

Original Article

Factors Affecting Capital Structure and Implications for Yield to Maturity of Corporate Bonds

¹Lely Indriaty, ²Gen Norman Thomas

¹Accounting Department, Faculty of Economics and Business, Universitas Persada Indonesia YAI, Jakarta, Indonesia.

²Accounting Department, School of Accounting, Binus University, Indonesia.

Received Date: 05 July 2026

Revised Date: 25 July 2026

Accepted Date: 31 July 2026

Published Date: 08 August 2026

Abstract: *This study aims to estimate, analyze, discuss and conclude that Liquidity (Current Ratio), Company Size (Size), Foreign Exchange (FOREX), Interest Rate (IR) and Profitability (Return on Assets) affect Capital Structure (Debt to Equity Ratio) and its implications for Yield to Maturity (YTM) of corporate bonds. The population is corporate bonds in the banking sector, which dominate corporate bond issuance in Indonesia. The sample was selected based on purposive sampling of 14 Bond Series listed on the Indonesia Stock Exchange (IDX) for the period 2020-2024. Furthermore, the results of the study show that SIZE and ROA have positive and significant effects on DER, while CR, FOREX and ROA do not have a significant effect on DER. In the next model, FOREX has a positive and significant effect on YTM, while DER, CR, SIZE, IR and ROA do not have a significant effect on YTM. Finally, the results of this study contribute to providing valuable information for creditors and prospective creditors that, when acquiring corporate bonds, pay attention to the company's internal factors, namely SIZE and ROA, which determine the DER condition, while the company's ability to meet yield to maturity is determined by external factors, namely FOREX.*

Keywords: *Corporate Bonds, Yield to Maturity, Capital Structure, Profitability, Liquidity, Company Size, Exchange Rate, Interest Rate.*

I. INTRODUCTION

Many corporate bonds issued by banks have matured during the Covid-19 pandemic throughout 2019-2022, while the bond issuers do not yet have the ability and courage to re-issue bond tranches for the next period. In addition, Indonesia's economic conditions are being hit by the Covid-19 pandemic storm, affecting the banking business, especially bond issuers. On the other hand, the policy to limit physical contact with customers has reduced the level of communication between banks and customers to a minimum. Working in an office with a work-from-home system has limited communication with customers, especially since many banking activities have been handled digitally. Digitizing in the banking business, plus the work-from-home scheme, certainly affects the issuer's room to move in fulfilling its obligations to pay bond coupons periodically, especially to pay off its bond debts that have matured. With limited bank operations where the income and expenses of the bank's business are unclear, of course issuers must face difficulties in fulfilling obligations related to periodic interest payments, especially the repayment of bonds at maturity or yield to maturity. This study aims to analyze the performance of bonds that have not fallen during the end of the Covid-19 pandemic era in the period 2020-2024 which are still surviving, added to bonds that were just launched in 2020 and after in the research period 2020-2024. This study aims to answer whether bonds that fell during Covid-19 in that period were due to the condition of issuers' activities, which were carried out in a work-from-home and digital manner or by other factors which are normal causes of the bond debt business, which is full of uncertainty and high risk. During 2020, the value of banking company debt issuance was only recorded at around IDR 7.88 trillion, decreasing compared to the issuance value throughout 2019, which reached IDR 24.28 trillion. This is the first time this has happened, because usually the issuance of financial sector bonds always dominates above 50% each year (www.money.kompas.com).

Low bond issuance is due to high interest rates. High interest rates make bond issuers have to think twice about providing yield to creditors because they consider the cost of funds. This trend shows that creditors' interest in corporate bonds, especially in the banking sector, is lower because the yield to maturity given is low. This phenomenon is very interesting to analyze further regarding the factors that affect corporate bond yields. A good and promising bond rating means that the issuer always fulfills routine obligations in paying coupon interest periodically and paying off bond debt at maturity or yield to maturity. This bond rating is very important for creditors, at least providing attractive guarantees regarding the smooth receipt of bond coupons and the confidence to obtain a fairly convincing yield to maturity.



PT Pemeringkat Efek Indonesia (Pefindo) and PT Bursa Efek Indonesia (BEI) noted a decrease in debt issuance by banks during 2020 due to the impact of the COVID-19 pandemic. Director of Corporate Assessment at PT Bursa Efek Indonesia I Gede Nyoman Yetna even said that based on 2020 data, the value of domestic corporate debt issuance reached IDR 96.60 trillion. As much as 53.98 percent, or IDR 52.14 trillion, came from sectors other than financial institutions, while 46.02 percent or IDR 44.46 trillion, came from the financial sector. The decrease in the value of banking company debt issuance from the previous year is inseparable from the relatively low credit growth, so that banks experienced an increase in liquidity and capital that was still sufficient from the collection of Third Party Funds. So that banks still minimally issued debt for liquidity needs. For issuer companies, the capital structure has an effect on regulating the determination of yield to maturity that must be given to creditors. However, the influence of capital structure on yield to maturity is of 2 types, namely direct influence on yield to maturity and indirect influence from capital structure as an intervening variable on yield to maturity. Factors that influence capital structure, such as the Debt to Equity Ratio (DER), are internal and external factors. External factors from macroeconomics can be in the form of interest rates and FOREX, while internal factors are liability (current ratio), corporate size, and profitability (return on assets). The composition of the debt-to-equity ratio in the balance sheet shows the proportion of debt to the proportion of capital; the greater the proportion of debt in the balance sheet, the smaller the proportion of equity will be.

DER as a capital structure is influenced by determinants of liquidity, company size, foreign exchange, interest rate and profitability and has implications for yield to maturity. YTM is implied by the DER determinant which according to Myers, 1977 that DER affects YTM with the statement that the higher the DER level, the lower the percentage of YTM repayment. Then, liquidity is stated to have an effect on YTM, as stated by Trinh et al. (2020), that with high liquidity, the higher the YTM. Likewise, in terms of interest rates that affect YTM, Trinh et al. (2020) also state that FOREX diversity has an effect on YTM. Finally, profitability is defined as the company's ability to earn profit after tax and based on this profit after tax, it can determine the ability to meet YTM.

II. LITERATURE REVIEW

A) Effect of Liquidity On Capital Structure

Wild et al. (2009) stated that the current ratio is influenced by receivables and inventory; therefore, to fulfill its current liabilities, the company must collect to pay current liabilities. According to Brigham E.F & Ehrhardt M.C (2017). The higher the current ratio, the greater the possibility that the company is able to pay its short-term liabilities. Therefore, the company needs to maintain the level of liquidity so that it is not too high or too low. According to Maryam and Abiha (2014), liquidity has a negative effect on capital structure. According to Amihud et.al.(2013), liquidity has a positive effect on capital structure. Moreover, Sangeetha and Sivathaasan (2013) stated that liquidity has a positive effect on capital structure. Based on the description above, the following hypothesis is proposed:

Hypothesis 1: Liquidity has a significant effect on capital structure

B) Effect of Company Size on Capital Structure

Company size indicates the size of the company where large companies are easier to get loans from outside either in the form of debt or stock capital because large companies are accompanied by a good reputation for the community Gautam P.K, et.al. (2025) stated that large company size is considered an indicator that describes the level of risk for creditors to invest in the company, because if the company has good financial capabilities, it is believed that the company is also able to fulfill all obligations and provide an adequate rate of return for creditors. The larger the size of a company, the greater the capital needed by the company for its operations, the greater the total assets owned by the company, and the greater the tendency to use external funds. Large-scale companies will find it easier to find creditors to invest their capital compared to small companies. Research conducted by Ahmed, A.M., et al. (2023) stated that company size has a significant and positive effect on capital structure. Gautam P.K, et.al. (2025) stated that company size has a significant and negative effect on capital structure. Based on the results of the study, the hypothesis proposed in this study is:

Hypothesis 2: Company size has a significant effect on capital structure

C) Effect of Forex on Capital Structure

According to Winoto, A. et al. (2022), an exchange rate is a foreign currency or means of payment used in international economic transactions based on the official exchange rate set by the Central Bank. According to Sartono (2008) exchange rates indicate the number of units of currency that can be purchased or exchanged for one unit of another currency. Companies that use foreign currency in their operational activities are inseparable from the exchange rate of foreign currency to the rupiah. Mufidah (2012) in her research concluded that the foreign exchange rate variable has a negative and significant effect on capital structure. This indicates that when the US Dollar exchange rate against the Rupiah rises, companies that have debt in US Dollars will reduce their debt, so that the capital structure decreases. This is the same as Dong's research (2012), which states that the exchange rate has a significant negative effect on long-term debt leverage. However, Julimar and Priyadi (2021)

found different results where companies do not need to pay attention to the exchange rate in the process of determining funding decisions, so that it does not affect the capital structure. Based on the theoretical concept above, the hypothesis tested in this study is:

Hypothesis 3: Foreign Exchange has a significant effect on capital structure

D) Effect of Interest Rate on Capital Structure

Pecking order theory states that if external funds are needed for funding, then the first alternative external funds chosen are to use debt first rather than having to issue new shares. If the SBI (Sertifikat Bank Indonesia) interest rate decreases, it will certainly encourage companies to use debt to meet their funding needs. Conversely, if the interest rate increases, it will make companies think twice about using debt because the cost of loan interest will increase. Based on previous research conducted by Li, X, et.al.(2020), it shows that the SBI interest rate has a positive and insignificant effect on the capital structure. Vega-Gutierrez et.al. (2022) found that there was a significant negative effect of the Central Bank rate on the company's capital structure. This is the same as the research of Dincergok and Yalciner (2011), which stated that interest rates have a negative effect on the company's capital structure.

Hypothesis 4: Interest rate has a significant effect on capital structure

E) Effect of Profitability on Capital Structure

Profitability is the ability of a company to generate profits through its production process. Companies with high profits will have abundant capital, so the company will likely have a low level of debt. As explained in the Pecking Order Theory, it states that "Companies with high levels of profitability actually have low levels of debt, because companies with high profitability have abundant internal funding sources." So, the company will prioritize the use of its internal funding sources rather than using external funding sources. The negative effect of profitability on capital structure is in line with research conducted by Deviani & Sudjarni (2018), which states that profitability has a negative and significant effect on capital structure. Hardianti and Gunawan (2010) also proved that profitability has a significant negative effect on capital structure. This is in line with research conducted by Sheikh and Wang (2011).

Based on the description above, the following hypothesis is proposed:

Hypothesis 5: Profitability has a significant effect on capital structure

F) Effect of Capital Structure on Yield To Maturity

According to Brigham and Houston (2018), the leverage ratio measures the ratio is used to measure funding through debt (financial leverage). Leverage is a ratio that shows the level of proportion of debt used in financing investments. Debt to Equity Ratio is the ratio used by companies to assess all debt with all equity owned. This ratio is calculated by comparing total debt with capital. In the research of Listiawati and Paramita (2018), Che-Yahya, N, et al. (2016), and Hamid et al. (2019) showed that leverage has a negative effect on Yield to Maturity. The higher the DER, the less equity is owned compared to its debt. Large companies that have high DER will offer low yields, and vice versa for small-scale companies that have low DER, so that they offer high yields to attract investors to invest in bonds issued by the company. This indicates that investors in making investments do not have to pay attention to the DER owned by the company, and investors assume that the company issuing the bonds has gone public so that investors are not too worried about the risk (Listiawati and Pramita, 2018). Based on the description above, the research hypothesis to be tested is:

Hypothesis 6: Capital Structure has a significant effect on yield to maturity

G) Effect of Liquidity on Yield To Maturity

Liquidity is a ratio that measures a company's ability to meet its short-term obligations (Nuriasari, 2019). Liquidity is a scale that is reflected in the number of trading frequencies. Bonds that are often traded by creditors and are widely circulated in the bond market. The higher the liquidity, the price of the bond tends to increase; this causes the risk and yield to decrease (Sari and Rahyuda, 2019). High bond liquidity will make bonds more attractive because it shows more availability of buyers and sellers, so that creditors can sell their bonds at any time, so that bond prices can increase. This indirectly explains that the liquidity of bonds has a negative effect on bond yields. According to research by Trinh et al. (2020), liquidity has a positive effect on bond Yield to maturity. The higher the level of liquidity of a company, the better the performance of a company. Companies that have a high level of liquidity will get a lot of support from parties outside the company, such as investors and creditors, in investing, so that the yield or Yield to maturity that the company will give to its investors is higher. Based on the description above, the author proposes the following hypothesis:

Hypothesis 7: Liquidity has a significant effect on yield to maturity

H) Effect of Company Size on Yield To Maturity

Company size is classified based on the company's total assets, log size, stock market value, and others. Company size can also be described from total assets, sales volume and average sales of company assets (Novari and Lestari, 2016). Then, other studies from Hendaryadi et al. (2019), Sintami and Marsoem (2019) and Paramita and Pangestuti (2016) stated that

company size has a positive and significant effect on bond Yield to maturity. Companies with large total assets indicate that the company has reached a stage of maturity where, at this stage, the company's cash flow is positive and is considered to have good prospects in a relatively long period of time; besides that, it also reflects that the company is relatively more stable and more able to generate profits than companies with small total assets. Theoretically, larger companies have greater certainty than small companies, so they will reduce the level of uncertainty regarding the company's future prospects. This can help investors predict the risks that may occur if they invest in a company (Fauzan, 2020). Based on the description above, the author proposes the following hypothesis.

Hypothesis 8: Company size has a significant effect on yield to maturity

I) Effect of Forex on Yield to Maturity

According to Fabozzi and Franco (1996), the exchange rate is the amount of currency that can be exchanged for one currency of another country. The rupiah exchange rate is the value of one rupiah converted into another country's currency. In another research from Purwadi (2017), Ernawati (2019), and Paramita and Pangestuti (2016) stated that the exchange rate has a positive effect on bond yields. When the dollar exchange rate is too high, it causes high interest rates, which slows down the rate of economic growth. High interest rates tend to reduce investment. A country's local currency that depreciates, meaning the local currency weakens against the US Dollar, drives up interest rates and will then lower bond prices and increase yields. For bond creditors, depreciation against the rupiah indicates that Indonesia's economic prospects are in decline. When the rupiah depreciates, bond creditors switch investments to money markets such as the foreign exchange market. Of course, this will result in a decrease in demand for bonds. When the demand for bonds falls, the bond issuer must attract creditors again by increasing the yield on the bonds. When the exchange rate depreciates, the bond yield will increase and vice versa. In other words, the exchange rate has a positive effect on the Yield to maturity of bonds. Based on the description above, the research hypothesis to be tested is:

Hypothesis 9: Foreign exchange has a significant effect on yield to maturity

J) Effect of Interest Rate on Yield To Maturity

As a consideration in investing in bonds, creditors must actively compare the prevailing interest rates in the market, because bond prices have the opposite nature to the generally prevailing interest rates in the market. Therefore, the creditor should consider moving interest rates, especially SBI. The relationship between interest rates and bond prices is negative (Jogiyanto, 2010). According to Friday E and Nkwede (2020), interest rates have a negative effect on the Yield to Maturity of Bonds. The higher the estimated interest rate in the future, the lower the estimated yield on bonds, which reduces the demand for the bonds. The decrease in demand for bonds when interest rates rise and bond prices fall results in fewer funds received by the issuer, so that the yield offered by the company is also lower. The sensitivity (estimate) of prices due to changes in the BI rate depends on several aspects, namely that the longer the maturity of a bond, the higher the sensitivity of the bond price to the BI rate. The lower the coupon rate, the higher the price sensitivity to changes in the BI rate. Thus, the higher the price of a bond, the lower the Yield to maturity offered (Ernawati, 2020). Based on the description above, the author proposes the following hypothesis:

Hypothesis 10: Interest rate has a significant effect on yield to maturity

K) Effect of Profitability on Yield To Maturity

Bond yield is a measure of bond income that will be received by creditors, which tends to be unstable. Profitable companies offer stronger guarantees for the benefit of debtors that their principal debt will be paid. Company profitability reflects the financial performance of a company. The existence of information related to profitability is usually used by creditors to assess investment possibilities and risks. Profitability is measured by the average operating profit of the company to total assets (ROA). Profitable companies offer stronger guarantees for the benefit of debtors that their principal debt will be paid. According to Restuti (2007), profitable companies will cause the risk of default to be lower, so that the yield offered becomes lower. According to Tangjitprom (2012), profitability is used to predict bond yields. Previous research conducted by Restuti (2007) confirmed that profitability has a negative effect on bond yields. Based on the description above, the research hypothesis is as follows:

Hypothesis 11: Profitability has a significant effect on yield to maturity

III. RESEARCH METHODS

This study is classified as basic research that was conducted specifically on banking companies. The highlight of the methodological considerations relates to analyzing the effect of the capital structure model and yield to maturity on corporate bonds. Hence, this study includes a discussion about data sources, measurements and the examination method of the relationship between these factors. The type of data used is quantitative data involving time series and cross-section, also called panel data. It was obtained from banking companies listed on the IDX for the years 2020 to 2024, annually. The purpose of this study is to analyze the determination of capital structure and yield to maturity in 2 research models, namely:

Model 1: Factors of Capital Structure

$$DER_{it} = \alpha + \beta_1 CR_{it} + \beta_2 SIZE_{it} + \beta_3 FOREX_{it} + \beta_4 IR_{it} + \beta_5 ROA_{it} + \varepsilon_{it};$$

$$i = 1, 2, \dots, N; t = 1, 2, \dots, T$$

Model 2: Implication toward Yield to Maturity (YTM)

$$YTM_{it} = \alpha + \beta_1 DER_{it} + \beta_2 CR_{it} + \beta_3 SIZE_{it} + \beta_4 FOREX_{it} + \beta_5 IR_{it} + \beta_6 ROA_{it} + \varepsilon_{it};$$

$$i = 1, 2, \dots, N; t = 1, 2, \dots, T$$

Explanation:

DER = Debt to Equity Ratio N = Observations
 YTM = Yield to Maturity T = time
 CR = Current Ratio N x T = amount of data panel
 SIZE = Company Size
 FOREX = Foreign Exchange
 IR = Interest Rate
 ROA = Return on Asset
 ε = error
 α = intercept

To measure the score of each research variable, operational definitions and measurement formulas are presented as presented in Table 1 above. Measurements were made on selected samples from this study of 9 banking companies with 70 corporate bonds. Stages of determining research samples with certain criteria are shown in Table 2.

Table 1: Operational Definition of Research Variables

Variables	Definition	Formula	Ratio
Yield to Maturity (YTM)	Yield to maturity is the compound rate of return that an investor will receive if they buy a bond at the current market price and hold it until maturity.	$YTM = \frac{C + (F - P) \times 100\%}{\frac{F + P}{2}}$	Ratio
Capital Structure (DER)	Leverage is the use of debt by a company to carry out the company's operational activities.	$DER = \frac{\text{Total Liability}}{\text{Total Equity}}$	Ratio
Liquidity (CR)	Liquidity is a ratio that measures a company's ability to meet its short-term obligations.	$CR = \frac{\text{Current Assets}}{\text{Current Liability}}$	Ratio
Company Size (SIZE)	Company size is the total value of assets owned by a company or total assets.	$SIZE = LN [\text{Total Assets}]$	Ratio
Foreign Exchange (FOREX)	The currency market of one country is exchanged for the currency of another country at the closing trade at the end of the year	$FOREX = \frac{NT_t - NT_{t-1} \times 100\%}{NT_{t-1}}$	Ratio
Interest Rate (IR)	An interest rate of the Bank Indonesia Certificate is the interest rate on bearer securities in rupiah issued by BI as an acknowledgement of short-term debt (1-3 months) with a discount system.	$IR = \frac{vol1 \times rate1 + \dots + (volN \times rateN)}{\text{Total Volume}}$	Ratio
Profitability (ROA)	The company's ability to earn earnings after tax using total assets	$ROA = \frac{\text{Earnings After Tax}}{\text{Total Assets}}$	Ratio

Source: Data processed by Author (2025)

Table 2: Research Sample

No.	Explanation	Corporate	Bond
1.	Corporate Bonds of Banking Companies during the period 2020-2024	38	158
2.	Corporate Bonds of Banking Companies that are not yet listed on the Indonesia Stock Exchange during the period 2020-2024	(14)	(62)
3.	Corporate Bonds of Banking companies that have matured during the period 2020-2024	(15)	(82)
4.	Corporate Bonds of Banking Companies that do not pay coupons in a fixed amount at a fixed rate during the period 2020-2024	0	0
5.	Corporate Bonds of Banking Companies that do not have complete financial statements during the period 2020-2024.	0	0
Number of samples that meet the criteria		9	14
Number of observation data = 14 x 5			70

Source: Data processed by Author (2025)

Based on the results of the sample determination in Table 2, and presented names of banks and corporate bonds are presented in detail as shown in Table 3 below.

Table 3: Issuer and Corporate Bonds

No.	Issuer	Bond Series	Corporate Bond
1	BCA	BBCA01ASBCN1	SUSTAINABLE SUBORDINATED BOND I BCA PHASE 1 YEAR 2018 SERIES A
2	BCA	BBCA01BSBCN1	SUSTAINABLE SUBORDINATED BOND I BCA PHASE 1 YEAR 2018 SERIES B
3	BANK BUKOPIN	BBKP02SBCN2	SUSTAINABLE SUBORDINATED BONDS II BANK BUKOPIN PHASE 2 YEAR 2017
4	BANK VICTORIA	BVICO1SBCN2	SUSTAINABLE SUBORDINATED BOND I BANK VICTORIA PHASE 2 YEAR 2018
5	BANK VICTORIA	BVICO2SBCN1	SUSTAINABLE SUBORDINATED BOND II BANK VICTORIA PHASE 1 YEAR 2019
6	BANK VICTORIA	BVICO2SBCN2	SUSTAINABLE SUBORDINATED BOND II BANK VICTORIA PHASE 2 YEAR 2019
7	BANK VICTORIA	BVICO2SBCN3	SUSTAINABLE SUBORDINATED BOND II BANK VICTORIA PHASE 3 YEAR 2020
8	BANK MAYAPADA	MAYA05SB	SUBORDINATED BOND BANK MAYAPADA V YEAR 2018
9	BANK PANIN	PNBN03SBCN1	SUSTAINABLE SUBORDINATED BOND III BANK PANIN PHASE 1 YEAR 2018
10	BTN	BBTN04CCN1	SUSTAINABLE BOND IV BANK BTN PHASE 1 YEAR 2020 SERIES C
11	BANK MANDIRI	BMRI02ACN1	SUSTAINABLE BOND II BANK MANDIRI PHASE 1 YEAR 2020 SERIES A
12	BANK MANDIRI	BMRI02BCN1	SUSTAINABLE BOND II BANK MANDIRI PHASE 1 YEAR 2020 SERIES B
13	BANK CIMB NIAGA	BNGA03BSB	SUBORDINATED BOND III BANK CIMB NIAGA YEAR 2018 SERIES B
14	BANK MAY BANK	BNII02CCN1	SUSTAINABLE BOND II BANK MAY BANK PHASE 1 YEAR 2017 SERIES C

Sources: Data processed by Author (2025)

IV. RESULTS AND DISCUSSION

A) Descriptive Statistics

The results of descriptive statistics for models 1 and 2, based on Table 4 below, present the maximum and minimum values of YTM at 0.3472 (34.72%) and 0.0103 (1.03%), with an average value of 0.119030 (11.903%). Then,, DER is 0.0155 (1.55%) and 0.0001 (0.01%), with an average value of 0.005771 (0.5771%). Then, Return on Assets (ROA) has a maximum value of 0.08 (8%), and a minimum value of -0.0096 (-0.96%), accompanied by a standard deviation of 0.019748 (1.97%). All the data indicate that mean values are greater than the standard deviation, except for CR and ROA.

Table 4: Descriptive Statistics

Statistic	YTM	DER01	CR01	SIZE01	FOREX01	IR01	ROA01
Mean	0.119030	0.005771	0.360513	31.31610	15008.00	0.039200	0.019353
Median	0.110300	0.006400	0.055350	32.83000	14876.00	0.037500	0.016400
Maximum	0.347200	0.015500	1.758800	40.69200	16000.00	0.062500	0.080000
Minimum	0.010300	0.000100	0.000700	5.081000	14308.00	0.006000	-0.009600
Std. Dev.	0.048715	0.003327	0.434044	7.490197	595.9970	0.019713	0.019748
Skewness	1.411315	0.260525	0.952364	-3.045214	0.550938	-0.535658	1.199382
Kurtosis	9.041402	3.669589	3.050605	11.02682	2.037065	2.143051	4.841942
Jarque-Bera	129.6919	2.099543	10.58910	296.1094	6.245675	5.489399	26.67823
Probability	0.000000	0.350018	0.005019	0.000000	0.044032	0.064268	0.000002
Sum	8.332100	0.404000	25.23590	2192.127	1050560.	2.744000	1.354700
Sum Sq. Dev.	0.163745	0.000764	12.99921	3871.111	24509660	0.026814	0.026908
Observations	70	70	70	70	70	70	70

Source: Data processed by author (2025)

B) Hypothesis Test Results

Model 1:

An estimation equation is conducted to determine which better equation among Common Effect Method (CEM), Fixed Effect Method (FEM), and Random Effect Method (REM). The Chow test shows a cross-section Chi-square of 0.000, and the equation can be used, namely FEM. The Hausman test continues processing research data and shows an outcome of a probability of 1.000, and greater than 0.05, so the Hausman test chooses the REM equation. The Lagrange Multiplier method shows the REM equation can be chosen because the result of Breusch-Pagan is $0.0000 < 0.05$. The brief result above can be seen in Table 5 below.

Table 5: Summary of Estimating Equation

No	Test	Versus	Result
1	Chow-Test	CEM vs FEM	Fixed Effect Method
2	Hausman Test	REM vs FEM	Random Effect Method
3	Lagrange Multiplier-B	CEM vs REM	Random Effect Method

Source: Data Processed by Author, 2025

After determining that the REM equation should be chosen as shown in Table 6, the next step can be conducted to set an equation for Model 1 based on Table 6 below.

Table 6: Result for Equation of REM

Dependent Variable: DER			
Method: Panel EGLS (Cross-section random effects)			
Date: 2025-04-26 Time: 23:33			
Sample: 2020 2024			
Periods included: 5			
Cross-sections included: 14			
Total panel (balanced) observations: 70			
Swamy and Arora estimator of component variances			
Variable	Coefficient	Std. Error	t-Statistic
C	0.007265	0.004052	1.792882
CR	0.000353	0.000346	1.022438
SIZE	-0.000270	2.48E-05	-3.613213
FOREX	4.30E-07	2.26E-07	1.903421
IR	0.000646	0.004922	0.131180
ROA	0.018998	0.008667	2.191959
Effects Specification		S.D.	Rho
Cross-section random		0.002704	0.9439
Idiosyncratic random		0.000659	0.0561
Weighted Statistics			
R-squared	0.212031	Mean dependent var	0.000626
Adjusted R-squared	0.150471	S.D. dependent var	0.000803
S.E. of regression	0.000740	Sum squared resid	3.51E-05

F-statistic	3.444294	Durbin-Watson stat	1.130321
Prob(F-statistic)	0.008090		
Unweighted Statistics			
R-squared	-0.156146	Mean dependent var	0.005771
Sum squared resid	0.000883	Durbin-Watson stat	0.044873

Sources: data processed by author (2025)

Estimation Equation:

$$DER = C(1) + C(2)*CR + C(3)*SIZE + C(4)*FOREX + C(5)*IR + C(6)*ROA + [CX=R]$$

Substituted Coefficients:

$$DER = 0.007265 + 0.0003533*CR - 0.00027*SIZE + 4.29564*FOREX + 0.000645*IR + 0.018998*ROA + [CX=R]$$

Interpretation:

The findings from linear regression revealed a relationship between independent variables and the dependent variable. The constant coefficient value of 0.007265 indicates a positive association between overall independent variables and debt to equity ratio (DER). For example, the relationship between SIZE and DER implies that, holding all other factors constant, a 1% alteration in SIZE will increase the DER over time, namely by 0.00027. Similar analyses can be conducted for other factors for the same reason with a positive effect.

The most influential variable was found in the foreign exchange (FOREX) to debt to equity ratio (DER) variable. Based on Table 6, SIZE and ROA have significant and positive effects on DER because $0.0006 < 0.05$ and $0.0320 < 0.05$. Meanwhile, CR, FOREX and IR have no significant effects on DER because 0.3104, 0.0615 and 0.8960, all greater than 0.05.

Model 2:

An estimation equation is conducted to determine which better equation among Common Effect Method (CEM), Fixed Effect Method (FEM), and Random Effect Method (REM). The chow test shows a cross-section Chi-square 0.000, and the equation can be used, namely FEM. The Chow test continues processing research data and shows an outcome of probability at 0.000, and smaller than 0.05, so the Chow test choice equation of FEM. The result of the Hausman test shows cross-section random 0.4854, and greater than 0.05, so that the Hausman test choice of the equation of FEM. The brief result above can be seen in Table 7 below.

Table 7: Summary of Estimating Equation

No	Test	Versus	Result
1	Chow-Test	CEM vs FEM	Fixed Effect Method
2	Hausman Test	REM vs FEM	Fixed Effect Method
3	Lagrange Multiplier-B	CEM vs REM	Random Effect Method
3	Lagrange Multiplier-B	CEM vs REM	Random Effect Method

Source: Data Processed by Author, 2025

After determining that the equation of FEM should be chosen as shown in Table 7, the next step can be conducted to set an equation for model 2 based on table 8 below.

Table 8 : Result for Equation of FEM

Dependent Variable: YTM Method: Panel Least Squares Date: 04/26/25 Time: 23:43 Sample: 2020 2024 Periods included: 5 Cross-sections included: 14 Total panel (balanced) observations: 70			
Variable	Coefficient	Std. Error	t-Statistic
C	-0.266910	0.190449	-1.401478
DEBT01	7.597373	5.049757	1.504503
CRO1	0.000174	0.012698	0.013675
SIZE01	0.001641	0.004955	0.331290
FOREX01	1.965E-05	8.43E-06	2.332314
IRO1	-0.001686	0.180320	-0.009238

ROA01	-0.165812	0.339778	-0.488002
Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.827306	Mean dependent var	0.119030
Adjusted R-squared	0.761682	S.D. dependent var	0.048715
S.E. of regression	0.023781	Akaike info criterion	-4.404868
Sum squared resid	0.028278	Schwarz criterion	-3.764241
Log likelihood	174.1704	Hannan-Quinn criter.	-4.149688
F-statistic	12.66077	Durbin-Watson stat	1.118383
Prob(F-statistic)	0.000000		

Sources: data processed by author (2025)

Estimation Equation:

$$YTM = C(1) + C(2)*DER + C(3)*CR + C(4)*SIZE + C(5)*FOREX + C(6)*IR + C(7)*ROA + [CX=R]$$

Substituted Coefficients:

$$YTM = -0.266910 + 7.597373*DER + 0.000174*CR + 0.001641*SIZE + 0.0000196*FOREX - 0.001666*IR - 0.165812*ROA + [CX=R]$$

Interpretation:

The findings from linear regression revealed a relationship between independent variables and the dependent variable. The constant coefficient value of -0.266910 indicates a negative association between overall independent variables and yield to maturity. For example, the relationship between ROA and YTM implies that, holding all other factors constant, a 1% alteration in ROA will increase the YTM over time, namely by 0.165812. Similar methods can be conducted for other factors for the same reason, with a negative effect. However, the other result shows a negative relation in IR; The most influential variable was found in the debt-to-equity ratio (DER) to the yield-to-maturity variable. Based on Table 8, FOREX has a significant and positive effect on YTM because $0.0242 < 0.05$. Meanwhile, DER, CR, FOREX, IR and ROA have no significant effects on YTM because 0.1387, 0.9891, 0.7418, 0.9927 and 0.6277 are all greater than 0.05.

C) Sensitivity Test

A sensitivity test can be conducted to analyze which corporate bonds are more attractive to creditors who have bonds related to the promise of a more guaranteed yield. Table 9 presents the cross-section random effect as follows:

Table 9: Cross-Section Effects

No	Issuer	Corporate Bonds	Random Effect of Model 1	Fixed Effect of Model 2
1	BCA	BBCA01ASBC1	-0.004832	0.014788
2	BCA	BBCA01BSBC1	-0.004832	0.014788
3	Bank Bukopin	B[KP02SBCN2	0.004152	-0.018218
4	Bank Victoria	BVICO01SBCN2	0.001359	0.017782
5	Bank Victoria	BVICO02SBCN1	0.001359	0.096362
6	Bank Victoria	BVICO02SBCN2	0.001359	0.017782
7	Bank Victoria	BVICO02SBCN3	0.001359	0.017782
8	Bank Mayapada	MAYA05SB	0.001443	0.009231
9	Bank Panin	PNBN03SBCN1	-0.001595	0.015539
10	BTN	BBTN04CCN1	0.007214	-0.077163
11	Bank Mandiri	BMRI02ACN1	0.000143	-0.030972
12	Bank Mandiri	BMRI02BCN1	0.000143	-0.080032
13	Bank Cimb Niaga	BNG103BSB	-0.001074	0.014843
14	Bank Raya Indonesia	BNII02CCN1	-0.006200	0.005947

Source: Data Processed by Author (2025)

Model 1:

The results of cross-section random effects can be used to calculate the sensitivity test; the sensitivity test consists of two sensitivities. Based on 9 companies that issue corporate bonds in the banking sector listed on the IDX during the period 2020-2024 in the REM regression model, the following can be concluded.

1. Banking sector companies that issue corporate bonds listed on the Indonesia Stock Exchange (IDX) that have the largest sensitivity to changes in Capital Structure (DER) determined by the factors that influence it during the period 2020-2024. namely BBTN04CCN1 or SUSTAINABLE BONDS IV BANK BTN PHASE I YEAR 2020 SERIES C with a total constant value of $[Ci + 0.007265] = 0.007214 + 0.007265 = 0.014479$.
2. Banking sector companies that issue corporate bonds listed on the Indonesia Stock Exchange (IDX) that have the

smallest sensitivity to changes in Capital Structure (DER) are determined by the factors that influence it during the period 2020-2024. Namely, BNII02CCN1 or SUSTAINABLE BOND II BANK MAY BANK PHASE I YEAR 2017 SERIES C, with a total constant value of $[Ci + 0.007265] = -0.0062 + 0.007265 = 0.001065$.

Model 2:

A sensitivity test can be conducted to analyze which corporate bonds are more attractive to creditors who have bonds related to the promise of a more guaranteed yield. Table 9 presents the cross-section fixed effect as follows:

1. Banking sector companies that issue corporate bonds listed on the Indonesia Stock Exchange (IDX) that have the largest sensitivity to changes in Yield to Maturity (YTM) determined by the factors that influence it during the period 2020-2024. namely BVICO2SBCN1 or SUSTAINABLE SUBORDINATED BOND II BANK VICTORIA PHASE 1 YEAR 2019 with a total constant value of $[Ci + 0.096362] = -0.0266910 + 0.096362 = 0.069671$.
2. Banking sector companies that issue corporate bonds listed on the Indonesia Stock Exchange (IDX) that have the smallest sensitivity to changes in Capital Structure (DER) are determined by the factors that influence it during the period 2020-2024. namely BMRI02BCN1 or SUSTAINABLE BOND II BANK MANDIRI PHASE 1 YEAR 2020 SERIES B with a total constant value of $[Ci - 0.080032] = -0.0266910 - 0.080032 = -0.106723$

D) Diagnostic Test

The diagnostic tests revealed that the residuals exhibit a serial normal distribution as determined by the Jarque-Bera test, heteroscedasticity test (Breusch-Pagan-Godfrey), the Breusch-Godfrey serial correlation LM test, and respectively.

Table 10: Diagnostic Test

Test	Probability	F Statistic
Jarque-Bera test (Normality test)	0.9919	0.0160
Heteroskedasticity Test: Breusch-Pagan-Godfrey	0.2985	1.2175
Breusch-Godfrey Serial Correlation LM Test	0.1056	12.3063

Source: Eview 13 Printout

V. ANALYSIS AND DISCUSSION

A) Current Ratio And Capital Structure

Empirical evidence shows that the current ratio as a proxy for liquidity has a positive but insignificant effect on the DER of banks that issue bonds and are listed on the Indonesia Stock Exchange (IDX) during the 2020-2024 period. This finding reveals that bank liquidity does not have an impact on debt levels. This is because the time period between short-term liquidity and DER mainly comes from bonds, which are long-term financing. The results are in line with the findings of Siregar and Tjandrasa (2021), who concluded that liquidity has no effect on capital structure. The results of this study differ from the findings of Udomsirikul, et.al.(2011), Taleb and Shubiri (2011), who revealed that liquidity is negatively and significantly related to the total debt ratio; namely, the more liquid the company, the less the company borrows, which reveals that liquidity has a negative and significant effect on capital structure. According to the pecking order theory, when a company uses internal funds with a decreasing level of external financing, liquidity will shrink (Vo, 2017). The studies of Deesomsak et al. (2004), and Shahjahanpour et al. (2010) also found that firms with less liquid equity use more debt in the capital structure. These results suggest that firms with higher liquidity use this liquidity to pay off short-term liabilities; therefore, they reduce short-term debt and can also use their liquidity to finance some of their long-term investments.

B) Company Size & Capital Structure

Based on empirical research findings, it shows that Company Size (SIZE) has a positive and significant effect on DER. This finding reveals that banks with large assets can increase their debt capacity. Large banks can easily access the capital market, especially through bond issuance. In addition, bond investors feel safer lending to large banks because the possibility (default risk) is lower than small banks. Research by M'ng et al. (2017), and Sheikh and Wang (2012), revealed that banks with large assets tend to have higher leverage, are more diversified and face lower default risks. The study by Zafar et al. (2019) also found that company size has a significant positive impact on leverage. This finding supports the pecking order theory, which states that companies are more profitable when choosing to use internally generated funds and lower leverage (Myers & Majluf, 1984). Several other studies also support the negative and significant influence of SIZE on DER, including: Al-Sakran (2001), Chen (2004), Gaud et al. (2007) and Alves and Ferreira (2011).

C) Forex And Capital Structure

This finding is in line with the research results of Chadegani et al. (2011) and Abzari et al. (2012), which revealed that the exchange rate has a positive but not significant effect on the capital structure. This is because companies that have liabilities in foreign currencies will enter into several derivative contracts with other parties to avoid or reduce the risk of loss as a result of fluctuations, so that fluctuations in the exchange rate do not affect the proportion of debt in the capital structure. This explanation is in accordance with the market price theory (arbitrage pricing theory), which states that companies will tend

to issue types of securities based on risk factors that describe general economic conditions (Tandelilin, 2017:213). The opposite results show that the Exchange Rate has a negative and significant effect on the DER of banking sector companies. This finding reveals that the depreciation of the Rupiah exchange rate against the US Dollar encourages banks to reduce their debt levels. The results of the study are in line with the findings of Mufidah (2012), which prove that the exchange rate has a negative and significant effect on the capital structure because an increase in the foreign exchange rate variable results in a decrease in the company's capital structure. However, Julimar and Priyadi (2021) found that the exchange rate in US Dollars has a negative but insignificant effect on the capital structure.

D) Interest Rate And Capital Structure

The findings of this study are in line with the research of Siregar and Tjandrasa (2021), Mufidah (2012), and Julimar and Priyadi (2021), which found that interest rates have a positive but significant effect on capital structure. This finding explains that issuing banks prefer to use internal funding rather than debt funding. Companies feel safer using internal funds when they need more funds. These results are in accordance with the arbitrage pricing theory, which states that banks issue different types of securities for additional capital based on the risk source factors faced because they indicate general economic conditions. Banks use their internal funds first, because the use of internal funds provides a lower level of risk than the use of debt. The decision to use debt is taken last, so the interest rate will not affect banks that choose internal funding as the basis for their bank's capital structure. The results of the opposite study show that the Interest Rate (IR) has a positive and significant effect on capital structure. This finding reveals that an increase in interest rates encourages banks to increase long-term financing through the issuance of bonds. The results of this study indicate that the interest rate issued by Bank Indonesia will result in an increase in the company's capital structure. Fatranaldi (2011) stated that loan credit is higher than deposit interest; therefore, the cost burden borne by entrepreneurs who use debt in their capital structure is also high. The high interest burden and the obligation to pay installments are a burden for the company. Based on the Trade-off Theory, companies will tend to choose external funding or debt. With a higher level of external debt, the payment of obligations will also be higher because of the risk of paying interest on debt. The results of this study are in line with the findings of Fatranaldi (2011), which prove that interest rates have a significant positive effect on capital structure.

E) Profitability & Capital Structure

Based on empirical evidence, it shows that Profitability (ROA) has a positive and significant effect on DER. This finding reveals that banks that are able to increase ROA are also able to increase a larger proportion of debt through bond issuance. The results of the study are in line with the findings of Lemma and Jahan (2014) and Wellalage and Locke (2015), which prove that profitability has a positive effect on capital structure. Other findings that are not in line with these findings from the studies of Mabrouk and Boubaker (2020), Feng et al. (2020), Hunnayan (2020), and Sikveland and Zhang (2020) state that profitability has a significant negative effect on corporate leverage. This is in accordance with the pecking order theory, which explains that banks with high profitability can use internal reserves first so that they do not need external capital. The existence of a significant negative influence is explained in each study, one of which is because the company has sufficient cash for operational activities so that it does not require debt financing (Mabrouk & Boubaker, 2020). Another explanation, according to Hunnayan (2020), is that companies that have high profitability are indicated to have sufficient internal funds to cover future investments, so that dependence on external funds is not needed. Research by Taleb and Shubiri (2011) and Siregar and Tjandrasa (2021) revealed their findings that profitability has no effect on capital structure.

F) Capital Structure And Yield To Maturity

Based on empirical evidence, it shows that Capital Structure (DER) has a positive but insignificant effect on the Yield to Maturity (YTM) of banking sector companies that issue Bonds and are listed on the Indonesia Stock Exchange (IDX) during the 2020-2024 period. This finding is in line with the results of research by Faizah et al. (2015) that Leverage has no positive effect on bond yields. Novian et al. (2018) also proved that DER has no significant effect on bond yields. Another finding that is not in line with the results of this study revealed that the increasing proportion of debt can reduce the YTM of banking sector corporate bonds. Hapsari (2014) stated that the higher the DER, the greater the risk that will be faced, and investors will ask for a higher level of return. Thus, it can be said that the higher the DER, the higher the company's risk in the future, which will have an impact on the company's high bond yields. The next finding that is not in line with this study is from Listiawati and Paramita (2018), Norliza Che-Yahya et al. (2016) and Hamid et al. (2019), who stated that leverage has a negative effect on Yield to Maturity. Thus, this study does not support Agency Theory; the agency relationship that occurs between the principal and the agent burdens the manager to be accountable for the resources he manages. Companies that have a higher proportion of debt in their capital structure will have higher agency costs, where the company has an obligation to meet the information needs of long-term creditors, so that the company will provide more comprehensive information (Mahendra, 2015).

G) Current Ratio And Yield To Maturity

Based on the research results, Liquidity (CR) has a positive but insignificant effect on Yield to Maturity (YTM) at banks that issue Bonds. The results of the study revealed that liquidity does not affect the YTM of bonds due to differences in time periods where liquidity in financial activities is short-term oriented, while bonds are long-term financing. Hamidah's (2017) research also proves that liquidity proxied by the Current Ratio (CR) does not have a significant effect on the Yield to Maturity of bonds. This is because the bond yield level is not based on the company's financial condition; however, the determination of bond yield is more oriented towards how the company meets its long-term obligations. The results of this study are in line with the results of research conducted by Mokoagouw et al. (2021), which states that if there is a decrease or increase in liquidity, it does not affect the high or low Yield to Maturity. The research results are almost in line with the research of Trinh et al. (2020), stating that liquidity has a positive effect on the Yield to Maturity of bonds; the only difference is that the study had a positive and significant effect, but this study has a positive and insignificant effect. The findings of this study do not support the signalling theory, which states that good-quality companies will provide positive signals in the form of good information so that creditors are expected to be able to place their trust in investing in bonds. If the bank issuer is able to finance and pay off its short-term obligations well, the potential for the bank issuer to increase creditor trust in investing in bonds will increase.

H) Company Size And Yield To Maturity

Based on the results of the study, SIZE has a positive but insignificant effect on Yield to Maturity (YTM) in banks that issue corporate bonds listed on the Indonesia Stock Exchange (IDX) during the 2019-2024 period. This result is in line with the research of Faizah et al. (2015), which found that company size has no effect on bond yield. The results differ from the research of Paramita and Pangestuti (2016), which states that company size has a positive effect on bond Yield to maturity, or banks with larger total assets tend to provide higher bond YTM. This finding is not in line with the agency theory, which states that the interests of the principal and the interests of the agent have burdened managers to be accountable for the resources they manage. The greater the total assets, the greater the resources managed by the company, meaning that the greater the activity of a business venture. The greater the activity of a business is expected to be, the greater the operating results obtained, so that the company management will have a higher awareness of the importance of information in maintaining and attracting creditors' interest in investing in the bank (Lianawati, 2011).

I) Forex And Yield To Maturity

Based on the research results, the Exchange Rate (FOREX) positively and significantly affects the Yield to Maturity (YTM) of banks that issue Bonds and are listed on the Indonesia Stock Exchange (IDX) during the 2020-2024 period. Empirical findings are in line with the research of Gadanecz et al. (2014), which states several reasons why yield risk is one of the factors that greatly influences the high level of domestic bond yields in a country. First, foreign investors are exposed to the risk of a decline in the value of their investments in debt securities due to depreciation of the local currency. Yield will increase in line with the exchange rate (has a positive relationship). Thus, expectations of an increase or decrease in the value of a country's currency will affect the level of yield requested. Second, the occurrence of large currency mismatches in the balance sheets of private companies and banks in emerging market countries will increase the risk of default on government bonds, which will be responded to by increasing the risk premium requested by investors. Third, the perception of exchange rate risk can reduce foreign exchange liquidity and the domestic bond market in emerging market countries. This can happen if the depreciation of the local currency beyond expectations encourages foreign investors to release their ownership of assets in domestic currency, such as bonds and stocks, which will ultimately reduce liquidity and increase the yield rate expected by investors (Muktiyanto and Aulia, 2019). The results of this study are in line with research. According to research by Ernawati (2019) and Paramita and Pangestuti (2016) stated that the exchange rate or exchange rate has a positive effect on bond yield. The higher the exchange rate, the higher the Yield to maturity of bonds. This study is related to signal theory. With the rise and fall of the dollar exchange rate, interest rates will rise because Bank Indonesia will hold the rupiah, so that inflation will increase. At that time, investors relied on signals from the company, whether this condition affected the company's performance and its bond prices.

J) Interest Rate And Yield To Maturity

Based on empirical evidence, it shows that Interest Rates (IR) have a partial positive but insignificant effect on yield to maturity (YTM) in banks that issue bonds and are listed on the Indonesia Stock Exchange (IDX) during the 2020-2024 period. This result is in line with research conducted by Thompson and Vaz (1990) on 426 industrial company bonds with a time period between 1977-1983, showing that interest rates do not have a significant effect on bond yields. However, other studies by Fabozzi (2021) show that there is a positive and significant relationship between interest rates and bond yields. The results are contrary to this study from Ogie and Laila (2020) and Friday and Nkwede (2020), which state that interest rates have a negative effect on bond yields. The higher the interest rate, the lower the bond yield to maturity. This finding reveals that an increase in interest rates can reduce the YTM of banking sector bonds. The higher the estimated sensitivity of future interest

rates, the lower the estimated yield of bonds and the demand for these bonds, and vice versa. Changes in the BI rate depend on several aspects, namely the maturity period and the coupon rate. The longer the maturity of a bond, the higher the sensitivity of the bond price. And the lower the coupon rate, the higher the bond price. With the high price of a bond, the Yield to maturity offered is also lower. This relationship is known as interest rate risk. Moreover, Tandelilin (2017) states that high interest rates will result in the return desired by investors from an investment increasing.

K) Profitability And Yield To Maturity

The results of the study show that profitability (ROA) has a positive but insignificant effect on yield to maturity (YTM) in banking sector companies that issue bonds and are listed on the Indonesia Stock Exchange (IDX) during the 2020-2024 period. This finding reveals that the YTM of bonds issued by banks is not related to the company's profit (ROA). This result also shows that ROA is not the main consideration for creditors in making their decisions to invest in bonds. This situation is because a company's profits tend to fluctuate, which makes it difficult for creditors to calculate the risk of a bond when viewed from the company's profitability level. According to Veronica (2015), the higher the company's profitability level, the smoother the cash flow to pay the principal and interest on bonds becomes, and the risk of default becomes lower. This gives a signal that the company is in good condition and indicates that the investment risk is low and the security of investing is more guaranteed. The more investors feel safe in investing their capital, the less likely creditors are to expect high bond yields. The results of the study are in line with the findings of Mokoagouw et al. (2021), who found that profitability (ROA) had no effect on bond yield. According to Ratih (2014), the higher the company's ROA, the smoother the cash flow to pay the principal and interest on bonds and the smaller the risk of default. This means that the company is in good financial condition, so the investment risk faced is low and security in investing is more guaranteed. The more creditors feel safe in investing their capital, the less likely they are to expect high bond yields.

VI. CONCLUSION

Based on five factors, namely current ratio (CR), company size (SIZE), foreign exchange (FOREX), interest rate (IR) and return on assets (ROA) that affect capital structure (DER), it turns out that empirically in this study revealed that there are only two variables, namely SIZE and ROA, which have a positive and significant effect on DER. Then, of the five factors, only FOREX has a direct positive and significant effect on YTM. While the other five variables, namely DER, do not have significant implications for YTM. At the same time, other independent variables such as CR, SIZE, IR and ROA do not have a significant effect on YTM. Banks that issue corporate bonds traded on the Stock Exchange certainly have large assets, and these large assets can be used as collateral to strengthen creditor confidence in obtaining the corporate bond. Not only are banks armed with large assets that can smooth corporate bond trading, but also company performance such as ROA is also an important element to consider. Although ROA reflects short-term bank performance, good ROA performance can provide at least initial confidence in the ability to meet yield to maturity. The only variable that positively and significantly affects YTM is FOREX, because foreign investors face the risk of falling investment value in bonds due to depreciation of the local currency. Yield will increase in line with the exchange rate positively and significantly. Thus, expectations of the increase or decrease in the value of a country's currency affect the level of yield demanded. Second, the occurrence of large currency mismatches in the balance sheets of private companies and banks in emerging market countries will increase the risk of default on government bonds, which will be responded to by increasing the risk premium requested by investors. Third, the perception of exchange rate risk can reduce foreign exchange liquidity and domestic bond markets in emerging market countries.

Interest Conflicts

The author declares no conflicts of interest

Funding Statement

There is no funding for this research.

Acknowledgments

We would like to express our deep and sincere thanks to my family, Fantessi, for their invaluable advice and moral support.

VII. REFERENCES

- [1] Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. *Journal of Risk Finance*, 6(5), 438-445. <https://doi.org/10.1108/15265940510633505>
- [2] Abzari, M., Fathi, S., & Nematizadeh, F. (2012). Analyzing the impact of financial managers' perception of macroeconomic variables on capital structure of firms listed in Tehran stock exchange. *International Journal of Academic Research in Economics and Management Sciences*, 1(3), 131, <https://journals.indexcopernicus.com/api/file/viewByFileId/1384848>.
- [3] Ahmed, A.M, Sharif, N.A, Ali, M.N & Hagen, I (2023), Effect of Firm Size on the Association between Capital Structure and Profitability, vol.15(14), 202, <https://doi.org/10.3390/su151411196>
- [4] Al-Sakran, S. (2001). Leverage determinants in the absence of corporate tax system: The case of nonfinancial publicly traded corporations in Saudi Arabia. *Managerial Finance*, 27(10/11), 58-86. <https://doi.org/10.1108/03074350110767583>

- [5] Alves, P., & Ferreira, M. (2011). Capital structure and law around the world. *Journal of Multinational Financial Management*, 21(3), 119–150. <https://ssrn.com/abstract=2170270>
- [6] Amihud, M., Mendelson, H., & Pedersen, L. H. (2013). *Market Liquidity: Asset Pricing, Risk, and Crises*, Kindle Release 2013, Cambridge University Press, https://assets.cambridge.org/9780521191760/frontmatter/9780521191760_frontmatter.pdf
- [7] Brigham E. F. & Ehrhardt M. C. (2017). *Financial Management, Theory and Practice*, 15e South-Western Cengage Learning. Boston, Cengage Learning, https://books.google.co.id/books/about/Financial_Management_Theory_Practice.html?hl=id&id=yL4aCgAAQBAJ&redir_esc=y
- [8] Brigham, Eugene F., dan Joel F. Houston. 2018. *Dasar-dasar Manajemen Keuangan*, Salemba Empat, Jakarta, <https://penerbitsalemba.com/buku/02-0343-dasar-dasar-manajemen-keuangan-2-e14>
- [9] Chadegani, A. A., Nadem, M., Noroozi, M., & Madine, S. (2011). The effect of economic and accounting variables on capital structure: Empirical evidence from Iranian companies. *International Research Journal of Finance and Economics* ISSN, 1450-2887. <https://ssrn.com/abstract=2227602>
- [10] Che-Yahya, N., Abdul-Rahim, R., & Mohd-Rashid, R. (2016). Determinants of Corporate Bond Yield: The Case of Malaysian Bond Market. *International Journal of Business and Society*, 17(2), 245. <https://publisher.unimas.my/ojs/index.php/IJBS/article/view/523>
- [11] Chen, J. (2004). Determinants of capital structure of Chinese-listed companies. *Journal of Business Research*, 57(12), 1341–1351. <https://www.sciencedirect.com/science/article/abs/pii/S0148296303000705?via%3Dihub>
- [12] Deesomsak, R., Paudyal, K., & Pescetto, G. (2004). The determinants of capital structure: Evidence from the Asia Pacific region. *Journal of Multinational Financial Management*, 14(4–5), 387–405. <https://doi.org/10.1016/j.mulfin.2004.03.00>
- [13] Delcours, N. (2007). The determinants of capital structure in transitional economies. *International Review of Economics & Finance*, 16(3), 400–415. <https://doi.org/10.1016/j.iref.2005.03.005>
- [14] De Jong, A., Kabir, R., & Nguyen, T. (2008). Capital structure around the world: The roles of firm- and country-specific determinants. *Journal of Banking & Finance*, 32(9), 1954–1969. <https://doi.org/10.1016/j.jbankfin.2007.12.034>
- [15] Dincergok, B., & Yalciner, K. 2011. Capital Structure of Manufacturing Firm's in Developing Countries. *Middle Eastern Finance and Economics* 12:86-100
- [16] Dong, D. Z. (2012). Foreign Exchange Rate and Capital Structure Decision : A Study of New Zealand Listed Property Trust. *Journal of Pasific Rim Real Estate Society Conference Gold Coast*, 17, https://www.prres.org/uploads/7271835/Dong_Foreign_Exchange_Rate_and_Capital_Structure_Decision.pdf
- [17] Ernawati, L. (2019). Analisis Faktor-Faktor Yang Mempengaruhi Yield Spread Obligasi Konvensional Dan Obligasi Syariah Dengan Penerapan Error Correction Model (Ecm). *National Conference on Applied Business (NCAB)* (6), 12-31, <https://www.unisbank.ac.id/ojs/index.php/ncab/article/view/7724/2686>
- [18] Fabozzi, F., & Modigliani, F. (1996). *Capital Markets Institutions and Instruments*. 2nd Edition. United States: Pearson Prentice Hall, <https://books.google.co.id/books?id=FkC9QgAACAAJ>
- [19] Fabozzi, F. J. (2021). *Bond Market, Analysis and Strategies*, MIT Press, 2021, https://books.google.co.id/books/about/Bond_Markets_Analysis_and_Strategies_ten.html?id=b-QhEAAAQBAJ&redir_esc=y
- [20] Faizah, Y. L. N., Suyono, E., & Ramadhanti, W. (2015). Pengaruh Profitabilitas, Likuiditas, Size dan Leverage Perusahaan terhadap Yield Obligasi dengan Peringkat Obligasi Sebagai Variabel Intervening. *AKUNTABEL*, 5(1), <https://www.semanticscholar.org/paper/PENGARUH-PROFITABILITAS%2C-LIKUIDITAS%2C-SIZE-DAN-YIELD-Faizah-Suyono/c7e5060de7060ab007e204e29e375ff306c014bb>
- [21] Fatranaldi, R. (2011). Pengaruh Ukuran Perusahaan, Tingkat Suku Bunga, Tingkat Pertumbuhan Penjualan, dan Profitabilitas Terhadap Struktur Modal Pada Perusahaan Property dan Real Estate Yang Terdaftar Di Bursa Efek Indonesia Periode 2009 – 2011.” : 1–15, <https://repository.unri.ac.id/server/api/core/bitstreams/61ac29da-1589-4f27-b7c8-aa2e7d81e538/content>
- [22] Fama, Eugene F., (1970), “Efficient Capital Markets: A Review of Theory and Empirical Work.” *The Journal of Finance*, Vol. 25, No. 2, pp. 383–417, <https://doi.org/10.2307/2325486>
- [23] Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics*, 26(2), 301–325. <http://dx.doi.org/10.2139/ssrn.94034>
- [24] Fauzan, M. (2020). Pengaruh Peringkat Obligasi, Maturity, Ukuran Perusahaan Dan Debt To Equity Ratio (Der) Terhadap Yield to maturity Obligasi Pada Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia Periode 2015-2018. *Jurnal Analisis Manajemen*, 6(2), 138–151, <https://ejournal.unisi.ac.id/index.php/jam/article/view/1394/847>
- [25] Feng, Y., Hassan, A., & Elamer, A. A. (2020). Corporate governance, ownership structure and capital structure: evidence from Chinese real estate listed companies. *International Journal of Accounting and Information Management*, 28(4), 759–783, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3622891
- [26] Gadanez, B., Ken, M., & Chang, S. (2014). Exchange Rate Risk and Local Currency Sovereign Bond Yields in Emerging Market. *BIS Working Paper*, 474, <https://www.bis.org/publ/work474.pdf>
- [27] Gaud, P., Hoelsli, M., & André Bender, A. (2007). Debt of equity choice in Europe. *International Review of Financial Analysis* 16, 201–222. <https://www.sciencedirect.com/science/article/abs/pii/S1057521906000706>
- [28] Gautam, P. K., Silwal P. P. and Joshi, P. R. (2025). Predicting Capital Structure Decisions Through Firm Performance, *Firm Size and Corporate Governance*, vol.22(1) pp.683-692. [http://dx.doi.org/10.21511/imfi.22\(1\).2025.13](http://dx.doi.org/10.21511/imfi.22(1).2025.13)
- [29] Hamid, A. A., Siagian, A., Razak, A., & Endri, E. (2019). Determinants of Bond Rating and its Implications to Corporate Bond Yield. *International Journal of Engineering and Advanced Technology*, 9(2), 195–200, <https://www.ijeat.org/wp-content/uploads/papers/v9i2/B3358129219.pdf>
- [30] Hamida, L. (2017). Pengaruh likuiditas dan leverage terhadap yield sukuk dengan peringkat sukuk sebagai variabel intervening (study pada perusahaan non keuangan di bursa efek Indonesia). *Jurnal Ekonomi dan Bisnis*, 18(1), 71–86, <https://jurnal.unissula.ac.id/index.php/ekobis/article/view/1611>
- [31] Hapsari, R. A. (2013). Kajian Yield to maturity (YTM) obligasi pada perusahaan korporasi. *Accounting Analysis Journal*, 2(1), <https://journal.unnes.ac.id/sju/index.php/aaj/article/view/1152>
- [32] Hardanti, S., & Gunawan, B. (2010). Pengaruh Size, Likuiditas, Profitabilitas, Risiko, Dan Pertumbuhan Penjualan Terhadap Struktur Modal. *Journal of Accounting and Investment*, 11(2), 148–165, <https://journal.umy.ac.id/index.php/ai/article/view/1080/1161>
- [33] Hendaryadi, Y. M. W., & Hadi, A. (2019). Pengaruh Tingkat Suku Bunga, Bond Rating, Ukuran Perusahaan, Debt to Equity Ratio (DER) Terhadap Yield to maturity Obligasi Korporasi di BEI Periode Tahun 2010-2012. *JWM (Jurnal Wawasan Manajemen)*, 6(3), 295, <https://jwm.ulm.ac.id/id/index.php/jwm/article/view/80>
- [34] Hunnayan, S. H. Al. (2020). The capital structure decisions of Islamic banks in the GCC. *Journal of Islamic Accounting and Business Research*, 11(3), <https://ideas.repec.org/a/eme/jiabrp/jiab-r-02-2017-0026.html>
- [35] Jahan, N. (2014). Determinants of Capital Structure of Listed Textile Enterprises of Bangladesh. *Research Journal of Finance and Accounting*, 5(20), 11–21, <https://core.ac.uk/download/pdf/234630208.pdf>
- [36] Jensen, Michael C. dan Meckling, William H. 1976. Theory of The Firm: Managerial Behavior, Agency Cost and Ownership Structure. *Journal of*

- Financial Economic*. Vol. 3, 305-360, <https://www.sfu.ca/~wainwrig/Econ400/jensen-meckling.pdf>
- [37] Jogiyanto, H. (2010). *Teori portofolio dan analisis investasi*. Edisi Ketujuh. BPFE. Yogyakarta, <https://perpustakaan.binadarma.ac.id/opac/detail-opac?id=11134>
- [38] Julimar, R. D., & Priyadi, M. P. (2021). Pengaruh Sensitivitas Makroekonomi, Profitabilitas dan Likuiditas terhadap Struktur Modal Perusahaan. *Jurnal Ilmu dan Riset*
- [39] *Akuntansi (JIRA)*, 10(5), <https://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/4001/4012>
- [40] Ogie, M. A., & Laila, N. (2020). Pengaruh Leverage, Profitabilitas, dan Kondisi Ekonomi terhadap Imbal Hasil Sukuk Ijarah Korporasi Periode 2015-2018. *Jurnal Ekonomi Syariah Teori dan Terapan*, 7(2), 389-400, <https://media.neliti.com/media/publications/315298-pengaruh-leverage-profitabilitas-dan-kon-a097b1b3.pdf>
- [41] Li, X, Tian, L. Han., & Cai.H (2020). Interest rate regulation, earnings transparency and capital structure:evidence from China, *International Journal of Emerging Markets*, vol.15(5), pp.923-947, <https://doi.org/10.1108/IJOEM-04-2018-0164>
- [42] Listiawati, L. N., & Paramita, V. S. (2018). Pengaruh Tingkat Suku Bunga, Inflasi, Debt to Equity Ratio, dan Ukuran Perusahaan terhadap Yield Obligasi pada Perusahaan yang Terdaftar di Bursa Efek Indonesia Tahun 2010-2016. *Jurnal Manajemen*, 15(1), 33-51, <https://ejournal.atmajaya.ac.id/index.php/JM/article/view/97/75>
- [43] Mabrouk, L., & Boubaker, A. (2020). Investigation of the association between entrepreneurship life cycle, ownership structure and market timing theory. *Asia Pacific Journal of Innovation and Entrepreneurship*, 14(1), 107-122. <https://doi.org/10.1108/apjie-09-2019-0064>
- [44] Mahendra, P. T. (2015). Pengaruh kebijakan hutang, struktur modal dan profitabilitas terhadap aktivitas investasi perusahaan manufaktur barang konsumsi yang terdaftar di Bursa Efek Indonesia. *Eksis: Jurnal Riset Ekonomi dan Bisnis*, 10(2), <https://ejournal.stiedewantara.ac.id/index.php/001/article/view/62/52>
- [45] Maryam, M., & Abiha, S. (2014). Capital Structure Determinants Of Kse Listed Automobile Companies. *European Scientific Journal*, 10 (13) :451-461, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2444698
- [46] Mazur, K. 2007. The determinants of capital structure choice: Evidence from Polish companies, *International Advances in Economic Research*, 13(4), 495-514. <https://ideas.repec.org/a/kap/iaecre/v13y2007i4p495-51410.1007-s11294-007-9114-y.html>
- [47] Mokoagouw, M. M., Tumiwa, R. A., & Lumapow, L. S. (2021). Pengaruh Kupon Obligasi, Likuiditas Obligasi, Profitabilitas Terhadap Imbal Hasil Obligasi Korporasi Yang Terdaftar di Bursa Efek Indonesia Periode 2014-2019. *Manajemen dan Kewirausahaan*, 2(2), 91-109, <https://doi.org/10.53682/mk.v2i2.1061>
- [48] Mufidah, A. (2012). Struktur Modal Perusahaan Properti dan Faktor-Faktor yang Mempengaruhinya. *BISMA: Jurnal Bisnis dan Manajemen*, 6(1), <https://bisma.jurnal.unej.ac.id/index.php/BISMA/article/view/49/0>
- [49] Muktiyanto, I. & Aulia, M. (2019). Determinan tingkat imbal hasil (Yield) surat berharga negara (SBN) domestik. *Kajian Ekonomi dan Keuangan*, 3 (2), <https://fiskal.kemenkeu.go.id/ejournal/index.php/kek/article/view/190/pdf>
- [50] Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221, [https://doi.org/10.1016/0304-405X\(84\)90023-0](https://doi.org/10.1016/0304-405X(84)90023-0)
- [51] M'ng, J. C. P., Rahman, M., & Sannacy, S. (2017). The determinants of capital structure: Evidence from public listed companies in Malaysia, Singapore and Thailand. *Cogent Economics & Finance*, 5(1), 1-34. https://www.researchgate.net/publication/321917530_The_determinants_of_capital_structure_Evidence_from_public_listed_companies_in_Malaysia_Singapore_and_Thailand
- [52] Nkwede, F. E. (2020). Macroeconomic determinants of bond market development: Evidence from Nigerian. *International Journal of Development and Management Review*, 15(1), 178-194, <https://www.ajol.info/index.php/ijdmr/article/view/197235>
- [53] Novari, Milkhy Putu dan Putu Vivi Lestari. (2016). Pengaruh Ukuran Perusahaan, Leverage, dan Profitabilitas terhadap Nilai Perusahaan pada Sektor Properti dan Real Estate. *E-Jurnal Manajemen*
- [54] *Unud*. Vol. 5, No. 9, Hal 5671-5694, <https://ojs.unud.ac.id/index.php/manajemen/article/view/22690/15445>
- [55] Noviana, L., & Solovida, G. T. (2018). Pengaruh Likuiditas, Leverage, Rating Obligasi Syariah, Risiko Obligasi Syariah terhadap Yield Obligasi Syariah (Sukuk). *Stability: Journal of Management and Business*, 1(2), <https://journal.upgris.ac.id/index.php/stability/article/view/3226/2263>
- [56] Nuriasari, S. (2018). Analisa Rasio Likuiditas Dalam Mengukur Kinerja Keuangan PT. Mustika Ratu, Tbk (Tahun 2010-2016). *Jurnal Riset Bisnis dan Investasi*, 4(2), 1-9, <https://www.neliti.com/publications/281691/analisa-rasio-likuiditas-dalam-mengukur-kinerja-keuangan-pt-mustika-ratu-tbk-tah>
- [57] Paramita dan Pangestuti. 2016. Determinan Yield Obligasi Pemerintah Tenor 5 Tahun Dengan Menggunakan Model Egarch Pada Negara Indonesia, Malaysia, Thailand, Dan Filipina. *Diponegoro Journal of Management*, Volume 5, Nomor. 3, <https://ejournal3.undip.ac.id/index.php/djom/article/view/14227/13759>
- [58] Ratih dan Nur Cahyono, 2014. Analisis Faktor-Faktor Yang Mempengaruhi Peringkat Obligasi. *Diponegoro Journal of Accounting*, 1(1), pp:1-13, <https://ejournal-polnam.ac.id/index.php/JurnalManeksi/article/view/324>
- [59] Restuti, M.I.M.D., 2007, Pengaruh Pertumbuhan Perusahaan Terhadap Peringkat dan Yield Obligasi, *Jurnal Akuntansi dan keuangan*, UPH Business School, Volume 1 nomor 3, Jakarta, https://www.researchgate.net/publication/277190380_Pengaruh_Pertumbuhan_Perusahaan_Terdapat_Peringkat_dan_YIELD_Obligasi
- [60] Sangeetha dan Sivathaasan. 2013. Factors Determining Capital Structure : A Case Study of Listed Companies In Sri Lanka. *Research Journal of Finance and Accounting*. Vol. 4, No.6, <https://core.ac.uk/download/pdf/234629518.pdf>
- [61] Sari, K. A. A. P., & Rahyuda, H. (2019). Pengaruh Kupon, Maturitas, Likuiditas Dan Suku Bunga Terhadap Yield Obligasi
- [62] Korporasi. *E-Jurnal Manajemen*, 8(10), 5966-5983, <https://ojs.unud.ac.id/index.php/manajemen/article/view/46937>
- [63] Sartono, A. 1995. *Manajemen Keuangan—Teori dan Aplikasi*. Edisi 5. BPFE. Yogyakarta, [https://perpustakaan.umsida.ac.id/index.php?p=show_detail&id=27076&keywords=Shahjahanpour, A., Ghalambor, H., & Aflatoon, A. \(2010\). The determinants of capital structure choice in the Iranian companies. *International Research Journal of Finance and Economics*, 56, 167-178.](https://perpustakaan.umsida.ac.id/index.php?p=show_detail&id=27076&keywords=Shahjahanpour,A.,Ghalambor,H.,&Aflatoon,A.(2010).The%20determinants%20of%20capital%20structure%20choice%20in%20the%20Iranian%20companies.%20International%20Research%20Journal%20of%20Finance%20and%20Economics,%2056,%20167%E2%80%93178.)
- [64] Sheikh, A.N., & Wang, Z. (2011). Determinants of capital structure: An empirical study of firms in manufacturing industry of Pakistan. *Managerial Finance*, 37(2), 117-133. <https://doi.org/10.1108/03074351111103668>
- [65] Sikveland, M., & Zhang, D. (2020). Determinants of capital structure in the Norwegian salmon aquaculture industry. *Marine Policy*, 119(June), 104061. <https://doi.org/10.1016/j.marpol.2020.104061>
- [66] Sintami, A. A., & Marsoem, B. S (2019), Analysis of Factors Affecting Yield to maturity of Corporate Bonds Traded on Indonesia Stock Exchange 2016- 2018. *International Journal of Innovative Science and Research Technology*, 5(7), 2456-2165, <https://ijisrt.com/assets/upload/files/IJISRT20JUL733.pdf>
- [67] Siregar, Y., & Tjandrasa, B. B. (2021). Pengaruh Profitabilitas, Likuiditas, Solvabilitas, Aktivitas, Inflasi dan Suku Bunga terhadap Struktur Modal. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, & Akuntansi)*, 5(1), 1828-1843, https://scholar.google.co.id/citations?view_op=view_citation&hl=id&user=T484CO4AAAAJ&citation_for_view=T484CO4AAAAJ-f6ydrQryjwC

- [68] Tandelilin, E. (2017). Pasar Modal, *Manajemen Portofolio & Investasi*. Cetakan Kelima. PT Kanisius. Yogyakarta, <https://books.google.co.id/books?id=EcjnEAAAQBAJ&printsec=copyright&hl=id#v=onepage&q&f=false>
- [69] Taleb, G. A., dan F. N. A. Shubiri. 2011. Capital structure decisions and debt maturity structure: empirical evidence from Jordan. *The Journal of Commerce* 3(4):49-60, <https://www.proquest.com/docview/898709090/A093B6F174784434PQ/3?sourcetype=Scholarly%20Journals>
- [70] Tangjitprom, N. (2012). The Review of Macroeconomic Factors and Stock Returns. *International Business Research*, 5(8), 107–115. <https://doi.org/10.5539/ibr.v5n8p107>
- [71] Thompson, G Rodney dan Peter Vaz. (1990). “Dual Bond Ratings: A test of The Certification Function of rating Agencies”. *The Financial Review*, 25, No. 3, pp: 457–471
- [72] Trinh, Q.T., Nguyen, A.P., Nguyen, H.A., & Ngo, P.T. (2020). Determinants of Vietnam Government Bond Yield Volatility: A GARCH Approach. *Journal of Asian Finance, Economics, and Business*, 7(7), 5–25. <https://doi:10.13106/jafeb.2020.vol7.no7.015>
- [73] Udomsirikul, P., Jumreornvong, S., & Jiraporn, P. (2011). Liquidity and capital structure: The case of Thailand. *Journal of Multinational Financial Management*, 21(2), 106–117, <http://doi:10.1016/j.mulfm.2010.12.008>
- [74] Ulfah, H. K., Aprilliani, S., & Adirestuty, F. (2019). Influence of Micro Economic and Macro Economic on Yield to maturity of Ijarah Sukuk Corporation Year 2014-2017. *KnE Social Sciences*, 126-136, <http://DOI:10.18502/kss.v3i13.4200>
- [75] Vega-Gutierrez, Luis, P, Rodriguez-Sanz, & Antonio, J (2022), Interest rate, Liquidity and the corporate financing decision throughout the business cycle: a European analysis, *Revista Espanola de Financiacion y Contabilidad*, vol. 51(2), 232-262, <http://DOI 10.1080/02102412.2021.1914388>
- [76] Veronica, A. (2015). Faktor-faktor yang mempengaruhi peringkat obligasi pada perusahaan manufaktur. *Jurnal Manajemen dan Bisnis Sriwijaya*, 13(2), 271-282.
- [77] Viviani, J. (2008). Capital structure determinants: An empirical study of French companies in the wine industry. *International Journal of Wine Business Research*, 20(2), 171–194. <http://doi:10.1108/17511060810883786>
- [78] Vo, X. (2017). Determinants of capital structure in emerging markets: Evidence from Vietnam. *Research in International Business and Finance*, 40, 105–113. <http://doi:10.1016/j.ribaf.2016.12.001>
- [79] Wellalage, N. H., & Locke, S. (2015). Impact of ownership structure on capital structure of new zealand unlisted firms. *Journal of Small Business and Enterprise Development*, 22(1), 7–142. <https://doi.org/10.1108/JSBED09-2011-0004>
- [80] Weniasti, A., & Marsoem, B. S. (2019). The Effect of Bonds Rating, Profitability, Leverage, and Firm Size on Yield to maturity Corporate Bonds. *International Journal of Innovative Science and Research Technology*,
- [81] Wild, J.J, Chiappetta, B, Shaw, K, W 2009 *Financial and Managerial Accounting: Information for Decisions* (3rd Edition), McGraw-Hill/Irwin
- [82] Winoto, A, Haymans M.A, Denniswara, K & Angelus, M (2022), Analysis of Capital Structure Determinants of Property Companies Listed on Indonesia Stock Exchange Using Internal, External, and Lag-One Variables to Measure Speed of Adjustment, *ACM International Conference Proceeding Series*, pp.12-17, <http://DOI 10.1145/3528114.3528117>
- [83] Zafar, Q., Wongsurawat, W., & Camino, D. (2019). The determinants of leverage decisions: Evidence from Asian emerging markets. *Cogent Economics & Finance*, 7(1), 1598836, <http://DOI: 10.1080/23322039.2019.1598836>.