confidential tax returns (tax filings of the organization) and public financial statements which are reported annually. Both sources have their advantages and disadvantages, and the decision of which to use depends on a variety of factors. Confidential tax returns are filed by organizations with the tax authority and contain detailed information about the organization's income, deductions, and other tax-related data. While these filings are kept confidential, they can be accessed by tax authorities and, in some cases, by courts and other government agencies which provide a more comprehensive and detailed picture of an organization's tax position. Hence, tax returns provide more reliable measures of actual tax avoidance, since they provide more detailed information regarding a company's actual income and expenses (Hanlon & Heitzman, 2010).

Public financial statements, on the other hand, are a valuable source of information about an organization's financial position, including revenues, expenses, assets, and liabilities. Despite not providing the same level of detail as confidential tax returns, financial statements are more readily available and easier to analyze, providing a broader view of an organization's financial health. Additionally, financial statements can identify potential tax avoidance behaviors that may not be apparent from tax returns alone. This is primarily due to the wider acceptance of financial statements among the public and regulatory authorities, as noted by (Hanlon & Heitzman, 2010). However, estimating taxable income from financial statements can be

challenging due to issues such as timing differences and the use of different accounting methods for financial reporting and tax purposes, as identified by (McGill & Outslay, 2004). These factors can lead to discrepancies between financial statements and tax returns, emphasizing the need for careful consideration and analysis when estimating taxable income from financial statements.

The Difference Between Non-Conforming and Conforming Tax Avoidance

Non-conforming tax avoidance refers to the reduction of taxable income without reducing accounting income (Hanlon & Heitzman, 2010). This occurs when a firm engages in transactions or practices that comply with the letter of the law but not the spirit of law[3]. Non-conforming tax avoidance may result in the reduction of a firm's tax liability but not necessarily in a reduction of its accounting income. In contrast, conforming tax avoidance involves efforts to reduce both taxable income and accounting income through careful planning and management of a firm's financial and tax affairs in a manner consistent with the spirit of the law (Scholes M. S., 1992). Conforming tax avoidance is considered to be less risky and more sustainable over the long term than non-conforming tax avoidance. The difference between non-conforming and conforming tax avoidance lies in the degree of compliance with the spirit of the law. Non-conforming tax avoidance involves reducing taxable income without reducing accounting income while conforming tax avoidance involves efforts to reduce both taxable income and accounting income through careful planning and management of a firm's financial and tax affairs (Badertscher B. P., 2009).

Most of the following measures of tax avoidance discussed in this paper only capture non-conforming tax avoidance, if present, and do not account for conforming tax avoidance practices that are within the boundaries of tax laws and regulations (Hanlon M. , 2003); (McGill & Outslay, 2004); (Hanlon & Heitzman, 2010).

3.1. Effective Tax Rate Based Measures

The Effective Tax Rate (ETR) measures are widely accepted indicator for avoiding tax. Generally, the ETR is computed as the ratio of total tax expenses to total accounting income; through these measures, an average tax rate per dollar of income or cash flow is calculated

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[3] The letter of the law refers to the exact wording of the law, while the spirit of the law refers to the underlying intention or purpose of the law.

(Hanlon & Heitzman, 2010). Using longitudinal data[4] from a sample of publicly traded U.S. firms, (Gupta & Newberry, 1997) studied the determinants of the variability of corporate effective tax rates (ETR). They found that the variability in ETRs is significantly associated with several factors, including firm size, profitability, and the composition of the firm's business; and obviously, firms in higher income tax jurisdictions tend to have higher ETRs, and firms with greater tax planning activities tend to have lower ETRs. Several variants of this calculation have been documented in the literature (Hanlon & Heitzman, 2010) which will be discussed in more detail in the following sections. The difference between these measures lies in the determination of the numerator and denominator used to calculate them. Each measure has its own strengths and weaknesses, and the appropriate measure to use depends on the research question and the available data.

GAAP ETR

The Generally Accepted Accounting Principles (GAAP) effective tax rate (ETR[5]) is a financial metric that measures the amount of taxes a company pays as a percentage of its taxable income. The formula for GAAP effective tax rate is:

GAAP ETR = Total Income Tax Expense / Pre-Tax Income

The GAAP effective tax rate formula uses the Total Income Tax Expense, which represents the total amount of taxes paid by a company during a specified period, and Pre-Tax Income, which refers to the company's income before taxes are applied. Dividing the Total Income Tax Expense by Pre-Tax Income yields a percentage that represents the GAAP effective tax rate.

Investors and analysts use GAAP effective tax rates to compare the tax burden of different companies. A high GAAP effective tax rate may indicate that a company is less efficient in managing its tax liabilities, while a lower rate may suggest a more effective tax management strategy. However, it is important to note that GAAP's effective tax rate has its limitations as a measure of tax avoidance. One of the main limitations of the GAAP effective tax rate is that

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[4] Longitudinal data is data that is collected over time from the same individuals or groups. In research, longitudinal data is often used to study how variables change or evolve over time, and to identify patterns and trends in these changes.

[5] It should be noted that GAAP ETR is also known as Accounting ETR, and the two terms are used interchangeably.

changes in tax rules and accounting standards can affect it. The GAAP effective tax rate is based on accounting earnings, which may differ from taxable income due to differences in tax rules and accounting standards. Thus, changes in these rules and standards can affect a company's GAAP effective tax rate and, consequently, its reported accounting earnings (Chen & Chu, 2005).

The GAAP effective tax rate may not accurately reflect tax deferral strategies[6] due to its reliance on aggregate tax expenses. Although certain tax strategies, such as utilizing accelerated depreciation methods to defer tax payments, can impact a company's tax liabilities, they are not directly factored into the calculation of the GAAP ETR. The GAAP ETR is determined based on the company's financial statements, which follow accounting rules that may differ from tax regulations. Therefore, while the tax strategy's impact on tax payments may be reflected in the company's tax return and taxable income, it does not alter the GAAP ETR calculated based on the financial statements' figures (Hanlon & Heitzman, 2010); (Chen & Chu, 2005); (Chen, Chen, Cheng, & Shevlin, 2010).

(Schwab, Stomberg, & Xia, 2021) highlights the importance of considering factors beyond tax planning strategies when analyzing ETRs. Their study challenges the conventional assumption that very low or high GAAP effective tax rates (ETRs) accurately reflect the extent of tax avoidance. Based on the disclosures made in the income tax footnotes from 2008 to 2016, the researchers find that ETRs that are lower than 5% and higher than 40% are significantly influenced by elements outside of tax planning, such as goodwill losses (impairments) and valuation allowances. The study suggests that these unrelated factors distort the interpretation of ETRs as measures of tax avoidance. Despite attempts to control for standard determinants and using adjusted measures, the clustering of these unrelated factors persists in the tails of the ETR distribution.

Current ETR

The current effective tax rate (ETR) is a financial metric that measures the tax burden of a company during a specific period, considering both the statutory tax rate and any tax credits,

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[6] Tax deferral strategies are employed by businesses to postpone recognizing taxable income, thereby reducing current tax liabilities and lowering their Effective Tax Rate (ETR), although it's important to note that these strategies aim to delay tax payments rather than eliminate them entirely.

deductions, and other factors that may affect the company's actual tax liability (Hanlon & Heitzman, 2010). The formula for the current ETR is:

Current ETR = Current Year Tax Expense / Pre-Tax Income

The current ETR formula utilizes the Current Year Tax Expense, which is the total tax amount paid by the company during a specified period, and Pre-Tax Income, which is the total income of the company before applying taxes. Dividing the Current Year Tax Expense by the Pre-Tax Income yields a percentage value that represents the current ETR.

Unlike GAAP ETR, which uses the aggregate tax expense to compute the tax rate, the current ETR considers the current income tax instead of the total tax expense. This calculation reflects the effectiveness of a company's tax deferral strategies and provides a more advantageous indicator of a company's tax position. For instance, when a company implements tax deferral strategies, it can lower its current taxable income, resulting in a reduced tax expense. As a consequence, the Current ETR may be lower than what it would have been without utilizing such strategies. This lower Current ETR indicates that the company has effectively reduced its tax burden in the current period. By considering the current tax expense and income, the current ETR provides a real-time snapshot of the company's tax position and the effectiveness of its tax deferral strategies, offering a more accurate and timely reflection of the company's tax avoidance measures, and highlighting the immediate benefits of deferring taxable income. However, it is important to note that the current ETR has its limitations as a measure of tax avoidance. It only considers the tax paid as a percentage of the company's profits, which can be misleading because profits can be manipulated by shifting them to low-tax jurisdictions or through the use of accounting practices such as transfer pricing (Chen & Chu, 2005).

Cash ETR

Cash ETR is a financial metric that measures a company's actual tax burden by considering its cash taxes paid and pre-tax income. It is calculated as the ratio of cash taxes paid to pre-tax income:

Cash ETR = Cash taxes paid / Pre-tax income

Cash taxes paid refer to the total amount of taxes paid by the company in cash during a specific period, such as a fiscal year, while pre-tax income is the company's income before taxes are deducted.

Cash ETR only considers the cash taxes paid by a company, disregarding the potential impact of deferred taxes and tax planning strategies; it focuses solely on cash taxes paid and does not account for deferred taxes or changes in tax accounting accruals (Donohoe, 2015). A mismatch can arise when the cash taxes paid include taxes from a different period, such as those resulting from an IRS audit completed in the current year, while the denominator comprises only the current period's earnings. This discrepancy can lead to distorted results, as the numerator represents the actual taxes paid, while the denominator includes earnings from the current period (Hanlon & Heitzman, 2010).

Companies with high levels of tax avoidance, as measured by the Cash ETR, have higher earnings volatility. This is due to the uncertainty surrounding tax liabilities and the potential for tax-related penalties and interest (Scott D. Dyreng, 2008). Cash ETR is highly volatile, with significant year-to-year fluctuations where this volatility is attributed to a variety of factors, including changes in tax laws, the use of tax planning strategies, and the impact of one-time events such as acquisitions and divestitures (Dyreng, Hanlon, Maydew, & Thornock, 2017).

Long-run Cash ETR

To overcome the issues with yearly fluctuations of ETR measures, (Dyreng S. D., 2008) introduced two key modifications to enhance effective tax rate (ETR) measures. Firstly, they adopted a long-run perspective by aggregating data over ten years, providing a comprehensive view of a company's tax payments and pre-tax income. This approach overcomes the limitations of single-year analysis, enabling a better understanding of the firm's tax burden over the long term. Secondly, they included cash payments for income taxes in the ETR calculation, acknowledging that traditional ETR measures based on financial statement tax expense may differ from actual cash outflows. Thus, the long-run cash ETR is calculated as follows:

Long-Run Cash ETR = Sum of Cash Paid for Income Taxes over n years / Sum of Pre-tax Income (Net of Special Items[7]) over n years

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[7] Special items are distinguished and reported separately from ordinary income in financial statements because they are non-recurring and irregular in nature. This separation allows for a proper evaluation of a company's financial performance by isolating these exceptional items. Examples of special items include restructuring charges, special executive compensation, write-offs of assets, settlements related to legal matters, and income resulting from the discontinuation of debt (CFI Institute, n.d.).

The numerator represents the sum of cash paid for income taxes over the specified "n" years, considering the total amount of cash outflows made by the firm for tax payments. The denominator represents the sum of pre-tax income (net of special items) over the same "n" years, which includes the company's earnings before deducting income tax expenses and excluding special items.

Cash flow ETR

While generally accepted accounting principles (GAAP) calculate the effective tax rate (ETR) based on pre-tax income, an alternative method known as Cash Flow ETR provides additional insights into how a company minimizes its tax liabilities. Unlike GAAP, Cash Flow ETR incorporates operating cash flows and assesses conforming tax avoidance strategies that are not directly tied to accounting earnings allowing for a more comprehensive evaluation of tax avoidance (Hanlon & Heitzman, 2010). A lower ratio may indicate a higher level of tax avoidance, although it is worth noting that the Cash Flow ETR method is not as widely utilized (Gebhart, 2017). Two approaches or variants for calculating the cash flow ETR are introduced:

The first approach, initially introduced by (Zimmerman, 1983) and further utilized by (Salihu, Obid, & Annuar, 2013) and (Gebhart, 2017), involves dividing the total tax expense by the operating cash flow:

Cash flow ETR (1) = Total tax expense / Operating cash flow

The second approach, also employed by (Salihu, Obid, & Annuar, 2013) and (Gebhart, 2017), considers the amount of cash used to fulfill tax obligations in relation to the generated operating cash flow:

Cash flow ETR (2) = Cash taxes paid / Operating cash flow

The cash flow effective tax rate (ETR) is an unreliable measure for capturing conforming tax avoidance. It fails to include book-tax conforming tax strategies that manipulate expense and revenue timing, impacting the cash flow (Badertscher, Katz, Rego, & Wilson, 2018). One significant weakness of Cash flow ETR is that it can result in a negative ETR when operating cash flow is negative, which could introduce a bias due to data truncation; although this issue could be mitigated by focusing solely on profitable firms which would further restrict the applicability of the findings (Aronmwan, 2019). Further research is needed to develop more

accurate measures for capturing conforming tax avoidance (Hanlon & Heitzman, 2010); (Badertscher, Katz, Rego, & Wilson, 2018).

3.2. ETR Differential

The differential effective tax rate (ETR) measure provides a means to analyze and quantify the extent to which a company or individual is minimizing their tax payments. It represents the disparity between the ETR calculated according to Generally Accepted Accounting Principles (GAAP) and the statutory ETR (Hanlon & Heitzman, 2010). The ETR reflects the overall tax burden as a percentage of income or profits, encompassing all types of taxes. Conversely, the statutory tax rate denotes the legally mandated tax rate that a company must adhere to. For instance, if the ETR is 25% and the statutory rate is 35%, the ETR differential would be -10%, indicating that the company has managed to reduce their tax burden by 10%. While this differential is often seen as an indicator of tax avoidance, it is crucial to note that a negative differential does not necessarily imply tax avoidance. The ETR differential can be calculated using the following formula:

ETR differential = GAAP ETR - Statutory ETR

While the GAAP ETR represents the effective tax rate calculated based on Generally Accepted Accounting Principles, the Statutory ETR on the other hand, represents the legally required tax rate. By subtracting the statutory ETR from the GAAP ETR, we obtain the ETR differential.

This differential represents the variance between the actual tax burden experienced by a company or individual (as determined by GAAP) and the tax burden that is legally mandated (statutory rate). A negative differential implies that the company or individual has managed to reduce their tax burden compared to what is legally required. However, it is important to consider that factors other than tax avoidance, such as legitimate tax planning strategies, can also contribute to a negative ETR differential.

3.3. DTAX

The DTAX measure of tax avoidance introduces a method to further analyze the Effective Tax Rate (ETR) differential. This measure breaks down the ETR differential into two components: the explained portion and the unexplained portion.

The explained portion of the ETR differential can be attributed to factors such as differences in tax laws, regulations, and industry-specific characteristics. These factors significantly impact a company's effective tax rate. To calculate the explained portion, a set of variables known as controls is used. These controls encompass relevant factors that explain the differences in effective tax rates among companies. On the other hand, the unexplained portion of the ETR differential represents the portion that cannot be accounted for by the explained factors (Frank, Lynch, & Rego, 2009). The DTAX measure is specifically designed to quantify and understand the extent of tax avoidance strategies employed by a company. It focuses on capturing the unexplained portion of the ETR differential, indicating potential tax avoidance activities.

To estimate the unexplained portion of the ETR differential, (Hanlon & Heitzman, 2010) employed a regression model. The equation for the regression model is as follows:

ETR differential * Pre-tax book income = a + b * Controls + e

Here, the ETR differential represents the difference in effective tax rates between companies. Pre-tax book income refers to the taxable income before adjustments or deductions. The intercept term "a" and the coefficients "b" associated with the controls capture the explained portion of the ETR differential. The error term or residual "e" captures the unexplained portion of the ETR differential, which is the DTAX measure. The variables included in the equation depend on the research question and the interpretation of the manager's actions in relation to tax reduction strategies or incidental tax reduction.

By utilizing this regression model, the researchers aimed to decompose the ETR differential into its explained and unexplained components. This decomposition provides valuable insights into the factors influencing effective tax rates and facilitates the identification of potential tax avoidance strategies employed by companies. It is important to note that the interpretation of the variables included in the model depends on the researcher's understanding of the manager's actions in relation to tax reduction strategies or the incidental reduction of taxes (Hanlon & Heitzman, 2010).

3.4. Book-tax Differences Based Measures

The use of book-tax differences (BTD) based measures are aimed at identifying and addressing tax avoidance practices by examining the disparity between the amount of tax paid according to a company's accounting income and the amount of tax paid based on its taxable income. This method involves grossing up the recorded tax expense to estimate the actual taxable income.

However, (Manzon, 2002) emphasizes that this method of deriving taxable income is an estimation rather than an exact representation of the actual amount. The use of the statutory tax rate assumes that the company's tax provisions and adjustments align with the applicable tax laws and regulations.

(Hanlon & Heitzman, 2010) argue that book-tax differences capture only a certain amount of tax avoidance, but they exclusively reflect nonconforming tax avoidance. As a result, they are not suitable for comparing tax avoidance activities among firms that place different levels of importance on financial accounting earnings.

(Salihu, Obid, & Annuar, 2013) present the use of book-tax gap (BTG) measures as indicators of tax avoidance. They emphasize that the magnitude of the BTG suggests the presence of tax avoidance practices, as confirmed by the findings of (Mills, 1998), which showed a favorable correlation between BTG and audit adjustments and tax audits among US corporations.

The studies conducted by (Tang & Firth, 2011), (Wilson, 2009), and (Desai M. A., 2003) offer valuable insights into the significance of book-tax differences (BTD) in relation to corporate tax avoidance. (Tang & Firth, 2011)'s study focused on Chinese-listed companies and revealed that the level of abnormal BTDs is higher in companies that have strong incentive schemes for earnings management and tax management, capturing manipulations motivated by managerial motives in both accounting and taxation. (Wilson, 2009)'s research identified characteristics of firms engaged in tax sheltering, showing that they tend to have larger ex-post book-tax differences and employ more aggressive financial reporting practices. Moreover, active tax shelter firms with strong corporate governance exhibited positive abnormal returns, suggesting tax sheltering can be a tool for wealth creation in well-governed firms. (Desai M. A., 2003)'s study examined the relationship between book income and tax income for U.S. corporations, finding a breakdown in this relationship consistent with increased tax sheltering activities during the 1990s.

There are several different measures of tax avoidance that can be categorized into book-tax differences:

Total BTD

Total Book-Tax Differences (BTD) can be used as an indicator of potential tax avoidance activities by comparing the taxable income reported in financial statements to the taxable income reported on tax returns. Significant differences between the two can suggest potential

tax planning or aggressive tax strategies. The basic formula for calculating BTD was developed by (Manzon, 2002) as cited by (Gebhart, 2017). The formula is expressed as follows:

Total BTD = Pre-tax Income - (Current Tax Expense / Statutory Tax Rate)

By subtracting the Current Tax Expense divided by the Statutory Tax Rate from Pre-tax Income, the formula quantifies the disparity between the expected tax expense based on the statutory tax rate and the actual tax expense reported in the financial statements. In essence, this calculation provides a measure of Total Book-Tax Differences (BTD) that reflects the extent to which the reported tax expense deviates from what would be anticipated under normal circumstances. This discrepancy in BTD can serve as an indicator of potential tax avoidance activities, suggesting that the company's tax burden is lower than what would typically be expected.

The Total BTD is a valuable but limited proxy for tax avoidance. (Lee, Dobiyanski, & Minton, 2015) argues that while BTD captures the combined effects of earnings management and tax planning, it fails to distinguish between temporary and permanent differences, making it susceptible to noise and potentially reflecting non-conforming tax avoidance. BTD's reliance on financial statement variables assumes that managers solely inflate book income while reducing taxable income, disregarding cases where both incomes are lowered simultaneously. The confounding effects[8] of tax avoidance and earnings management further complicate the interpretation of BTD. The concept of total BTD can lead to excessive interpretation due to confounding effects, such as tax credits, bond interests, valuation allowances, depreciation rates, and warranty expenses (Hanlon & Heitzman, 2010). Due to its confounding effects, the total book-tax difference is the least favored indicator of tax avoidance; nevertheless, several variations, including temporal and anomalous BTD, have been created to address these shortcomings (Aronmwan, 2019). Therefore, caution must be exercised when utilizing BTD as a measure of tax avoidance, and alternative methodologies and proxies should be considered for a comprehensive analysis.

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[8] Confounding effect refers to a situation where the observed relationship between two variables is distorted by the influence of a third variable that is associated with both of them. It occurs when the effect of the third variable on the outcome mistakenly appears to be caused by the relationship between the two main variables. In essence, confounding effect confuses or masks the true association between the variables of interest (K.J. Jager, 2008).

Temporal BTD

Temporal book-tax difference (BTD) refers to the discrepancy or difference that arises between the financial accounting treatment and the tax accounting treatment of certain items over time. It is a concept used in accounting to quantify and analyze the timing differences in recognizing and reporting revenues, expenses, gains, and losses for financial accounting purposes versus tax accounting purposes. According to (Hanlon & Heitzman, 2010), the formula for determining the temporal book-tax difference can be expressed as:

Temporal BTD = Deferred Tax Expense / Statutory Tax Rate

It represents the change in the deferred tax asset or liability balance between periods, reflecting the effects of temporary differences arising from the timing disparities in recognition for financial accounting and tax accounting purposes. The statutory tax rate, specified by tax authorities, determines the tax liability based on taxable income before any deductions or credits. Utilizing the temporal book-tax difference, this standardized measure enables assessment of the influence of timing discrepancies on a company's tax expense.

(Comprix, 2011) indicates a significant implication regarding temporal book-tax differences (BTDs), emphasizing that they arise from disparities in revenue and expense recognition timing for accounting and tax purposes. While these variations may be attributable to divergent accounting and tax regulations, their study further argues that temporal BTDs can be influenced by managerial discretion[9] within the accrual accounting process, notably through mechanisms like deferred tax accounting. This observation highlights the strong correlation between temporal BTDs and the manipulation of reported earnings, underscoring their potential role as a means of exercising control over financial outcomes.

Similarly, (Lee, Dobiyanski, & Minton, 2015) highlights that the deferral strategy, commonly employed for tax avoidance purposes, is predominantly subject to managerial discretion. The study further suggests that this strategy is more likely to be utilized for earnings management or, at best, for non-conforming tax avoidance.

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[9] Managerial discretion in accrual accounting refers to the capacity of managers to exercise their judgment in deciding the quantity and timing of accruals (Al-Khouri, Bajleda, & Shorman, 2006).

(Wahab & Holland, 2015) argue that when a company consistently employs deferral strategies over a prolonged period, it can have far-reaching consequences that go beyond temporary financial planning. The continued utilization of such strategies may eventually lead to a situation where the impact becomes permanent, serving as a clear indication of the company's potential motive for tax avoidance.

According to (Aronmwan, 2019), when companies use deferral tactics to delay or change their tax payments, it might seem like a helpful way to take a break from paying taxes immediately. The study argues that it's important to understand that this relief is only temporary and doesn't provide a permanent solution to avoid paying taxes altogether. The main reason behind this is that the assets associated with the deferred tax liabilities have a limited lifespan. Once that period ends, companies are legally obligated to settle the tax payments that were previously put off. In simpler terms, while deferral strategies offer a short-term advantage, they cannot be relied upon as a permanent means to escape tax obligations in the long term.

Discretionary Total BTD

The Discretionary Total Book-tax difference (BTD) measure of tax avoidance is a metric used to assess the extent to which a company engages in intentional tax avoidance activities. It is derived from the Total BTD, which was initially developed by (Manzon, 2002) and later modified by (Desai M. A., 2003) and (Desai & Dharmapala, 2006). The computation of discretionary accruals in the well-known Jones model is comparable to how the Discretionary Total Book-Tax Difference (BTD) is calculated (Desai & Dharmapala, 2006); (Frank, Lynch, & Rego, 2009); (Chen, Chen, Cheng, & Shevlin, 2010); (Lee, Dobiyanski, & Minton, 2015).

(Lee, Dobiyanski, & Minton, 2015) states that a company's accruals can be represented as a function of assets, revenues, and the gross value of its plant, property, and equipment (PP&E), according to the Jones model, which was put out by (Jones, 1991). In order to account for industry-specific traits, the cross-sectional Jones model regresses accruals on assets, revenues, and PP&E within each industry to estimate discretionary accruals. The discretionary accruals element of accruals, which cannot be explained by these industry-level factors, is included in the residual that results from this regression analysis.

(Desai & Dharmapala, 2006) further extend this approach which involves performing a regression analysis, wherein the total book-tax differences are regressed against total accruals. By incorporating total accruals as a controlling variable, they aim to account for the potential influence of accounting earnings management. The resulting residual from this regression

analysis is then utilized as a proxy to capture the complex phenomenon of tax avoidance. In essence, this methodology allows for the quantification of the discretionary book-tax difference while considering the potential manipulation of accounting figures and providing insights into the extent of tax avoidance practices.

(Frank, Lynch, & Rego, 2009) extends (Desai & Dharmapala, 2006)'s method by estimating the discretionary portion (DTAX) of the PERMDIFF measure, which represents the difference between effective and statutory tax rates multiplied by pre-tax accounting income. This approach, as (Hanlon & Heitzman, 2010) points outs is conceptually similar to (Jones, 1991) model of discretionary accruals, aiming to isolate intentional tax avoidance actions from underlying determinants. By estimating DTAX, (Frank, Lynch, & Rego, 2009) distinguishes intentional tax avoidance behaviors while acknowledging that the Discretionary Total Book-Tax Difference (BTD) used does not differentiate between intentional and accidental actions, except for earnings management. Their work enhances the understanding of intentional tax avoidance and highlights the importance of focusing on deliberate actions in the residual component of the measure.

(Hanlon & Heitzman, 2010) posit that the total discretionary BTD, which serves as an indicator of abnormal BTD as computed by (Desai & Dharmapala, 2006), holds conceptual significance because it eliminates elements like earnings management that are not motivated by deliberate tax avoidance. By removing these underlying elements, the focus shifts to the portion of BTD that is intentionally driven by tax avoidance. Additionally, they acknowledge that certain activities, including foreign operations, treatment of intangible assets (e.g., research and development costs), and loss relief treatment, can lead to accidentally created BTD.

However, these activities can also be intentionally employed to avoid tax payments, thereby blurring the line between intentional and unintentional tax-driven actions when estimating discretionary BTD. Consequently, accurately discerning the intentional or unintentional nature of these activities becomes challenging, complicating the control and assumption of their impact on the estimation of discretionary BTD. It is also crucial to acknowledge that these models may encounter issues of model misspecification (Frank, Lynch, & Rego, 2009), and have limitations in capturing conforming tax avoidance, as they rely on the difference between book and taxable incomes (Lee, Dobiyanski, & Minton, 2015). Furthermore, the Discretionary Total BTD has challenges in interpretation, as it captures non-conforming tax avoidance and lacks the ability to differentiate between intentionally and accidentally created BTD (Frank, Lynch, & Rego, 2009); (Hanlon & Heitzman, 2010); (Lee, Dobiyanski, & Minton, 2015).

Discretionary Permanent BTD

Discretionary Permanent Book-Tax Differences (BTD) is a measure developed by (Frank, Lynch, & Rego, 2009) to address the issue of Book-Tax Differences that are not related to tax planning. This measure focuses specifically on permanent BTDs, as it is argued that ideal tax shelter activities result in permanent differences between financial and taxable income, while temporary BTDs are more likely to be influenced by the earnings management (Gebhart, 2017).

According to (Gebhart, 2017), the concept of discretionary permanent BTD was introduced because the existing measure, discretionary total BTD, was unable to differentiate between intentionally created BTD and accidentally created BTD. To calculate discretionary permanent BTD, first, total permanent BTD (total BTD minus temporal BTD) is captured. Then, the total permanent BTD is regressed against a set of firm attributes that create permanent BTD but have no association with tax planning. This regression helps control against factors that may cause accidental BTD. The residual from this regression is what (Frank, Lynch, & Rego, 2009) refers to as discretionary permanent BTD.

(Frank, Lynch, & Rego, 2009) argue that the concept of discretionary total book-tax differences (BTD) encompasses the impact of management's actions on accounting income and taxable income, which can result in unintentional tax avoidance or a combination of unintentional and intentional tax avoidance. However, when examining discretionary permanent BTD, the focus is solely on deliberate efforts to avoid taxes. In other words, discretionary permanent BTD isolates the intentional tax avoidance strategies employed by management, disregarding any unintentional tax savings that may arise from their decisions. This differentiation allows for a more targeted analysis of the deliberate actions taken to minimize tax liabilities and provides a clearer understanding of the extent to which management is actively engaging in intentional tax avoidance practices.

In their respective studies, (Wilson, 2009) and (Hanlon & Heitzman, 2010) challenge the effectiveness of discretionary permanent book-tax differences (BTD) as a reliable measure of tax avoidance behavior, shedding light on crucial limitations. They argue that tax shelter activities can generate not only temporal BTD and permanent BTD but can even lead to no BTD at all, thereby complicating the evaluation of tax avoidance strategies. This implies that relying solely on discretionary permanent BTD may not offer a comprehensive understanding of the extent of tax avoidance employed by entities.

(Hanlon & Heitzman, 2010) further contend that the measure fails to account for deferral tax strategies, which are captured by temporary BTD. Both (Hanlon & Heitzman, 2010) and (Wilson, 2009) emphasize that the exclusive focus on permanent BTD limits the assessment of tax avoidance activities, as deferral strategies can significantly impact tax liabilities but may not manifest as discernible book-tax differences. Consequently, a broader comprehension of tax avoidance behavior necessitates considering the potential effects of tax shelter activities on both temporary and permanent BTD, while also recognizing that tax avoidance efforts encompass deferral strategies that are not reflected solely in discretionary permanent BTD.

Tax Effect BTD

In their study, (Tang & Firth, 2011) introduced a modified approach to address the tax effect within the context of Book-Tax Differences (BTD). They identified a key challenge in estimating taxable income, which involves grossing up tax expenses using the statutory tax rate. This process often introduces estimation problems. To overcome these issues, they proposed utilizing the tax effect of BTD.

The tax effect of BTD can be calculated by deducting the current tax expense from the product of accounting income and the statutory tax rate. Alternatively, it can be derived by summing the multiplication of the statutory tax rate by the permanent differences and the multiplication of the statutory tax rate by the temporary differences. This approach not only solves the estimation problem associated with grossing up but also proves to be effective in examining firms that operate under varying tax rates (Salihu, Obid, & Annuar, 2013), and firms that employ income-shifting strategies (Tang & Firth, 2011). Income-shifting strategies are known for reducing the tax burden without impacting the accounting and tax income of these firms (Aronmwan, 2019). Therefore, the tax effect BTD method proposed by (Tang & Firth, 2011) offers a valuable tool for analyzing and understanding the financial dynamics of such firms.

3.5. Unrecognized Tax Benefits

Unrecognized Tax Benefits (UTBs) refer to potential tax liabilities or tax benefits related to uncertain positions that have not been recognized or accounted for in a company's financial statements. UTBs arise when a company takes a tax position that may be challenged or disallowed by tax authorities during audits or legal proceedings. The concept of UTBs and their treatment in financial accounting has been addressed by various studies and regulatory bodies.

(Hanlon & Heitzman, 2010) describes UTBs as financial accounting accrual that is influenced by the conservative or aggressive nature of a firm's financial accounting practices. The recognition or non-recognition of UTBs depends on the approach taken by the firm in applying accounting standards. The disclosure of UTBs is typically made in the financial statement footnotes.

(Lisowsky, Robinson, & Schmidt, 2013) explains that UTBs are a type of contingent liability referred to as the FIN 48 tax reserve. These reserves represent the potential tax benefits associated with open tax positions that may ultimately be disallowed. Financial Accounting Standards Board (FASB) Interpretation No. 48, "Accounting for Uncertainty in Income Taxes" (FIN 48), requires companies to disclose the amount of UTBs in the footnotes of their financial statements.

(Lee, Dobiyanski, & Minton, 2015) argues that UTBs arise when taxpayers employ questionable tax strategies to reduce their tax liabilities. These positions may be challenged and revoked by tax authorities during audits in the future. In anticipation of potential tax payments resulting from uncertain tax positions, taxpayers are required to accrue a potential tax liability, which is referred to as an unrecognized tax benefit or a tax contingency. The introduction of FIN 48 by FASB in 2006 aimed to ensure consistent accounting for uncertain tax positions across corporations and replaced older terms like "tax cushion" or "tax contingency" with the term "unrecognized tax benefit."

(Gebhart, 2017) claims that there are two steps involved in evaluating uncertain tax positions within the parameters of FIN 48. In the first step, a business identifies all tax positions that have a greater than 50% chance of being challenged by tax authorities and are therefore more likely than not to be challenged. The value of these identified tax positions is determined in the second step at the maximum tax benefit that has a chance of being realized upon settlement with the taxing authority that is greater than 50%, assuming the authority has full knowledge of all pertinent information. The benefit amount that should be recorded in the financial statements is determined by this valuation. The tax advantage recognized in the financial statements and the one disclosed in the tax return may differ as a result of this two-step procedure. These variations, often referred to as Unrecognized Tax Benefits (UTBs), are declared in the company's financial statements as contingent liabilities.

Overall, UTBs are a significant consideration in financial accounting, and their disclosure in financial statements helps provide transparency to stakeholders regarding a company's potential tax liabilities associated with uncertain tax positions.

3.6. Tax Shelter Firms

Tax shelter firms, also known as tax shelters, refer to tax-motivated activities or transactions that are designed to minimize or avoid tax liability. These activities typically involve complex financial arrangements or structures that exploit loopholes or inconsistencies in tax laws or regulations. According to (Bankman, 2004) and (Hanlon & Heitzman, 2010), the term "tax shelter" does not have a universally agreed-upon definition, but scholars have proposed various characteristics to define them. One definition put forward by (Bankman, 2004) suggests that tax shelters are (1) tax motivated, meaning their primary purpose is to reduce taxes; (2) transactions unrelated to a taxpayer's normal business operations, indicating that they are separate from the taxpayer's regular activities; (3) based on a literal interpretation of relevant legal authority, suggesting that the transactions may exploit technicalities in the law; (4) result in a loss for tax purposes that exceeds any economic loss, meaning the tax benefit is disproportionate to the actual economic consequences of the transaction; and (5) inconsistent with legislative intent or purpose, indicating that they go against the intended goals of tax laws.

Another perspective on tax shelters comes from (Graham & Tucker, 2006), who highlights the definition provided by the Joint Committee on Taxation of the US Congress in 1999. According to this definition, a tax shelter is an activity primarily aimed at avoiding taxation while causing minimal harm to the economy. In line with this spirit or objective of the law or regulation, tax shelters, as described by (Bankman, 2004), involve tax-motivated strategies that manipulate economic revenue by exploiting a literal interpretation of the law or regulation. While (Bankman, 2004)'s focus is on tax shelters promoted by external parties, such as investment banks, (Graham & Tucker, 2006) suggests that tax shelter activities can also be driven by the taxpayer's own interests. For example, non-arm’s length transfer pricing, which involves manipulating prices in transactions between related entities, is an activity more likely to be motivated by the taxpayer's own interests.

Following (Graham & Tucker, 2006), in (Wilson, 2009)‘s study, a profile of tax shelter businesses was built utilizing entities identified as participants in corporate tax shelters in Tax Court documents and press stories. The data show that tax avoidance efforts considerably raise a company's book-tax differences (BTDs). When compared to matched control businesses, the

detected tax shelter firms have considerably higher BTDs. This shows that big positive BTDs might signify tax avoidance to investors and academics. When the BTDs of the tax shelter enterprises are adjusted to remove the impacts of tax shelter activities, the large disparity in BTDs disappears. This backs with prior studies that linked the rise in BTDs in the 1990s to increasing tax dodging. The study also discovers favorable relationships between tax sheltering, business size, the presence of foreign revenue, and proactive financial reporting. However, the study has drawbacks. It focuses on a specific collection of tax shelter enterprises discovered and investigated by the IRS, presumably representing a distinct sample of tax shelter participants. The findings may not apply to a larger spectrum of tax shelter members. Furthermore, recent laws and IRS investigations have limited many of the specific types of tax shelters covered in the study, limiting the findings' generalizability to newer forms of tax sheltering used by enterprises in the present or future.

In addition to (Wilson, 2009), (Hanlon & Slemrod, 2009) also conducted a study on tax shelter firms, aiming to analyze the benefits and costs associated with tax aggressiveness and the market reaction to news about a firm's involvement in tax shelters. The study identified 108 tax sheltering cases involving 97 firms from the Factiva Database between January 1, 1990, and September 1, 2004. The findings reveal that, on average, the stock price of a company declines when news of its tax shelter involvement surfaces. The market reaction varies across industries, with more negative responses observed for firms in the retail sector, potentially indicating a consumer/taxpayer backlash. However, firms with a higher cash effective tax rate experience a less negative market reaction, suggesting that investors interpret the news as a positive signal of tax aggressiveness.

According to (Hanlon & Heitzman, 2010), defining tax avoidance in order to detect aggressive tax planning activity offers advantages but also disadvantages. Because the sample of tax shelter businesses comprises only caught or revealed cases, potential selection biases exist. Furthermore, the usage of tax shelters is most likely endogenous, with enterprises that can evade taxes through other ways not requiring shelters. Firms that are unable to evade taxes may turn to tax shelters. Thus, when considering a broader definition of tax avoidance, tax sheltering corporations may not be the most aggressive tax avoiders.

Tax shelter businesses, according to (Lisowsky, Robinson, & Schmidt, 2013), engage in operations that reduce tax liabilities. They argue that there is a strong positive relationship between tax shelter use and the ending balance of the Financial Interpretation No. 48 (FIN 48) tax reserve. By combining public and private disclosures, they find that the link between FIN

48 tax reserves and tax shelter use is not influenced by tax or financial reporting conservatism. Therefore, the FIN 48 tax reserve is a reliable predictor of tax shelters, with tax benefits from these activities representing a significant portion of aggregate reserves. However, other tax avoidance measures such as GAAP ETR, Cash ETR, and book-tax differences show no association with tax shelter use.

Overall, tax shelter firms engage in tax-motivated activities to minimize tax liability by exploiting loopholes. These activities have a significant impact on a company's book-tax differences and often result in negative market reactions upon disclosure. The FIN 48 tax reserve reliably predicts the presence of tax shelters, while other measures of tax avoidance do not demonstrate a noteworthy association.

3.7. Henry and Sansing's Measure

(Henry & Sansing, 2018)'s measure of tax avoidance, also known as the H&S measure, is a method developed to overcome the limitations of existing Effective Tax Rate (ETR) measures and provide a more accurate assessment of corporate tax avoidance. The H&S measure addresses the problem of truncation bias caused by the omission of loss firms in ETR calculations.

The formula for the H&S measure is as follows:

$HS = (\Delta / MVA)$

Where:

HS = H&S measure of tax avoidance

Δ = Tax preferences, calculated as cash taxes paid minus the product of pre-tax income and the statutory tax rate (cash taxes paid - τ * pre-tax income)

MVA = Market Value of Assets

To calculate the H&S measure, first, the tax preferences (Δ) of a firm are determined by subtracting the product of pre-tax income and the statutory tax rate from the cash taxes paid. This represents the difference between the actual tax payments and the expected tax payments based on pre-tax income and the tax rate. Next, the tax preferences (Δ) are scaled by the Market Value of Assets (MVA) of the firm. MVA is calculated as the sum of the book value of assets

and the market value of equity minus the book value of equity. This scaling by MVA considers the size of the firm and provides a measure of tax avoidance relative to the firm's economic value.

The resulting HS measure represents the degree of tax avoidance. If the tax preferences (Δ) are positive, indicating that the firm paid more in cash taxes than the expected tax payment, the HS measure will be positive, indicating higher tax avoidance. If the tax preferences (Δ) are negative, indicating that the firm paid less in cash taxes than the expected tax payment, the HS measure will be negative, indicating lower tax avoidance. A firm with no tax preferences (Δ = 0) will have a HS measure of zero, indicating no tax avoidance.

The H&S indicator has numerous benefits over regular ETR indicators. First, because MVA is always positive, no observations need to be eliminated, it avoids the truncation bias induced by the exclusion of loss companies. This guarantees that the research covers both lucrative and loss-making businesses, offering a more complete picture of tax avoidance. Second, by using MVA in the denominator, the possible distortion produced by pre-tax profitability is accounted for, allowing for a more realistic evaluation of tax advantages. Furthermore, the H&S metric may be used to assess both short-term and long-term tax avoidance. The H&S measure, on the other hand, lacks the intuitive interpretation of ETR measures, making its interpretation more difficult.

When researchers use numerous measures to assess tax avoidance, it is critical to carefully investigate whether individual measures may generate different results and the reasons for these discrepancies. This emphasizes the need of having a thorough awareness of the many measurements used, as well as their respective strengths and limits.

4. Determinants of Tax Avoidance

This section focuses on the factors that influence a company's decision to engage in corporate tax avoidance. The study explores firm characteristics, ownership structures, managerial compensation incentives, governance, external factors, social network, and markets as potential determinants. By examining these elements, we gain insights into why companies choose to minimize their tax liability. Tax avoidance is complex and influenced by various factors and interactions, some of which are difficult to measure, as noted by (Hanlon & Heitzman, 2010).

4.1. Firm-level Characteristics

Firm Size

Firm size is a crucial firm-level characteristic that significantly influences tax avoidance behaviors. Some studies have found a positive association between firm size and ETR measures. For example, referring to (Zimmerman, 1983)'s study, (Dyreng S. D., 2008) reports a positive association between firm size and effective tax rates, which aligns with the political cost hypothesis[10].

As per earlier studies, (Rego, 2003) points out that tax planning expenses are cheaper as business size, income, and international activities rise. While international activities show economic breadth, firm size is a good indicator of economic scale. The level of income also conveys the size and breadth of the economy. Economic scale is stronger in larger organizations with higher revenue levels, such as global oil companies as opposed to regional oil companies. Additionally, a company's income level indicates the size of its market, as businesses with greater incomes are more likely to operate in many markets and are able to offset net operating losses in less lucrative ones. The negative correlations between the marginal costs of tax planning and firm size, income, and foreign operations indicate that firms with greater economic scale and scope are likely to engage in more effective tax planning, which will lead to lower effective tax rates (ETRs), when all other variables are held constant.

(Wilson, 2009) found a positive relation between firm size and tax shelter participation, indicating that larger firms engage in more aggressive tax planning which suggests that larger firms face higher visibility and greater regulatory activity.

Therefore, larger firms, with their greater financial resources and access to professional tax advice, are more likely to take advantage of tax avoidance opportunities compared to smaller firms (Glover & Levine, 2021). The financial capabilities of large companies allow them to hire expensive tax accountants and lawyers who can exploit loopholes in the tax code, giving them a competitive edge in minimizing their overall tax burden. Moreover, larger firms often benefit

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[10] The political cost hypothesis indicates that the bigger the political costs of the company, the more likely management is to implement accounting policies to defer reported earnings from the current period to future periods. This hypothesis brings politics into the option of accounting policies (Pasandidehfara, Shahverdianib, & Goharb, 2016).

from economies of scale when it comes to tax planning, further enhancing their ability to reduce their tax liabilities.

The study by (Glover & Levine, 2021) suggests that increased tax avoidance by larger businesses leads to a decrease in their effective tax rates, contributing to the growth in the average firm size and the magnitude of industry concentration. However, this excessive tax avoidance may have negative consequences, such as limiting the entry of new companies into the market and reducing overall productivity. Customers, on the other hand, can benefit from lower product costs resulting from the tax advantages gained by large firms. To evaluate the benefits and costs of tax avoidance for businesses, taxpayers, and customers, as well as the impact of changes to the statutory tax rate and the expense of avoidance, the model proposed by (Glover & Levine, 2021) can be employed.

Contrary to the findings of (Zimmerman, 1983), (Rego, 2003), (Wilson, 2009) and (Glover & Levine, 2021) however, other studies have identified a negative relationship between firm size and ETRs, that is (Porcano, 1986)'s study, conducted on listed companies in Shanghai and Shenzhen during the Tenth Five-Year Plan and the Twelfth Five-Year Plan of National Economy and Social Development, contributes to the understanding of how larger firms have more resources for lobbying and sophisticated tax planning activities and therefore influence corporate tax avoidance. The study looks at how Chinese industrial policy affects tax avoidance behavior and its internal workings. The results show that firms that benefit from industrial policies, especially non-state-owned businesses in areas with lax tax enforcement, have less financial limitations and engage in less tax avoidance than firms that do not receive policy assistance.

Additionally, (Prabowo, 2020) conducted a study using a sample of listed companies in Indonesia and found that firm size does not have a significant effect on tax avoidance. The study analyzed financial statements and tax data to measure the impact of various factors on tax avoidance, indicating that corporate governance and industry may play more significant roles in influencing tax avoidance behaviors than firm size.

However, (Gupta & Newberry, 1997) found no significant association between firm size and ETRs. They conducted a comprehensive study investigating the association between firm size and effective tax rates (ETRs). Their findings revealed a complex relationship that is contingent upon both the time period and the composition of the sample. When considering firms with longer histories, the study indicated no significant correlation between firm size and ETRs, both

before and after the Tax Reform Act of 1986 (TRA86)[11]. These results aligned with previous multivariate studies on the topic. However, when the sample was expanded to include firms with shorter histories, a significant association between firm size and ETRs emerged. Notably, this relationship displayed variation over time, without a consistent positive or negative trend. Specifically, larger firms were associated with higher ETRs prior to TRA86, while they experienced lower ETRs after TRA86, all else being equal. (Gupta & Newberry, 1997)'s study provides valuable insights into the intricate nature of the firm size-ETR association, highlighting the need to consider temporal factors and sample characteristics.

Capital Intensity

The relationship between capital intensity and tax avoidance is a complex and multifaceted one that is influenced by various factors. While capital intensity, which refers to the proportion of a company's assets that are invested in fixed assets such as buildings, equipment, and machinery, is often associated with tax avoidance, its impact on tax avoidance is not straightforward and can be mediated by other factors. One factor that can influence the relationship between capital intensity and tax avoidance is the company's level of corporate social responsibility (CSR).

The study by (Pattiasina, Tammubua, Numberi, Patiran, & Temalagi, 2019) found that capital intensity did not act as a moderating variable between CSR and tax avoidance. This suggests that the calculation of assets, which is a key component of capital intensity, remains unrelated to CSR initiatives and does not affect the company's tax avoidance behavior. Thus, the presence or absence of a significant relationship between capital intensity and tax avoidance may depend on the company's CSR practices and their alignment with asset calculations. Furthermore, the composition and characteristics of a company's governance structure can also play a role in the relationship between capital intensity and tax avoidance.

The study by (Pattiasina, Tammubua, Numberi, Patiran, & Temalagi, 2019) identified the audit committee as a significant factor influencing tax avoidance. This indicates that the oversight and control mechanisms established by the audit committee can impact the company's tax

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[11] The Tax Reform Act of 1986 was a law that attempted to simplify the federal income tax code and eliminate loopholes. The act lowered federal income tax rates, decreasing the number of tax brackets and reducing the top tax rate from 50 percent to 28 percent (Tax Reform Act of 1986, 2022).

planning strategies and the extent of tax avoidance. On the other hand, the board of commissioners did not show a significant effect on tax avoidance, suggesting that other governance factors may be more influential in shaping the relationship between capital intensity and tax avoidance.

According to (Dyreng, Hanlon, & Maydew, 2008), firms that are capital intensive, meaning they have high levels of property, plant & equipment (PP&E), have more tax planning opportunities. This is believed to be due to their ability to pay a low amount of cash taxes per dollar of pre-tax earnings over extended time frames. The authors of this study found that about a quarter of the sample firms managed to maintain long-run cash effective tax rates below 20 percent, compared to a sample mean tax rate of around 30 percent. Therefore, they determined that cash ETRs are not a good proxy for long-term tax avoidance, as annual cash ETR are not very reliable.

The specific industry and market conditions in which a company operates can influence the relationship between capital intensity and tax avoidance. The study conducted by (Prawati & Hutagalung, 2020) focused on the consumer goods industry in Indonesia and found that capital intensity had a significant effect on tax avoidance in this context. This indicates that the nature of the industry and the business operations within it can affect the extent to which capital intensity drives tax avoidance behaviors.

A study (Irianto, Sudibyo, & S.Ak, 2017) examined the association between capital intensity and tax avoidance. The findings demonstrated a negative relationship between capital intensity and the effective tax rate, demonstrating that higher capital intensity was linked to reduced tax obligations. However, the significance level was not below the threshold, suggesting that the relationship was not statistically significant. The study concluded that while capital intensity may affect tax avoidance, it is not a primary factor in reducing tax payments by companies.

Overall, the relationship between capital intensity and tax avoidance is not a straightforward one and is influenced by various factors. The company's CSR practices, governance structure, and industry-specific conditions all play a role in shaping this relationship.

Firm Leverage

The study by (Lietz, 2013) suggests that leveraged firms benefit from the tax shield provided by deducting interest expenses from taxable income. However, the relationship between leverage and tax avoidance is complex. To save money for debt payments, highly leveraged

companies may have a larger motivation to participate in tax avoidance, while others may have a weaker motivation due to the beneficial tax shield provided by debt. The study highlights the contrasting perspectives on how leverage relates to tax avoidance.

Furthermore, (Dharma & Ardiana, 2016) conducted a study to examine the effect of leverage, the intensity of fixed assets, the size of the company, and political connections on tax avoidance. The measurement of tax avoidance in this study was done using the effective tax rate (ETR). The study concentrated on businesses listed between 2012 and 2014 on the Indonesia Stock Exchange (BEI). The sample consisted of 144 observations obtained through nonprobability sampling using the purposive sampling technique. Multiple linear regression analysis was used for the analysis. The findings of the study indicated that the intensity of fixed assets and leverage had a negative effect on tax avoidance. This suggests that higher levels of leverage and intensity of fixed assets led to reduced levels of tax avoidance. In other words, companies with higher debt levels and more significant investments in fixed assets were less likely to engage in tax avoidance practices.

On the other hand, (Irianto, Sudibyo, & S.Ak, 2017) found that leverage affects tax avoidance negatively but not significantly. The researchers observed that all companies in Indonesia, regardless of their debt levels, are obligated to pay taxes. Therefore, the presence of debt does not necessarily lead to increased tax avoidance. This finding contradicts a previous study by (Dharma & Ardiana, 2016) that reported a positive and significant influence of leverage on tax avoidance.

In addition, (Rahayu, Firmansyah, Perwira, & Saputro, 2022)'s study focused on the mining sector in Indonesia. The findings indicate that leverage is not associated with tax avoidance. Managers in mining companies do not utilize debt financing for tax avoidance purposes. They prioritize meeting debt obligations and maintaining good performance to gain support from shareholders and creditors. The study suggests that high debt levels do not necessarily lead to tax avoidance in mining companies.

Overall, the inconsistent findings across these studies highlight the complexity of the relationship between leverage and corporate tax avoidance. Factors such as legal and regulatory frameworks, industry-specific considerations, and the motives of managers can influence whether leverage is positively or negatively associated with tax avoidance. It is crucial to consider the specific context and characteristics of the companies being studied when examining the association between leverage and tax avoidance.

Firm Profitability

The relationship between profitability and tax avoidance behavior is multifaceted and exhibits varying patterns across different studies. On one hand, certain research supports the notion that higher profitability is associated with an increase in tax avoidance. For example, (Delgado, Fernandez-Rodriguez, & Martinez-Arias, 2014) investigated the factors that affect the effective tax rates for corporations in nations that make up the European Union. They found that profitability was a significant factor influencing tax avoidance behavior, with highly profitable companies more likely to engage in tax planning activities to lower their effective tax rates.

In another study by (Kraft, 2014) focusing on German listed firms, it was discovered that more profitable firms tended to engage in non-confirming tax avoidance, resulting in a negative association between return on assets (ROA) and effective tax rates (ETR). (Amalia, 2020) revealed that Profitability, or particularly return on assets (ROA), affects tax avoidance. Tax avoidance strategies were influenced by the company's success as measured by ROA. In establishing a company's income tax responsibilities, ROA is a crucial consideration. The study also showed that the effective tax rate was negatively impacted by profitability since more efficient businesses often pay lesser taxes, which lowers the effective tax rate. This result is consistent with earlier studies that showed a strong correlation between profitability and tax avoidance. This viewpoint suggests that highly profitable companies may be more motivated to engage in tax planning activities to minimize their tax liabilities and optimize their financial performance.

However, contrasting findings from other studies indicate an opposite trend, highlighting a negative relationship between profitability and tax avoidance. In a study by (Mocanu, Constantin, & Răileanu, 2021), which focused on Romanian companies from 2013 to 2017, the determinants of tax avoidance were investigated. The study found a significantly negative association between financial performance and book-tax differences scaled by total assets. This suggests a positive impact of performance on tax-avoidant behavior. The study indicated that as profitability increases, companies are less inclined towards tax avoidance. The higher the profitability of a company, the less motivated it is to engage in tax avoidance strategies, indicating a more compliant tax behavior. This perspective suggests that as companies become more profitable, they possess the financial capacity and resources to meet their tax obligations, reducing the need for aggressive tax planning strategies.

Multinational Operations

Firms with multinational operations play a significant role in corporate tax planning investments, and foreign-based firms invest more heavily in corporate tax planning (Mills, 1998). According to (Mills, 1998)'s study, it was found that as book-tax differences increase, IRS audit adjustments also increase. This suggests that firms cannot maximize financial reporting benefits and tax savings independently, indicating a trade-off between financial incentives and tax incentives. Consequently, researchers can still utilize financial income information to draw inferences about tax effects. However, it is important to note that the population commonly studied, publicly traded firms, are the very firms with incentives that make it optimal to bear some tax examination cost in order to balance financial and tax incentives.

In another study conducted by (Rego, 2003), the focus was on exploring economies of scale and scope in tax planning and whether larger firms with greater economic scale and scope tend to avoid more income taxes. The study examined the effective tax rates (ETRs) of multinational corporations compared to domestic-only companies. The findings revealed that larger firms, after accounting for various factors, tend to have higher ETRs, indicating that they face higher political costs. Additionally, corporations with greater pre-tax income, after controlling for firm size, tend to have lower ETRs, suggesting that higher-income firms engage in more income tax avoidance activities. The study also found that multinational corporations with extensive foreign operations have lower ETRs globally, in the U.S., and in foreign jurisdictions. These results support the notion of economies of scale and scope in tax planning. Furthermore, the study addresses the lack of empirical evidence raised by addresses (Collins, 1999) regarding the ability of multinational corporations to pay less income tax compared to domestic-only firms.

According to a comprehensive study by (Markle & Shackelford, 2011) on international corporate income tax expenses, the domicile location of multinational companies significantly influences their global tax liability. The research reveals that Japanese multinationals consistently face the highest effective tax rates (ETRs), followed by American multinationals, while tax haven-based multinationals enjoy the lowest ETRs. Interestingly, both multinational and domestic-only firms experience similar ETRs. Although ETRs have declined globally over the past two decades, the relative ranking of high-tax and low-tax countries remains remarkably consistent. Moreover, ETRs vary significantly across industries, indicating the impact of foreign subsidiary location on a multinational's global ETR. The study emphasizes the

importance of understanding domicile's role in multinational decision-making, as it is crucial for scholarly discussions and policy considerations on international taxes. The taxation of multinationals has evolved from an obscure area of law to a central topic in policy debates, business strategies, and academic research.

Furthermore, (Lietz, 2013)'s research emphasizes that firms actively involved in tax sheltering demonstrate higher levels of foreign operations and often establish subsidiaries in tax havens. These companies also display inconsistent book-tax treatment. The study cites (Desai & Hines, 2002) to highlight various forms of tax avoidance that benefit from the multinational structure, such as tax sheltering, transfer pricing, and income shifting, while also identifying more intricate methods, including complex legal restructuring facilitating firms to evade U.S. taxes on their foreign income through corporate inversions.

Generally speaking, multinational firms, especially those with overseas activities, are crucial to corporate tax planning. To reduce their tax obligations, they make significant financial investments in tax preparation and use a variety of techniques, including tax sheltering and intricate legal restructuring like corporation inversions. Additionally, the studies discussed above emphasize the trade-off between monetary and tax incentives as well as the impact of company size, income level, and the location of a foreign subsidiary on effective tax rates. The domicile location of multinational corporations has a substantial impact on their worldwide tax liabilities, with tax rates for multinationals with headquarters in Japan and tax havens being highest and lowest, respectively.

4.2. Ownership Structures

The ownership structure describes who owns and controls a business. Unlike corporations, which are held by shareholders who choose a board of directors to supervise administration of the company, family firms are owned and operated by members of one or more families. This section discusses how a company's ownership structure may impact its tax avoidance strategies.

Family Firms

The authors (Chen, Chen, Cheng, & Shevlin, 2010) compared the family firms'[12] tax-aggressiveness to that of non-family firms in their study. Multiple measures were utilized to capture tax aggressiveness. The study aimed to triangulate the results by considering various proxies for the presence of founding family members. The results showed that family firms actually had lower levels of tax aggressiveness, which was contrary to the hypothesis that family firms would show an increased degree of tax aggressiveness due to the greater tax-saving benefits for family firms. This outcome emphasized the significance of non-tax costs, particularly those stemming from agency conflicts. The results supported the notion that family owners are more concerned about the non-tax consequences, such as potential price discounts from non-family shareholders, penalties imposed by the IRS, and damage to the family's reputation.

(Kovermann & Wendt, 2019) aimed to explore the impact of family involvement on tax management in German private family firms. By utilizing panel regressions with a dataset of 678 German private firms from 2010 to 2014, the researchers drew on classical agency theory and formulated hypotheses regarding the relationship between corporate tax avoidance and ownership structure. In contrast to (Chen, Chen, Cheng, & Shevlin, 2010), (Kovermann & Wendt, 2019)'s findings revealed that family firms indulge more in tax avoidance activities compared to non-family firms, and this tax avoidance tendency increases as the percentage of family ownership rises. Additionally, the study found a positive association between the number of shareholders and tax avoidance. These results indicate that family firms, due to the absence of a separation between ownership and control, exhibit higher risk-taking behavior through tax avoidance, leading to greater after-tax cash flows that can be distributed to shareholders. This effect becomes more pronounced as the level of family control over the firm, represented by the percentage of family ownership, intensifies.

(Lee & Bose, 2021) investigated the association between ownership structure, specifically family firms, and corporate tax avoidance, considering the moderating effect of corporate

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[12] A family firm is one in which the founding family retains top management positions, serves on the board, or has majority ownership; family firms account for a significant proportion of the S&P 1500 firms, ranging from 32-46%, depending on their definition (Chen, Chen, Cheng, & Shevlin, 2010).

opacity[13]. Through their analysis, they discovered that family firms and tax avoidance exhibit a negative relationship when controlling for other factors. However, this negative association becomes weaker as corporate opacity increases. The findings suggest that corporate opacity has an impact on firms' tax avoidance practices, and this effect is more pronounced in family firms compared to non-family firms. Additionally, the study revealed a negative link between tax avoidance and firm valuation, as well as between corporate opacity and firm valuation in the context of family firms. These findings support the opportunistic approach by showing that family businesses avoid taxes to a larger extent than non-family businesses, especially while corporate opacity is greater.

A recent study conducted by (Khelil & Khlif, 2022) explored the relationship between family firms and tax avoidance, acknowledging the global prevalence of such firms. Their study entailed a thorough analysis of 21 studies that had already been published, with a particular emphasis on Germany, the USA, Taiwan, and other European nations with civil law systems. The study's results, which were highlighted by the socioemotional wealth viewpoint, showed a bad correlation between family businesses and tax avoidance in nations including the United States, Finland, and Belgium. Contrarily, family firms and tax avoidance showed a positive and significant association in developed economies like Germany and Italy as well as developing economies like Brazil, India, Malaysia, and Tunisia, congruent with agency theory's predictions of minority shareholder exploitation through tax-saving measures. In Taiwan, the relationship between family firms and tax avoidance was found to be mixed and contingent on factors like tax reforms and corporate opacity. The comprehensive review emphasized the diverse findings across countries and stressed the importance of considering specific contextual factors when examining the link between ownership structure, particularly family firms, and corporate tax avoidance.

In sum, the above studies demonstrate the complexity of the relationship between family firms and tax avoidance, with various factors such as ownership structure, corporate opacity, and country-specific contexts influencing the outcomes.

[13] Corporate opacity is the lack of transparency in a corporation’s actions and decision-making processes (Sooin Kim, 2022).

Corporate Ownership

Corporate ownership plays a significant role in determining the extent of tax avoidance strategies adopted by companies. Several studies conducted on the relationship between corporate ownership and tax avoidance are provided below.

A study on corporate ownership and tax avoidance was conducted by (Fernández-Rodríguez, García-Fernández, & Martínez-Arias, 2019) in Spanish companies and found that privately owned firms had lower effective tax rates (ETRs) compared to state-owned companies. The analysis of 2961 non-state-owned enterprises (NSOEs) and 298 state-owned enterprises (SOEs) from 2008 to 2014 showed significant differences in tax burdens. Privately owned companies benefited from their size, leverage, and research and development (R&D) intensity, which reduced their tax burden. However, higher profitability increased their ETR.

According to a study by (Desai & Dharmapala, 2009), different types of ownership can significantly influence corporate tax avoidance strategies. Shareholder ownership is associated with more aggressive tax avoidance strategies, while firms with larger institutional ownership, such as pension funds, tend to be less aggressive in their tax avoidance. Additionally, firms with significant foreign ownership, particularly those located in tax havens, are more likely to engage in tax avoidance practices.

In a separate study conducted by (Khurana & Moser, 2012), it was suggested that while tax avoidance may theoretically increase firm value by reducing tax costs, long-term investors may be hesitant to accept such practices if they promote managerial self-interest and lack of transparency. Their research, which analyzed data from 1995 to 2008 for firms with institutional ownership, found that companies with long-term institutional shareholders tended to engage in lower levels of tax avoidance.

Based on (Mappadang SE. MM, 2018)'s study on corporate ownership and tax avoidance, the research aimed to investigate the impact of corporate governance mechanisms on tax avoidance. The study examined the number of board commissioners and institutional ownership as criteria for corporate governance. The results confirmed the initial premise, showing a favorable correlation between corporate governance practices and the degree of company tax compliance to reduce tax aggression. The board of commissioners, representing shareholder interests, had a favorable impact on tax avoidance, as they aimed to maximize profits and allowed for tax avoidance by the directors. Conversely, institutional ownership, characterized by sophisticated ownership, exhibited a negative effect on tax avoidance. Institutional owners emphasized

compliance with government regulations and oversight of management to reduce tax avoidance measures, focusing on long-term advantages for the company's future.

(Mardini & Ghassan, 2020)'s study, which drew on agency theory, sought to determine the impact of ownership structure and board of directors' composition on the scope of tax avoidance tactics. All Jordanian first market businesses that were listed on the Amman Stock Exchange between 2012 and 2017 comprised the sample, yielding 348 observations. The most important conclusion showed a negative association between management and corporate ownership structures and tax avoidance, indicating a decreased use of tax avoidance tactics. In contrast, foreign ownership showed a positive association, showing a higher propensity for using tax avoidance methods.

According to (Khan, Srinivasan, & Tan, 2017)'s research, institutional ownership and corporate tax avoidance are positively correlated. Significant discontinuities in tax rate measurements and book-tax discrepancies were discovered by analyzing the effects of quasi-indexer institutional ownership on businesses included in the Russell 2000 index. The results confirmed the idea that ownership concentration affects tax avoidance. According to the report, complicated tax shelters are being used more frequently, and top Russell 2000 companies have larger net income margins and are more likely to meet or above analyst earnings projections, all of which point to the immediate advantages of tax avoidance.

In (Dakhli, 2021)'s study, the connection between the ownership of institutions and corporate tax avoidance was looked at, with corporate social responsibility (CSR) acting like the intermediary factor. Using a structural equation model, panel data from 200 French companies listed between 2007 and 2018 were examined. The research showed a bad correlation between institutional ownership and tax avoidance. The chance of tax avoidance dropped as the percentage of institutional ownership rose. The Sobel test results also showed that the study showed that CSR somewhat mediated the association between institutional ownership and corporate tax avoidance.

The studies focus on different ownership structures, including shareholder ownership, institutional ownership, privately owned firms, and foreign ownership, to understand their impact on tax avoidance practices. Additionally, the mediating role of corporate social responsibility (CSR) in this relationship is explored.

4.3. Corporate Governance

Firm-level Governance

In the realm of tax avoidance, the influence of corporate governance structure is a topic of significant importance. According to (Desai & Dharmapala, 2009), it can have a substantial impact on firms' engagement in tax avoidance strategies and the level of aggressiveness employed. Specifically, their research suggests that companies characterized by weaker corporate governance regimes are more likely to adopt aggressive tax avoidance strategies. Understanding the relationship between ownership, governance, and tax avoidance provides valuable insights into the factors that shape firms' tax behaviors.

Due to the endogeneity of corporate governance, it is difficult to get accurate empirical measurements for intriguing cross-sectional drivers like governance, (Hanlon & Heitzman, 2010)'s study highlights. Accurately determining how governance affects different outcomes is made more difficult by the reciprocal interaction between governance and other factors. As a result, investigating the relationship between governance and these determinants necessitates careful consideration and innovative research approaches.

The study by (Desai, Dyck, & Zingales, 2007) found a substantial relationship between corporate governance and tax avoidance. The study shows that the quality of corporate governance impacts the sensitivity of tax revenues to tax modifications, while the architecture of the corporate tax system affects the scope of private advantages acquired by business insiders. The study validates the bidirectional link between corporate governance and corporate taxes by looking at a crackdown on tax enforcement in Russia and using cross-country data on tax changes. The results show that while tax requirements are frequently reduced by transactions intended to transfer company wealth to controlling shareholders, it is more difficult for insiders to use corporate assets for their own personal advantage when tax responsibilities are enforced. The connection between insiders and external shareholders may be influenced by the state's tax system design and enforcement procedures, which may have an impact on company tax avoidance. This interaction between corporate governance and taxes has spillover effects on outside shareholders.

(a) Board of Directors and Gender Diversity

The composition of a company's Board of Directors plays a crucial role in determining the level of tax avoidance, as evidenced by the study conducted by (Lanis & Richardson, 2011), that

examines the effect of the board of directors' makeup on corporate tax avoidance. According to the research, a board with a larger percentage of external members is less likely to be tax aggressive. A choice-based sample study of 32 firms using logit regression, which looked at 16 tax-aggressive and 16 non-tax-aggressive corporations, supports this conclusion. A sensitivity examination of 401 firms' findings of ordinary least squares regression results further supports the negative and statistically significant association between outside board participation and tax aggressiveness. These findings imply that independent boards can prevent tax avoidance by encouraging improved governance. The study adds to the body of knowledge on corporate governance and tax-aggressiveness and provides tax officials with useful information for determining the elements that raise tax risk. The findings provide more evidence in favor of the new paradigm between tax avoidance and aggressive corporate governance practices.

Research by (Richardson, Taylor, & Lanis, Women on the board of directors and corporate tax aggressiveness in Australia: An empirical analysis, 2016) found that the board of directors' makeup is extremely important in influencing the level of tax avoidance inside a firm. They contend that prior research has shown that female directors contribute beneficial traits to the boardroom, such as risk aversion, independent thinking, a focus on transparency and ethical standards, and more. They contend that prior studies have shown that female directors contribute beneficial traits to the boardroom, including as aversion to risk, independence of thought, and an emphasis on openness and ethical standards. These qualities support efficient board supervision and monitoring. The study especially looks at how business tax avoidance in Australia is affected by the presence of women on boards of directors. The researchers discover that a larger proportion of female directors on the board considerably lowers the chance of tax aggression using multivariate regression analysis while correcting for self-selection bias. In line with the current worldwide movement for gender diversity in corporate leadership roles, these findings offer empirical evidence in favor of the necessity of more female presence on boards.

As female representation has been linked to advantageous outcomes like effective monitoring, risk aversion, ethical standards, informed decision-making, and decreased tax aggressiveness, gender equality and discrimination are no longer the only reasons why there should be gender diversity on business boards. The study by (Lanis, Richardson, & Taylor, 2017) adds to our knowledge of the connection between tax aggression and gender diversity on boards. Even after accounting for endogeneity, the analysis finds a detrimental and statistically significant correlation between female board representation and tax aggression. The findings of this study offer insightful information and have significant policy ramifications, supporting efforts to increase board gender diversity and lessen tax avoidance.

Furthermore, the research by (Armstrong, Blouin, Jagolinzer, & Larcker, 2015) investigates the relationship between corporate governance, executive incentives, and corporate tax avoidance. Researchers found that, similar to other investments with uncertain returns, unresolved agency issues may cause executives to deviate from shareholders' desires by avoiding taxes. The results were in line with contradictory earlier research and revealed no link among various indicators of company governance and average or median tax avoidance. However, using quantile regression, a positive relationship was discovered between board independence and financial expertise for low tax avoidance but a negative relationship for high tax avoidance. These findings suggest that these governance traits have a higher influence on severe tax avoidance, which may be a sign of excessive or insufficient investment by executives.

(b) Internal Control and Information System

Internal control plays a vital role in enabling firms to monitor their accounting activities effectively and ensure accurate reporting. It involves establishing processes to accurately record financial transactions and ensure proper calculation and payment of taxes. A strong internal control system allows companies to identify and utilize available tax credits, deductions, and strategies to minimize their tax liability and engage in tax avoidance practices. By implementing effective internal control measures, firms can enhance their ability to manage taxes efficiently and make informed financial decisions.

(Gallemore & Labro, 2015) analyze the influence of internal control and information quality on enterprises' capacity to dodge taxes in their study. The researchers discover that the quality of a company's internal information environment has a considerable impact on its effective tax rates (ETRs), with enterprises with high internal information quality having lower ETRs. Internal information quality has a particularly strong impact on tax avoidance in organizations where information is critical. Firms with a scattered geographical presence, for example, that require more coordination, benefit more from good internal information quality. Similarly, enterprises working in uncertain contexts gain more from tax reductions due to the quality of their internal knowledge. The study also reveals that businesses with high internal information quality can reduce their ETRs while simultaneously lowering the risk of their tax approach as measured by ETR volatility. In general, this study advances our understanding of the effects of tax avoidance by highlighting the significance of an organization's internal information environment in shaping its tax strategy.

As demonstrated by (Bauer, 2016)'s study, internal control systems are essential in deciding business tax avoidance. The study investigates whether internal control deficiencies, especially those connected to a company's tax function as revealed under the Sarbanes-Oxley Act (SOX), are linked to tax avoidance goals. The results show that the three-year cash effective tax rate is typically 4% higher for companies with tax-related internal control problems than for those without any such issues. The company's tax function's widespread internal control flaws are the main cause of this unfavorable association. The study also shows that corporations report increased levels of tax avoidance going forward after addressing internal control shortcomings linked to taxes, indicating a causal relationship. These results demonstrate the importance of internal control effectiveness as a fundamental factor in tax avoidance, underscoring the degree of managerial and shareholder alignment. They also underline how internal controls have effects that go beyond financial reporting goals.

(Chen, Yang, Zhang, & Zhou, 2020) investigate the efficiency of the COSO (Committee of Sponsoring Organizations of the Treadway Commission) framework in their study of the influence of internal control on tax avoidance and risk management. In China, the researchers make use of a thorough COSO-based index that takes into account a company's internal control over financial reporting, operations, and compliance. They examine the complete distribution of tax avoidance using quantile regressions. Their research shows a nonlinear association, with internal control quality acting as a moderator, between internal control and tax avoidance. They show that high-quality internal control improves tax avoidance for under-sheltered enterprises while decreasing tax avoidance for over-sheltered firms. Even when internal control is studied through its five COSO components, this nonlinear pattern maintains. Furthermore, the researchers emphasize that the moderating impact of internal control in tax avoidance helps lower tax volatility, which supports accounting firms' proposal to implement COSO-based internal control in tax risk management.

(Xiao & Shao, 2020) discovered that the deployment of an information system, the China Tax Administration Information System (CTAIS-3), considerably enhanced corporate income tax (CIT) enforcement in China. The information system decreased information asymmetry between tax authorities and businesses, resulting in higher effective CIT rates. The findings emphasize the critical significance of information systems as a determinant of tax avoidance since they improve tax enforcement and discourage profit-hiding methods.

The authors of this study, (Bimo, Prasetyo, & Susilandari, 2019), take into consideration both internal (such as family ownership) and external (such as environmental uncertainty) elements

as they examine the impact of internal control on tax avoidance in corporate governance. According to the research, efficient internal control significantly reduces aggressive tax practices and has a negative influence on tax avoidance. According to the study, family ownership moderates the relationship between internal control and tax avoidance, with stronger internal control efficacy having a bigger effect on reducing tax avoidance for enterprises that have substantial family ownership relative to those with low family ownership. On the link between internal control and tax avoidance, the study did not discover any evidence of a major impact of environmental uncertainty. These findings underline the significance of effective internal control systems in avoiding tax avoidance and recommend that regulators and companies give priority to upgrading internal control procedures to reduce tax risks and encourage regulatory compliance.

Executive Compensation

(Hanlon & Heitzman, 2010) contends that there are several ways to look at the connection between compensation incentives and tax avoidance. On the one hand, companies that give greater after-tax performance-based incentives are likely to participate in more tax avoidance if tax avoidance activities add value and pay incentives align the interests of management and shareholders. The results of (Phillips J. D., 2003), which show that paying business unit managers based on after-tax profits results in lower GAAP effective tax rates, are in support of this.

(Desai & Dharmapala, 2006), on the other hand, expand on earlier ideas by looking at the effect of incentive compensation and governance systems on tax avoidance at the corporate level. They discover a bad correlation between equity-based pay and tax avoidance, especially in companies with weaker institutional ownership and shareholder rights. This result is in line with the idea that raising equity incentives will diminish management diversion and lessen the need for tax avoidance to achieve diversion by aligning managers' interests with shareholders.

(a) After-tax Income-based Incentives

The examination, according to (Phillips J. D., 2003)'s study, focuses on the relationship between pay incentives based on after-tax income and tax avoidance. The study models and assesses the link between effective tax rates and after-tax performance metrics using proprietary salary data gathered from a poll of company leaders. According to the research, paying business-unit managers after-tax compensation but not chief executive officers (CEOs) is linked to lower effective tax rates. This shows that business-unit managers gain economically from after-tax

performance indicators by having lower effective tax rates for their companies. The study highlights how crucial it is to involve business-unit managers in tax planning initiatives and contends that clear accounting-based incentives are useful in encouraging such initiatives. The theory that after-tax performance indicators for CEOs result in lower effective tax rates is not supported by the research, nevertheless. It is believed that CEOs are sufficiently motivated to concentrate on after-tax achievements by other incentives, such as job retention. However, CEOs who are paid after taxes are more inclined to pay their business-unit managers after taxes, which has an indirect impact on effective tax rates.

(Desai & Dharmapala, 2006)’s analysis states that salary incentives are a key factor in determining how much tax avoidance occurs within businesses. According to the findings, stronger incentives are linked to lower levels of tax sheltering, demonstrating a conflict between incentives and tax avoidance practices. This result is consistent with the anticipated positive feedback relationships between diversion and sheltering. The link, however, is affected by the businesses' governance structures because it is not seen in well-governed enterprises. These findings provide insight into the rising cross-sectional diversity in enterprises' degrees of tax avoidance over time. Additionally, the paper contends that the interplay between tax sheltering and management rent-diversion is a key influence, particularly for businesses with lower governance. Last but not least, the study sheds light on the seemingly incongruous data that suggests book-tax gaps indicate the occurrence of abnormally low returns; shareholders could not profit from sheltering due to the positive feedback effects between sheltering and diversion, the study finds.

According to (Christopher S. Armstrong, 2012)'s research, which makes use of a secret executive compensation dataset, tax directors' incentive remuneration and the GAAP effective tax rate are significantly inversely correlated. Other tax features, such as measures of tax aggressiveness, the book-tax gap, and other tax characteristics are not strongly connected with the incentives. These findings imply that tax directors have a financial incentive to lower the stated tax expenditure. One of the first studies to specifically investigate the relationship between tax directors' incentives and the volume of internal tax planning in businesses. The sample of major, publicly listed corporations does not expressly motivate their tax function to take actions for minimizing the firm's cash tax burden, according to analysis of the book-tax gap, cash effective tax rate, and alternative metrics of tax aggressiveness. The fact that there is a negative correlation between the pay of tax executives and the GAAP effective tax rate instead shows that the GAAP ETR is more precisely controlled and appropriate for contractual reasons than other tax characteristics, which may not be as trustworthy or controllable.

The study conducted by (Gaertner, 2013) examines the relationship between CEOs' after-tax incentives and corporate tax avoidance. The author analyzes data obtained from proxy statements and identifies a negative correlation between the use of after-tax incentives and effective tax rates. This finding suggests that CEOs who are compensated on an after-tax basis are more likely to engage in tax avoidance strategies. Additionally, the study reveals a positive association between the use of after-tax incentives and CEO cash compensation, indicating that CEOs demanding a premium for bearing additional risk are more likely to receive after-tax incentives. These results align with economic theory and provide empirical evidence supporting the use of after-tax incentives in executive compensation.

In conclusion, the studies by (Phillips J. D., 2003), (Desai & Dharmapala, 2006), (Christopher S. Armstrong, 2012), and (Gaertner, 2013) shed light on the association between compensation incentives and tax avoidance. It is generally observed that managers compensated based on short-term after-tax performance results are more inclined to engage in aggressive tax positions to maximize profits, particularly if their own compensation is tied to the company's after-tax income. This suggests a positive correlation between incentive compensation and tax avoidance, assuming shareholders prioritize minimizing taxes to enhance firm value.

(b) Equity-based Incentives

In recent research examining the relationship between equity-based incentives and tax avoidance, several studies shed light on the impact of these incentives on corporate behavior. The studies conducted by (Wang & Yao, 2021), (Rego & Wilson, 2012), and (Li S. , 2022) provide valuable insights into this association. Equity-based incentives have been found to positively influence tax avoidance behavior, as they align employee compensation with long-term business success and foster a sense of ownership and responsibility. Here we will examine the findings of these studies and discuss the implications of equity-based incentives on tax avoidance practices.

Using the principle-agent theory and rent-seeking theory, research by (Wang & Yao, 2021) looked at all listed Chinese corporations from 2013 to 2018, splitting them into state-owned holding companies and non-state-owned holding companies. The effect of executive remuneration incentives on corporation tax avoidance attitude under various ownership forms was investigated in this study. Their study's findings showed a substantial positive link between executives' monetary compensation, equity incentives, and corporate tax avoidance for holding companies that were not controlled by the government. For state-owned holding companies,

however, there was a strong negative correlation between corporate tax avoidance and equity incentives, while there was no association between executives' monetary compensation and corporate tax avoidance.

The research investigates the impact of equity risk incentives on corporate tax aggressiveness based on (Rego & Wilson, 2012)'s study. Equity risk incentives have been proven in prior research to encourage managers to make riskier choices that raise the volatility of stock returns and the value of stock option portfolios. Managers require incentives to participate in hazardous tax avoidance actions that are anticipated to be profitable for the company and its shareholders since aggressive tax techniques involve uncertainty and possible expenses. The findings are consistent with the study's assumption that managers would choose hazardous tax techniques as a result of equity risk incentives. The study demonstrates a considerable influence of equity risk incentives on corporate tax aggressiveness, showing a positive connection between bigger equity risk incentives and more tax risk. These findings persist across several tax risk indicators and are unaffected by the level of company governance. In conclusion, equity risk incentives significantly influence how aggressively corporate taxes are levied.

The correlation between equity incentives and corporate tax avoidance is positive., according to a new study by (Li S. , 2022) that looked at data from China's A-share listed businesses from 2008 to 2021. According to the study, agency costs have a part to play in moderating this link, and the amount of money earned abroad increases the effect of equity incentives on tax avoidance. Intriguingly, compared to non-state-owned businesses, state-owned businesses show a lesser link between equity incentives and tax avoidance. The results suggest that in order to stop illicit tax avoidance, tax authorities should pay more attention to non-state-owned businesses while conducting tax audits. In order to stop businesses from avoiding taxes abroad, the report also emphasizes the significance of regulating international transactions and boosting tax audits for foreign company. The importance of fostering a mixed-ownership economy, improving the fundamental economic structure, and facilitating its efficient operation are highlighted in these conclusions, which also offer insights for the growth of the nation's economy.

In sum, the studies conducted by (Wang & Yao, 2021), (Rego & Wilson, 2012), and (Li S. , 2022) provide valuable insights into the association between equity-based incentives and tax avoidance. These studies reveal that equity-based incentives have a significant impact on corporate behavior in relation to tax avoidance, suggesting that equity-based incentives

positively influence tax avoidance behavior by aligning employee compensation with long-term business success and fostering a sense of ownership and responsibility.

Transparency and Disclosure

Transparency and disclosure play a vital role in corporate governance, enabling stakeholders to make informed decisions, fostering accountability, and promoting trust in the business environment. In their study, (Boubaker, Derouiche, & Nguyen, 2022) examine the connection between tax avoidance and corporate governance openness and disclosure. The researchers investigate how tax planning in French-listed companies is affected by voluntary disclosure in annual reports. According to the agency theory of tax avoidance, tax sheltering is connected to agency costs, highlighting the significance of corporate governance practices like voluntary disclosure in influencing tax avoidance behavior. Based on a sample of 3448 firm-year data collected between 2007 and 2013, the results show that voluntary disclosure is linked to reduced levels of tax avoidance. This shows that voluntary disclosure works well as a monitoring mechanism, decreasing the possibility that insiders would use tax avoidance to obtain rent. The analysis further demonstrates that the limited disciplinary impact of voluntary disclosure in companies with higher family control is due to the negative impact of voluntary disclosure on tax avoidance in enterprises with family control levels below 40%. Overall, the research highlights the critical importance of corporate transparency in promoting corporate governance and supports the agency theory of tax avoidance.

The link within corporate tax avoidance and the public display of regional revenues for U.S. foreign-owned businesses is examined in this paper by (Hope, Ma, Thomas, & B., 2013). Researchers discover that companies that have lesser world-wide effective tax rates are those who choose to stop disclosing regional revenues in their financial reports. This shows that managers view the failure to disclose regional earnings as a means of hiding tax avoidance. However, since the establishment of Schedule M-3, which necessitates a thorough a reconciliation of book earnings to tax income, the effect of tax avoidance on non-disclosure lessens. Schedule M-3[14] intends to increase the IRS's awareness of businesses' tax avoidance

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[14] Companies and partnerships in the United States utilize Schedule M-3 as a tax form to compare taxable income on Form 1120, page 1, line 28 to financial statement net income (loss) for the U.S. company (or consolidated tax group, if applicable), as reported on Schedule M-3, Part I, line 11 (IRS, 2022).

practices. The research advances our knowledge of the relationship between tax reporting activity and financial disclosure behavior.

Ethical Standards and Corporate Social Responsibility

The incorporation of ethical standards and the practice of corporate social responsibility have become essential considerations in corporate governance, significantly influencing the extent of tax avoidance behaviors. (Ramzi Benkraiem, 2021)'s study was primarily concerned with analyzing how ethical norms in corporate governance affected tax avoidance. The study sought to ascertain whether the focus of strategies to prevent tax avoidance should be on encouraging ethical business practices or bolstering auditing standards. Taking into consideration a number of subperiods and accounting for endogeneity, the study revealed data from throughout the globe about the effects of these characteristics on tax avoidance. The results showed that, although rigorous auditing standards can reduce tax avoidance, a statistically more significant impact is produced by a firm's ethical behavior. In low- and middle-income nations with various degrees of investor protection and corporate board competence, the benefit of ethical behavior was particularly clear. However, it was discovered that both ethical conduct and auditing standards were mutually beneficial in high-income nations and nations with modest levels of investor protection and corporate board effectiveness. In order to combat tax avoidance, organizations and governments may benefit greatly from these findings.

Using a sample of 25 OECD nations, the study by (Montenegro, 2021) investigated the relationship between morality, corporate social responsibility (CSR), and tax evasion at the national level. The study also looked at how national government affects how CSR and tax evasion are related. The results show that tax evasion is not significantly influenced by either the overall CSR measure or the ESG components at the national level. However, there is a strong inverse link between tax evasion and the effectiveness of national governance. The study also demonstrates that in countries with weak national governance, CSR and country-level governance are substitutes, whereas in countries with strong national governance, CSR reporting, especially environmental disclosures, appears to be a cosmetic tool used by businesses to manage reputational risk related to tax evasion. These findings highlight the significance of national governance in decreasing tax evasion as well as its mediation role in the link between tax evasion and CSR. The paper makes the case that strong anti-tax evasion policies need to be developed by policymakers in nations with strong national governance.

Corporate social responsibility (CSR) and aggressive corporate tax policy are investigated in (Laguir, Staglianò, & Elbaz, 2015)'s paper. Prior studies have largely ignored the relationship between tax avoidance and CSR, focusing instead on each issue independently. The authors use a sample of publicly traded French companies to investigate the effects of several CSR dimensions on tax aggression using a structural model and partial least squares regression. According to the results, a company's tax aggression is significantly influenced by the type of CSR initiatives that they engage in. More specifically, higher levels of tax aggression are connected to lower levels of participation in the social component of CSR and higher levels of engagement in the economic dimension. The intricate link between CSR and tax aggression is highlighted in these results, adding to the body of literature by underlining the necessity to take various CSR characteristics into account rather than combining them into a single metric. The study emphasizes the importance of CSR efforts in influencing a company's tax behavior and offers insightful information on the relationship between CSR and corporate tax aggressiveness.

With an emphasis on their effect on legitimacy, (Shuolei Xu, 2022)'s study from 2022 investigates the connection between tax avoidance and the readability of corporate social responsibility (CSR)[15] reports among Chinese businesses. According to the research, there is a link between company tax avoidance and how easily CSR reports can be understood. This shows that businesses may use easier-to-read CSR filings as a tactic to address legitimacy issues brought on by aggressive tax planning. The study also shows that this association is weaker for firms that are state-owned, which already have more pre-existing legitimacy, and for businesses that are situated in less developed regions with less institutional oversight. Overall, the results are consistent with the assumption that CSR reporting is an alternate method of demonstrating legitimacy in reaction to tax evasion, rather than being an indicator of how highly or lowly CSR is valued within a company's culture.

The studies conducted by (Ramzi Benkraiem, 2021), (Montenegro, 2021), (Laguir, Staglianò, & Elbaz, 2015), and (Shuolei Xu, 2022) shed light on the influence of ethical standards and corporate social responsibility (CSR) on tax avoidance behaviors. These studies collectively emphasize the importance of incorporating ethical norms and practicing CSR in corporate governance to mitigate tax avoidance. The findings reveal that ethical behavior within firms

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[15] How simple it is for stakeholders to grasp the information provided in CSR reports is referred to as readability of CSR. It is a type of information quality that directly impacts how well the CSR data is understood by information consumers (Long & Jia, 2023).

has a statistically significant impact on reducing tax avoidance, especially in low- and middle-income countries with varying levels of investor protection and corporate board competence.

Agency Framework

(Hanlon & Heitzman, 2010)'s study draws attention to how little the corporate tax avoidance theory has been incorporated into empirical literature and how this lack of knowledge is perhaps explained by the agency framework. One probable explanation is that the theory of corporate tax avoidance within an agency framework is still in its infancy and has not received much attention in the literature as of yet. To close this gap and highlight the significance of agency conflicts in comprehending the connection between tax avoidance and corporate value, several research have started to explore this issue.

Regardless of the existence of pay agreements, agency theory contends that managers may abuse the money obtained through tax avoidance for their own advantage (Wang, Sun, Cullinan, & P., 2020). As a result, there is less chance that tax avoidance will increase a company's worth since management could divert money. In order to fully realize the value-enhancing potential of tax avoidance strategies, it is important to address managerial rent-extraction and align managers' interests with those of shareholders, which emphasizes the significance of agency conflict in understanding the relationship between tax avoidance and firm value (Wang, Sun, Cullinan, & P., 2020).

By examining the link between agency conflicts and corporate tax avoidance, this study by (Chyz & White, 2014) takes a novel way to shed insight on the agency viewpoint of tax avoidance. In contrast to earlier studies that relied on assumptions made by market players, the authors use the CEO centrality measure created by (Bebchuk, 2011) to pinpoint instances of significant agency conflicts. They discover a favorable and substantial correlation between CEO centrality and tax avoidance, which is consistent with the agency theory of tax avoidance. The study also looks at the mediation function of institutional investor monitoring and finds that the largest correlation between tax avoidance and agency conflicts is seen in companies with lower levels of CEO oversight. The research also examines the effects of these conclusions on forthcoming accounting performance and business value. By offering empirical support for the agency perspective of tax avoidance and underlining the significance of company governance in influencing tax avoidance decisions, the results provide a significant contribution to the literature on tax avoidance.

Within the framework of agency theory, (Desai & Dharmapala, 2006) investigate the correlation between corporate governance and tax aggressiveness, focusing specifically on equity-based incentive pay and its connection to rent extraction. Their study suggests that well-managed firms are more prone to adopting tax-aggressive strategies, while poorly governed corporations tend to exhibit lower levels of tax aggressiveness. Furthermore, they argue that implementing equity-based incentive compensation, which enhances the alignment of shareholder and management interests, should lead to a decrease in tax aggressiveness for poorly governed corporations, as they are initially more inclined towards aggressive tax practices compared to well-governed counterparts.

Internal Audit

By monitoring compliance with rules and spotting possible tax avoidance opportunities within firms, internal audit plays a significant role in corporate governance. (Nguyen V. C., 2022)'s study examines the impact of audit committee traits on tax avoidance in Vietnam's corporate governance. The study makes use of information from non-financial companies that were listed on the stock exchanges in Ho Chi Minh City and Ha Noi between 2010 and 2019. The empirical results show various effects of audit committee features on tax avoidance by using panel data analysis methodologies. The study shows, specifically, that the size of the audit committee positively corresponds with tax avoidance, whereas the presence of female members, financial and accounting professionals, and the percentage of independent members within the committee operate as restraints on tax avoidance practices. For listed businesses, these findings have significant ramifications that point to methods to enhance the audit committee's ability to prevent tax avoidance. According to the study's findings, audit committee features are significant in determining tax avoidance behavior, offering useful information to shareholders and authorities. While authorities should concentrate on big businesses with vast audit committees or a dearth of female members and financial and accounting professionals, since these variables imply a higher risk of tax avoidance, shareholders could evaluate audit committee qualities to control tax avoidance. Tax avoidance may provide short-term advantages, but it also involves long-term concerns and may even be unlawful. In order to prevent tax avoidance, company owners should take into account the audit committee's attributes, such as its size, gender mix, independence, and financial and accounting knowledge.

Corporate tax compliance programs acknowledge the major impact of a firm's corporate governance structure on its involvement in tax aggression, as stressed by tax authorities like the Australian Taxation Office (ATO). The link between company governance and tax aggression

has been studied in the past, but corporate governance's essential elements have not been dissected. By examining the effects of board of director supervision features on company tax aggression, this study by (Richardson, Taylor, & Lanis, 2013) closes this gap. The results show that companies with efficient risk management systems, internal controls, hiring big-4 auditors, less non-audit services than audit services offered by external auditors, and more independent internal audit committees are less likely to practice tax avoidance. The study emphasizes the significance of these corporate governance aspects in lowering tax avoidance and offers insightful recommendations for legislators and regulators in creating efficient corporate governance methods to solve this issue.

Overall, the studies on internal audit and corporate governance emphasize the significance of audit committee characteristics and effective risk management systems in preventing tax avoidance and promoting responsible corporate behavior.

4.4. External Factors

Public Pressure

Public pressure can have a significant effect on corporate tax avoidance, as it can lead to increased public pressure, legal action, fines, and decreased consumer confidence. Companies that are aware of public pressure may be less likely to engage in avoidance strategies. (Dyreng, Hoopes, & Wilde, Public Pressure and Corporate Tax Behavior, 2015) discovered that public pressure had an effect on the tax avoidance behavior of large publicly traded firms. In particular, when a non-profit activist organization in the UK applied public pressure to companies who did not comply, in comparison to other companies in the FTSE 100 that were not impacted by this pressure, those companies responded by boosting their subsidiary transparency, decreasing their tax avoidance, and decreasing their use of subsidiaries in tax haven nations. This suggests that the behavior of major publicly listed companies may be significantly influenced by public pressure.

In a separate study conducted by (Derwall, Tamayo, & Heemskerk, 2015), the researchers focused on investigating the response of multinational corporations (MNCs) when their tax avoidance practices come under public attention. Their findings shed light on the behavior of MNCs in the face of increased public awareness, especially when the company is publicly listed. The study reveals that MNCs are inclined to reduce their tax avoidance strategies when exposed to public scrutiny. This suggests that the reputational risk associated with tax avoidance is a significant driver for MNCs to modify their tax practices. Moreover, the research

demonstrates that MNCs are more likely to decrease their tax avoidance activities when the majority of public attention is centered on their home country. This implies that public pressure and scrutiny from the home country play a crucial role in influencing MNCs' decisions to curtail tax avoidance. Overall, these findings highlight the impact of public awareness and attention on the tax behavior of MNCs, emphasizing the role of reputation and home country dynamics in shaping their tax avoidance strategies.

Using the examples of corporate tax avoidance and disclosure, (Dyreng, Hoopes, & Wilde, 2015) investigate how public scrutiny affects business behavior. The researchers looked at how activist organization ActionAid International's public pressure affected FTSE 100 companies that failed to disclose the locations of their subsidiaries. The goal of the study was to ascertain if, in comparison to unaffected businesses in the FTSE 100, this external pressure caused inspected enterprises to raise subsidiary transparency, decrease tax avoidance, and minimize the use of tax havens. The results show that public attention drastically changed the costs and benefits of tax avoidance, leading to higher tax bills for inspected businesses. The findings demonstrate how external activist organizations have a significant impact on how major publicly listed firms behave. By presenting empirical proof of the connection between public scrutiny, tax avoidance, and corporate conduct, this study contributes to the body of current material.

External Audit

External auditors play a crucial role in ensuring that companies accurately report their income and expenses, thereby promoting proper tax payments. These auditors carefully examine a company's financial statements to identify any irregularities that may indicate potential tax avoidance practices. By doing so, they aim to ensure that businesses contribute their fair share of taxes and avoid engaging in unlawful tactics to reduce their tax liabilities (Klassen, Lisowsky, & Mescall, 2016).

Research conducted by (Klassen, Lisowsky, & Mescall, 2016) indicates that employing high-quality auditors for tax preparation services is associated with lower levels of tax aggressiveness. This finding suggests that a reputable audit can act as a deterrent to tax avoidance. The study reveals that companies that hire their auditors to prepare their taxes exhibit less aggressive tax behavior compared to those who self-prepare their taxes or engage non-auditors. Moreover, the research reveals that tax preparers from the prominent "big 4"

auditing firms[16] display reduced tax aggressiveness when they serve as auditors, emphasizing the potential benefits of auditor-provided tax services. This suggests that such services can function as a form of "checks and balances," discouraging aggressive tax avoidance practices.

However, (McGuire, Omer, & Wang, 2012) present a contrasting perspective. According to their study, clients prefer to use greater tax avoidance when they use an external audit company with specific tax knowledge to handle their tax needs. Furthermore, the study highlights that when an external audit firm possesses comprehensive knowledge encompassing both tax and audit domains, it generally leads to higher levels of tax avoidance. These findings imply that experts with combined tax and audit knowledge can exploit their understanding to devise intricate tax strategies. In addition to providing tax benefits to their clients, these strategies may also encompass financial planning services.

The research by (Shehata, Nathan, Farooq, & Dahawy, 2022) investigates the connection between tax evasion and voluntary external audit in privately held businesses in India. According to the data, privately owned businesses with voluntarily audited financial accounts have a higher likelihood of committing tax evasion. For businesses with financial restrictions, the link between external audit and tax evasion is further intensified. On the other side, for businesses that operate in Indian states with more favorable business environments, there is less of a correlation between voluntary external audit and tax evasion. By emphasizing the importance of auditors in tax non-compliance behavior, particularly in emerging nations, the study adds to the body of knowledge. It implies that auditors should offer businesses advice on ways to evade and avoid paying taxes in addition to doing financial statement audits. A better institutional framework lessens this link, but financial limits enhance the dependence on auditors for tax evasion. The study's conclusions have consequences for scholars, professionals, policymakers, and tax enforcement agencies, educating them about the probable causes of tax scrutiny and the demand for legislative action to lower tax evasion in privately held businesses.

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[16] The four biggest and most renowned professional services companies in the worldwide accounting sector are known as the "big 4" auditing firms. Deloitte, PricewaterhouseCoopers (PwC), Ernst & Young (EY), and KPMG12 are the companies in question. Their clients may take use of their audit, assurance, tax, management consulting, valuation, market research, actuarial, corporate finance, and legal services ("Big Four" accounting/audit firms - statistics & facts, 2023).

In a nutshell, external auditors act as a vital determinant of tax avoidance by ensuring accurate reporting of income and expenses and detecting any potential irregularities. While high-quality auditors and auditor-provided tax services can serve as effective deterrents to aggressive tax behavior, the expertise of external audit firms in taxation, when leveraged for tax services, may lead to increased tax avoidance. The delicate balance between promoting tax compliance and avoiding excessive tax reduction strategies requires ongoing research and scrutiny within the field of external auditing.

Labor Unions

Labor unions can have a profound impact on corporate tax avoidance. Through their collective bargaining power, labor unions can effectively negotiate on behalf of their members to secure specific tax breaks or exemptions, resulting in a lower effective tax rate and a reduction in corporate tax avoidance. In addition, labor unions play a crucial role in enforcing standards of compliance and reporting, thereby further limiting the potential for tax avoidance.

Since labor unions are significant stakeholders in corporate governance, (Shin & Park, 2020) examined the effect of unions on company tax dodging practices. The researchers wanted to see if managers used tax avoidance techniques to get funds for employee remuneration when labor unions had more negotiating leverage. A sample of businesses listed between 2001 and 2008 on the South Korean stock market served as the basis for the empirical investigation. The study's findings provided a number of significant discoveries. First, the authors discovered that businesses with organized labor unions engaged in much more tax avoidance. This suggests that companies were more likely to use tax avoidance strategies when labor unions were present. The researchers also looked at the impact of the negotiating strength of labor unions on tax avoidance. Unexpectedly, there was no discernible correlation between tax avoidance and the union membership ratio. However, membership in higher level labor organizations by labor unions significantly increased tax avoidance on a general basis.

According to the study, businesses that had their labor unions join more militant labor groups, like the "Minju" Federation, showed a higher degree of tax avoidance than those that had joined more moderate organizations, like the "Hanguk" Federation. The study further investigated how labor unions affect tax avoidance, especially in non-conglomerate firms as opposed to conglomerate groupings. The findings indicated that non-conglomerate groups were more significantly affected by labor unions' tax avoidance operations than were conglomerate firms, which may explain why conglomerate groups are under less pressure to bargain with union

members given their greater reputational costs. In closing, this study offered actual proof of how labor unions might affect a manager's tax-evasion strategies. Although the mere existence of labor unions did not directly influence tax avoidance, their linkages to higher-up labor groups and their aggressiveness significantly increased tax avoidance operations. These findings emphasize the necessity for capital market players to comprehend the impact of labor unions on management's accounting decisions, particularly in connection to tax avoidance, and have both academic and practical ramifications.

Research by (Lei, Kim, & Wong, 2020) found that labor unions have a big impact on how companies behave in terms of tax avoidance. This study stresses the significance of firm-specific labor unions and their influence on employers' tax ethics judgments, whereas earlier research has concentrated on industry-wide labor union coverage. According to the authors' theory, firm-specific labor unions drive businesses to act in a more tax-aggressive manner, increasing residual cash flows. In contrast, it has been shown that industry-wide labor unions persuade businesses to be less tax aggressive. The research also shows that the presence of sector-wide labor unions contributes to a stronger link between firm-specific unions and tax aggression. These results emphasize the moral conundrum that businesses confront when attempting to balance tax savings with social obligations. The bargaining process between labor unions and businesses serves as an example of ethical difficulties, and it is essential to involve both industry-specific and firm-specific labor unions when deciding how aggressively to tax businesses. Overall, this study highlights the intricate interactions between businesses and labor unions that shape tax avoidance behavior and highlights the ethical factors that go into such choices.

(Chyz, Leung, Li, & Rui, 2013) study looks at how worker unionization affects how businesses handle tax avoidance. According to the research's findings, labor union influence and a company's tax-aggressiveness are negatively correlated. Tax-aggressiveness is seen to decline following labor union election victories. This relationship suggests that labor unions have an impact on managers in two different ways: (1) by restricting their ability to use aggressive tax strategies through increased monitoring, and (2) by reducing the advantages of tax aggressiveness as a result of unions' rent-seeking behavior. The study also offers early evidence that the market expects these decreases in tax aggressiveness during union elections and, as a result, undervalues companies that are expected to pursue aggressive tax methods, so hurting shareholder value. The literature review emphasizes how labor unions have a significant impact on a range of business outcomes, including executive salaries, financial reporting, and investment choices. Examining the effect of labor unions on businesses' tax policies is essential

given their influence on management choices. According to the study, labor unions exhibit a higher level of risk aversion than shareholders and management because they prefer taking on more risk and worry about the stability of their claims. As a result, unions choose less hazardous investments, which is consistent with their support for less aggressive tax policies. Furthermore, the paper contends that because tax aggressiveness is illusive and unions have greater levels of risk aversion, their views of tax risk may be skewed. Because of these variables, the cost of transactions between businesses and labor unions rises, raising the marginal cost of tax aggression for managers and lowering their propensity for aggressive tax planning. The study also suggests that unions may engage in rent-seeking behavior and demand higher pay and more expensive benefits if they believe that management' investments in tax aggressiveness have made cash flows riskier. As a result, management may be less aggressive with taxes to lessen the need to compensate union members. The study bases its two linked hypotheses on these justifications: (1) businesses with stronger unions show less tax aggression, and (2) firms with unionization show less tax aggression. The study uses an event study to investigate Hypothesis 2 and cross-sectional analyses at the establishment and industry levels to assess Hypothesis 1. The research's findings are consistent with both predictions, showing that more powerful labor unions are linked to less aggressive tax planning. This suggests that unions have an impact on management conduct and raise the costs of employing aggressive tax methods. The findings emphasize how important labor unions are in influencing businesses' tax practices.

Tax Authorities

Tax authorities hold the power to effectively mitigate tax avoidance through the implementation of comprehensive measures such as laws, regulations, and robust enforcement strategies. These measures encompass the closure of existing loopholes, the introduction of stringent reporting requirements, the imposition of substantial penalties for non-compliance, the establishment of rigorous audit controls, and the facilitation of information sharing among relevant agencies. Enhancing transparency is also crucial, often achieved by mandating taxpayers to disclose specific information, such as foreign bank accounts. In the United States, the Securities and Exchange Commission (SEC) assumes responsibility for regulating the securities industry, while the Internal Revenue Service (IRS) focuses on collecting taxes from individuals and businesses. Collaboratively, these agencies strive to ensure compliance with the Internal Revenue Code.

Drawing from the seminal study conducted by (Desai, Dyck, & Zingales, 2007), it becomes evident that tax authorities exert a substantial influence on tax avoidance by altering the

dynamics between corporate governance and taxation. While the enforcement of tax laws restricts diversionary practices, it is noteworthy that certain transactions aimed at transferring corporate value to controlling shareholders can inadvertently coincide with reduced corporate tax liabilities. To gain a comprehensive understanding of tax avoidance and develop effective countermeasures, it is imperative to integrate the analysis of corporate governance and taxation. This integration highlights the intricate interplay among tax authorities, insiders, and outside shareholders, emphasizing the need for a holistic approach in addressing tax avoidance.

In the realm of corporate taxation, the SEC assumes a pivotal role in regulating corporate tax obligations, enforcing compliance, and penalizing tax avoidance practices. Research conducted by (Kubick, Lynch, Mayberry, & Omer, 2016) sheds light on the impact of SEC tax comment letters on the tax avoidance behavior of firms. Their findings reveal that companies dealing with tax avoidance are more likely to receive these comment letters. Remarkably, firms that receive tax-related comment letters tend to reduce their tax avoidance practices, indicating a perceived rise in tax costs. Interestingly, the scrutiny of tax avoidance by the SEC within a particular industry may also prompt other firms, even those not directly targeted by comment letters, to lower their reported GAAP ETR. This observation underscores the influence of SEC comment letters in curbing tax avoidance practices beyond their direct recipients, ultimately limiting tax avoidance on a broader scale.

Moreover, empirical evidence from a recent field experiment conducted in Minnesota by (Alstadsæter, Johannesen, Herry, & Zucman, 2022) highlights the tangible effects of government agencies' efforts in combating tax avoidance. By intensifying enforcement measures, the Norwegian government successfully encouraged a significant number of wealthy individuals to disclose previously hidden assets. The result was a remarkable 30% increase in taxes paid by participants in the amnesty program, with sustained levels of wealth, income, and taxes over time. Importantly, the decrease in evasion did not coincide with a rise in other forms of tax avoidance, suggesting that the policy had a direct impact on revenue collection from offshore evaders, particularly those in affluent positions. This empirical evidence underscores the effectiveness of combining rigorous enforcement measures with amnesty programs, thereby promoting progressive taxation within the context of a globalized world.

Taken together, these studies emphasize the pivotal role of tax authorities in curbing tax avoidance practices. Through their comprehensive measures, tax authorities can influence corporate governance, enhance compliance, and ultimately contribute to the fair and effective functioning of tax systems.

Social Networks

(a) Connections with politicians

This study examined how political ties and investment opportunity sets affect tax avoidance. It was carried out by (Firmansyah, et al., 2022). In order to investigate how businesses are implementing sustainability, which is a worldwide issue, it also looked at the function of corporate social responsibility (CSR) as a moderating variable. 42 manufacturing firms that were listed on the Indonesia Stock Exchange between 2014 and 2019 were examined. The results showed that investment opportunity sets, and political connections had a favorable impact on tax avoidance. However, the favorable impact of political connections and investment opportunity sets on tax avoidance may be diminished by the disclosure of CSR. According to the report, the Indonesia Tax Authority should take sustainability into account while modifying its tax laws.

From 2007 to 2013, (Sudibyo & Jianfu, 2016) looked into the relationship between political ties and tax evasion practices among Indonesia's listed companies. In order to quantify tax avoidance, the researchers utilized the Cash Effective Tax Rate (CETR) as a proxy and manually identified politically linked companies from annual reports. The results showed that politically linked businesses paid less in corporate income taxes than politically unconnected businesses. The study also looked at how State-Owned Enterprise (SOE) status affected tax avoidance and discovered that businesses that employed independent commissioners with political ties were more likely to practice tax avoidance. The study did not, however, offer compelling data identifying the particular varieties of political linkages. By illuminating the connection between political ties and tax avoidance in Indonesia, our findings add to the body of tax research. This can assist maximize state revenues and guide tax collection measures. To further understand the factors that influence tax avoidance, future study should take into account additional factors such company size, performance, family ownership, international activities, debt, and dual listings.

The degree of tax avoidance may be heavily influenced by political connections. Those companies with political connections may be able to tap into tax policies which are more beneficial to them, or to enter into agreements with the government which involve reduced amounts of tax payments. Conversely, those companies without political connections may be at a disadvantage, and this could lead to them having to pay higher taxes or engage in more tax avoidance. (KIM & ZHANG, 2016) studied the link between corporate political involvement

and tax avoidance. A wide variety of corporate political activities were considered, including the use of connected directors, campaign contributions, and lobbying. The researchers found that politically connected companies were more likely to be tax aggressive than non-connected companies, even when considering other factors, such as industry and year fixed effects, and the choice to be politically connected. Different measurements of political ties and tax aggressiveness produced consistent results. Apparently, politically connected firms have a higher tax aggressiveness due to lower enforcement costs, a better understanding of tax law and enforcement, a lower demand for transparency from capital markets, and higher risk-taking tendencies due to their political connections.

(b) Connections with suppliers

The role of strong relationships with customers and suppliers in facilitating tax avoidance practices is paramount, as it enables firms to negotiate advantageous tax arrangements, access valuable resources, and gain insights into tax planning and organizational decision-making.

A good relationship with customers and suppliers can help firms engage in greater tax avoidance because they are in a better position to negotiate favorable tax arrangements. For example, suppliers may be willing to provide discounts on products purchased in exchange for a reduced tax liability, or customers may agree to longer payment terms that would allow firms to take advantage of deductions for longer periods of time. Suppliers may also be willing to provide lower cost supplies that can help reduce a company's taxable income. Through their relationships with customers and suppliers, firms can gain access to tax experts and advisors who can provide them with the most up-to-date information regarding the ever-changing tax laws and regulations. These resources can provide them with the knowledge to take advantage of tax credits and deductions, as well as other strategies to reduce their tax liability.

This study by (Cen, Maydew, Zhang, & Zuo, 2017) investigates the correlation between supply chain relationships between customers and suppliers and tax avoidance tactics. The study looks into whether companies with close supplier-customer ties are better at coming up with and putting into practice tax avoidance plans. The results support the idea that, as compared to other enterprises, principal clients and dependent suppliers are more prone to practice tax avoidance. The paper makes the case that these businesses could use tax planning techniques that involve moving profits to subsidiaries in tax havens. Additionally, both major client enterprises and dependent supplier firms tend to be influenced by the tax advantages achieved from such tactics when making organizational decisions. Overall, the study offers factual data that emphasizes

the importance of tax avoidance as a source of benefits in business partnerships between suppliers and customers.

(c) Connections with other entities

Connections and good network can play a major role in corporate tax avoidance. Connections between companies, people, and other entities can allow for the sharing of tax avoidance techniques, giving firms access to data and resources which help them reduce their taxes. Furthermore, network ties can provide firms with more access to tax avoidance tactics and the ability to utilize loopholes in the tax system. Additionally, being linked with others can give companies an edge when bargaining with governments and other tax agencies, helping them secure advantageous tax arrangements. Overall, network ties can help firms better coordinate their tax avoidance efforts, thus further decreasing their tax liabilities. (Brown & Drake, 2014) suggests that network ties can reduce a firm's tax avoidance. Specifically, when a firm has a board interlock to a low-tax firm, it is more likely to have a lower cash effective tax rate. Moreover, this influence is greater when the two firms are operationally and strategically similar, when they have the same local auditor, and when the connection is created by an executive director. The study imply that the impact of a firm's network ties on its tax avoidance depends on the nature of those ties.

Markets

(a) Labor Market

Labor market incentives can be a powerful motivator for adopting aggressive tax avoidance because it allows employers to reduce their overall costs and maximize profits. By minimizing taxes, employers can offer higher wages and benefits to their employees, which makes them more attractive to potential job seekers. Additionally, employers can use tax savings to invest in the business, which can lead to increased growth and productivity. Aggressive tax avoidance strategies can also make it easier for employers to compete with other businesses in the market. This can result in better wages and more job opportunities for employees.

The findings of (Kubick & Lockhart, 2016) show that in order to improve business performance and their personal labor market worth, CEOs may implement more aggressive tax policies under the influence of the outside labor incentives from the market. Additionally, this relationship varies among industries, being stronger in those where there is more rivalry for CEO talent as well as among CEOs with higher ability. It is also weaker in those where the CEO has less

alternative job possibilities. This demonstrates that the labor market for CEOs can have a significant influence on the corporate tax avoidance policies of a company.

According to recent research by (Xiang, Zh, & Kong, 2023), labor market characteristics are crucial in determining company tax avoidance. The study uses a large dataset of Chinese industrial companies and a geographic analytic method that takes into account the variations in county-level minimum wage levels. The researchers show a causal relationship between labor expenses and tax avoidance using this creative methodology. The results show a significant reduction in the sensitivity of enterprises' imputed earnings to their reported profits following increases in the minimum wage, indicating an increased propensity for tax avoidance. Non-state-owned enterprises, financially strapped organizations, those with lower average earnings, corporations engaged in labor-intensive industries, and businesses situated in areas with high levels of government intervention and low budget deficits are all groups where this association is most strong. These findings highlight the importance of industry-specific variables in understanding businesses' tax avoidance practices and provide insight on the complex interaction between tax techniques and labor market dynamics.

(b) Product Market

Competition is a key factor in product markets, as companies need to strive to gain market share against their industry peers. The authors (Li, Qiu, Wan, Wang, & Wang, 2021) evaluate how the rivalry in the product market affects a firm's tax avoiding practices. They create a theoretical model which implies that heightened product market competition can lead to a "threat-of-punishment" effect, which in turn increases the managerial incentive to decrease tax avoidance, but decreases the shareholders' incentive to do so, establishing a U-shape connection between tax avoidance and product market rivalry. The firm's productivity and corporate governance are other factors that will determine when this connection changes. By analyzing empirical evidence, they establish that tax avoidance by firms based on product market competition displays an inverted U-shape and depends on the productivity and corporate governance of the firm. This research emphasizes how complex product market rivalry is and how it affects a company's tax avoiding practices.

On the other hand, an interesting study by (Austin & Wilson, 2017) examine the hypothesis that firms with valuable consumer reputations will be more likely to avoid engaging in tax avoidance practices as a means of preserving their reputation. To do so, the researchers use

Harris Interactive's EquiTrend[17] survey to identify companies with valuable consumer reputations. The results of the study show that there is a positive and significant association between the measure of reputation and both the GAAP and cash effective tax rates over one and three years.

(c) Financial Distress

The more financially constrained a company is, the more likely it is to find ways to reduce its tax bill. When companies are financially constrained, they have fewer resources available to pay taxes, leading to an incentive to reduce or defer taxes. This can be accomplished through a variety of strategies, such as taking advantage of deductions, credits, and other incentives that are available in the tax code, or through the use of tax havens. Financial constraints can also lead to a company engaging in aggressive accounting tactics, such as transferring income to low-tax jurisdictions, or engaging in complex transactions with related parties to minimize taxes.

Research done by (Edwards, Schwab, & Shevlin, 2016) demonstrates that when firms face financial constraints, to increase their own money, they adopt tax planning. Changes in firm- and macroeconomic-specific measures were used to measure financial constraints. The results show that profitable firms with the largest increases in financial constraints were associated with a drop of 3.00 - 5.14 percent in cash effective tax rates, which accounts for 2.87 - 4.82 percent of operating cash flows. Additionally, it was found that firms with low cash reserves and financial constraints are the most likely to employ deferral-based tax planning strategies to save taxes.

A recent study by (Kamarudin, Ariff, Wan Ismail, & Sufian, 2023) shown that financial difficulty significantly influences tax avoidance behavior. In the study, financial hardship was quantified using the Altman ZSCORE[18] using firm-year observations from 32 nations between

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[17] Harris Interactive's EquiTrend is an annual survey that assesses consumer perceptions of prominent and valuable brands. The survey results are used to identify companies with valuable consumer reputations (2021 Harris Poll EquiTrend® Study, 2021).

[18] Particularly in the manufacturing industry, the Altman Z-score is a methodology for estimating a company's chance of insolvency. Calculation includes ratios for earnings, borrowing, liquidity, solvency, & activities (KENTON, 2022).

2015 and 2020. The results showed that both before and during the COVID-19 outbreak, financially troubled enterprises tended to engage in lower levels of tax avoidance. Tax avoidance rates increased during this time period compared to the pre-pandemic period as a result of the pandemic amplifying the link between financial difficulty and tax avoidance. The study stresses the need of regulators keeping a close eye on and providing incentives to financially troubled businesses, particularly during times of economic uncertainty like the epidemic. These results add to the scant research that already exists on the combination effects of economic hardship and the COVID-19 epidemic on tax avoidance behavior.

5. Consequences of Tax Avoidance

Tax avoidance can bring heavy economic repercussions for both companies and their shareholders. The IRS may investigate companies that practice this, resulting in fines, lawsuits, and harm to their reputation. If their avoidance is revealed, they might have to pay more taxes. Furthermore, since tax avoidance reduces the amount of taxes paid, the government may not have as much money for public services and infrastructure, thus negatively impacting the economy. Moreover, if this is seen as unfair or wrong, it can damage public trust in businesses and the government, leading to further economic damage.

5.1. Capital Structure: Debt and Equity Costs

The cost of debt and equity financing rises since a business often has to obtain more money to pay its costs. Less taxation enables a business to spend more on R&D, which might result in stronger earnings and a higher stock price. However, there is also a danger involved with tax avoidance, as it may result in greater fines and penalties if the business is discovered to be in violation of the law.

The results of (Goh, Lee, Lim, & Shevlin, 2016) demonstrated that even after accounting for the underlying company fundamentals, tax avoidance leads to lower equity costs. Furthermore, this association was stronger for firms with sufficient external monitoring, higher marginal tax savings benefits, and higher information quality. The findings were further tested using a change specification, three alternative measures of cost of equity, beta as a proxy for equity risk, and the Fama-French factor model, providing robust evidence that tax avoidance is associated with a decrease in cost of equity.

The research of (Hasan, Hoi, Wu, & Zhang, 2014) has provided substantial proof that firms that practice a higher degree of corporate tax avoidance will have to pay higher loan costs from the

bank. Utilizing a wide selection of aggressive tax avoidance strategies, their research suggests banks are alert of the risks connected to such activities and thus ask for higher loan spreads. Through difference-in-differences analyses, their study discovered a positive tax avoidance effect on bank loan cost in two quasi-experimental settings. They also found that enterprises with greater tax avoidance levels are subject to stricter covenants and collateral restrictions in bank loan agreements, have a wider spread on their yields when releasing government bonds, and favor loans from banks over government bonds when pursuing capital through debt. This research also suggests that the debt costs due to avoidance-induced risks may calm down a firm's impulse to participate in tax avoidance.

The main theme of the research, according to a study by (Jin, 2020), is on how tax avoidance affects borrowing costs. A theoretical model based on the trade-off theory is presented in the study to show how corporate tax aggressiveness affects the use of corporate debt. The hypothesis that aggressive tax tactics by firms lead to less reliance on debt is substantially supported by the actual data. Firm size and profitability are only two examples of variables that have an impact on the relationship between tax aggressiveness and debt use. While highly profitable organizations demonstrate complimentary effects instead of substitution effects, larger firms are more sensitive to substitution effects. In addition, the study looks at the impact of government ownership, notably in Chinese businesses, and discovers that it intensifies the link between aggressive tax collection and debt accumulation. These results add to our knowledge of how tax avoidance, creditworthiness, and borrowing costs are related, giving us new perspectives on how Western and emerging economies choose their capital structures.

According to a recent study by (Lee, Shevlin, & Venkat, 2023), capital structure decisions are impacted by tax avoidance. The study found a link connecting tax avoidance and a business's tendency to issue stock rather than debt. According to the mediation study, both risky and general tax avoidance contribute to the influence of equity and debt on the pre-corporate tax expense. In order to enhance its conclusions, the study employed a Ninth Circuit ruling as a plausible exogenous event and used a difference-in-differences methodology. Indirect data also revealed that managers' attention to the GAAP effective tax rate affected the outcomes that were seen.

5.2. Firm Value

Corporate tax avoidance has a mixed impact on corporate value. In some cases, tax avoidance can increase the value of a company by reducing its overall tax burden, thereby increasing its

profits. In other cases, tax avoidance can reduce the value of a company by reducing its reputation with customers, shareholders, and other stakeholders who may view the company as not being responsible or transparent with its finances. Additionally, certain tax avoidance strategies may run the risk of being challenged by the Internal Revenue Service (IRS), thus exposing the company to potential fines or other penalties.

An interesting study conducted by (Desai & Dharmapala, 2009) found that the relationship between tax avoidance and firm value was insignificant, likely due to the fact that managers often use the cash available from tax avoidance as an opportunistic way to increase their own wealth, rather than use it to benefit the firm. This suggests that managers are not necessarily making decisions that are in the best interest of the firm itself, and that such decisions can have a negative effect on firm value in the long run. The authors suggest that in order to reduce the effects of opportunistic managerial behavior, taxation policies should be designed to incentivize firms to invest in projects that are beneficial to their core business operations. Furthermore, they suggest that firms should be encouraged to engage in more transparent and accountable methods of taxation that minimize the potential for managerial opportunism.

(Graham & Tucker, 2006) conducted a study that examined the use of 44 corporate tax shelters at 43 firms from 1975 to 2000. Their study found that these shelters produced annual deductions that amounted to an average of 9% of asset value. Additionally, they observed that firms utilizing tax shelters had lower debt-to-asset ratios than those that did not. These results are in line with the notion that tax shelters are a form of nondebt tax shield and can substitute for the use of interest tax deductions. Their study has revealed that tax avoidance can reduce cash outflow and increase firm value.

5.3. Reputational Damage and Stock Reactions

The stock market could react negatively when tax avoidance of a firm is disclosed. Investors may become concerned about the potential for government scrutiny and penalties for such behavior, as well as the potential for a drop in profits due to higher taxes. In addition, the revelation of tax avoidance could damage the company's reputation among customers, suppliers, and other stakeholders, resulting in a further decrease in stock price.

(Hanlon & Slemrod, 2009) found that the announcement of firms' involvement in tax shelters had a negative market reaction of 1.04%. This was based on a sample of firms that adopted the implementation of FIN 48, which requires firms to disclose their tax shelter activity. On average, stock prices decreased with the news, but there was cross-sectional variation. For

example, there was a greater response from firms in the retail sector and a less negative reaction from companies with higher cash effective tax rates. Governance provisions that have no relation to management entrenchment were found to be negatively related to the market reaction.

In their study, (Frischmann, Shevlin, & Wilson, 2008) argued that the market initially responded positively to the introduction of FASB Interpretation no. 48 (FIN 48)[19] due to its new disclosure requirements. However, when news of a Senate inquiry into the FIN 48 disclosures was released, investors revised their beliefs and the market responded negatively, suggesting the potential for an increase in taxes for firms using tax shelters.

By identifying 338 listed organizations as users of covert offshore vehicles[20] utilizing the stolen data—vehicles used to fund fraud, avoid taxes, as well as confiscate shareholders—a significant study by (O'Donovan, Wagner, & Zeume, 2019) calculated the total loss in market value among the companies implicated by the Panama Papers of $174 billion. They demonstrated that after the leak boosted openness, businesses that were involved saw a decline in sales from ostensibly corrupt nations and paid less tax. According to their investigation, one in seven businesses may have confidential information stored abroad.

5.4. Accounting Fraud and Legal Implications

Firms that commit accounting fraud to aid in tax avoidance risk serious legal repercussions. Guidelines for appropriate tax treatment are provided by the legislative process and principal authoritative sources, including the Internal Revenue Code, Treasury regulations, court rulings, and administrative declarations. However, companies break these laws when they engage in

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[19] The Financial Accounting Standards Board (FASB) in the United States published FASB Interpretation No. 48 (FIN 48) as a Statement of Financial Accounting Standards. FIN 48 is an interpretation of Statement of Financial Accounting Standards No. 109 that specifies guidelines for how organizations should identify, quantify, and declare in their financial statements any uncertain tax positions they have taken or anticipate to take in a tax return. (SUMMARY OF INTERPRETATION NO. 48, 2006). It provides guidance on how to account for and disclose potential tax benefits associated with uncertain tax positions.

[20] Secret offshore vehicles are financial structures, such as trusts or companies, that are located in a foreign country and are used to hide assets or income from domestic taxation, or to conceal illegal activities such as bribery, tax evasion, and fraud. These vehicles may be set up in countries with more lenient regulations and tax laws, making it easier to hide assets and activities.

accounting fraud to falsify tax liabilities and distort financial accounts. In addition to reputational harm and potential legal action from stakeholders, legal consequences also include civil penalties like fines and restitution. Criminal sanctions, such as tax evasion and false statement charges, may also be brought against the accountable parties involved in the scam. Investigations by regulatory authorities, such as the IRS, may result in audits, increased tax assessments, and possible criminal referrals. Since accounting fraud and tax avoidance can have serious legal ramifications, adhering to ethical accounting principles and truthful financial reporting is essential (Scholes, et al., 2016).

Depending on the guiding principles of each nation's tax laws, different countries have different regulations regarding tax avoidance and the legal ramifications of those regulations (Brown K. B., 2012). For instance, in the United States, the judiciary is a key factor in assessing whether tax avoidance transactions are acceptable. Although anti-avoidance principles have been established by the law, federal courts nevertheless have the authority to determine whether a transaction, even though it is legally legal, fails to provide the desired tax-saving outcome for the taxpayer. To prevent indirect attempts to avoid paying taxes, the US Congress has adopted tailored anti-avoidance measures within particular portions of the tax code. According to these laws, tax advantages are not given if a transaction's main goal is to avoid paying taxes. Additionally, courts examine tax planning and separate it from undesirable tax avoidance using common law principles like "substance over form," "step transaction," and "business purpose." Other common law nations use same strategies, while some have added general anti-avoidance rules (GAARs) to offer further clarification. Countries with a civil law system frequently rely on ideas like the "abuse of law" approach to fight aggressive tax avoidance and guarantee taxpayer equality. Designing efficient tax avoidance legislation remains difficult overall because it is difficult to strike a compromise between avoiding tax fraud and giving taxpayers transparency and predictability (Brown K. B., 2012).

Companies may take advantage of certain accounting regulations in order to decrease the amount of taxes they owe. This can be done by writing certain expenses off or employing other tax strategies. Although this may benefit the company, it can be at the expense of other stakeholders, such as shareholders and creditors. The use of aggressive financial reporting to reduce taxable income may give companies an unfair advantage over others. Ultimately, tax avoidance is a form of aggressive financial reporting that can significantly reduce the amount of taxes a company has to pay. (Frank, Lynch, & Rego, 2009) have discovered a strong correlation between financial and tax reporting aggressiveness. This means that companies that partake in tax avoidance are more likely to be more assertive in their financial reporting. This

could be due to the lack of enough costs to counter the encouragement to make book income higher and taxable income lower in the same accounting period. Their study showed that a great amount of the investors' misjudgment can be attributed to a hedge portfolio that is based on their determination of tax aggressiveness for companies with the most forceful financial reporting. The study indicates that tax avoidance and financial reporting aggressiveness are connected in a positive manner.

(Lennox, 2013) discovered that tax aggressive U.S. public corporations were less likely to engage in accounting fraud when investigating the association between tax aggressiveness and accounting fraud. In contrast, two of the three proxies for book-tax disparities showed negative correlations, while four of the five proxies for effective tax rates showed positive correlations. This suggests that the outcomes depended on how tax aggressiveness was quantified. Furthermore, these findings persisted even after excluding the years 1995 to 2001, which showed a sharp increase in accounting fraud and a decline in corporate tax compliance. As a result, it would seem that the possibility of accounting fraud is strongly correlated with tax avoidance.

The applicability of the fraud triangle paradigm to the existing legal literature about tax compliance and evasion is examined in recent study by (Lederman, 2021). Three elements make up the fraud triangle, which has historically been employed in accounting research: motivation, opportunity, and justification. Although tax evasion is a form of fraud, the study highlights the mistake of leaving out the fraud triangle from the legal literature on tax compliance. The study contends that perceived opportunity is a key factor in tax evasion behaviors by examining tax compliance via the fraud triangle perspective. It also highlights the importance of behavioral aspects and deterrent models in comprehending tax evasion. The fraud triangle emphasizes the importance of accounting literature and criminology in the study of tax compliance and evasion and assists in bridging economic and behavioral concepts when applied to tax evasion.

6. Conclusion

The study on corporate tax avoidance sheds light on a critical and underexplored subject that demands further research and investigation. The field of tax research remains limited, and as individuals and companies continue to seek ways to minimize their tax obligations, it is crucial to engage in continuous research and discourse on tax avoidance. The definitions of tax avoidance and tax aggressiveness may vary, but tax avoidance is generally understood as the legal reduction of tax liability within the bounds of the law. The study highlights that tax

avoidance behavior differs between individuals and corporations due to the complexities of corporate tax planning, including the size of firms, complex operations, ownership structures, and the need to satisfy multiple stakeholders. Measuring tax avoidance can be done through two sources of information, confidential tax returns or public financial statements, each with its own advantages and disadvantages. Over the past two decades, empirical tax research has experienced significant development, and different measures of tax avoidance have been proposed. Choosing the most appropriate measure is not a straightforward task, as each measure offers unique insights and outcomes. Therefore, it may be beneficial to utilize multiple measures to gain a comprehensive understanding of tax avoidance behavior and potentially uncover previously unnoticed patterns. Various factors influence a company's decision to engage in tax avoidance, including firm-level characteristics such as size, capital intensity, leverage, and profitability. Additionally, ownership structures, corporate governance, executive compensation, transparency and disclosure, ethical standards, external factors like public pressure and labor unions, and social networks all play a role in shaping tax avoidance behaviors. Tax avoidance can have implications for firm value and reputation. While it can potentially increase profits and shareholder value, it can also lead to reputational damage and negative stock market reactions when disclosed. Firms that engage in accounting fraud for tax avoidance purposes risk serious legal consequences.

This study, while valuable, is not without its limitations and shortcomings. Firstly, it can be acknowledged that the study did not delve deeply into the intricacies of the measures of tax avoidance. A more thorough examination of various tax avoidance techniques and their effects could lead to a more sophisticated knowledge of the topic. Secondly, while there are numerous studies and empirical research available on the topic, this study only focused on a limited number of them, potentially leaving out important perspectives and insights. A broader review and discussion of relevant literature could enhance the comprehensiveness and depth of the study. As a suggestion for future research, it would be valuable to develop robust and comprehensive methods that can effectively examine and measure conforming tax avoidance. This approach would provide further insights into the extent to which companies engage in tax planning within the boundaries of the law, shedding light on the ethical dimensions of tax behavior. To achieve this, researchers can establish clear criteria and guidelines for determining conforming tax avoidance, considering legal frameworks and regulations across jurisdictions.

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