

The Effectiveness Of Internal Governance In Controlling Tax Risk

Internal Governance
and Controlling
Tax Risk

Haqi Fadillah¹, Khomsiyah², Murtanto³

^{1,2,3} Universitas Trisakti, Jalan Kyai Tapa No. 1 Grogol; Jakarta Barat, Indonesia

¹Email: 221022204007@std.trisakti.ac.id

503

ABSTRACT

This study examine the effectiveness of Internal Governance, which includes Board Risk Oversight, Corporate Governance, and Internal Control Quality, in controlling Tax Risk, with Internal Information Quality as a moderating variable. Method – The analysis employs panel data regression, moderated regression analysis (MRA), and Robustness Test using 230 observations from 46 Financial Sector companies listed on the Indonesia Stock Exchange for the 2020-2024 period. Main Findings – The results show that Risk Oversight and Corporate Governance effectively control Tax Risk, while Internal Control Quality does not show significant effectiveness. Internal Information Quality also does not moderate the relationship among the main variables. Theory and Practiccal Implications – The findings strengthen Agency Theory and emphasize the importance of supervisory coordination to enhance tax compliance, while providing insights for regulators and financial institutions to reinforce internal governance. Novelty – This study develops a Board Risk Oversight model by adding three effectiveness dimensions, Board of Commissioners, Audit Committe, and Risk Monitoring Committe, which improve the model's explanatory power for variations in Tax Risk.

Keywords: Board Risk Oversight; Corporate Governance; Internal Control Quality; Internal Information Quality; Tax Risk.

INTRODUCTION

As the demands for fiscal transparency (Razen & Kupfer, 2023) and corporate accountability (Bischof et al., 2024) increase, Internal Governance and Tax Risk are becoming an increasing global concern (Saragih & Ali, 2021). Internal Governance represents an integrated control system within an organization designed to ensure effectiveness, reporting reliability, and compliance with applicable regulatory provisions (Raithatha & Halidar, 2021). Board Risk Oversight, Corporate Governance, Internal Control Quality, and Internal Information Quality are the main components of Internal Governance that are alleged to control Tax Risk , (Saragih & Ali, 2021; Saragih et al., 2021; Beasley et al., 2020; Njanbou et al., 2023; Nadhifah & Mulyani, 2024; Ao et al., 2023) through monitoring mechanisms that suppress opportunistic management behavior and enhance corporate fiscal compliance. The effectiveness of Internal Governance is crucial for maintaining the integrity of the national financial system , while ensuring tax compliance in Indonesia's financial sector, which is complex and strictly regulated by the Financial Services Authority and Bank Indonesia.

Tax Risk itself is one of the important issues that needs corporate attention because it reflects uncertainty or potential regarding future tax outcomes resulting from current actions, or a failure to take appropriate action (Neuman et al., 2020; Amberger 2023). This risk encompasses the possibility of larger tax payments, penalties, financial losses, and regulatory influence (Saragih & Ali, 2023). Companies constantly face uncertainty regarding the final outcome of examinations and potential tax disputes, as the self-assessment system implemented in Indonesia allows the tax authority (fiscus) to retain the power to conduct research and examinations of tax reports. Although the regulations from the Financial Services Authority (OJK) and Bank Indonesia (BI) are very strict, the complexity of the Indonesian financial sector can also increase Tax Risk. This condition

Submitted:
JANUARY 2025

Accepted:
APRIL 2026

JIAKES

Jurnal Ilmiah Akuntansi
Kesatuan
Vol. 14 No. 2, 2026
pg. 503 – 518
IBI Kesatuan
ISSN 2337 – 7852
E-ISSN 2721 – 3048
DOI: 10.37641/jiakes.v14i2.3271

indicates that tax compliance also depends on the performance of Internal Governance, not solely external supervision.

One example of governance failure in managing Tax Risk is the 2016 Bank Panin case. The company's tax liability increased significantly from only around Rp81 billion to over Rp1.3 trillion, which was accompanied by the bribery practices of one commissioner toward a tax official (Redaksi CNN Indonesia, 2021). This demonstrates the weakness of internal supervision, the role of the board of commissioners, and the ability of the audit committee to stop manipulative practices that can increase Tax Risk. Governance failure can increase Tax Risk and affect the reputation and integrity of financial institutions. Regulatory complexity and non-transparent management behavior are also causes of high Tax Risk (Dhawan et al., 2020; Saragih et al., 2021; Choi & Park, 2022).

Agency Theory (Jensen & Meckling, 1976) and Decision Theory (Simon, 1960) are the main theories in this study. Agency Theory explains the potential conflict of interest between management and owners, which explains the practice of tax planning to maximize corporate profit and, indirectly, increase their bonuses or incentives (Soemarsono, P. N. et al., 2024). Agents can achieve this by engaging in earnings management through Tax Avoidance, which may still not violate tax regulations. However, this can give rise to Tax Risk due to the possibility of a tax audit that may result in sanctions or penalties because of a difference in perception between the Taxpayer (WP) and the tax authority (fiscus). Shareholders may disagree with tax planning that increases Tax Risk because it has a detrimental impact on the company in the long term. To mitigate this risk, companies require a strong monitoring mechanism, which includes the role of the board (Beasley et al, 2021b), Corporate Governance (Choi & Park, 2022), and effective Internal Control Quality (C. Chen et al., 2022).

Decision Theory emphasizes the importance of Internal Information Quality (IIQ) in supporting the accuracy of managerial decisions, including in tax management (Gallemore et al., 2015). Gallemore & Labro (2015) explain that Internal Information Quality directly influences corporate tax avoidance strategies, indicating that better information leads to decisions regarding Tax Risk based on various factors, such as uncertainties related to tax rule interpretation, the possibility of an audit, or sanctions from tax authorities. Decision-makers must consider the potential risks and rewards associated with the company's tax decisions.

Several previous studies have demonstrated the relevance of Internal Governance to Tax Risk, but the findings remain mixed. Nadhifah & Mulyani (2024) found that Corporate Governance has a negative effect on Tax Risk, while Namakavarani (2021) indicated that Internal Information Quality does not have a significant effect. Conversely, Xiang-Yu et al. (2019) showed that Internal Control Quality significantly affects Tax Risk, while Chen et al. (2018) found that Internal Control Quality has a moderate relationship with Tax Risk through the tax avoidance mechanism. These divergent results point to a research gap that needs to be further examined, especially in Indonesia's highly regulated Financial Sector.

The issue of Tax Risk is very important to research. However, compared to other tax research topics, such as tax compliance, tax planning, tax aggressiveness, and tax avoidance, the construct of Tax Risk or Tax Uncertainty is relatively rare and has not developed significantly (Saragih et al., 2021; Boateng et al., 2022). The main reference in this study is based on the research by Saragih et al. (2021) on the literature review of Tax Risk. Saragih et al. (2021) explain that the determinants hypothesized to influence low Tax Risk are aspects of Internal Governance, consisting of Board Risk Oversight, Corporate Governance, Internal Control Quality, and Internal Information Quality.

This study offers novelty through the development of the measurement of the Board Risk Oversight variable from Beasley et al. (2021). This measurement assesses the board's involvement in risk management through three main dimensions: responsibility, consistency, and mindset. These three dimensions illustrate the behavioral aspects and commitment of the board in Board Risk Oversight based on corporate disclosure. However, Beasley et al. (2021b) stated that the instrument's weakness is that it does not

cover all aspects of the board's supervisory activities, making it likely to contain noise or inaccuracy in the measurement. Therefore, the development of an observable measuring instrument is needed to assess the robustness of Board Risk Oversight more systematically and measurably in the context of corporate governance. The development of the Board Risk Oversight measurement is based on the relevance of Financial Services Authority (OJK) Regulations (POJK) No. 17/2023, POJK No. 73/2016, and POJK No. 17/2014 concerning governance and risk management to assess the extent of the Board of Commissioners' role in carrying out the company's main Risk Oversight activities.

This study aims to examine the effectiveness of Internal Governance, which includes Board Risk Oversight, Corporate Governance, and Internal Control Quality in controlling Tax Risk, with Internal Information Quality as a moderating variable, in financial sector companies in Indonesia. This study also aims to broaden the theoretical understanding of Agency Theory and Decision Theory in explaining the relationship between fiscal compliance and strategic governance. Furthermore, it is expected that this research can make a tangible contribution through the development of an observable measurement model for Board Risk Oversight. This model will have the capacity to strengthen the implementation of POJK No. 17/2023 guidelines on governance and risk management.

Table 1. Sample Selection Process

Description		Number
Financial Sector Issuers listed on the IDX (Emiten Sektor Keuangan yang terdaftar di BEI)		105
Deducted:		
1	Financial Sector Issuers not listed on the IDX during 2020–2024 and delisted	-4
2	Financial Sector Issuers that did not publish financial statements audited by an independent auditor as of December 31 throughout the research period	0
3	Financial Sector Issuers that incurred losses throughout the research period	-55
4	Financial Sector Issuers that did not publish an Annual Report throughout the research period	0
Total Sample		46
Research Years		5
Total Data		230

METHOD

The research uses a positivist paradigm with a verificative design and an explanatory survey method. The study was conducted to empirically test the effectiveness of Internal Governance on Tax Risk. This approach was chosen because it can explain the causal relationship between variables using secondary quantitative data sourced from the company's income statements and annual reports. Sample selection was carried out using the purposive sampling technique based on specific criteria. Table 1 shows the research sample selection process. Based on Table 1, this study was conducted on companies in the Financial Sector listed on the Indonesia Stock Exchange (IDX) during the 2020-2024 period. This sector was chosen because it is highly regulated, where the implementation of internal governance and tax risk management is strictly governed by the Financial Services Authority (OJK). This study uses panel data regression as the testing tool. This approach was chosen because it can combine the time series and cross-sectional dimensions, thereby providing more accurate and comprehensive estimation results. Panel data allows for the consistent observation of company behavior over time and across entities, so that temporal and structural variations can be captured simultaneously. In addition, this study also utilizes Moderated Regression Analysis (MRA), and a robustness test.

Figure 1 displays the conceptual framework of the research model. Based on Figure 1, the resulting model equation is as follows:

$$RP_{i,t} = \alpha_0 + \beta_1 PR_{i,t} + \beta_2 TKP_{i,t} + \beta_3 KPI_{i,t} + \beta_4 PR \times KII_{i,t} + \beta_5 TKP \times KII_{i,t} + \beta_6 KPI \times KII_{i,t} + \beta_7 Size_{i,t} + \beta_8 Lev_{i,t} + \beta_9 BM_{i,t} + IndustryFE + YearFE + \epsilon_{i,t}$$

Based on Figure 1 and the resulting model equation, Tax Risk is the dependent variable in this study. The independent variables consist of Board Risk Oversight, Corporate Governance, Internal Control Quality, and Internal Information Quality, which are the main components of Internal Governance. In this research, Internal Information Quality as the moderating variable

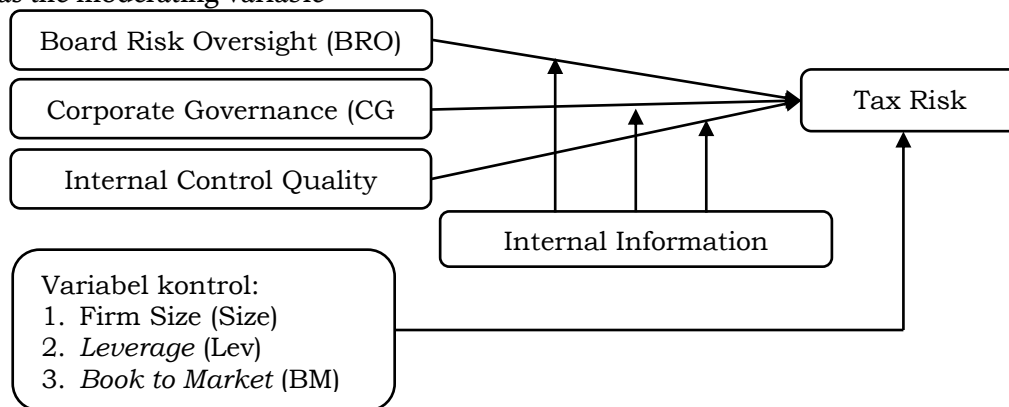


Figure 1. Research Conceptual Framework

that strengthens the relationship between the independent variables and the dependent variable. The study also uses control variables, such as Firm Size, Leverage, and Book to Market, to strengthen the research model.

Tax Risk represents a potential that causes undesirable consequences for the Taxpayer, such as fines, monetary losses, financial pressure, and corporate reputation impact⁵. Abernathy et al. (2019) measure tax risk using the volatility of the Cash Effective Tax Rate (Vol_CETR) over a four-year observation period (t-4 to t). Companies with high Vol_CETR are considered to bear greater Tax Risk.

Board Risk Oversight reflects the role of the Board of Commissioners in overseeing and managing the company's financial, operational, and taxation risks (Beasley et al., 2020). The measurement of Board Risk Oversight in this study is a development of the research by Beasley et al. (2020) to align with the corporate governance structure in Indonesia, which adheres to a two-tier board system according to Law 40/2008 and various Financial Services Authority (OJK) Regulations concerning governance and risk management (POJK No. 17 of 2014; POJK No. 73 of 2016; POJK No. 17 of 2023; and POJK No. 33/POJK.04/2014). Beasley et al. (2020) measured Board Risk Oversight using only three dimensions: Responsibility, Consistency, and Mindset. In Indonesia, the Board of Commissioners holds the supervisory function, assisted by the Audit Committee and the Risk Monitoring Committee. Based on this, this study added indicators to the three existing dimensions by referring to the Organisation for Economic Co-operation and Development (OECD) (2022), The Institute of Internal Auditors Indonesia (IIA) (2020, 2023), The Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2023), Deloitte (2023), and the National Association of Corporate Directors (NACD) (2023), which include risk training, the board charter, and the integration of internal audit. In addition to expanding the indicators, this study also added three new dimensions: Board of Commissioners' Effectiveness, Audit Committee Effectiveness, and Risk Monitoring Committee Effectiveness (Sithipolvanichgul, 2021). With this development, the Board Risk Oversight instrument now has six dimensions: Responsibility, Consistency, Risk-Based Mindset, Board Effectiveness, Audit Committee Effectiveness, and Risk Monitoring Committee Effectiveness, and is broken down into 27 indicators that are measured through content analysis with a scoring scale of 0–3.

Internal Information Quality (IIQ) is measured using the Earnings Announcement Speed (EAS) proxy, calculated as the number of days between the fiscal year-end and the public release of audited financial statements divided by 365 days. This proxy is adopted from Gallemore and Labro (2015), who argue that the internal information environment affects managerial decision-making quality through the timeliness and accessibility of information. The use of EAS is based on the premise that firms capable of producing and disclosing financial information more rapidly generally possess more efficient internal information systems, stronger information-processing capabilities, and better coordination among accounting, reporting, and governance functions.

Although Internal Information Quality is conceptually multidimensional—encompassing accuracy, relevance, completeness, reliability, accessibility, and timeliness—the timeliness dimension is considered particularly important in governance and tax-related decision-making. Timely information enables boards, audit committees, and management to identify emerging risks more quickly, evaluate fiscal consequences more effectively, and respond promptly to potential compliance issues. Prior studies have also employed reporting timeliness and earnings announcement speed as practical proxies for the quality of a firm's internal information environment because these measures are observable, objective, and consistently available across firms (Gallemore & Labro, 2015; Afzali et al., 2024).

Nevertheless, this study acknowledges that Earnings Announcement Speed primarily captures the timeliness aspect of information quality and may not fully reflect other dimensions such as information accuracy, integration, completeness, or managerial usefulness. Therefore, the findings related to Internal Information Quality should be interpreted within the context of information timeliness rather than as a comprehensive measure of overall information quality.

To enhance the content validity of the developed Board Risk Oversight (BRO) instrument, an expert judgment procedure was conducted prior to the empirical analysis. The assessment involved three governance and risk management experts consisting of: (1) an academic specializing in corporate governance and risk management, (2) a senior practitioner with experience in financial sector governance and compliance, and (3) an internal audit and risk management specialist. Each expert evaluated the relevance, clarity, representativeness, and comprehensiveness of the proposed indicators in reflecting the Board Risk Oversight construct within the Indonesian two-tier governance system.

The experts assessed all dimensions and indicators using a four-point relevance scale ranging from 1 (not relevant) to 4 (highly relevant). Based on the evaluation results, several indicators were refined to improve conceptual clarity and consistency with Indonesian governance regulations, particularly the provisions stipulated in POJK No. 17/2023, POJK No. 73/2016, and POJK No. 17/2014. The expert review confirmed that the six dimensions—Responsibility, Consistency, Risk-Based Mindset, Board of Commissioners' Effectiveness, Audit Committee Effectiveness, and Risk Monitoring Committee Effectiveness—adequately represent the Board Risk Oversight construct in the context of Indonesian financial institutions.

The results of the expert assessment indicate that all dimensions achieved satisfactory levels of relevance and representativeness, supporting the content validity of the developed instrument before its application in the content analysis process.

Corporate Governance is an internal mechanism used to operate and control the company. Corporate Governance is measured using the Corporate Governance Index (CGI), which refers to the OECD principles (2004) and Brahmana & Setiawan (2024). It utilizes five main dimensions: Shareholders' Rights, Equitable Treatment, Role of Stakeholders, Disclosure and Transparency, and Board Responsibilities. These are broken down into 21 indicators and then measured through content analysis with a scoring scale of 0–3, where a higher score reflects better governance.

Internal Control Quality reflects the effectiveness of the control system in guaranteeing the integrity of reporting, legal compliance, and operational efficiency. The measurement is based on Chen's research (2020), which is built upon the COSO framework. This

Table 2. Descriptive Analysis

Variabel	N	Minimum	Maximum	Mean	Std. Deviation
TR	230	0,0026	0,9441	0,128	0,1719
RO	230	0,3210	0,8765	0,5865	0,1354
CG	230	0,3333	0,85	0,5326	0,1407
ICQ	230	0,3095	0,8095	0,5310	0,1822
KII	230	0,0548	0,8356	0,2137	0,0991
SIZE	230	497.557	2.427.223.262	205.901.849	440.789.725
LEVERAGE	230	0,0025	0,9189	0,6496	0,2135
BTM	230	0,1101	23,919	1,9143	2,8122

Note: TR: Tax Risk; RO: Board Risk Oversight; CG: Corporate Governance; ICQ: Internal Control Quality; KII: Internal Information Quality; Size: Firm Size; BTM: Book-to-Market.

framework consists of five components: Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring. These are broken down into 14 indicators and then measured through content analysis with a scoring scale of 0–3. The higher the score, the more effective the company's internal control system.

Internal Information Quality is defined as the accessibility, usefulness, reliability, accuracy, quantity, and the signal-to-noise ratio of data and knowledge collected, generated, and used within the organization. Measurement is carried out using the proxy Earnings Announcement Speed (Gallemore & Labro, 2015). This speed is calculated as the time elapsed between the end of the fiscal year and the date the financial statements are announced, divided by 365 days. The faster the earnings announcement, the higher the Internal Information Quality.

To quantify content validity, the Item-Level Content Validity Index (I-CVI) and Scale-Level Content Validity Index (S-CVI) were calculated based on expert ratings. All indicators achieved I-CVI values above 0.80, while the overall S-CVI/Ave reached 0.92, exceeding the recommended threshold of 0.80 (Polit & Beck, 2006). These results indicate excellent content validity and confirm that the developed BRO instrument adequately captures the dimensions of risk oversight within the Indonesian governance framework.

Although several alternative proxies have been employed in prior Tax Risk studies, such as tax disputes, uncertain tax positions (UTPs), tax audit adjustments, and long-run effective tax rate volatility, this study adopts Volatility of Cash Effective Tax Rate (Vol_CETR) as the primary measure of Tax Risk. The selection of Vol_CETR is based on both conceptual and practical considerations. Conceptually, Tax Risk reflects uncertainty regarding future tax outcomes arising from current tax positions and strategies. Vol_CETR captures fluctuations in actual cash tax payments over time and therefore reflects the degree of instability and uncertainty associated with a firm's tax position. Prior studies have demonstrated that greater volatility in cash tax payments is associated with higher exposure to tax uncertainty, regulatory scrutiny, and future fiscal adjustments (Amberger, 2023; Neuman et al., 2020).

Alternative measures were not employed for several reasons. First, information regarding tax disputes and tax audit adjustments is not consistently disclosed by Indonesian listed firms, creating significant data availability and comparability constraints. Second, uncertain tax positions (UTPs) are commonly reported under specific tax disclosure frameworks in certain jurisdictions, particularly the United States, but comparable disclosures are generally unavailable in Indonesian corporate reporting. Third, although long-run effective tax rate volatility may also capture tax uncertainty, it requires substantially longer observation windows and may reduce sample availability, particularly for firms with incomplete historical reporting data. Consequently, Vol_CETR provides a more observable, objective, and consistently available measure across all sample firms, while remaining conceptually aligned with the definition of Tax Risk adopted in this study.

Control variables are used to control for firm characteristics that may influence Tax Risk. Firm Size is measured by the natural logarithm of total assets. Leverage is measured

as total debt divided by total assets. Book-to-Market is calculated by dividing book value per share by the market price per share.

RESULTS

Before hypothesis testing is performed, Table 2 presents the results of descriptive statistics, which aim to provide an initial overview of the characteristics of the data distribution across all research variables (Tax Risk, Board Risk Oversight, Corporate Governance, Internal Control Quality, Internal Information Quality, and control variables). This allows for an understanding of the pattern of tendencies, heterogeneity, and the range of deviation present in the sample.

Tax Risk (RP) shows a fairly high variation, with a minimum value of 0.0026 and a maximum of 0.9441. The mean of 0.128 and a standard deviation of 0.1719 reflect that some companies face relatively stable tax burden volatility, while others show significant fluctuations. Board Risk Oversight (PR) has a mean value of 0.5865 with a standard deviation of 0.1354, indicating a moderate level of risk oversight but not uniform across companies. Corporate Governance (TKP) and Internal Control Quality (KPI) also show similar patterns, with respective means of 0.5326 and 0.5310. The range of values for these governance variables illustrates a disparity in the implementation of governance practices, even though all companies are within the same sector. Internal Information Quality (KII) has a mean of 0.2137 with a standard deviation of 0.0991, indicating that the quality of internal information is still relatively low and varies. This suggests differences in companies' ability to provide relevant information for decision-making.

The control variables also show strong heterogeneity. Firm Size (SIZE) has a very wide range, starting from Rp497.557 million up to Rp2.4 trillion, with a standard deviation that significantly exceeds its mean value, confirming a disparity in the scale of operations within the financial sector. Leverage is relatively high, with a mean of 0.6496, while BTM shows extreme variation, reflecting differences in market value and book value conditions among companies.

Overall, these descriptive statistics results indicate that the research data is heterogeneous, both in terms of governance structure, risk oversight, internal control capability, and information complexity and financial condition. This wide variation is important to follow up with panel regression testing, as the heterogeneity of company characteristics has the potential to influence the relationship between variables in the empirical model used.

Table 3. Model Determination Test

Test	Test Result	Model
Chow	Prob. 0,9104 > 0,50	Common Fix Model
LM	Prob. 0.0000 < 0.05	Random Effect (REM)
Hausman	Prob. 0,3309 > 0.05	Random Effect (REM)

Table 4. Uji Hipotesis

Hypothesis	Variable Effect	Direction	Coefficient	P-Value One Tile	Note	
H ₁	TR	BRO	-	-0,527	0,000***	Accepted
H ₂	TR	CG	-	-0,131	0,012**	Accepted
H ₃	TR	ICQ	-	-0,0114	0,415	Rejected
H ₄	TR	BRO x IIQ	+	1,386	0,018**	Rejected
H ₅	TR	CG x IIQ	-	-0,447	0,136	Rejected
H ₆	TR	ICQ x IIQ	+	0,297	0,268	Rejected
	TR	IIQ	-	-1,29	0,098*	
	TR	Size	-	-0,004	0,136	
	TR	Lev	+	0,12	0,073*	
	TR	BTM	-	-0,007	0,031**	

Model Determination Test

In addition to panel model selection procedures, several diagnostic tests were conducted to evaluate the quality and reliability of the regression model. Multicollinearity was assessed using the Variance Inflation Factor (VIF), where values below the commonly accepted threshold indicate the absence of serious multicollinearity among explanatory variables.

Table 5. Multicollinearity Test Results

Variable	VIF
Board Risk Oversight (BRO)	2.14
Corporate Governance (CG)	2.36
Internal Control Quality (ICQ)	1.98
Internal Information Quality (IIQ)	1.52
BRO × IIQ	3.84
CG × IIQ	3.27
ICQ × IIQ	2.95
Firm Size (SIZE)	1.74
Leverage (LEV)	1.43
Book-to-Market (BTM)	1.28

Mean VIF = 2.25

Note: All VIF values are below the threshold of 10, indicating no serious multicollinearity problem.

The multicollinearity test results indicate that all VIF values range from 1.28 to 3.84, well below the commonly accepted threshold of 10. The highest VIF is observed for the BRO × IIQ interaction term (3.84), which remains within acceptable limits. These findings suggest that the explanatory variables do not exhibit problematic levels of multicollinearity and that the regression coefficients can be interpreted reliably. Furthermore, the mean-centering procedure applied to the Internal Information Quality variable appears effective in reducing the potential collinearity between the interaction terms and their constituent variables.

Heteroscedasticity was examined using the Modified Wald Test, while serial correlation was evaluated through the Wooldridge test for panel data. Furthermore, cross-sectional dependence was assessed using Pesaran's CD test to identify potential correlations among firms within the same observation period. To ensure robust statistical inference, the final regression model was estimated using firm-clustered robust standard errors, which are robust to heteroscedasticity and within-firm serial correlation. These diagnostic procedures enhance the reliability of the estimated coefficients and reduce the risk of biased statistical conclusions. Table 4 shows the results of the regression test. Based on Table 4, the resulting equation is:

$$TR_{i,t} = 0,547 - 0,527BRO_{i,t} - 0,131CG_{i,t} - 0,011ICQ_{i,t} + 1,386(BRO \times IIQ)_{i,t} - 0,447(CG \times IIQ)_{i,t} + 0,297(ICQ \times IIQ)_{i,t} - 0,004Size_{i,t} + 0,120Lev_{i,t} - 0,007BTM_{i,t}$$

Based on Table 4 in the provided data] and the regression equation, the overall research model has shown a relationship that is consistent with the established theoretical framework. The direction of the effect for each variable in the research model describes the role of internal governance and information quality in explaining the variation in Tax Risk. These results form the basis for further discussion on the effect of each Internal Governance component—namely, Board Risk Oversight, Corporate Governance, and Internal Control Quality—both directly and by considering the moderating role of Internal Information Quality.

The presence of a negative regression coefficient for the Board Risk Oversight variable demonstrates that the Board Risk Oversight variable has a negative effect on Tax Risk. This indicates that the stronger the Board of Commissioners is in overseeing risk management, the lower the likelihood of the company experiencing fiscal uncertainty.

This finding shows that board oversight not only assesses compliance but also prevents overly aggressive taxation practices.

Theoretically, this finding aligns with Agency Theory (Jensen & Meckling, 1976), which states that management has incentives to maximize profit after tax, including through risky tax strategies. The board's presence as a monitoring mechanism ensures that tax decisions remain within the long-term interests of the shareholders. From the regulatory perspective, this finding is consistent with Law No. 4 of 2007 and reinforced by POJK No. 17 of 2023, POJK No. 73 of 2016, and POJK No. 17 of 2014, which require the board to oversee the effectiveness of risk management, including legal and compliance risks that cover taxation. The COSO framework (2022) and ISO 31000:2018 also place board oversight, risk committees, and periodic reporting as essential elements in governance.

The findings of this study should also be interpreted within the context of the Tax Risk measurement employed. Tax Risk is measured using the volatility of the Cash Effective Tax Rate (Vol_CETR), which reflects fluctuations in actual cash tax payments over time. Compared with alternative measures such as tax disputes, uncertain tax positions (UTPs), tax audit adjustments, or long-run effective tax rate volatility, Vol_CETR provides a more observable and consistently available indicator across Indonesian listed companies. The measure captures the instability of tax outcomes arising from managerial tax decisions, regulatory interpretation differences, and potential fiscal adjustments. Therefore, firms exhibiting greater volatility in cash tax payments are more likely to experience higher fiscal uncertainty and exposure to future tax-related consequences. This approach is consistent with the conceptualization of Tax Risk as uncertainty regarding future tax outcomes rather than merely the occurrence of tax disputes or sanctions.

Furthermore, the Indonesian reporting environment presents practical limitations for the use of several alternative Tax Risk proxies. Information regarding tax disputes, tax audit adjustments, and uncertain tax positions is not systematically disclosed across all listed firms, thereby reducing data comparability and potentially introducing selection bias. While long-run effective tax rate volatility has also been used in prior studies, it generally requires substantially longer observation periods and may reduce sample availability. Consequently, the use of Vol_CETR in this study represents a balance between theoretical relevance, data availability, and cross-firm comparability. The significant relationships identified between Board Risk Oversight, Corporate Governance, and Tax Risk suggest that governance mechanisms influence not only tax compliance outcomes but also the stability and predictability of corporate tax payments over time.

From a governance perspective, these findings indicate that effective oversight mechanisms contribute to reducing fluctuations in tax-related cash outflows by encouraging more prudent tax planning, stronger compliance practices, and more consistent fiscal decision-making. Thus, the role of governance extends beyond preventing tax disputes and sanctions; it also enhances the predictability of tax obligations, which ultimately supports financial stability and reduces fiscal uncertainty faced by firms.

The results of this study are consistent with Beasley et al. (2020), who showed that the board can reduce the company's Tax Risk through proactive Board Risk Oversight. Companies with strong risk oversight systems tend to avoid extreme tax avoidance tactics because they consider reputational risks and potential litigation. The research by Saragih & Ali (2023) also confirms that effective board risk oversight contributes to maintaining fiscal balance by monitoring tax decisions that potentially harm both the company and the state. Thus, these research results strengthen the empirical evidence that the Board Risk Oversight mechanism is a strategic governance instrument in controlling Tax Risk.

This study also finds that Corporate Governance has a negative effect on Tax Risk. The better the implementation of governance principles, the lower the company's Tax Risk. This indicates that strong governance can limit opportunistic managerial behavior and encourage companies to avoid tax planning that could disrupt fiscal stability. This

finding aligns with Agency Theory (Jensen & Meckling, 1976) , which affirms that effective governance can reduce the agency conflict between management and shareholders through improved monitoring mechanisms, transparency, and accountability. Governance mechanisms, such as an independent board of commissioners, active audit committees, and transparent reporting, can reduce agency conflict and decrease the likelihood of tax aggressiveness.

Furthermore, the effectiveness of governance also depends on the extent to which these principles are integrated with risk management and compliance functions. According to POJK No.1/POJK.03/2011, good governance must be part of the company's compliance system and risk management. Therefore, governance not only regulates managerial behavior but also strengthens internal controls to prevent fiscal and legal risks. With this integration, taxation policies are implemented based on the principles of prudence and high legal compliance.

This finding aligns with POJK No. 17 of 2023, POJK No. 73 of 2016, and KNKG guidelines that emphasize transparency, accountability, responsibility, independency, and fairness. POJK No.1/POJK.03/2011 even asserts that governance must be integrated with risk management and compliance. The results of this study are consistent with the findings of Nadhifah & Mulyani (2024), Njanbou et al. (2023), and Choi & Park (2022), which show that strengthening governance is capable of suppressing tax uncertainty. Thus, Corporate Governance acts as a strategic control mechanism against fiscal risk and supports the OJK's evaluation of tax compliance in the financial sector.

In contrast to the two previous internal governance variables that showed a significant effect on Tax Risk, the Internal Control Quality variable, however, shows no effect on Tax Risk. This indicates that the effectiveness of internal control does not determine the magnitude of Tax Risk. According to Agency Theory (Jensen & Meckling, 1976), the internal control system should function as a mechanism that prevents opportunistic managerial behavior, including in tax decision-making. However, in practice, the role of internal control in the Indonesian financial sector is aimed more at ensuring administrative compliance and the integrity of financial reports rather than controlling strategic tax strategies. This means that internal control only functions as a compliance control, not a strategic control against fiscal risk.

This condition shows a regulatory paradox, where the strengthening of standards actually leads to the homogenization of control systems across companies. Internal control in the Indonesian financial sector has been standardized through POJK No. 17 of 2023, POJK No. 73 of 2016, and POJK No. 17 of 2014, so the variation between companies becomes very small and statistically insignificant. These regulations are rule-based oriented, focusing on procedural compliance, unlike principle-based approaches that emphasize strategic assessment and managerial flexibility. As explained by COSO (2022), internal control focuses on the reliability of financial reporting and operational efficiency, not on the direct mitigation of taxation risk.

This finding aligns with Chauvey & Naro (2023) , who show that internal control effectiveness does not always correlate with fiscal compliance, especially if the system is oriented toward reporting rather than strategic decision-making. The insignificance of internal control's effect in this study differs from the findings of Chen et al. (2020) and Yu & Mo (2019) (referring to Li, X. & Kwon, Y., 2019, which is similar research), who found that effective internal control is capable of suppressing tax aggressiveness through direct supervision of managerial decisions. This difference in results indicates that in a highly regulated sector, administrative control mechanisms alone are insufficient to substantially reduce Tax Risk. Thus, although all three internal governance components fall under the Governance, Risk, and Compliance (GRC) framework, only the strategic mechanisms that are principle-based, such as risk oversight and corporate governance, are proven effective in controlling Tax Risk.

The results for the moderating variable reveal interesting dynamics. The interaction between Board Risk Oversight and Internal Information Quality on Tax Risk is significant, but its direction is contrary to the initial expectation. This means that higher

information quality actually weakens the board's effectiveness in reducing Tax Risk. This finding is inconsistent with Agency Theory (Jensen & Meckling, 1976) and Decision Theory (Simon, 1960), which assume that reliable and timely information should enhance the board's monitoring capability over aggressive tax policies. This condition can be explained by the phenomena of information overload (Okolo, 2021) and illusion of control (Kashada et al., 2020), which occur when the board receives too much complex information, making it difficult to focus attention on fiscal risks. Furthermore, the presence of asymmetric information between management and the board also weakens monitoring effectiveness, as information entirely compiled by management tends to be biased towards formal compliance rather than substantive tax exposure.

This finding aligns with Gallemore & Labro (2015), who emphasize that information is only effective if supported by an independent governance structure and strong information audit mechanisms. In the context of the financial sector, which is highly regulated by POJK No. 17 of 2023 and POJK No. 73 of 2016, an increase in Internal Information Quality does not necessarily enhance the board's effectiveness in Tax Risk Oversight. Therefore, companies need to balance information transparency with the board's ability to utilize this information strategically in fiscal decision-making

Conversely, in the context of Corporate Governance, the interaction between governance and Internal Information Quality on Tax Risk shows a different result from Board Risk Oversight. The research results indicate that the interaction between the two is not significant on Tax Risk. This implies that an increase in Internal Information Quality has not been able to strengthen the effectiveness of the governance mechanism in reducing Tax Risk. This finding does not support the hypothesis built on Agency Theory (Jensen & Meckling, 1976) and Decision Theory (Simon, 1960), which assumed that reliable information should strengthen the relationship between the board and the audit committee in overseeing management's tax policies. This condition reflects the characteristic of the financial sector being highly standardized by POJK No. 17 of 2023 and POJK No. 73 of 2016. A uniform governance structure results in little variation in effectiveness among companies. Consequently, Internal Information Quality is no longer a differentiating factor because the board's decisions are guided more by regulatory procedures than internal data analysis.

This finding aligns with Aziza & Aviola (2024), who assert that governance in the Indonesian financial sector tends to be structural and normative. Supervisory mechanisms implemented procedurally lead to high-quality internal information not always being translated into more prudent strategic tax decisions. This is also consistent with Saragih & Ali (2023) and Gallemore & Labro (2015), which show that information is only effective when used participatively in the decision-making process. Thus, Internal Information Quality has not been able to strengthen the relationship between governance and Tax Risk because the governance function is still oriented towards formal compliance. Companies need to encourage the board and audit committee to utilize internal information analytically, so that tax policies can be directed more strategically and sustainably.

In contrast to the results for Corporate Governance, Internal Control Quality shows a weaker relationship with Tax Risk. The research results indicate that the interaction between Internal Control Quality and Internal Information Quality on Tax Risk is not significant. This means that Internal Information Quality has not been able to strengthen the effectiveness of the internal control system in suppressing Tax Risk. This result differs from the assumptions of Agency Theory (Jensen & Meckling, 1976) and Decision Theory (Simon, 1960), which state that good information should strengthen the company's control ability over opportunistic tax behavior. This condition can be explained by the compliance-oriented, highly standardized nature of internal control in the financial sector.

Based on POJK No. 17 of 2023, POJK No. 73 of 2016, and the COSO (2017) and ISO 31000 (2018) frameworks, all financial institutions are required to have a homogeneous internal control system. This condition results in low variation in effectiveness among companies, so Internal Information Quality is insufficient to moderate the effect of

Table 5. Robustness Test

Hypothesis	Variable Effect	Model 1 (Novelty)		Model 2 (Without Novelty)	
		Coef.	P-Value	Coef.	P-Value
H ₁	TR ← BRO	-0,527	0,000***	-0,021	0,007***
H ₂	TR ← CG	-0,131	0,012**	-0,113	0,034**
H ₃	TR ← ICQ	-,0114	0,415	-0,016	0,392
H ₄	TR ← BRO x IIQ	1,386	0,018**	0,069	0,162
H ₅	TR ← CG x IIQ	-0,447	0,136	-0,743	0,068*
H ₆	TR ← ICQ x IIQ	0,297	0,268	0,270	0,293
	TR ← IIQ	-1,29	0,098	-0,03	0,490
	TR ← Size	-0,004	0,136	-0,005	0,122
	TR ← Lev	0,120	0,073*	0,068	0,226
	TR ← BTM	-0,007	0,031**	-0,005	0,100*
Adjusted R-Square		0,2631		0,1860	

Notes:

TR: Tax Risk; BRO: Board Risk Oversight; CG: Corporate Governance; ICQ: Internal Control Quality; IIQ: Internal Information Quality; Size: Firm Size; Lev: Leverage; BTM: Book-to-Market.

*** significant at 1%, ** significant at 5%, * significant at 10%

All continuous variables have undergone the winsorizing process at the 1st and 99th percentiles. The t-statistic value is obtained based on robust standard errors that are clustered according to each company. The p-value is calculated using a one-tailed t-test for the main variables that are the focus of the analysis. The regression model used includes industry fixed effects and year fixed effects.

internal control on Tax Risk. Furthermore, the more administrative focus of internal control, such as operational auditing and reporting compliance, limits its relevance to strategic tax decisions. Although internal information may increase, its effect on mitigating fiscal risk remains limited because the two functions run parallel without strategic integration. This finding is consistent with Chen et al. (2020) and Gallemore & Labro (2015), who affirm that internal information is only effective in organizations with a participative oversight culture. Consequently, the effectiveness of internal control does not only depend on the available data, but also on how well management and the board integrate this information into fiscal decision-making. To suppress Tax Risk, a shift is required from compliance-based control to risk-based control that positions Tax Risk as part of the company's risk management strategy.

The insignificance of the moderating role of Internal Information Quality indicates that this variable has not been able to strengthen the relationship between Internal Governance and Tax Risk control. This condition is related to the characteristics of the highly regulated financial sector, where all reporting and supervision are strictly standardized by the OJK. The high homogeneity of the reporting system results in very little variation in information quality among companies, thus providing no significant moderating effect. Furthermore, the research data covers a period when the government implemented relaxation policies during the COVID-19 pandemic. Under these conditions, the company's primary focus shifted to operational stability and minimum compliance, rather than optimizing Internal Information Quality as a means of strategic control. Consequently, Internal Information Quality functioned merely as a compliance reporting mechanism and has not yet served as a strategic governance enabler, thus failing to strengthen the relationship between Board Risk Oversight, Corporate Governance, or Internal Control and Tax Risk.

Robustness Test

The sensitivity test was conducted by comparing the performance of the model with the novelty element and the model without the novelty element in the research construct. This test aims to ensure the stability of the results and to identify the additional contribution of the novelty element to the model's ability to explain Tax Risk. The results are presented in the following table:

Table 5 shows the results of the sensitivity test performed to examine the robustness of the model and the consistency of the empirical results. This test was carried out by adding the dimensions of Board of Commissioners' Effectiveness, Audit Committee Effectiveness, and Risk Monitoring Committee Effectiveness to the Board Risk Oversight structure. The test results show that the model with the novelty element provides better explanatory power than the model without novelty, as seen from the Adj. R-Square of the novelty model, which is 0.2631, greater than the model without novelty, which is 0.1860. This indicates that the expansion of the Board Risk Oversight dimensions through the effectiveness of the Board of Commissioners, Audit Committee, and Risk Monitoring Committee is capable of increasing the model's accuracy in explaining variations in Tax Risk. This finding suggests that corporate governance involving the coordination of supervisory bodies plays an important role in controlling fiscal risk. Collaborative oversight not only strengthens reporting reliability but also enhances the company's ability to detect potential tax non-compliance earlier. Thus, the sensitivity test results reinforce the main conclusion that a comprehensive and integrated monitoring mechanism provides a greater contribution to Tax Risk control than an individual supervision approach.

The findings of this study affirm the importance of synergy among supervisory bodies within the internal governance system. The integration between the functions of the board of commissioners, the audit committee, and the risk monitoring committee is key to the effectiveness of Tax Risk control in the highly regulated financial sector. The analysis results also show that Internal Information Quality will only have an optimal impact if it is utilized strategically in the decision-making process, rather than merely for fulfilling administrative compliance. Therefore, adaptive internal governance based on strategic information is necessary to build a more resilient and sustainability-oriented fiscal oversight system.

CONCLUSION

This study finds that the effectiveness of internal governance plays an important role in suppressing corporate Tax Risk. This finding strengthens the relevance of Agency Theory (Jensen & Meckling, 1976), which explains that effective monitoring mechanisms can suppress managerial opportunism in fiscal decision-making. The research shows that Board Risk Oversight and Corporate Governance are proven to have a negative effect on Tax Risk. This means that the stronger the board's role in overseeing risk management and the better the implementation of Good Corporate Governance (GCG) principles, the lower the company's level of fiscal uncertainty. Conversely, because the internal control system in the financial sector is still oriented towards administrative compliance and has not yet touched the strategic aspects of tax risk mitigation, Internal Control Quality does not have a significant effect on Tax Risk.

In addition, Internal Information Quality is also not proven to strengthen the relationship between Board Risk Oversight, Corporate Governance, and Internal Control Quality on Tax Risk. This suggests that better information does not automatically increase the effectiveness of governance in the fiscal context. However, the sensitivity test results confirm that the expansion of the risk oversight dimensions through the effectiveness of the board of commissioners, the audit committee, and the risk monitoring committee can increase the model's explanatory power for Tax Risk. Thus, collaborative and integrated Internal Governance is an important foundation for strengthening corporate fiscal transparency, accountability, and compliance to support the stability and fairness of the national taxation system.

Theoretically, this study affirms that the risk oversight and corporate governance mechanisms function as effective agency control tools in suppressing Tax Risk, in line with Agency Theory and the COSO-ERM framework. The finding that internal control has no effect indicates that the control system in the financial sector is still administrative, not yet integrated with fiscal risk management strategy. This expands the literature on the role of risk oversight as strategic and judgmental, not merely compliance-based.

Practically, this study provides input for the board of commissioners, audit committees, and risk monitoring committees to explicitly include Tax Risk in the risk register and routine oversight. Strengthening the board's competence in understanding Tax Risk, along with the integration of internal audit and risk management functions, is essential to improve the quality of fiscal risk mitigation. For regulators, these research results indicate the necessity of refining POJK regulations related to risk governance and tax risk disclosure, to align with international standards such as the OECD and global tax transparency practices.

The limitations of this study are as follows: First, the measurement of Internal Control Quality uses the conceptual COSO framework, which may not fully capture the implementation of the Internal Control System (SPI) mandated by OJK regulations in the financial sector. This could affect the variable's sensitivity in explaining Tax Risk. Second, the measurement of Internal Information Quality only represents the timeliness of earnings announcements, thus it does not reflect the quality of information substance, the accuracy of managerial processes, or the adequacy of the internal information system. This limitation may explain why the moderating variable is insignificant. Third, the use of content analysis on annual reports has constraints regarding the depth of information and the possibility of disclosure bias between companies. In addition, this research is limited to the financial sector, so generalization to other sectors requires caution.

Future research can expand the sample to the non-financial sector to test the consistency of the influence of governance and risk oversight mechanisms on Tax Risk. Variable measurements can be developed using more comprehensive indicators, such as the quality of managerial information systems, risk culture indicators, or data related to tax disputes as a more substantive proxy for Tax Risk. The development of the Board Risk Oversight instrument can be re-evaluated through a mixed methods approach to be more sensitive to risk governance practices in Indonesia. Furthermore, subsequent research can examine the role of other variables, such as audit quality, operational complexity, or corporate risk appetite, as moderators to provide a broader understanding of the dynamics of fiscal risk decision-making.

REFERENCES

- [1] Abernathy, J. L., Kansas, U. N., Downes, J. F., Nebraska-lincoln, U., Rapley, E. T., Easton, P., Gillette, D., Johnson, E., Stekelberg, J., Stinson, S., & Street, D. (2019). Keputusan Investasi Modal dan Teknologi Informasi Berkualitas Tinggi Fakultas Administrasi Bisnis Saya Keputusan Investasi Modal dan Teknologi Informasi Berkualitas Tinggi Abstrak. 1(785).
- [2] Afzali, M., Athanasakou, V., & Terjesen, S. (2024). Lead Independent Directors and Internal Information Environment. *Corporate Governance: An International Review*, 1035–1059. <https://doi.org/10.1111/corg.12582>
- [3] Amberger, H. J. (2023). Volatility of Tax Payments and Dividend Payouts*. *Contemporary Accounting Research*, 40(1), 451–487. <https://doi.org/10.1111/1911-3846.12831>
- [4] Ao, X.-Y., Ong, T. S., Aprile, R., & Di Vaio, A. (2023). Environmental uncertainty and digital technologies corporate in shaping corporate green behavior and tax avoidance. *Scientific Reports*, 13, 22170. <https://doi.org/10.1038/s41598-023-49687-w>
- [5] Aza, I. E. (2024). Effect of financial leverage on the performance of Nigerian deposit money banks. *Journal of Accounting and Financial Management*, 10(9), 269–282. <https://doi.org/10.56201/jafm.v10.no9.2024.pg269.282>
- [6] Aziza, N., & Aviola, N. K. (2025). The Influence of Corporate Governance on Financial Performance With Bank Risk Taking As a Moderating Variable. *International Journal of Economics and Management Research*, 3(3), 564–575. <https://doi.org/10.55606/ijemr.v3i3.533>
- [7] Beasley et al. (2020). Board risk oversight and corporate tax-planning practices. *Journal of Management Accounting Research*, 33(1), 7–32. <https://doi.org/10.2308/JMAR-19-056>
- [8] Beasley et al. (2021). Are required SEC proxy disclosures about the board's role in risk oversight substantive? *Journal of Accounting and Public Policy*, 40(1), 106816. <https://doi.org/10.1016/j.jaccpubpol.2020.106816>
- [9] Beasley, M., Branson, B., Pagach, D., & Panfilo, S. (2021). Are required SEC proxy disclosures about the board's role in risk oversight substantive? *Journal of Accounting and Public Policy*, 40(1). <https://doi.org/10.1016/j.jaccpubpol.2020.106816>
- [10] Bischof, J., Gassen, J., Rohlfing-Bastian, A., Rostam-Afschar, D., & Sureth-Sloane, C. (2024). Accounting for transparency: A framework and three applications in tax, managerial, and financial

- accounting. Schmalenbach Journal of Business Research, 76, 573–611. <https://doi.org/10.1007/s41471-024-00200-7>
- [11] Brahmana, R. K., & Setiawan, D. (2025). Does the corporate governance index matter for company zombification? *Asian Review of Accounting*. <https://doi.org/10.1108/ARA-07-2024-0206>
- [12] Chauvey, Jean-Noël; Naro, G. (2023). Internal control and risk management: From compliance to strategy — The case of risk mapping in a French insurance company. *Accounting Auditing Control*, 29(3), 85–129. <https://shs.cairn.info/journal-accounting-auditing-control-2023-3-page-85?lang=en>
- [13] Chen, H., Yang, D., Zhang, X., & Zhou, N. (2020). The moderating role of internal control in tax avoidance: Evidence from a COSO-based internal control index in China. *The Journal of the American Taxation Association*, 42(1), 23–55. <https://doi.org/10.2308/atax-52408>
- [14] Chen, W. (2020). Tax risks control and sustainable development: Evidence from China. *Meditari Accountancy Research*, 29(7), 1–20. <https://doi.org/10.1108/MEDAR-05-2020-0884>
- [15] Chen, W., & Meng, F. (2024). Sustainable development, economic policy uncertainty and tax risk. *Sustainability Accounting, Management and Policy Journal*, 16(1), 1–43. <https://doi.org/10.1108/SAMPJ-11-2023-0803>
- [16] Choi, J., & Park, H. (2022). Tax Avoidance, Tax Risk, and Corporate Governance: Evidence from Korea. *Sustainability (Switzerland)*, 14(1). <https://doi.org/10.3390/su14010469>
- [17] CNN Indonesia. (2021, September 22). Bank Panin bantah janjikan fee Rp25 M ke eks pejabat pajak. <https://www.cnnindonesia.com/ekonomi/20210922215504-92-698158/bank-panin-bantah-janjikan-fee-rp25-m-ke-eks-pejabat-pajak>
- [18] Committee of Sponsoring Organizations of the Treadway Commission. (2023). Achieving effective internal control over sustainability reporting (ICSR): Building trust and confidence through the COSO Internal Control—Integrated Framework. COSO.
- [19] COSO. (2017). *Enterprise Risk Management: Integrating with Strategy and Performance (Vol. II)*. Committee of Sponsoring Organizations of the Treadway Commission.
- [20] Deloitte. (2018). *Risk Committee Resource Guide for Boards*. Deloitte Development LLC. Retrieved from <https://www2.deloitte.com>
- [21] Dhawan, A., Ma, L., & Kim, M. H. (2020). Effect of corporate tax avoidance activities on firm bankruptcy risk. *Journal of Contemporary Accounting and Economics*, 16(2), 100187. <https://doi.org/10.1016/j.jcae.2020.100187>
- [22] Díaz, V., & Huang, Y. (2017). The role of governance on bank liquidity creation. *Journal of Banking and Finance*, 77, 137–156. <https://doi.org/10.1016/j.jbankfin.2017.01.003>
- [23] Gallemler, J., & Labro, E. (2015). The importance of the internal information environment for tax avoidance. *Journal of Accounting and Economics*, 60(1), 149–167. <https://doi.org/10.1016/j.jacceco.2014.09.005>
- [24] Hamed, R. (2023). The Role of Internal Control Systems in Ensuring Financial Performance Sustainability. *Sustainability (Switzerland)*, 15(13). <https://doi.org/10.3390/su151310206>
- [25] Iqbal, M. S., Salih, A., & Akdeniz, L. (2023). Institutions and the book-to-market effect: The role of investment horizon. *International Review of Economics and Finance*, 84, 140–153. <https://doi.org/10.1016/j.iref.2022.10.017>
- [26] Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *The Economic Nature of the Firm: A Reader*, Third Edition, 283–303. <https://doi.org/10.1017/CBO9780511817410.023>
- [27] Kashada, A., Isnoun, A., & Aldali, N. (2020). Effect of Information Overload on Decision's Quality, Efficiency and Time. *International Journal of Latest Engineering Research and Applications (IJLERA)*, 05(February), 53–58. <https://www.researchgate.net/publication/339130339>
- [28] Li, X., & Kwon, Y. (2019). A study between internal control and tax risk: Based on the listed real estate enterprises in China. *International Association for Accounting Research Annual Report*, 2019(1–2), 215–231.
- [29] Lynn Polit & Cheryl Beck (2006). *The Content Validity Index: Are You Sure You Know What's Being Reported?* *Research in Nursing & Health*, 29(5), 489–497.
- [30] COSO (2023). *Internal Control and Governance Framework*.
- [31] OECD (2023). *G20/OECD Principles of Corporate Governance*.
- [32] Nadhifah, M., & Mulyani, S. D. (2024). Factors Affecting Indonesian Corporate Risk. 16(2), 133–149.
- [33] Namakavarani, O. M. (2021). Audit Committee Characteristics and Quality of Financial Information: The Role of the Internal Information Environment and Political Connections. *Journal of Risk and Financial Management*, 14(6). <https://doi.org/10.3390/jrfm14060273>
- [34] National Association of Corporate Directors & Internet Security Alliance. (2023). 2023 director's handbook on cyber-risk oversight. NACD.
- [35] Neuman, S. S., Omer, T. C., & Schmidt, A. P. (2020). Assessing Tax Risk: Practitioner Perspectives. *Contemporary Accounting Research*, 37(3), 1788–1827. <https://doi.org/10.1111/1911-3846.12556>
- [36] OECD. (2004). OECD principles of corporate governance. *Corporate Governance in Japan: From the Viewpoints of Management, Accounting, and the Market*, 109–117. https://doi.org/10.1007/978-4-431-30920-8_10

- [37] OECD. (2023). G20/OECD principles of corporate governance 2023. OECD Publishing. <https://doi.org/10.1787/ed750b30-en>
- [38] OECD. (2023). G20/OECD principles of corporate governance 2023. OECD Publishing. <https://doi.org/10.1787/ed750b30-en>
- [39] Okolo, E. S. (2021). Information overload: Causes, symptoms, consequences and solutions. *Asian Journal of Information Science and Technology*, 11(2), 1–6. <https://doi.org/10.51983/ajist-2021.11.2.2887>
- [40] Raithatha, M., & Haldar, A. (2021). Are internal governance mechanisms efficient? The case of a developing economy. *IIMB Management Review*, 33(2), 191–204. <https://doi.org/10.1016/j.iimb.2021.08.004>
- [41] Razen, M., & Kupfer, A. (2023). The effect of tax transparency on consumer and firm behavior: Experimental evidence. *Journal of Behavioral and Experimental Economics*, 104, 101990. <https://doi.org/10.1016/j.socec.2023.101990>
- [42] Rostand, J., Njanbou, T., & Njanchobou, T. (2023). The Determinants of Governance Mechanisms and their Effects on the Tax Risk Management of Cameroonian Companies. In *Finance & Management Strategy* (Vol. 18, Issue 1).
- [43] Saragih, A. H., & Ali, S. (2021). Corporate tax risk: a literature review and future research directions. *Management Review Quarterly*, 73(2), 527–577. <https://doi.org/10.1007/s11301-021-00251-8>
- [44] Saragih, A. H., & Ali, S. (2023). Corporate tax risk: a literature review and future research directions. In *Management Review Quarterly* (Vol. 73, Issue 2). Springer International Publishing. <https://doi.org/10.1007/s11301-021-00251-8>
- [45] Saragih, A. H., Raya, M. N., & Hendrawan, A. (2021). The Moderating Role of Firm Size on the Association between Managerial Ability and Tax Avoidance. *Jurnal ASET (Akuntansi Riset)*, 13(1), 39–49. <https://doi.org/10.17509/jaset.v13i1.30783>
- [46] Simon, H. (1960). *Decision Making and Organizational Design* In D.S. Pugh (Eds.). *Organization Theory*. Great Britain: Pinguin Education. *Organization Theory*.
- [47] Simon, H. (1960). *Decision Making and Organizational Design* In D.S. Pugh (Eds.). *Organization Theory*. Great Britain: Pinguin Education. *Organization Theory*.
- [48] Sithipolvanichgul, J. (2021). Board of directors' effectiveness and enterprise risk management: Do effective boards improve risk oversight? *Thammasat Review*, 24(1), 133–167. <https://doi.org/10.14456/tureview.2021.7>
- [49] Wardhani, N., Faff, R., & Liu, L. (2024). Corporate governance and liquidity creation in a duality banking system. *Journal of Financial Regulation and Compliance*. <https://doi.org/10.1108/JFRC-08-2024-0162>
- [50] Xiang-Yu, L., Pyoung-Ki, K., & Guan-Zheng, W. (2019). A Study between the Internal Control and Tax Risk-Based on the Listed Real Estate Enterprises in China. *국제회계연구*.

APPENDIX A
Variable Definitions

Variable	Definition
Tax Risk and Internal Governance	
Tax Risk (TR)	The standard deviation of the Cash Effective Tax Rate (Cash ETR) over the period t-4 to t. CETR is calculated as Cash tax paid / Profit before tax
Board Risk Oversight (BRO) – Pre-Development (Beasley et al., 2020)	<p>The BRO Index adapted from Beasley et al. (2020) consisting of the following dimensions:</p> <ol style="list-style-type: none"> 1. Responsibility: a. The Board of Commissioners is responsible for overseeing the company's risk management; b. The Board Charter clearly states the risk oversight responsibilities; c. Members of the Board of Commissioners receive risk management training; d. The company has a risk reporting structure to the Board of Commissioners. 2. Consistency: a. The Board of Commissioners consistently monitors risk; b. The company holds risk meetings regularly; c. Management periodically submits risk reports to the Board of Commissioners; d. Risk reporting is integrated with the company's internal audit. 3. Mindset: a. The Board of Commissioners promotes a risk-based mindset; b. The Board of Commissioners assesses the risk culture; c. Risk management is integrated with the company's strategy; d. The Board oversees environmental and social risks; e. The Board oversees technology and information risks. 4. Board of Commissioners' Effectiveness: a. The Board holds routine meetings; b. Board members have adequate experience and competency; c. The Board Chairman plays an active role; d. The Board has independence and supporting committees; e. The Board monitors follow-up on risks. 5. Audit Committee Effectiveness: a. The Audit Committee holds routine meetings to discuss risk; b. Members are competent in risk management; c. The committee evaluates risk reports; d. The committee coordinates with the Risk Committee; e. The committee oversees financial reporting and tax risks. 6. Risk Monitoring Committee Effectiveness: a. The Risk Monitoring Committee is independent; b. Members of the Risk Monitoring Committee have adequate competency and experience; c. The Risk Monitoring Committee holds meetings regularly; d. The Risk Monitoring Committee issues recommendations and ensures follow-up actions are taken.
Board Risk Oversight (PR) – Post-Development (Beasley et al., 2020)	<p>BRO Index on a 0–3 scale based on content analysis with the following dimensions:</p> <ol style="list-style-type: none"> 1. Responsibility: The Board of Commissioners is responsible for overseeing the company's risk management. 2. Consistency: The Board of Commissioners consistently monitors risk. 3. Mindset: The Board of Commissioners promotes a risk-based mindset.
Corporate Governance (CG)	<p>CG Index on a 0–3 scale based on content analysis with the following dimensions:</p> <ol style="list-style-type: none"> 1. Shareholders' Rights: a. Shareholders are involved in key decision-making; b. Transparency of Board remuneration; c. Disclosure of ownership concentration. 2. Equitable Treatment of Shareholders: a. Prevention of insider trading; b. Disclosure of related-party transactions; c. Compliance with related-party transactions; d. Transparency of General Meeting of Shareholders (GMS) calls. 3. Role of Stakeholders: a. Employee protection; b. Stakeholder involvement; c. Long-term incentives; d. Environmental sustainability. 4. Disclosure & Transparency: a. Disclosure of ownership structure & finances; b. Basis for Board remuneration; c. Operational risk report; d. Access to public information; e. External audit fees; f. Profile of the Board & committees. 5. Board Responsibilities: a. Governance and ethics policies; b. Regulatory compliance; c. Board independence; d. Board performance evaluation.
Internal Control Quality (ICQ)	<p>ICQ Index from 5 COSO components on a 0–3 scale based on content analysis with the following dimensions:</p> <ol style="list-style-type: none"> 1. Control Environment: a. Formal policies & structure; b. Independent internal audit; c. HR policies related to integrity & competency. 2. Risk Assessment: a. Identification of operational and financial risks; b. Analysis & response to internal risks. 3. Control Activities: a. Segregation of duties & authorization; b. Accounting & operational control; c. Emergency control mechanisms. 4. Information & Communication: a. Internal communication; b. External information disclosure; c. Whistle-blowing / anti-fraud mechanism.

*Internal Governance
and Controlling
Tax Risk*

Variable	Definition
Internal Information Quality (IIQ)	5. Monitoring: a. Periodic evaluation; b. Rectification of deficiencies; c. Monitoring by independent parties Measured using the proxy Earnings Announcement Speed, calculated as the number of days between the fiscal year-end and the earnings announcement date divided by 365 days.
Control Variable	
Firm Size	Firm Size is measured using the natural logarithm of the company's total assets.
Leverage	Leverage is measured as total debt divided by total assets.
Book to Market	Book value per share divided by the market price per share.