SENTRALISASI
UNIVERSITAS MUHAMMADIYAH SORONG
https://ejournal.um-sorongac.id/index.php/sentralisasi
p-ISSN 1979-7567
e-ISSN 2614-4328

Intangible Assets, Bonus Mechanism, Debt Covenant, and Transfer Pricing: Moderating Role of Board Gender Diversity

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Article Info

Article history:
Received, 19-01-2026
Accepted, 04-02-2026
Published, 05-03-2026

Keywords:

Board Gender Diversity, Bonus Mechanism, Debt Covenant, Intangible Assets, Transfer Pricing

ABSTRACT

This study examines the effects of intangible assets, bonus mechanisms, and debt covenants on transfer pricing and the moderating role of board gender diversity. Using panel data from 840 non-financial companies listed on the Indonesia Stock Exchange during 2020–2024 (4,200 firm-year observations), the analysis employs panel data regression. This study offers two main novelties. First, while most prior studies focus on direct determinants of transfer pricing, existing literature rarely examines board gender diversity as a moderating variable in the relationships between intangible assets, bonus mechanisms, debt covenants, and transfer pricing. Second, this study uses a comprehensive sample of all non-financial companies, providing more representative evidence of transfer pricing practices in Indonesia. The results show that intangible assets, bonus mechanisms, and debt covenants have a significant positive effect on transfer pricing. Board gender diversity weakens the influence of intangible assets and debt covenants, suggesting enhanced monitoring and governance effectiveness, but strengthens the effect of bonus mechanisms, indicating that incentive-driven performance pressures may override governance controls. The findings contribute to the transfer pricing and corporate governance literature by demonstrating the dual role of board gender diversity. Practically, the results provide insights for regulators, tax authorities, and companies in designing governance mechanisms and compensation policies to mitigate transfer pricing risks. Future research is encouraged to incorporate additional variables, apply more comprehensive measures of gender diversity, and use more detailed transfer pricing documentation.

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e-ISSN 2614-4328

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1. Introduction

The rapid development of global economic integration has encouraged multinational corporations to expand cross-border operations, intensifying transactions between affiliated entities. One practice that has attracted significant attention is transfer pricing, which involves setting prices for goods, services, or intangible assets within business groups. While transfer pricing can serve legitimate managerial purposes, it is frequently exploited to shift profits and reduce tax liabilities.In Indonesia, transfer pricing remains a critical tax issue due to its substantial impact on state revenue. The Directorate General of Taxes (DGT) has identified transfer pricing as a priority area in tax audits; however, enforcement effectiveness remains limited. According to Palupi & Candraningrat (2024), who derived their figures from the Directorate General, indicate that during the 2019–2021 period, the success rate of tax authorities in transfer pricing disputes was only 40.34%, implying that nearly 60% of cases were lost in court. These governance limitations highlight the need to examine internal board-level mechanisms, particularly board gender diversity, as potential moderators of opportunistic transfer pricing behavior.

Based on research, many companies in Indonesia practice transfer pricing, as noted by Priyanti & Suryarini (2021), with affiliated entities located in jurisdictions with relatively low tax rates. One prominent example is the transfer pricing case involving PT Adaro Energy Tbk, which sold coal to its Singapore-based affiliate, Coaltrade Service International Pte Ltd, at prices below international market standards. Furthermore, Coaltrade resells the coal to external buyers at the prevailing market price. This mechanism causes PT Adaro Energy to report lower profits, thereby reducing its tax burden. A similar scheme was also found at

PT Kaltim Prima Coal, where export sales were first transferred to PT Indocoal Resource Limited in the Cayman Islands and were priced at only half of their fair market value. After that, Indocoal resells to third parties at normal market prices. This transfer pricing practice could result in the country incurring fiscal losses of around Rp 1.7 trillion.

Prior studies have extensively examined the determinants of transfer pricing. However, empirical findings remain mixed and inconclusive. For example, Khasanah & Suryarini (2020) found that intangible assets have a significant positive effect on transfer pricing, while (Merle et al., 2019; Jafri & Mustikasari, 2018) concluded that intangible assets do not affect transfer pricing. Regarding bonus mechanisms, research by Rahma & Wahjudi (2021) found a significant positive effect on transfer pricing. However, according to (Murtanto & Bonita, 2021; Sujana et al., 2022), the bonus mechanism does not affect transfer pricing. Then, according to (Kemal et al., 2025; Dewi et al., 2024) a debt covenant has a significant positive effect on transfer pricing. In contrast, according to Azzuhriyyah & Kurnia (2023) the debt covenant does not affect transfer pricing. These inconsistencies indicate a clear research gap, highlighting the need for further empirical investigation to clarify the relationships between these variables and transfer pricing.

More importantly, while corporate governance mechanisms have been widely discussed, empirical evidence on the moderating role of board gender diversity in transfer pricing decisions remains scarce, especially in developing country contexts. Most existing studies focus on developed economies, leaving a limited understanding of how board gender diversity functions as a governance mechanism in emerging markets such as Indonesia. This research has novelty in two main aspects. First, this study uses the board gender diversity as a moderator. While corporate governance mechanisms have been widely discussed, empirical evidence on the moderating role of board gender diversity in transfer pricing decisions remains scarce, especially in developing country contexts. Most existing studies focus on developed economies, leaving a limited understanding of how board gender diversity functions as a governance mechanism in emerging markets such as Indonesia.

Second, this study examined all non-financial companies listed on the Indonesian stock exchange from 2020 to 2024, aiming to provide a broader dataset and more representative findings to illustrate transfer pricing practices in Indonesia.

This study makes several important contributions. Theoretically, it extends agency theory and positive accounting theory by demonstrating that board gender diversity does not uniformly constrain opportunistic behavior but interacts differently with various managerial incentives in transfer pricing decisions. Empirically, this study provides comprehensive evidence from a developing country context by employing a large panel dataset of non-financial firms listed in Indonesia. Practically, the findings offer valuable insights for regulators, tax authorities, and corporate decision-makers in designing governance structures and compensation policies to mitigate transfer pricing risks.

Agency Theory explains that differences in interests between shareholders and managers, along with information asymmetry, encourage managers to make decisions that maximize their personal interests. Agency Theory, as initially proposed by Jensen & Meckling (1976) delineates the contractual dynamics between principals (shareholders) and agents (management). It is a theory that becomes increasingly relevant when agency conflicts arise because managers possess more information than shareholders, leading them to act in their own interests rather than to maximize shareholders' wealth. This understanding, as presented by Suryarini et al. (2021) is a cornerstone of our exploration of transfer pricing practices. In this context, intangible assets that are difficult to measure and supervise provide managers with the flexibility to allocate profits between related entities, thereby facilitating the use of transfer pricing practices. In addition, the existence of a bonus mechanism that links compensation to financial performance further strengthens the incentive for managers to adjust reported profits, allowing transfer pricing to be used as a tool to improve performance figures, even if they do not necessarily reflect actual economic conditions.

Positive Accounting Theory, developed by Watts & Zimmerman (1986) posits that companies select accounting policies that minimize contractual costs and maintain the stability of relationships with related parties. When a company faces debt covenant pressure, managers are encouraged to manage financial statements to stay within the required financial constraints, thus avoiding penalties or renegotiations. In this condition, transfer pricing is an effective tool because it enables companies to shift profits between related entities without altering actual cash flow. Thus, PAT explained that contractual pressures and reporting flexibility are the main reasons managers use transfer pricing to maintain compliance with debt agreements.

Theoretically, intangible assets offer greater flexibility for companies in setting transfer pricing, as external parties, including tax regulators, do not easily verify their actual value. When the proportion of intangible assets is high, companies have a greater ability to shift profits between entities through transfer pricing mechanisms, either by setting licensing fees (royalties), management fees, or internal technology sales prices that do not fully reflect market conditions (Khasanah & Suryarini, 2020). Intangible assets are also often a strategic tool for shifting profits to countries or entities with lower tax rates, thereby improving overall tax efficiency for corporate groups.

Previous research has consistently provided empirical evidence regarding this relationship. For example, Khasanah & Suryarini (2020) found that companies with larger intangible asset holdings are more likely to engage in transfer pricing practices. Similarly, Kumala et al. (2024) demonstrate that intangible assets are utilized as instruments to allocate profits to other entities within companies with lower tax burdens, particularly through the establishment of internal licensing fees that are not entirely transparent. In line with this argument, the presence of high intangible assets enhances the company's ability to conduct transfer pricing by adjusting asset values or costs between entities. Therefore, the relationship between intangible assets and transfer pricing is expected to be positive.

H1: Intangible assets are more aggressive for firms engaged in Transfer Pricing

According to Agency Theory, the compensation scheme for managers, including the bonus mechanism, can influence managers' decisions regarding financial reporting and company policies. Bonuses based on financial performance create an incentive for managers to increase reported profits in order to achieve specific targets (Baroroh et al. 2021). In this context, the bonus mechanism has the potential to encourage managers to act opportunistically by choosing accounting policies or internal transactions that increase the entity's profits on which the bonus calculation is based (Larasati & Arieftiara, 2023). One way to do this is through a transfer pricing mechanism, in which managers can set selling prices or fees between entities within a group to shift profits to specific entities that are the focus of performance appraisals.

Theoretically, as bonus schemes increasingly rely on profits or other financial performance measures, the manager's opportunistic incentives also increase. This happens because achieving the bonus target is often directly related to the amount of profit reported (Nazihah Azwardi & Luk Luk Fuadah, 2019). Thus, managers have the motivation to increase profits through income-shifting practices, including transfer pricing. This practice can be achieved by increasing the transfer price to another entity within the group or reallocating the fee to an entity that is not the basis for the bonus calculation, thereby making the profit of a particular entity appear higher.

Empirical research supports this view. Found that managerial compensation schemes have a significant impact on profit management practices and related-party transactions, including transfer pricing. Similarly, a study by Rahma & Wahjudi (2021) shows that managers with more substantial bonus incentives tend to use internal financial policies to maximize personal benefits, including through transfer pricing arrangements between entities. These findings confirm that the bonus mechanism can increase managers' tendency to use transfer pricing as a strategy to achieve performance targets and obtain greater compensation. In line with this argument, the stronger the bonus incentives given to managers, the greater their motivation to use transfer pricing to maximize reported profits

and increase bonus earnings (Merliyana & Saodah, 2020). Therefore, the relationship between the bonus mechanism and transfer pricing is assumed to be positive.

H2: Bonus Mechanism is more aggressive for firms engaged in Transfer Pricing

Based on the Positive Accounting Theory developed by Watts & Zimmerman (1986) in particular, the debt covenant hypothesis suggests that firms with higher leverage tend to face pressure to maintain financial ratios in accordance with the requirements of their debt agreements. Under such conditions, managers are expected to select accounting methods or reporting policies that increase reported earnings or enhance the firm's financial position in order to meet creditors' expectations. One mechanism to achieve this objective is transfer pricing, which enables firms to allocate profits across related entities strategically (Tarmidi et al., 2023). In line with the predictions of Positive Accounting Theory, as the risk of violating debt covenants increases, managers are more likely to engage in earnings management, including through transfer pricing adjustments, to reduce the likelihood of technical default and maintain contractual stability. Prior empirical evidence supports this expectation (Hidayah et al., 2025; Supriyati et al., 2021), showing that higher leverage is associated with a greater use of opportunistic accounting practices, including tax avoidance and income shifting, as a response to stringent debt covenant constraints. In line with these findings, firms facing stricter debt covenants are expected to engage more intensively in transfer pricing practices to sustain favorable financial indicators and fulfill contractual obligations.

H3: Debt Covenant is more aggressive for firms engaged in Transfer Pricing

The relationship between intangible assets and transfer pricing can be explained through the lens of agency theory, which emphasizes that information asymmetry creates opportunities for managers or controlling parties to act opportunistically. According to Khasanah & Suryarini (2020) Intangible assets, such as patents, technology, trademarks, and other forms of intellectual property, possess characteristics that are not physically visible and are difficult to assess objectively. This valuation ambiguity allows management to set

transfer values that do not fully reflect fair market prices. Therefore, companies with a larger proportion of intangible assets tend to have greater flexibility to shift profits between entities within the group through a transfer pricing mechanism (Irawan & Ulinnuha, 2022). This condition increases the likelihood of income shifting to reduce tax burdens or optimize profits in certain entities.

Nevertheless, gender-diverse boards have the potential to play a significant moderating role in the relationship. Based on social role theory and corporate governance views, the presence of female directors is often associated with stronger ethical standards, higher levels of prudence, and better supervisory effectiveness of management practices. Boards with a more gender-diverse composition tend to prioritize transparency, prudent decision-making, and compliance with tax regulations. Therefore, the presence of women directors in a significant proportion can strengthen the board's control function and limit management's ability to exploit the flexibility of intangible asset valuation to implement aggressive transfer pricing practices.

Based on this argument, gender diversity on boards of directors is expected to weaken the positive relationship between intangible assets and transfer pricing. In other words, when the gender diversity at the board level is high, the company's ability and incentives to use intangible assets to shift income through transfer pricing are expected to be lower.

H4: Board gender diversity weakens the positive relationship between intangible assets and transfer pricing.

The relationship between the bonus mechanism and transfer pricing can be explained through agency theory Jensen & Meckling (1976), which posits that managers, as agents, pursue personal interests that may diverge from those of shareholders as principals. Performance-based bonus schemes provide direct incentives for managers to increase reported earnings in order to secure higher compensation. Under such conditions, managers may adopt opportunistic strategies, including transfer pricing, to shift profits among

affiliated entities and enhance the financial outcomes used in bonus calculations (Maryanti & Agus Munandar, 2024). Accordingly, firms with stronger bonus mechanisms are more likely to engage in income shifting through transfer pricing. From a corporate governance perspective, board gender diversity is often viewed as a moderating mechanism that can influence this relationship. Gender-diverse boards are generally associated with higher ethical standards, enhanced monitoring effectiveness, and more prudent decision-making. Female directors tend to be more sensitive to compliance, reputational, and sustainability risks, which may strengthen board oversight and constrain managers' ability to exploit bonus incentives for opportunistic transfer pricing behavior.

However, agency theory also suggests that when performance-based incentive structures are highly dominant, incentive pressure may override ethical considerations and governance controls. In such circumstances, even gender-diverse boards may not be sufficiently empowered to offset strong bonus-driven motivations, particularly when female directors have limited authority or involvement in strategic decision-making. As a result, board gender diversity may not uniformly weaken the influence of bonus mechanisms; in specific contexts, it may even coincide with a strengthening of incentive-driven transfer pricing behavior. Therefore, the moderating role of board gender diversity in the relationship between bonus mechanisms and transfer pricing is theoretically ambiguous. Depending on the relative dominance of governance authority versus performance-based incentive pressure, board gender diversity may weaken or fail to weaken, and under certain conditions potentially strengthen, the effect of bonus mechanisms on transfer pricing.

H5: Board gender diversity moderates the relationship between bonus mechanisms and transfer pricing, such that it may either weaken or strengthen the effect of bonus mechanisms, depending on the dominance of performance-based incentive pressures.

Debt covenants are contractual restrictions imposed by creditors to protect their interests and ensure that managers manage financial risks prudently (Kumala et al., 2024). When firms approach the limits of their debt covenants, management may experience

pressure to maintain financial ratios within acceptable thresholds to avoid covenant violations. To achieve this, firms might engage in transfer pricing manipulation, a practice where income or expenses are artificially shifted among related entities to present more favorable financial positions. Hence, tighter debt covenant constraints may motivate firms to use transfer pricing as an earnings management tool to comply with debt agreements (Maryanti & Agus Munandar, 2024).

However, board gender diversity may moderate this relationship. Gender diverse boards enhance monitoring effectiveness and ethical decision-making within the company. Female directors, with their inherent risk aversion, transparency, and concern for long-term sustainability, play a pivotal role in strengthening oversight of managerial actions and discouraging opportunistic financial behavior, including transfer pricing manipulation. Their presence on the board is a promising factor, as it is expected to weaken the positive relationship between debt covenants and transfer pricing, thereby enforcing stricter compliance with ethical and reporting standards and reducing the potential for financial manipulation.

Based on this reasoning, board gender diversity is expected to moderate the relationship between debt covenant and transfer pricing, such that the positive effect of debt covenant constraints on transfer pricing diminishes in firms with higher board gender diversity.

H6: Board gender diversity weakens the positive relationship between debt covenants and transfer pricing

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e-ISSN 2614-4328

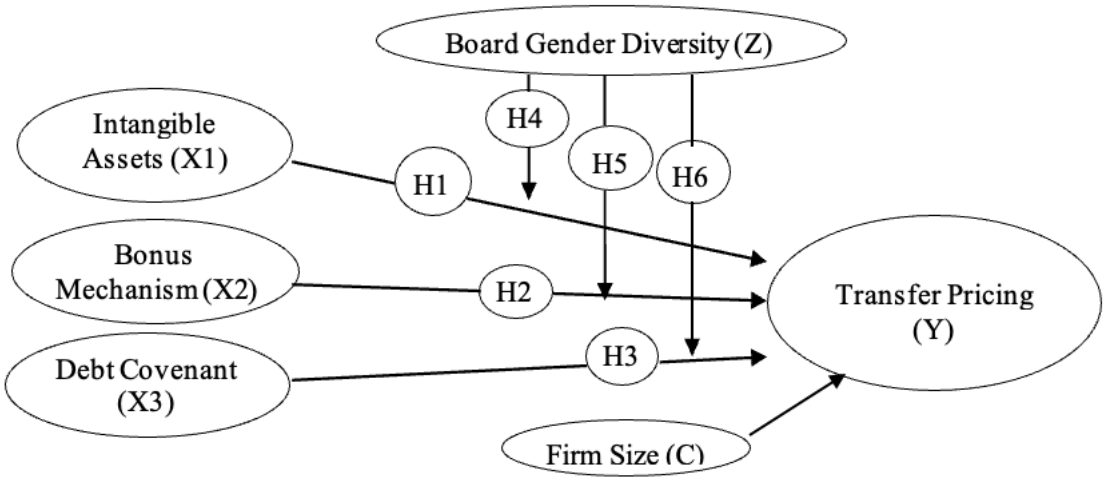

Figure 1. Research Framework

2. Methods

Population and Sample

The observation period in this study covers the years 2020 to 2024. This period was chosen because it reflects significant regulatory and economic changes in Indonesia, particularly the introduction of stricter tax enforcement measures and enhanced disclosure requirements for related-party transactions issued by the Directorate General of Taxes. These developments make this timeframe highly relevant for examining the influence of intangible assets, bonus mechanisms, and debt covenants on transfer pricing practices. The research sample consists of non-financial firms listed on the Indonesia Stock Exchange (IDX). Empirical data were collected from Refinitiv and companies' annual reports, which provide comprehensive information on ownership structure, financial ratios, and related-party disclosures. The final sample comprises 840 companies, yielding 4.200 firm-year

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observations. To reduce the impact of outliers, a winsorizing procedure was applied to the dependent variable (transfer pricing) and control variable (FIRM SIZE) at the 1st and 99th percentiles.

Table 1. Purposive Sampling

No.	Criteria	Sample
1	All non-financial companies listed on the Indonesia Stock Exchange	845
2	Incomplete non-financial companies publish financial statements from 2020 to 2024	(5)
Number of final sample companies		840
Total firms-years of observation		4220

Source: Researcher's processed data, 2025

Variable Measurement

Table 2. Definition and Measurement of Variables

Variable	Definition of Variables	Measurement
Transfer Pricing	Transfer Pricing refers to the pricing policy applied to transactions between divisions within a multinational company, where prices are determined by related parties within reasonable boundaries. However, there remains a possibility that such prices may deviate from the arm's length principle (Azis, 2024).	$\text{RPTAL} = \frac{(\text{RPT Asset} + \text{RPT Liabilities})}{\text{Equity}} \times 100$ (Kristina & Muhyarsyah, 2022)
Intangible Assets	A company's intangible resources, which lack a physical form but can be	

	identified, such as patents, trademarks, copyrights, specialized technologies, and brand-related assets that provide economic benefits and strengthen a company's competitive position (Azzuhriyyah & Kurnia, 2023).	$\frac{\text{Total Intangible Assets}}{\text{Total Assets}}$ (Firmansyah & Yunidar, 2020)
Bonus Mechanism	A system or method of providing additional bonuses given to employees, managers, or directors as a reward for achieving predetermined company performance targets. These bonuses are typically based on achieving a net profit target or other financial objectives that have been met (Titik Aryati & Harahap, 2021).	$= \frac{\text{ITRENDLB}}{\frac{\text{Net Income (t)}}{\text{Net Income (t} - 1)}} \text{ x } 100$ (Solikhah et al., 2021)
Debt Covenant	A debt covenant refers to an agreement established by creditors to impose certain restrictions on borrowers, aiming to prevent actions that may reduce the value of the loan or hinder its repayment (Nizary & Budyastuti, 2024).	$\text{DER} = \frac{\text{Total Liabilities}}{\text{Total Equity}}$ (Maulida et al., 2024)
Board Gender Diversity	Board Gender Diversity (BGD) refers to the representation of women on	$\frac{\text{Number of Female Board Members}}{\text{Total Board Members}}$

	a company's board of directors, a factor considered to strengthen decision-making quality, monitoring, and overall transparency. This construct is commonly quantified as the proportion of female members serving on the board (Laili & Tjaraka, 2023).	(Haryadi et al., 2025)
Firm Size	Firm Size represents the overall scale or magnitude of a company's operations. Larger firms tend to have more resources, higher bargaining power, and greater ability to engage in tax planning or transfer pricing practices (Azwardi & Luk Luk Fuadah, 2019).	$\text{SIZE} = \ln(\text{Total Assets})$

Source: Researcher's processed data, 2025

Analytical Method

The study employs a Panel Least Squares Regression model to examine the effect of Intangible Assets, Bonus Mechanisms, and Debt Covenants on Transfer Pricing. The moderating variable is board gender diversity. A control variable, such as Firm Size (SIZE), is also included to reduce potential bias from firm characteristics. The empirical regression model is formulated as follows:

$$RPTAL_{it} = a_0 + \beta_1 IA_{it} + \beta_2 BM_{it} + \beta_3 DC_{it} + \beta_4 BGD_{it} + \beta_5 IA_{it} * BGD_{it} + \beta_6 BM_{it} * BGD_{it} + \beta_7 DC_{it} * BGD_{it} + \beta_8 SIZE_{it} + e_{it} \quad \ldots\ldots(1)$$

Information:

RPTAL	: Transfer Pricing
IA	: Intangible Asset
BM	: Bonus Mechanism
DC	: Debt Covenant
BGD	: Board Gender Diversity
SIZE	: Firm Size
IAxBGD	: Interaction between IA and BGD
BMxBGD	: Interaction between BM and BGD
DCxBGD	: Interaction between DC and BGD
e	: Error Term

3. Results

Descriptive Statistic

Descriptive statistical analysis is the first step in the testing process. Descriptive statistical analysis provides an overview of the data's characteristics by presenting the average, minimum, maximum, and standard deviation values for each research variable. The analysis showed that most variables had a relatively high standard deviation, indicating considerable diversity in the study sample. The transfer pricing variable serves as a dependent variable in this study, while the intangible assets, bonus mechanism, and debt covenant variables serve as independent variables. Board gender diversity serves as a moderation variable, while firm size acts as a control variable in this study.

Table 3. Descriptive Statistic

Variables	N	Minimum	*Maximum*	*Mean*	*Std. Deviation*
RPTAL	4200	0.005315	59269322	18804432	27196284
Intangible Assets	4200	14.75568	30.34161	29.91024	1.925410
Bonus Mechanism	4200	-1.179873	41.74622	7.029945	15.13537

Debt Covenant	4200	0.000000	148.0267	0.971467	4.212899
Board Gender Diversity	4200	0.000000	1024.093	958.4989	249.3226
Size	4200	17.98265	33.78996	27.81955	2.057299

Source: Processed by the Author (2025)

According to Table 3 of the descriptive statistics indicate varying levels of dispersion across the research variables. Transfer pricing, measured by RPTAL, has a mean value of 18804432 and a standard deviation of 27196284, indicating high variability. The lowest RPTAL value is 0,005315, while the highest reaches 59269322, reflecting a wide distribution of related party transactions among firms. Intangible assets show a high level of consistency, with a mean of 29,91024 and a relatively low standard deviation of 1,925410, suggesting that the proportion of intangible assets among companies is fairly uniform. The bonus mechanism exhibits moderate dispersion, with a mean value of 7,029945 and a standard deviation of 15,13537. The minimum value of −1,179873 and the maximum of 41,74622 indicate substantial variation in bonus based incentive schemes across firms.

Debt covenant has a mean value of 0,971467 with a standard deviation of 4,212899, indicating moderate variability. The values range from 0,000000 to 148,0267, showing considerable differences in firms' debt restriction levels. Board gender diversity has a mean of 0,9584989 and a standard deviation of 249,3226, indicating relatively high dispersion across companies in terms of gender composition on the board. Firm size has a mean value of 27,81955 with a standard deviation of 2,057299. The minimum size is 17.98265, while the maximum reaches 33,78996, reflecting moderate variation in firm size among the sampled companies.

Inferential statistics

Before conducting hypothesis testing, this study evaluated the suitability of the three regression models used, namely, the Common Effect Model (CEM), the Fixed Effect Model

(FEM), and the Random Effect Model (REM). The most appropriate model was identified through a series of diagnostic tests, including the Chow test, the Hausman test, and the Lagrange Multiplier (LM) test. The results of these tests, as shown in Tables 3 and 4, determine the best model among the three alternatives.

Table 4. Chow Test Results

	Regression Model		
Effect Test	**Statistic**	**d.f.**	**Prob.**
Cross-section F	20.097492	(840,3361)	0.0000
Cross-section Chi-square	7550.351753	840	0.0000

Source: Processed by the Author (2025)

The results of the Chow test, shown in Table 4 for the regression model, indicate that the probability value of Cross-section F is 0,0000, which is below the set significance level ($\alpha = 5\%$). With a probability value lower than that, H0 is rejected, and H1 is accepted. Based on the Chow test results, the Fixed Effects Model (FEM) is deemed more appropriate than the Common Effects Model (CEM).

Table 5. Hausman Test Results

	Regression Model		
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Cross-section random	29.931101	3	0.0000

Source: Processed by the Author (2025)

The Hausman test was conducted to determine the most appropriate model specification between the Fixed Effects Model (FEM) and the Random Effects Model (REM). Table 5 shows that the probability value of a random cross-section of 0,0000 is below the significance level of $\alpha = 5\%$. Thus, H0 is rejected, and H1 is accepted, so the Fixed Effect Model (FEM) is declared the most suitable panel regression model compared to REM. Since the optimal model has been determined, there is no need to perform a Lagrange Multiplier test.

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Table 6. T-test Results

Variable	Coefficient	t-Statistic	Prob. α=10%	Outcome
Intangible Assets	1170643	2.005952	0.0449	H1 accepted
Bonus Mechanism	216555.1	3.188330	0.0014	H2 accepted
Debt Covenant	412171.4	2.626895	0.0087	H3 accepted
IA_BGD	-969.9343	-1.653723	0.0983	H4 accepted
BM_BGD	146.3476	2.154740	0.0313	H5 rejected
DC_BGD	-503.0767	-3.131388	0.0018	H6 accepted
Mean dependent var	18077110	R-squared		0.867085
S.D. dependent var	26882913	Adjusted R-squared		0.831725
Akaike info criterion	35.45425	S.E. of regression		11027740
Schwarz criterion	36.77949	Sum squared resid		3.87E+17
Hannan-Quinn crister	35.92385	Log likelihood		-70540.12
Durbin-Watson stat	1.621389	F-statistic		24.52137
		Prob (F-statistic)		0.000000

Source: Processed by the Author (2025)

Based on Table 6, the regression equation of transfer pricing with RPTAL measurement is as follows:

RPTAL = 12717356 + 1170643 IA + 216555.1 BM + 412171,4 DC – 969,9343 IA*BGD + 146,3476 BM*BGD – 503,0767 DC*BGD + e……(2)

Based on the panel data regression results, the adjusted R-squared for the fixed effects model is 0.831725. This indicates that the independent variable accounts for 83,17% of the variation in the dependent variable.

4. Discussion

The Impact of Intangible Assets on Transfer Pricing

The results of the hypothesis testing indicate that intangible assets have a significant positive effect on transfer pricing. This finding confirms that firms with higher proportions of intangible assets tend to engage more intensively in transfer pricing practices. Compared to tangible assets, intangible assets such as patents, trademarks, intellectual property rights, and proprietary technology are inherently difficult to value objectively, thereby giving managers greater discretion in setting intra-group transaction prices.

From an agency theory perspective, this result highlights the role of information asymmetry in facilitating managerial opportunism. Managers possess superior information about the economic value and utilization of intangible assets relative to shareholders and external regulators, enabling them to strategically allocate profits across affiliated entities. This finding is consistent with prior studies (Firmansyah & Yunidar, 2020; Kumala et al., 2024; Irawan & Ulinnuha, 2022), which documents that intangible assets are frequently used as instruments for profit shifting due to their low transparency and weak verifiability.

However, this study extends existing evidence by demonstrating that the positive effect of intangible assets on transfer pricing remains robust in the Indonesian context, where regulatory enforcement and valuation standards for intangibles are still evolving. This suggests that intangible assets constitute a critical channel for income shifting in emerging markets, reinforcing their role as a key determinant of transfer pricing behavior.

The Impact of Bonus Mechanism on Transfer Pricing

The empirical results show that the bonus mechanism has a significant positive effect on transfer pricing. This indicates that performance-based compensation schemes intensify managers' incentives to increase reported earnings, thereby encouraging the use of transfer pricing to shift income. In line with agency theory, this finding suggests that when managerial compensation is closely tied to short-term financial performance, managers are more likely to adopt opportunistic strategies to meet bonus targets. This result corroborates prior studies (Larasati & Arieftiara, 2023; Nazihah Azwardi & Luk Luk Fuadah, 2019),

which find that bonus-driven incentives are associated with greater manipulation of related party transactions.

Meanwhile, performance-based compensation structures that lack strong oversight can create opportunities for managers to exploit gaps in transfer pricing arrangements. Thus, consistent with prior studies Larasati & Arieftiara (2023), bonus mechanisms significantly influence managerial decisions related to transfer pricing. Extending this evidence, the present study highlights that such incentives remain a dominant driver even after accounting for governance-related factors, indicating the persistence of incentive-based opportunism.

The Impact of Debt Covenant on Transfer Pricing

The results indicate that debt covenants have a significant positive effect on transfer pricing. This finding suggests that firms facing tighter debt covenant requirements intensify managerial incentives to undertake opportunistic actions, such as transfer pricing, to preserve compliance with creditor-imposed financial ratios (Tarmidi et al., 2023). Consistent with Positive Accounting Theory, this result reflects managerial responses to contractual pressure, in which transfer pricing serves as a strategic mechanism for earnings management without altering actual cash flows. This finding aligns with prior studies (Hidayah et al., 2025; Supriyati et al., 2021), which documents that firms under debt pressure tend to increase income-shifting activities to avoid covenant violations. Compared with studies that find insignificant or negative effects, this study highlights that in environments with relatively rigid debt structures and limited renegotiation flexibility, such as Indonesia, debt covenants exert stronger pressure on managerial behavior, thereby amplifying the use of transfer pricing.

Board Gender Diversity in Moderating the Effect of Intangible Assets on Transfer Pricing

The interaction between intangible assets and board gender diversity shows a significant negative coefficient, indicating that board gender diversity weakens the positive

relationship between intangible assets and transfer pricing. This finding supports H4 and suggests that board gender diversity enhances monitoring effectiveness over transactions involving intangible assets. Compared with prior studies that treat board diversity as a symbolic governance attribute, this study provides empirical evidence that female board representation can play a substantive role in limiting managerial discretion over intangible asset valuation. The result supports governance and behavioral theories that associate female directors with greater risk aversion, ethical sensitivity, and regulatory compliance. Thus, board gender diversity functions as an effective governance mechanism that constrains opportunistic profit shifting through intangible assets, particularly in environments characterized by high valuation ambiguity.

Board Gender Diversity in Moderating the Effect of Bonus Mechanism on Transfer Pricing

The empirical results show that the interaction between the bonus mechanism and board gender diversity has a positive and significant coefficient. This finding suggests that board gender diversity strengthens the effect of bonus mechanisms on transfer pricing, indicating that its moderating role is context-dependent rather than uniformly constraining managerial opportunism. In contrast to the dominant view in agency theory and governance literature, which generally argues that female directors enhance monitoring and suppress opportunistic behavior, the empirical evidence in this study indicates that performance-based incentive pressures may dominate governance controls. This finding is consistent with studies emphasizing the dominance of incentive structures in shaping managerial behavior when compensation is closely tied to financial performance.

Compared with evidence from developed economies, where board gender diversity is often associated with stronger decision-making authority and more effective oversight, this study shows that in an emerging market context such as Indonesia, the effectiveness of board gender diversity is conditional on the relative strength of incentive schemes. The relatively low representation of female directors and their limited involvement in strategic

decisions may constrain their capacity to counterbalance aggressive bonus-driven incentives. Overall, this finding extends the existing literature by demonstrating that board gender diversity does not uniformly mitigate incentive-driven opportunistic behavior, but instead operates within specific institutional and organizational boundaries.

Board Gender Diversity in Moderating the Effect of Debt Covenant on Transfer Pricing

The interaction between debt covenants and board gender diversity shows a significant negative coefficient, indicating that board gender diversity weakens the positive effect of debt covenants on transfer pricing, thus supporting H6. This result suggests that board gender diversity is more effective in overseeing contractual compliance and discouraging opportunistic income shifting under debt pressure. Compared with firms with less diverse boards, companies with higher female board representation appear better able to restrain managerial responses to covenant pressure, consistent with governance theories emphasizing prudence, ethical orientation, and long-term sustainability. This finding reinforces the view that board gender diversity constitutes a substantive governance mechanism rather than merely a symbolic attribute.

5. Conclusion

The findings demonstrate that intangible assets, bonus mechanisms, and debt covenants have a significant positive effect on transfer pricing, thereby reinforcing agency theory and positive accounting theory, which emphasize managerial opportunism arising from information asymmetry and contractual pressures. Beyond confirming these theories, this study extends the corporate governance literature by identifying boundary conditions under which governance mechanisms operate effectively.

The results further show that board gender diversity weakens the influence of intangible assets and debt covenants on transfer pricing, supporting governance arguments that gender-diverse boards enhance monitoring effectiveness in contexts characterized by

valuation ambiguity and contractual pressure. However, board gender diversity is also found to strengthen the effect of bonus mechanisms on transfer pricing, challenging the assumption that board diversity uniformly constrains opportunistic behavior and highlighting the dominance of incentive-based performance pressures. By integrating agency theory, positive accounting theory, and corporate governance perspectives, this study provides a more nuanced and context-dependent understanding of governance in transfer pricing decisions.

From a practical perspective, the findings suggest that firms should strengthen governance structures while carefully reassessing compensation and incentive schemes that may encourage opportunistic transfer pricing. Gender diversity on boards should be accompanied by meaningful participation and effective supervisory authority. Regulators are encouraged to emphasize not only board representation but also the quality of board involvement, while enhancing risk-based monitoring of transactions involving intangible assets and debt arrangements.

This study has several limitations, including the exclusion of other determinants such as tax minimization strategies, foreign ownership, and audit quality. In addition, board gender diversity is measured solely by the proportion of female directors, without considering their strategic roles or influence. Future research is therefore encouraged to incorporate broader explanatory variables, more comprehensive measures of gender diversity, and more detailed transfer pricing documentation to deepen understanding of transfer pricing practices in emerging market contexts.

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