Harmony Management: International Journal of Management Science and Business

E-ISSN: 3063-6248
P-ISSN: 3048-4189

Research Article

Effect of Macroeconomics, Capital, Governance on Earnings, Risk, Yield to Maturity, with Bond Rating Moderation in Banks

Valdo Hana Primasatria [1,*], Tri Ratnawati [2], Ida Ayu Sri Brahmayanti [3]

[1-3] Universitas 17 Agustus 1945, Surabaya ; 1262300077@surel.untag-sby.ac.id
* Corresponding Author : Valdo Hana Primasatria

Abstract: This study aims to analyze the influence of macroeconomic conditions, capital, and good corporate governance on earnings, financial risk, and yield to maturity bond, with bond rating acting as a moderating variable. The research focuses on banking companies listed on the Indonesian Stock Exchange (IDX). A Quantitative approach with a secondary data from Indonesian Stock Exchange (IDX) and Indonesian Bond Market Directory (IDMB) Purposive sampling method was applied, resulting in 102 active banking bond samples listed on the IDX during the 2020–2023 period. The hypotheses were tested using Structural Equation Modeling with Partial Least Squares (SEM-PLS). Out of 14 proposed hypotheses, 4 were supported with statistically significant results, while the remaining 10 were not. The results show that capital has a significant effect on financial risk, while earnings significantly influence both financial risk and bond yield to maturity. Overall, this study shows that internal factors like earnings and capital have a stronger impact on a company's risk perception and debt cost than implementation good corporate governance and macroeconomic conditions. It also highlights the important role of bond ratings in reflecting a company's reputation and credit quality in the banking bond market.

Keywords: Banking bond; Bond rating; Yield to maturity bond; macroeconomics; RGEC.

1. Introduction

In recent years, investment has become a trending topic and is increasingly popular among the Indonesian public. People in Indonesia are becoming more aware of the importance of financial management for the future. The openness and accessibility of investment information have also encouraged the public's desire to seek investment instruments that are safe and can provide optimal long-term returns. Research by Aditama & Nurkhin (2020) explains that investment can provide steady income in the long term and increase individual interest in investing.

As time progresses and investment information becomes more accessible, many investors who initially focused on stocks have begun to explore other investment instruments that offer higher returns with lower risks than stocks—namely, bonds. Bonds are issued by companies or the government, known as issuers, as a form of borrowing from investors with a commitment to repay the principal along with coupons (interest) within a predetermined period. According to Dayanti & Janiman (2019), bonds are investment instruments that provide fixed income to investors periodically through coupon payments and principal repayments at maturity.

The growth of investors, based on data from the Indonesia Central Securities Depository (KSEI, 2025) regarding capital market investor assets, shows an increase of 22.22% in the number of capital market investors—from 12,168,061 investors in December 2023 to 14,871,639 in December 2024. This indicates consistent annual growth in capital market investors. Specifically for bonds, the increasing outstanding value of bonds also shows a year-on-year upward trend.

Received: May 12, 2025
Revised: May 26, 2025
Accepted: June 10, 2025
Published: June 13, 2025
Curr. Ver.: June 13, 2025

Year	Outstanding*
2020	4,303.07
2021	4,957.23
2022	5,758.04
2023	6,230.17
2024	6,540.75

*in trilyon rupiah

Figure 1. Bond Outstanding
Source: OJK, 2025

Yield to maturity (YTM) is a crucial concept in bond analysis that reflects the rate of return. Research by Purnomo et al. (2022) notes that YTM is the total return an investor will earn from the date of purchase until the bond's maturity. Therefore, it is important for investors to understand the factors influencing YTM, such as macroeconomic conditions, company risk, and performance, to make the right investment choices.

Each bond issued by an issuer has a bond rating. In Indonesia, bond ratings are provided by credit rating agencies appointed by the Indonesian government through the Financial Services Authority (OJK), such as PT Pefindo. Bond ratings are categorized into investment grade (idAAA, idAA, idA, idBBB) and non-investment grade (junk bonds) (idBB, idB, idCCC, idCC, idC, idD). These ratings help investors choose bonds according to their risk profile. The better the bond rating, the more attractive the bond becomes due to the lower risk of default and lower funding costs for the issuer. Conversely, lower bond ratings can reduce investor interest, prompting issuers to offer higher coupon returns to attract investors.

Indonesia's macroeconomic conditions play an essential role in encouraging investment in bonds. Stable interest rates from Bank Indonesia, steady exchange rates, and controlled inflation can serve as positive signals to the public, enhancing consumer purchasing power and investment interest. Research by Marjohan & Sampurnaningsih (2024) shows that interest rates directly affect bond ratings. They explain that higher interest rates can increase investment risks, reduce bond prices, and increase YTM. However, another study by Bonowati & Sihombing (2023) shows that the impact of interest rates on YTM varies across industries.

Most investors prefer low-risk issuers, especially those in the banking sector. Banks serve as financial institutions that collect funds and extend credit to the public. Due to strict government and regulatory oversight, and investor protections, banks are perceived as safer for investment. According to Teixeira et al. (2020), banking regulations can moderate the influence of investor protection on bank risk. In Indonesia, the assessment of bank soundness is governed by Bank Indonesia Regulation No. 13/1/PBI/2011, which includes risk profile, Good Corporate Governance (GCG), earnings, and capital—commonly known as the RGEC method. This assessment reinforces public trust in investing in the banking sector. For banks issuing bonds, RGEC is a crucial tool in evaluating risks, especially in bond investments.

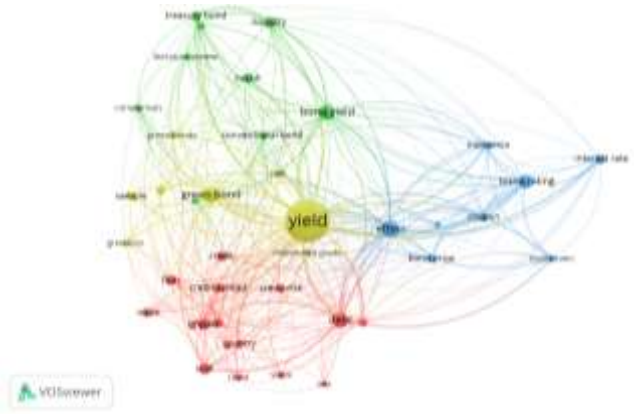

Figure 2. Visualisasi Network Penelitian Yield to maturity
Source: VOSViewer, 2025

Many of previous studies have examined the yield to maturity of bonds. Figure 2 shows a visualization based on 500 studies indexed on Google Scholar using the keyword "Yield to Maturity Bond" processed with VOSViewer. It reveals that 40 studies focus on the variable "Yield," making it the most frequently studied keyword. Some studies also relate YTM with variables such as interest rate, bond rating, and credit risk.

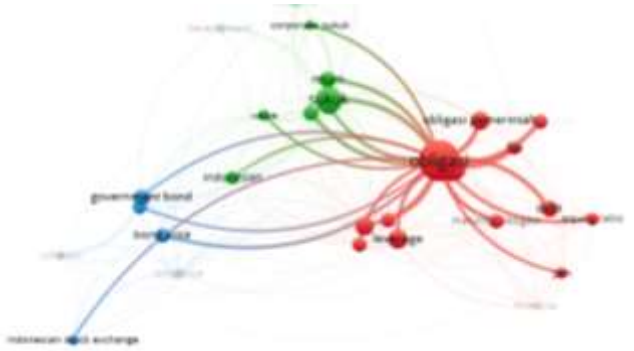

Figure 3. Research visualisation Network Yield to maturity Bond; Obligasi; Indonesia
Source: VOSViewer, 2025

To further contextualize the Indonesian case, the researcher examined 350 publications indexed on Google Scholar using the keywords "Yield to Maturity Bond; Obligasi; Indonesia" for the 2020–2025 period. Figure 3 shows that while previous research has linked yield to variables like inflation, debt, and leverage, there is a gap in studies that connect YTM with macroeconomics, risk, GCG, capital, and bond rating—highlighting the novelty of this research..

Based on the research gap and the context presented earlier, this study aims to examine the influence of macroeconomic factors, capital, and good corporate governance on earnings, financial risk, and bond yield to maturity, with bond rating acting as a moderating variable—specifically in the context of banking companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2023. To address this objective, the following research questions are formulated:

- Do macroeconomic factors significantly influence earnings in banking companies listed on the IDX?

- Do macroeconomic factors significantly influence financial risk in banking companies listed on the IDX?
- Do macroeconomic factors significantly influence the yield to maturity of bonds issued by banking companies listed on the IDX?
- Does capital significantly influence earnings in banking companies listed on the IDX?
- Does capital significantly influence financial risk in banking companies listed on the IDX?
- Does capital significantly influence the yield to maturity of bonds issued by banking companies listed on the IDX?
- Does good corporate governance significantly influence earnings in banking companies listed on the IDX?
- Does good corporate governance significantly influence financial risk in banking companies listed on the IDX?
- Does good corporate governance significantly influence the yield to maturity of bonds issued by banking companies listed on the IDX?
- Do earnings significantly influence financial risk in banking companies listed on the IDX?
- Do earnings significantly influence the yield to maturity of bonds issued by banking companies listed on the IDX?
- Does financial risk significantly influence the yield to maturity of bonds issued by banking companies listed on the IDX?
- Does bond rating moderate the relationship between earnings and bond yield to maturity in banking companies listed on the IDX?
- Does bond rating moderate the relationship between financial risk and bond yield to maturity in banking companies listed on the IDX?.

2. Literature Review

2.1 Corporate Finance

This study is grounded in corporate finance theory, particularly the foundational frameworks presented by Ross et al. (2018). Central to this theoretical basis is the Net Present Value (NPV) principle, which provides insight into how both external (macroeconomic) and internal (risk, GCG, earnings, capital—referred to as RGEC) factors can influence a company's bond returns through yield to maturity.

2.2 Net Present Value

The NPV concept defines the difference between the present value of future cash flows and the initial investment cost. Damodaran (2012) explains that estimating the present value of future cash flows forms the rational foundation for investment decisions. Ross et al. (2018) explains that assets or projects with a positive Net Present Value (NPV) indicate a higher potential for investment feasibility. In the context of bonds, YTM calculations are essentially NPV assessments of periodic coupon payments and the bond's principal. Ali & Oad Rajput (2024) emphasize that firms tend to avoid projects with negative NPVs to preserve bond ratings and market value. Likewise, Chen et al. (2023) highlight the importance of NPV-based assessments in managing debt financing ambiguity, which plays a critical role in investor perception.

2.3 Capital Structure Theory

According to Modigliani and Miller's (1958) capital structure theory, in a perfect market, capital structure does not affect firm value. However, Ross et al. (2018) argue that capital

structure decisions do influence a company's earnings and financial risk. Damodaran (2020) adds that the mix of debt and equity directly impacts risk levels and firm valuation. In bond markets, leverage is a key element—higher leverage increases financial risk, which may affect both bond ratings and YTM (Mohd Saad et al., 2020).

2.4 Agency Theory

First introduced by Jensen and Meckling (1976), agency theory addresses the conflicts of interest between shareholders and managers. Ross et al. (2015) emphasize that strong corporate governance acts as a monitoring mechanism to minimize such conflicts. Governance structures that ensure transparency and accountability can enhance firm performance and investor trust. Zhang (2009) further asserts that combining debt with managerial incentives can reduce excess cash flow and increase bond value. Ali & Oad Rajput (2024) also demonstrate that good corporate governance sends positive signals to investors, especially in bond markets.

2.5 Signaliing Theory

Ross (1977) introduced signaling theory, which suggests that financial decisions serve as market signals regarding a company's quality and prospects. Ross et al. (2018) emphasize that financial decisions—such as issuing bonds or paying dividends—communicate essential cues to investors. Fiorillo et al. (2024) state that bond ratings act as key signals of a firm's creditworthiness, affecting investor decisions and expected yields. Gharakhanlou & Perez (2024) support this by showing that when bond ratings drop, investors demand higher yields to compensate for the perceived risk.

2.6 Macro-economic

Macroeconomic variables—such as inflation, interest rates, and exchange rates—directly affect bond prices and yields by shaping investor expectations of risk and return (Borsuk et al., 2024). When economic uncertainty increases, investors tend to shift toward safer assets, making corporate bonds relatively riskier and costlier (Kanno, 2024). Prananta & Alexiou (2024) note that macroeconomic shocks, particularly during crises, strongly influence bond yields.

2.7 RGEC Framework (Risk, Good corporate governance, Earnings, Capital)

Bank Indonesia mandates the RGEC framework to evaluate the health of commercial banks (PBI No. 15/12/PBI/2013). This framework includes :

2.8 Risk

Financial risk refers to systemic exposures from credit and funding quality. Key indicators include Non-Performing Loans (NPL) and Loan to Deposit Ratio (LDR) (Atichasari et al., 2023; Tang et al., 2024). NPL is recognized as a primary indicator of financial risk (Atichasari et al., 2023; Jahrotunnupus & Manda, 2021; Wijaya et al., 2025). On the other hand, LDR reflects the bank's efficiency in channeling third-party funds into productive lending activities (Mulya et al., 2024)

2.9 Good corporate governance (GCG)

Defined by regulatory guidelines such as Bank Indonesia Circular No. 13/24/DPNP and OJK Regulation No. 17 of 2023, which require proper board structure, audit committees, and independent commissioners. Effective governance can influence transparency, investor trust, and ultimately bond valuation (Singhania & Panda, 2024; Nugroho, 2021). An effective audit committee has been shown to influence firm performance (Singhania & Panda, 2024). Wibawaningsih and Surbakti (2020) further emphasize that the effectiveness of the audit committee, alongside the company's financial condition, has a direct relationship with corporate performance. Nugroho (2021) also highlights that strong corporate governance—characterized by a proportional number of independent commissioners and an optimal size of the board of directors—has a positive impact on a firm's financial performance..

2.10 Earning

Defined by regulatory guidelines such as Bank Indonesia Circular No. 13/24/DPNP, earning Reflected in Return on Assets (ROA) and Net Interest Margin (NIM), earnings indicate a bank's ability to generate profit and sustain operations (Latif & Apriani, 2022); Fayyaz et al., 2024). Return on Assets (ROA) is a ratio that reflects the profit generated from

the assets utilized by a company (Bonowati & Sihombing, 2023); (Latif & Apriani, 2022). Net Interest Margin (NIM), on the other hand, represents the net interest income, calculated as the difference between interest earned from loans and interest paid on third-party funds held by the bank (Fayyaz et al., 2024; Mulya et al., 2024; Jahrotunnupus & Manda, 2021; Wijaya et al., 2025).

2.11 Capital

Capital refers to a bank's ability to maintain adequate capital in anticipation of potential risks. The assessment of this component is based on the adequacy of capital relative to the bank's risk profile, as well as compliance with the minimum Capital Adequacy Ratio (CAR) requirements set by Bank Indonesia. CAR reflects the level of financial stability and plays a central role in determining creditworthiness (Kanakriyah et al., 2025). Furthermore, Wijaya et al. (2025) utilized Capital Adequacy Ratio (CAR) and Debt to Equity Ratio (DER) as indicators to assess the capital structure of companies in their study. DER, or Debt to Equity Ratio, represents the proportion of total debt to total equity, indicating the extent to which a company relies on debt in its capital structure (Wijaya et al., 2025)

2.12 Bond Rating

Bond ratings serve as assessments of a bond's credit quality, indicating the issuer's ability to meet interest and principal payments on time. These ratings, issued by agencies such as PT Pefindo in Indonesia, are based on a thorough evaluation of a firm's financials and market outlook. Dong et al. (2023) find that bond ratings can mediate the relationship between firm risk and YTM, emphasizing their role as market signals in the bond investment process. Bond ratings are assigned by credit rating agencies based on a fundamental analysis of the issuing company, its financial condition, and the overall economic outlook (Mohd Saad et al., 2020)

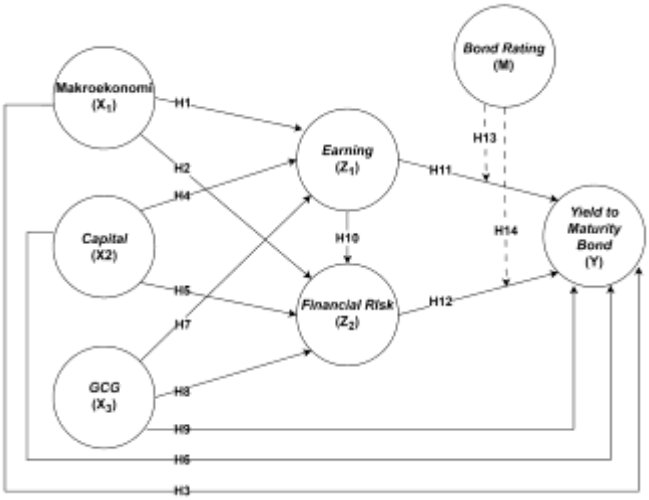

Figure 4. Conceptual Framework
Source: Processed by researcher, 2025

Figure 4 illustrates the conceptual model underlying this research, encompassing the proposed 14 hypotheses that capture the direct and moderating effects between variables.

3. Research Method

This study is a Quantitative approach with a secondary data from Indonesian Stock Exchange (IDX) and Indonesian Bond Market Directory (IDMB). Method of this study is causal explanatory. The purpose of this research is to explain the causal relationships between the study variables. The hypotheses were tested using Structural Equation Modeling with Partial Least Squares (SEM-PLS) with SmartPLS3 application. Purposive sampling method was applied, resulting in 102 active banking bond samples from 13 banking companies listed on the IDX during the 2020–2023 period.

To test the proposed hypotheses, SEM-PLS was chosen due to its ability to assess complex relationships between latent constructs simultaneously. The hypothesis testing also included the bootstrapping method, which is particularly effective for dealing with data that deviate from normal distribution assumptions. The test statistics used include Critical Ratio

(CR) and p-value, where a CR (or t-statistic) ≥ 1.96 and p ≤ 0.05 indicates a statistically significant relationship (Hair et al., 2022).

4. Results

Here are the results of the outer model in this study:

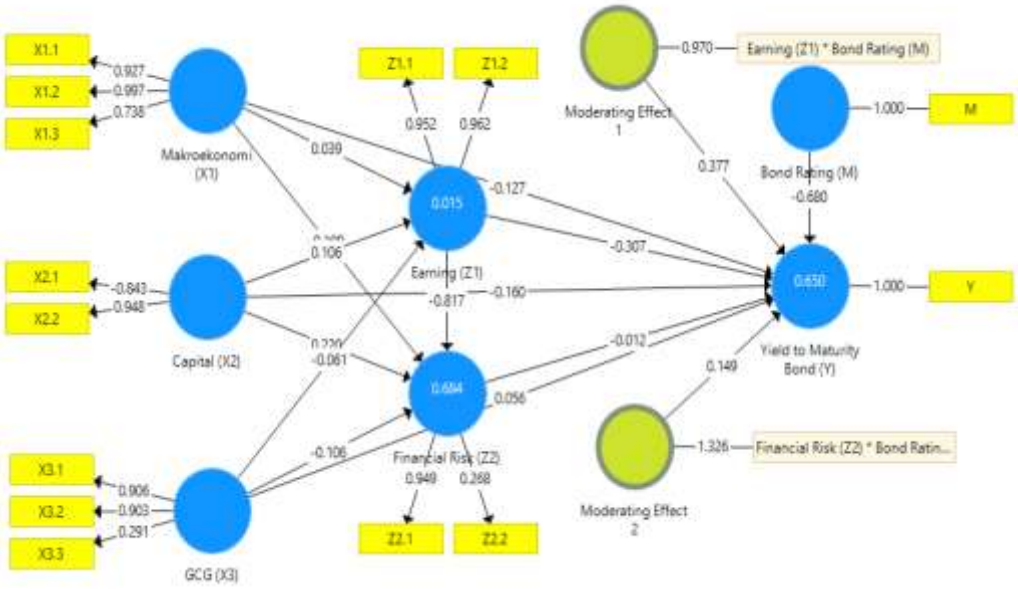

Figure 4. Outer Model
Source: Output SmartPLS 2025

As shown in Figure 5, several indicators displayed factor loadings below 0.70, indicating inadequate convergent validity. These indicators were therefore removed from the model. Specifically, the following indicators were eliminated:

- X2.1 (Capital) with a loading of -0.843
- X3.3 (Good Corporate Governance) with a loading of 0.291
- Z2.2 (Financial Risk) with a loading of 0.268

Following the removal of these indicators, the model was re-evaluated. The modified model shows that all retained indicators exhibit satisfactory levels of loading, confirming their significance in representing the respective latent constructs as Figure 6 shows.

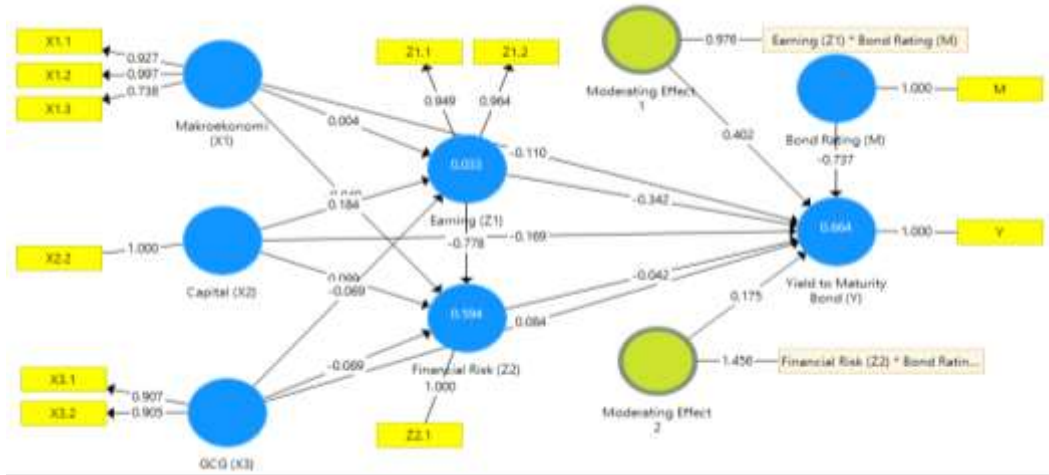

Figure 5. Outer Model Modification
Source: Output SmartPLS 2025

	R Square
***Earning* (Z1)**	0.033
***Financial Risk* (Z2)**	0.594
Yield to Maturity Bond (Y)	0.664

Figure 6. Outer Model Modification
Source: Output SmartPLS 2025

Based on Figure 7, the coefficient of determination (R^2) for each dependent variable is as follows:

- Earnings (Z1): 0.033 – Very weak explanatory power
- Financial Risk (Z2): 0.594 – Strong predictive power
- Yield to Maturity (Y): 0.664 – Strong predictive power

This implies that while the model explains only 3.3% of the variance in earnings, it accounts for over 59% and 66% of the variance in financial risk and bond yields, respectively, indicating robust predictive capability for these two constructs. The results of hypothesis testing are as follows:

Hypothesis	Path	Coeffisient	*t-Statistic*	*p-value*	Significance
H1	Macroeconomic → *Earning*	0.004	0.033	0.973	Not Significant
H2	Macroeconomic → *Financial Risk*	-0.049	0.649	0.517	Not Significant
H3	Macroeconomic → *Yield to Maturity Bond*	-0.110	1.634	0.103	Not Significant
H4	*Capital* → *Earning*	0.184	1.451	0.147	Not Significant
H5	*Capital* → *Financial Risk*	0.099	0.958	0.338	Not Significant
H6	*Capital* → *Yield to Maturity Bond*	-0.169	2.370	0.018	Significant
H7	GCG → *Earning*	-0.069	0.843	0.400	Not Significant
H8	GCG → *Financial Risk*	-0.089	1.142	0.254	Not Significant
H9	GCG → *Yield to Maturity Bond*	0.084	0.893	0.372	Not Significant
H10	*Earning* → *Financial Risk*	-0.778	16.024	0.000	Significant
H11	*Earning* → *Yield to Maturity Bond*	-0.342	2.991	0.003	Significant
H12	*Financial Risk* → *Yield to Maturity Bond*	-0.042	0.310	0.757	Not Significant
H13	*Bond Rating* * *Earning* → *Yield to Maturity Bond Bond*	0.402	3.578	0.000	Significant
H14	*Bond Rating* * *Financial Risk* → *Yield to Maturity Bond*	0.175	1.632	0.103	Not Significant

Figure 7. Outer Model Modification
Source: Output SmartPLS 2025

5. Discussion

5.1 Macroeconomic has positive and not significant effect on Earning in Banking Company Listed on Indonesia Stock Exchange.

The analysis yields a p-value of 0.973, which exceeds the standard significance threshold of 0.05. Therefore, Hypothesis H1 is rejected, indicating that macroeconomic conditions have no significant influence on bank earnings. This finding suggests that Indonesian banks possess a strong capacity to withstand macroeconomic shocks through adaptive mitigation strategies—such as hedging instruments, effective asset-liability management, capital reinforcement, and operational efficiency enhancement (Ross et al., 2015; Damodaran, 2012). Similar conclusions were reported by Wijaya et al. (2025), who found no substantial effect of macroeconomic indicators on bank profitability. Nugroho (2021) also emphasized that macroeconomic factors do not significantly influence financial risk management, which in turn affects overall earnings performance.

5.2 Macroeconomic has negative and not significant effect on Financial risk in Banking Company Listed on Indonesia Stock Exchange.

The second hypothesis (H2) is also rejected, supported by a p-value of 0.517. This indicates no statistically significant relationship between macroeconomic factors and financial risk in listed banking companies. While theoretically macroeconomic instability—such as fluctuations in interest rates, exchange rates, and inflation—can increase financial risk (Borsuk et al., 2024; Kanno, 2024), the empirical evidence from this study suggests otherwise. This result aligns with findings by Nugroho (2021) and Wijaya et al. (2025), who found that in Indonesia's tightly regulated banking environment, external shocks are often absorbed through strong institutional oversight.

5.3 Macroeconomic has negative and not significant effect on Yield to maturity Bond in Banking Company Listed on Indonesia Stock Exchange.

The p-value of 0.103 results in the rejection of Hypothesis H3. Although in theory, macroeconomic indicators such as inflation and interest rates affect bond pricing and yield (Borsuk et al., 2024) (Popova, 2023), the data suggest these do not significantly influence the yield to maturity of banking bonds in Indonesia. This may be due to investors focusing more on issuer-specific fundamentals than on broader economic shifts. This is consistent with studies by Latif & Apriani (2022) and Purnomo et al. (2022), who also found that macroeconomic indicators had minimal effect on corporate bond yields.

5.4 Capital has positive and not significant effect on Earning in Banking Company Listed on Indonesia Stock Exchange.

The relationship between capital and earnings yields a p-value of 0.147, leading to the rejection of Hypothesis H4. While Capital Structure Theory (Modigliani & Miller, 1958) posits that strong capital should enhance investor confidence and profitability, this study suggests otherwise. The result is in line with Nuratriningrum et al. (2021), who also found no significant influence of capital structure—measured by DER—on yield. This suggests that capital may not be a direct driver of earnings, particularly in a dynamic and competitive banking environment.

5.5 Capital Has Positive and Not Significant Effects on Financial risk in Banking Company Listed on Indonesia Stock Exchange.

The analysis produced a p-value of 0.338, exceeding the 0.05 threshold, leading to the rejection of the hypothesis. Although capital shows a positive relationship with financial risk, the effect is not statistically significant. The positive coefficient implies that an increase in capital tends to reduce financial risk. However, the insignificance suggests that this relationship is not strong enough to be generalizable. These findings do not fully align with Signaling Theory, which posits that strong capital signals effective risk control. Nevertheless, the result is consistent with Tang et al. (2024), who argued that in highly uncertain environments, capital may not function effectively to reduce short-term financial risks.

5.6 Capital has negative and significant effect on Yield to maturity Bond risk in Banking Company Listed on Indonesia Stock Exchange.

This hypothesis is accepted, supported by p-value of 0.018, indicating a significant negative relationship between capital and bond yield to maturity. The result suggests that higher capital levels (measured by CAR) are associated with lower yields demanded by investors. This supports the Signaling Theory, which holds that a strong capital structure is perceived as a sign of creditworthiness, leading to lower risk premiums. The findings are also supported by Dayanti & Janiman (2019), who showed that capital-related ratios such as DER and bond maturity influence bond yields.

5.7 Good corporate governance has negative and not significant effect on Earning in Banking Company Listed on Indonesia Stock Exchange.

The hypothesis is rejected, with a p-value of 0.400. This means that GCG has a negative but statistically insignificant effect on bank earnings. The negative coefficient suggests that improvements in governance quality have not yet translated into stronger profitability. Theoretically, GCG should enhance efficiency, reduce agency conflicts, and build market confidence (Jensen & Meckling, 1976; Ross et al., 2018). However, as Nugroho (2021) argues, GCG may not directly impact firm earnings—especially when structural governance indicators such as board size or audit committee presence do not effectively influence

strategic financial decisions. These findings are also in line with Kanakriyah et al. (2025), who found that audit committee characteristics do not always have a statistically significant effect on financial performance.

5.8 Good corporate governance has negative and not significant effect on Financial risk in Banking Company Listed on Indonesia Stock Exchange.

This hypothesis is rejected with a p-value of 0.254. The negative but statistically insignificant relationship implies that while improved governance may contribute to reducing financial risk, the impact is not strong enough to be deemed significant. This result indicates that governance structures might not have sufficient influence on risk indicators such as NPL and LDR in the banking sector. Wibawaningsih & Surbakti (2020) similarly concluded that governance characteristics alone are not strong predictors of risk in the bond market context.

5.9 Good corporate governance has positive and not significant effect on Yield to maturity Bond in Banking Company Listed on Indonesia Stock Exchange.

The p-value of 0.372 leads to the rejection of the hypothesis. GCG shows a positive but statistically insignificant effect on bond yield to maturity. Although GCG theoretically functions as a signal of managerial quality (Signaling Theory), the result suggests that investors may place greater weight on structural variables such as leverage and bond maturity, as also observed by Bonowati & Sihombing (2023).

5.10 Earning has negative and significant effect on Financial risk in Banking Company Listed on Indonesia Stock Exchange

The hypothesis is accepted with a p-value of 0.000, indicating a strong and statistically significant negative effect of earnings on financial risk. Higher earnings—measured by ROA and NIM—are associated with a reduction in financial risk, as indicated by NPL and LDR. This confirms that profitability enhances financial stability. The result supports studies by Ma et al. (2025), Kanakriyah et al. (2025), Mulya et al. (2024), and Atichasari et al. (2023), all of whom reported a strong inverse relationship between profitability and financial risk in the banking sector.

5.11 Earning has negative and significant effect on Yield to maturity Bond in Banking Company Listed on Indonesia Stock Exchange

With a p-value of 0.003, this hypothesis is accepted. Earnings have a statistically significant negative effect on bond yield to maturity. This means that as bank profitability increases, the required return from investors decreases, reflecting enhanced creditworthiness. The result supports the Signaling Theory and is consistent with findings by Dayanti & Janiman (2019), who reported that profitable companies are perceived as stable, reducing investor risk premiums

5.12 Financial Risk has negative and not significant effect on Yield to maturity Bond in Banking Company Listed on Indonesia Stock Exchange

The hypothesis is rejected, with a p-value of 0.757. While the coefficient is negative—suggesting that higher financial risk could lead to higher yields—the result is not statistically significant. This indicates that financial risk may not be a primary determinant of YTM in the context of Indonesian banks. One explanation could be the strong regulatory oversight and well-developed risk management frameworks within the banking sector, which reduce investor sensitivity to risk indicators. This result aligns with the findings of Tang et al. (2024), Wijaya et al. (2025), and Wibawaningsih & Surbakti (2020), who noted that not all risk ratios directly affect YTM in the corporate bond market.

5.13 Bond Rating has significantly moderating effect Earning on Yield to maturity Bond in Banking Company Listed on Indonesia Stock Exchange

This hypothesis is accepted with a p-value of 0.000, indicating that bond rating significantly moderates the relationship between earnings and YTM. The interaction strengthens the negative effect of earnings on YTM—firms with strong earnings and high ratings are viewed as highly credible, reducing yield expectations. This result supports the Signaling Theory and is consistent with Ma et al. (2025), Fiorillo et al. (2024), and Purnomo et al. (2022), all of whom emphasized the role of bond ratings in reinforcing positive financial signals.

5.14 Bond Rating has not significantly moderating effect financial risk on Yield to maturity Bond in Banking Company Listed on Indonesia Stock Exchange.

This final hypothesis is rejected, with a p-value of 0.103. The findings suggest that bond rating does not significantly moderate the relationship between financial risk and bond yield. This aligns with Saadaoui et al. (2022), who noted that in emerging markets, the interaction between firm risk and bond ratings does not always lead to a stronger effect. Therefore, financial risk's influence on YTM is more context-dependent and may not automatically be amplified by credit ratings.

6. Conclusions and Recommendation

This study concludes that internal factors, particularly earnings and capital, have a more substantial impact on financial risk and bond yield to maturity compared to macroeconomic variables or good corporate governance practices. Furthermore, bond ratings play a significant moderating role—particularly in strengthening the relationship between earnings and bond yields—highlighting the importance of credit reputation in the banking bond market. Practical Implications for management, these findings emphasize the importance of profitability and capital strength in managing financing costs and investor perception. For investors, the study reaffirms the significance of earnings and bond ratings when assessing bond investments. For regulators, the findings highlight the effectiveness of bank oversight in minimizing the influence of external macroeconomic shocks.

Future researchers are encouraged to expand the scope of analysis by extending the observation period to capture long-term trends, or by incorporating other sectors beyond banking to examine whether the observed relationships are sector-specific or generalizable across industries. This will enhance the external validity and applicability of the research model in broader financial contexts.

References

[1] W. Abdillah and J. Hartono, Partial Least Square (PLS): Alternatif Structural Equation Modelling (SEM) dalam Penelitian Bisnis, 1st ed. Yogyakarta: ANDI, 2015.

[2] R. R. Aditama and A. Nurkhin, "Business and Accounting Education Journal Abstrak Info Artikel," Business And, vol. 1, no. 3, pp. 247–257, 2020.

[3] A. Ali and S. K. Oad Rajput, "Cracking the Code: Hidden Choices and Visible Impacts Pattern Recognition in Corporate Finance," Asia-Pacific Financial Markets, 2024. [Online]. Available: https://doi.org/10.1007/s10690-024-09487-2

[4] A. S. Atichasari et al., "Examining non-performing loans on corporate financial sustainability: Evidence from Indonesia," Sustainable Futures, vol. 6, 2023. [Online]. Available: https://doi.org/10.1016/j.sftr.2023.100137

[5] A. R. Belkaoui, Accounting Theory. Thomson, 2004. [Online]. Available: https://books.google.co.id/books?id=fE9STcvKw-QC

[6] Y. A. Bonowati and P. Sihombing, "Yield to maturity determinants in Indonesia corporate bonds with leverage as moderating variable," JPPI (Jurnal Penelitian Pendidikan Indonesia), vol. 9, no. 2, pp. 1133–1142, 2023. [Online]. Available: https://doi.org/10.29210/020232745

[7] Y. A. Bonowati and P. Sihombing, "Yield to maturity determinants in Indonesia corporate bonds with leverage as moderating variable," Jurnal Penelitian Pendidikan Indonesia, vol. 9, no. 2, pp. 1133–1142, 2023. [Online]. Available: https://doi.org/10.29210/0202312745

[8] M. Borsuk et al., "The macroeconomic costs of the bank tax," Journal of Financial Stability, vol. 72, 2024. [Online]. Available: https://doi.org/10.1016/j.jfs.2024.101262

[9] S. Camino-mogro and N. Bermudez-Barrezueta, "Determinants of profitability of life and non-life insurance companies: evidence from Ecuador," International Journal of Emerging Markets, vol. 14, no. 5, pp. 831–872, 2020. [Online]. Available: https://doi.org/10.1108/IJOEM-07-2018-0371

[10] C.-C. Chen et al., "Does Ambiguity Matter for Corporate Debt Financing? Theory and Evidence," Journal of Corporate Finance, 2023. [Online]. Available: https://doi.org/10.1016/j.jcorpfin.2023.102425

[11] A. Damodaran, Investment Valuation: Tools and Techniques for Determining the Value of Any Asset, 3rd ed. John Wiley & Sons, 2012.

[12] J. P. Dapena and R. Schefer, "COMMON MYTHS ON YIELD TO MATURITY IN BONDS OR IRR IN CORPORATE FINANCE," 2020. [Online]. Available: www.cema.edu.ar/publicaciones/doc_trabajo.html

[13] N. Dayanti and Janiman, "Pengaruh maturity, peringkat obligasi dan debt to equity ratio terhadap yield to maturity obligasi," in Jurnal Kajian Akuntansi, vol. 3, no. 1, 2019. [Online]. Available: http://jurnal.unswagati.ac.id/index.php/jka

[14] Y. Dong, J. Liang, and C. M. Brauner, "Double free boundary problem for defaultable corporate bond with credit rating migration risks and their asymptotic behaviors," Journal of Differential Equations, vol. 372, pp. 505–535, 2023. [Online]. Available: https://doi.org/10.1016/j.jde.2023.06.050

[15] Duryadi, Buku Ajar Metode Penelitian Ilmiah Metode Penelitian Empiris Model Path Analysis dan Analisis Menggunakan SmartPLS. Yayasan Prima Agus Teknik dan Universitas STEKOM, 2021.

[16] S. Fayyaz, S. W. Ali, and T. Khalid, "Profitability of Islamic Banks in Pakistan: An Empirical Analysis," Bulletin of Business and Economics (BBE), vol. 13, no. 2, pp. 741–746, 2024. [Online]. Available: https://doi.org/10.61506/01.00388

[17] P. Fiorillo et al., "Geopolitical turmoil and investor green preference: Evidence from the corporate bond market," Journal of International Money and Finance, vol. 149, 2024. [Online]. Available: https://doi.org/10.1016/j.jimonfin.2024.103218

[18] N. M. Gharakhanlou and L. Perez, "From data to harvest: Leveraging ensemble machine learning for enhanced crop yield predictions across Canada amidst climate change," Science of the Total Environment, vol. 951, 2024. [Online]. Available: https://doi.org/10.1016/j.scitotenv.2024.175764

[19] I. Ghozali and H. Latan, PARTIAL LEAST SQUARES, 2nd ed. Badan Penerbit - Undip, 2020.

[20] J. F. Hair et al., A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 2022. [Online]. Available: https://www.researchgate.net/publication/354331182

[21] R. Hwihanus, T. Ratnawati, and I. Yuhertiana, "Analisis Pengaruh Fundamental Makro dan Fundamental Mikro Terhadap Struktur Kepemilikan, Kinerja Keuangan, dan Nilai Perusahaan pada Badan Usaha Milik Negara yang Terdaftar di Bursa Efek Indonesia," Business and Finance Journal, vol. 4, no. 1, pp. 65–72, 2019. [Online]. Available: https://doi.org/10.33086/bfj.v4i1.1097

[22] N. Jahrotunnupus and G. S. Manda, "Analisis Pengaruh Risiko Kredit, Risiko Pasar dan Risiko Operasional Terhadap Profitabilitas pada Bank Umum BUMN yang Terdaftar di BEI Periode 2013-2020," Eksis: Jurnal Ilmiah Ekonomi Dan Bisnis, vol. 12, no. 2, p. 157, 2021. [Online]. Available: https://doi.org/10.33087/eksis.v12i2.265

[23] R. Kanakriyah et al., "The Impact of Financial Leverage and Capital Adequacy on the Earnings Quality in Jordanian Commercial Banks," WSEAS Transactions on Business and Economics, vol. 22, pp. 305–313, 2025. [Online]. Available: https://doi.org/10.37394/23207.2025.22.30

[24] M. Kanno, "Assessing the impact of the COVID-19 crisis on sovereign default risk," Research in International Business and Finance, vol. 68, 2024. [Online]. Available: https://doi.org/10.1016/j.ribaf.2023.102198

[25] KSEI, "KSEI Statistik Pasar Modal Indonesia Desember 2024," 2025. [Online]. Available: https://www.ksei.co.id/files/Statistik_Publik_Desember_2024_v3.pdf

[26] R. Lasantha et al., "Unveiling the impact of foreign competition on the bond market: Insights from S&P debt ratings," Economics Letters, vol. 241, 2024. [Online]. Available: https://doi.org/10.1016/j.econlet.2024.111797

[27] A. Latif and E. Apriani, "Yield To Maturity Corporate Bonds: Indonesian Capital Market," Asian Journal of Management Entrepreneurship and Social Science, vol. 02, no. 04, 2022. [Online]. Available: https://ajmesc.com/index.php/ajmesc

[28] R. Ma et al., "Climate awareness in management and deviation from target leverage: Evidence from China," Finance Research Letters, vol. 76, 2025. [Online]. Available: https://doi.org/10.1016/j.frl.2025.106915

[29] M. Marjohan and S. R. Sampurnaningsih, "The Relationship between Interest Rates, Financial Ratios, and Bond Ratings with Profitability as a Mediating Variables in Non-Financial Sector Companies in Indonesia," ECONOMICS - Innovative and Economics Research Journal, vol. 13, no. 1, 2024. [Online]. Available: https://doi.org/10.2478/eoik-2025-0005

[30] M. Marjohan and S. R. Sampurnaningsih, "The Relationship between Interest Rates, Financial Ratios, and Bond Ratings with Profitability as a Mediating Variables in Non-Financial Sector Companies in Indonesia," ECONOMICS - Innovative and Economics Research Journal, 2024. [Online]. Available: https://doi.org/10.2478/eoik-2025-0005

[31] N. Mohd Saad, M. N. Haniff, and N. Ali, "Corporate governance mechanisms with conventional bonds and Sukuk' yield spreads," Pacific Basin Finance Journal, vol. 62, 2020. [Online]. Available: https://doi.org/10.1016/j.pacfin.2019.02.001

[32] Y. Mulya, D. B. Girsang, and Y. Zain, "Profitability Function on Capital Adequacy Ratio Model," International Journal of Scientific Multidisciplinary Research, vol. 2, no. 3, pp. 231–246, 2024. [Online]. Available: https://doi.org/10.55927/ijsmr.v2i3.8518

[33] N. Noviana, E. Gurendrawati, and D. Handarini, "Pengaruh Firm Size, Solvabilitas, Peringkat Obligasi, dan Corporate Governance terhadap Yield Obligasi Korporasi," Jurnal Akuntansi, Perpajakan, Auditing, vol. 3, pp. 372–386, 2022.

[34] M. Nugroho, "Corporate governance and firm performance," Accounting, vol. 7, no. 1, pp. 13–22, 2021. [Online]. Available: https://doi.org/10.5267/j.ac.2020.10.019

[35] OJK, "Statistik Pasar Modal," 2025. [Online]. Available: https://www.ojk.go.id/id/kanal/pasar-modal/data-dan-statistik/statistik-pasar-modal

[36] N. V. Popova, "On the Yield to Maturity of a Coupon bond," Finance: Theory and Practice, vol. 27, pp. 126–137, 2023. [Online]. Available: https://doi.org/10.26794/2587-5671-2023-27-3-126-138

[37] B. Prananta and C. Alexiou, "Exchange rates, bond yields and the stock market: nonlinear evidence of Indonesia during the COVID-19 period," Asian Journal of Economics and Banking, vol. 8, no. 1, pp. 83–99, 2024. [Online]. Available: https://doi.org/10.1108/ajeb-12-2022-0157

[38] L. I. Purnomo, M. D. Wijaya, and M. E. Pratama, "YIELD TO MATURITY BOND: INTEREST RATE, INFLATION AND BOND RATING – EMPIRICAL RESEARCH ON BANKING SECTOR," Jurnal Riset Akuntansi Kontemporer, vol. 14, no. 2, 2022. [Online]. Available: https://doi.org/10.23969/jrak.v14i2.5624

[39] S. A. Ross et al., Corporate Finance. McGraw-Hill Ryerson, 2015.

[40] A. Saadaoui, A. Elammari, and M. Kriaa, "Credit rating announcement and bond liquidity: the case of emerging bond markets," Journal of Economics, Finance and Administrative Science, vol. 27, no. 53, pp. 86–104, 2022. [Online]. Available: https://doi.org/10.1108/JEFAS-08-2020-0314

[41] M. Saeed et al., "Yield spread determinants of sukuk and conventional bonds," Economic Modelling, vol. 105, no. October, p. 105664, 2021. [Online]. Available: https://doi.org/10.1016/j.econmod.2021.105664

[42] H.-C. Shu, J.-H. Chang, C.-F. Tsai, and C.-W. Yang, "Impacts of Operational Risks and Corporate Governance on Corporate Bond Yield Spreads," in Advances in Pacific Basin Business, Economics and Finance, C.-F. Lee and M.-T. Yu, Eds., vol. 11, pp. 145–167. Emerald Publishing Limited, 2023. [Online]. Available: https://doi.org/10.1108/S2514-465020230000011007

[43] A. K. Singhania and N. M. Panda, "Does an effective audit committee influence firm performance? –The moderation role of knowledge intensity," Corporate Governance: The International Journal of Business in Society, vol. 24, no. 4, pp. 764–779, 2024. [Online]. Available: https://doi.org/10.1108/CG-03-2023-0123

[44] Sugiyono, Penelitian Kualitatif, Kuantitatif dan R&D. Alfabeta, 2018.

[45] Sugiyono, Metode Penelitian Kuantitatif, Kualitatif, dan R&D, Alfabeta, 2019.

[46] Sugiyono, Metodologi Penelitian Kuantitatif, Kualitatif dan R & D. Penerbit Alfabeta Bandung, 2020.

[47] P. Tang, T. Tang, and C. Lu, "Predicting systemic financial risk with interpretable machine learning," The North American Journal of Economics and Finance, vol. 71, p. 102088, 2024. [Online]. Available: https://doi.org/10.1016/j.najef.2024.102088
[48] J. C. A. Teixeira et al., "Investor protection, regulation and bank risk-taking behavior," The North American Journal of Economics and Finance, vol. 51, p. 101051, 2020. [Online]. Available: https://doi.org/10.1016/j.najef.2019.101051
[49] E. J. Wibawaningsih and L. P. Surbakti, "Audit Committee, Financial Condition, and Firm Performance: Empirical Evidence From Indonesia," Journal of Accounting and Finance Management, vol. 1, 2020. [Online]. Available: https://doi.org/10.38035/jafm.v1i5
[50] A. E. Wijaya, T. Ratnawati, and U. Pristiana, "The Influence of Macroeconomic Fundamentals, Decisions Investment, And Capital on Stock Returns with Risk Profile and Earning as Intervening Variables and Good Corporate Governance as a Variable Moderation (Study of Banking Companies in Indonesia)," International Journal of Economics (IJEC), vol. 4, no. 1, pp. 53–59, 2025. [Online]. Available: https://doi.org/10.55299/ijec.v4i1.737
[51] Y. Zhang, "Are Debt and Incentive Compensation Substitutes in Controlling the Free Cash Flow Agency Problem?"