

## **THE EFFECT OF BOND RATING, DEBT TO EQUITY RATIO, LIQUIDITY, AND SBI INTEREST RATES ON CORPORATE BOND YIELD TO MATURITY**

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**Abstract:** Judging from Indonesia's investment opportunities every year, the average investment opportunity has increased from year to year. This proves that Indonesia's investment activities should be given primary attention, both when the country's economy is deteriorating and when the country's economy is improving. The aim of this research is to determine the development of bond ratings, debt to equity ratio, liquidity, SBI interest rates on the yield to maturity of corporate bonds listed on the IDX for the 2017-2021 period and to determine the influence of bond ratings, debt to equity ratio, liquidity, SBI interest rates partially and simultaneously on the yield to maturity of corporate bonds. The analytical method used is the descriptive method and verification method with a sample of 7 companies. The results show that partially the bond rating and SBI interest rate variables have a positive and significant effect on yield to maturity, while the debt to equity ratio and liquidity variables have no significant effect on yield to maturity and simultaneously there is at least one independent bond rating variable, debt to Equity ratio, liquidity and SBI interest rates influence the yield to maturity of corporate bonds. This conclusion provides important insight into the factors that can influence the yield to maturity of corporate bonds on the IDX, which can be a guide for market players and companies in making financial decisions.

**Keywords:** Bond rating, debt to equity ratio, liquidity, SBI interest rate and yield to maturity (YTM)

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### **INTRODUCTION**

The capital market has a big role in a country's economy, carrying out two functions at once, namely the financial function and the economic function. The function of finance is to provide the funds required by the issuer and by investors to provide funds without being directly involved in the ownership of real assets required for investment. Meanwhile, the economic function is to provide facilities to move funds from parties who have excess funds (investors) to parties who need funds (issuers).

Septiyanto (2016) states that Yield To Maturity is the level of profit that investors will receive if they buy bonds at the current market price and hold the bonds until maturity. An investor who buys a bond and holds it until the bond matures will receive the Yield To Maturity found on the date of purchase, but the calculated Yield To Maturity of the bond will often change between the purchase date and the maturity date. Yield To Maturity can be interpreted as the compound rate of return that investors will receive if they buy bonds at the current market price and hold the bonds until maturity.

According to Dayanti & Janiman (2019) that Yield to maturity is the rate of return from bonds purchased at the current market price and held until maturity. According to Fauzan (2020) that bond ratings are character symbols given by rating agents to indicate the risk of

bonds. Based on the opinions of the experts above, it can be concluded that a bond rating is a value that reflects the possibility of default on a bond. According to Cashmere (2019) *Debt To Equity Ratio* is a financial ratio used to assess a company's debt versus equity. This ratio is to determine the total funds provided by the borrower or (creditor) and the company owner. According to Harry (2017) Liquidity is the company's ability to pay off short-term liabilities, while short-term liabilities or current debt is debt that will be paid off within one year. Bank Indonesia's reference interest rate is the policy interest rate which reflects the monetary policy determined and issued by Bank Indonesia announced to the public.

**Table 1. Sample Data of Corporate Bond Companies registered on the IDX for the 2017-2021 period**

No	Code	Name of the bond issuing company	Listings Outstanding
1	BBCA	BankCentral Asia Continuous Subordinated Bonds I Phase I 2018 Series A	435,000
		BankCentral Asia Phase I Sustainable Subordinated Bonds I Year 2018 Series B	65,000
2	BJBR	Bank BJB Continuous Subordinated Bonds I Phase I 2017 Series B	693,000
		Bank BJB Sustainable Bonds I Phase I 2017 Series C	780,000
		Bank BJB Continuous Bond I Phase III 2018 Series B	916,500
		Bank BJB Continuous Bond I Phase III 2019 Series B	108,000
		Bank BJB Continuous Bond I Phase III 2019 Series C	74,000
		BankBJB II Sustainable Subordinated Bonds Phase I 2020 Series A	132,000
		BankBJB II Sustainable Subordinated Bond II Phase II Year 2020 Series A	162,580
		Bank BJB II Sustainable Subordinated Bonds Phase I 2020 Series B	368,000
		Bank BJB Continuous Subordinated Bonds II Phase II 2020 Series B	337,420
3	BMRI	Bank Mandiri Sustainable Bonds I Phase II 2017 Series B	3,000,000
		Bank Mandiri Sustainable Bonds I Phase II 2017 Series C	1,000,000
		IIBank Mandiri Sustainable Bonds Phase I 2020 Series A	350,000
		IIBank Mandiri Sustainable Bonds Phase I 2020 Series A	650,000
4	KAII	Indonesian Railways Bond I 2017 Series B	1,000,000
		Indonesian Railways Bond II 2019 Series A	900,000
		Indonesian Railways Bond II 2019 Series B	1,100,000
5	SGRO	Sampoerna Agro Sustainable Bonds I Phase I 2020 Series A	208,500
		Sampoerna Agro Sustainable Bonds I Phase I 2020 Series B	91,500
		Sampoerna Agro Sustainable Bonds I Phase II 2021 Series A	127,665

No	Code	Name of the bond issuing company	Listings Outstanding
		Sampoerna Agro Sustainable Bonds I Phase II 2021 Series B	46,950
6	SMGR	Semen Indonesia Sustainable Bonds I Phase II 2019 Series A	3,364,000
		Semen Indonesia Sustainable Bonds I Phase II 2019 Series B	714,000
7	WIKA	Sustainable Bonds I Wijaya Karya Phase II 2020 Series A	331,000
		Sustainable Bonds I Wijaya Karya Phase II 2020 Series B	429,000
		Sustainable Bonds I Wijaya Karya Phase II 2020 Series C	740,000
		Sustainable Bonds I Wijaya Karya Phase II 2021 Series A	495,000
		Sustainable Bonds I Wijaya Karya Phase II 2021 Series B	745,000
		Sustainable Bonds I Wijaya Karya Phase II 2021 Series C	1,295,500

Source:(Idx 2022)

From table 1, it can be seen that the highest corporate bond data for PT Bank Mandiri Tbk in 2017 series B was 3,000,000 and the lowest was for PT Sampoerna Agro Tbk in 2021 series B at 46,950.

**Table 2. Bond Rating Scale Data**

No	Company name	Bond Code	Publication Year	Bond Ratings	Bond Rating Scale
1	Bank Central Asia Tbk	BBCA01BSBCN1	2018	IdAA	18
		BBCA01BSBNC1	2018	IdAA	18
2	Regional Development Bank of West Java and Banten Tbk	BJBR01BSBCN1	2017	IdA	15
		BJBR01CCN1	2017	IdAA-	17
		BJBR01BCN2	2018	IdAA-	17
		BJBR01BCN3	2019	IdAA-	17
		BJBR01CCN3	2019	IdAA-	17
		BJBR 02ASBCN1	2020	IdA	15
		BJBR02ASBCN2	2020	IdA	15
		BJBR02BSBCN1	2020	IdA	15
		BJBR02BSBCN2	2020	IdA	15
3	Bank Mandiri Tbk	BMRI 01BCN2	2017	IdAAA	20
		BMRI 01 CCN2	2017	IdAAA	20
		BMRI 02ACN1	2020	IdAAA	20
		BMRI 02 BCN1	2020	IdAAA	20
4	Indonesian Railways Tbk	KAI01B	2017	idAA+	19
		KAI 02A	2019	idAA+	19
		KAI 02B	2019	idAA+	19
5	Sampoerna Agro Tbk	SGRO 01 ACN1	2020	IdA-	14
		SGRO 01 BCN1	2020	IdA-	14
		SGRO 01 ACN1	2021	IdA-	14
		SGRO 01 BCN2	2021	IdA-	14
6	Indonesian Cement	SMGR 01 ACN2	2019	IdAA+	19
		SMGR 01 BCN2	2019	IdAA+	19
		WIKA 01 ACN1	2020	IdA	15
		WIKA 01 BCN1	2020	IdA	15

No	Company name	Bond Code	Publication Year	Bond Ratings	Bond Rating Scale
		WIKA 01CCN1	2020	IdA	15
		WIKA 01 ACN2	2021	IdA	15
		WIKA 01 ACN2	2021	IdA	15
		WIKA 01 CCN2	2021	IdA	15

Source:(Book, 2022)

From table 2, you can see the bond rating data for the corporate bond companies used as research samples for the 2017-2021 period. From this data it can be seen that the company that has the highest bond rating value is PT Bank Mandiri Tbk, namely in 2017 and 2020 it has a bond rating value scale of 20. Then the company that has the lowest bond rating value is PT Sampoerna Agra Tbk in 2020 and 2021 with a rating value 14.

**Table 3. Data on Debt to Equity Ratio in Corporate Bond Companies in the 2017-2021 period (In Millions of Rupiah)**

No	Code	Year	Total Debt	Total Equity	DER (%)
1	BBCA	2017	614,940,262	131,401,694	4.68
		2018	668,438,779	151,753,427	4.40
		2019	740,067,127	174,143,156	4.25
		2020	885,537,919	184,714,709	4.79
		2021	1,019,773,758	202,848,680	5.03
2	BJBR	2017	98,820,526	10,104,975	9.78
		2018	104,035,920	11,285,315	9.22
		2019	105,920,991	12,042,629	8.80
		2020	122,676,884	12,005,800	10.22
		2021	137,955,374	13,084,033	10.54
3	BMRI	2017	888,026,817	170,006,132	5.22
		2018	941,953,100	184,960,305	5.09
		2019	1,025,749,580	209,034,525	4.91
		2020	1,151,267,847	193,796,083	5.94
		2021	1,326,592,273	222,111,282	5.97
4	KAI	2017	20,438,591	13,009,813	1.57
		2018	20,695,703	18,300,055	1.13
		2019	25,099,922	19,805,624	1.27
		2020	36,167,089	17,039,979	2.12
		2021	39,357,086	23,411,740	1.68
5	SGRO	2017	4,279,656	4,005,042	1.07
		2018	4,989,995	4,028,849	1.24
		2019	5,314,244	4,152,698	1.28
		2020	5,948,624	3,796,056	1.57
		2021	5,154,666	4,596,699	1.12
6	SMGR	2017	18,524,450	30,439,052	0.61
		2018	18,419,594	32,736,295	0.56
		2019	43,915,143	33,891,924	1.30
		2020	40,571,674	35,653,335	1.14
		2021	34,940,122	39,782,883	0.88
7	WIKA	2017	31,051,949	14,631,824	2.12
		2018	42,014,686	17,215,314	2.44
		2019	42,895,114	19,215,732	2.23
		2020	5,118,444,300	3,390,572,999	1.51
		2021	51,950,716	17,435,077	2.98

Source:(Annual report Data processed, 2022a)

Table 3 data You can find out the debt to equity ratio data for corporate bond companies used as research samples for the 2017-2021 period. From this data, it can be seen that the company that has the highest total debt is PT Wijaya Karya Tbk in 2020, amounting to 5,118,444,300. And PT Sampoerna Agro Tbk had the lowest debt in 2017 of 4,279,656. And from table 3 it has the highest total equity PT Wijaya Karya Tbk in 2020 amounted to 3,390,572,999. And having the lowest total equity is PT PT Sampoerna Agro Tbk in 2020 amounted to 3,796,056.

**Table 4. Liquidity Data for Corporate Bond Companies in the 2017-2021 period (In Millions of Rupiah)**

No	Code	Year	Current asset	Current Debt	Current Ratio (%)
1	BBCA	2017	718,249,003	614,940,262	1.17
		2018	788,261,716	667,938,779	1.18
		2019	880,424,895	739,567,127	1.19
		2020	1,031,349,990	885,031,962	1.17
		2021	1,154,264,119	1,010,280,237	1.14
2	BJBR	2017	109,752,357	97,715,184	1.12
		2018	114,809,863	102,928,930	1.12
		2019	117,701,451	104,755,178	1.12
		2020	134,167,980	120,684,177	1.11
		2021	151,010,754	134,766,882	1.12
3	BMRI	2017	1,065,102,090	887,835,316	1.20
		2018	1,137,389,395	941,953,100	1.21
		2019	1,249,611,097	1,025,749,580	1.22
		2020	1,349,205,347	1,151,267,847	1.17
		2021	1,637,152,317	1,326,592,237	1.23
4	KAI	2017	12,248,380	6,539,213	1.87
		2018	8,950,940	7,251,783	1.23
		2019	6,898,723	8,113,387	0.85
		2020	9,164,500	9,281,616	0.99
		2021	9,706,681	9,574,299	1.01
5	SGRO	2017	1,394,054	1,247,463	1.12
		2018	1,591,686	1,732,828	0.92
		2019	1,459,713	2,510,980	0.58
		2020	1,377,714	1,887,060	0.73
		2021	1,397,536	1,279,741	1.09
6	SMGR	2017	13,801,818	8,803,577	1.57
		2018	16,007,685	8,202,837	1.95
		2019	16,658,531	12,240,252	1.36
		2020	15,564,604	11,506,163	1.35
		2021	15,270,235	14,210,166	1.07
7	WIKA	2017	34,910,108	29,975,617	1.16
		2018	43,555,495	28,251,951	1.54
		2019	42,335,471	30,349,456	1.39
		2020	5,248,208,303	4,706,620,585	1.12
		2021	37,186,634	36,969,569	1.01

Source: (Annual report Data processed, 2022)

Table 4 data You can find out liquidity data on corporate bond companies used as research samples for the 2017-2021 period. From this data, it can be seen that the company that has the highest current assets is PT Wijaya Karya Tbk in 2020, amounting to 5,248,208,303. And has the lowest current assets of PT Sampoerna Agro Tbk in 2020 of 1,377,714. And from table 4 it has the highest current debt PT Wijaya Karya Tbk in 2020

amounted to 4,706,620,585. And having the lowest total equity is PTPT Sampoerna Agro Tbk in 2017 amounted to 1,247,463.

**Table 5**

**SBI Interest Rate Data on Corporate Bond Companies in the 2017-2021 period (%)**

Year	2017	2018	2019	2020	2021
BI Rate Interest Rate	4.25	6.00	5.00	3.75	3.50

Source : (Bank Indonesia, 2022)

From table 5 data, you can see that the highest SBI interest rate data was in 2018 at 6.00% and the lowest was in 2020 at 3.75%.

**Table 6. Yield To Maturity Data for Corporate Bond Companies which are registered on the IDX for the 2017-2021 period**

No	Company name	Bond Code	Publication Year	Bond Value (Rupiah)	Yield To Maturity (%)
1	Bank Central Asia Tbk	BBCA01BSBCN1	2018	435,000	7.0983
		BBCA01BSBNC1	2018	65,000	8.4033
2	Regional Development Bank of West Java and Banten Tbk	BJBR01BSBCN1	2017	693,000	9.2611
		BJBR01CCN1	2017	780,000	7.4315
		BJBR01BCN2	2018	916,500	6.8415
		BJBR01BCN3	2019	108,000	7.3722
		BJBR01CCN3	2019	74,000	8.1291
		BJBR 02ASBCN1	2020	132,000	9.3780
		BJBR02ASBCN2	2020	162,580	9.6958
		BJBR02BSBCN1	2020	368,000	10.1827
		BJBR02BSBCN2	2020	337,420	10.4083
3	Bank Mandiri Tbk	BMRI 01BCN2	2017	3,000,000	6.0349
		BMRI 01 CCN2	2017	1,000,000	7.0046
		BMRI 02ACN1	2020	350,000	7.3015
		BMRI 02 BCN1	2020	650,000	7.0367
4	Indonesian Railways Tbk	KAI01B	2017	1,000,000	6.3667
		KAI 02A	2019	900,000	6.3924
		KAI 02B	2019	1,100,000	7.1143
5	Sampoerna Agro Tbk	SGRO 01 ACN1	2020	208,500	9.2519
		SGRO 01 BCN1	2020	91,500	9.9363
		SGRO 01 ACN1	2021	127,665	9.7566
		SGRO 01 BCN2	2021	46,950	10.6987
6	Semen Indonesia Tbk	SMGR 01 ACN2	2019	3,364,000	6.1486
		SMGR 01 BCN2	2019	714,000	6.9379
7	Wijaya Karya Tbk	WIKA 01 ACN1	2020	331,000	8.6391
		WIKA 01 BCN1	2020	429,000	9.7312
		WIKA 01CCN1	2020	740,000	10.4334
		WIKA 01 ACN2	2021	495,000	8.8413
		WIKA 01 ACN2	2021	745,500	9.8147
		WIKA 01 CCN2	2021	1,295,500	10.4933

Source : (Idx, 2022)

In table 6 data, you can see the highest yield to maturity (bond value) data at PT Semen Indonesia Tbk in 2019 amounted to 3,364,000 and the lowest bond value was at PT Sampoerna Agro Tbk in 2021 amounting to 46,950.

This research aims to analyze the development of bond ratings, debt to equity ratio, liquidity, SBI interest rates, and yield to maturity of corporate bonds listed on the Indonesia Stock Exchange (BEI) during the 2017-2021 period. Apart from that, the research also aims to evaluate the influence of bond ratings, debt to equity ratio, liquidity and SBI interest rates partially on the yield to maturity of corporate bonds. Furthermore, this research also involves analyzing the simultaneous impact of bond ratings, debt to equity ratio, liquidity, and SBI interest rates on the yield to maturity of corporate bonds on the IDX during the same period.

### ***Yield To Maturity***

Bond ratings (bondrating) are character symbols given by rating agents to indicate the risk of a bond. Based on the opinions of the experts above, it can be concluded that a bond rating is a value that reflects the possibility of default on a bond.

$$YTM = \frac{C + \frac{F - P}{n}}{\frac{p + f}{2}}$$

Source :(Fahmi 2018)

### **Bond Ratings**

Bond ratings (bondrating) are character symbols given by rating agents to indicate the risk of a bond. Based on the opinions of the experts above, it can be concluded that a bond rating is a value that reflects the possibility of default on a bond.

### ***Debt to Equity Ratio***

*Debt To Equity Ratio* is a financial ratio used to assess a company's debt versus equity. This ratio is to determine the total funds provided by the borrower or (creditor) and the company owner.

$$DER = \frac{\text{Total Utang}}{\text{Total Ekuitas}}$$

Source :(Herry, 2017)

### **Liquidity**

Liquidity is the company's ability to pay off short-term liabilities, while short-term liabilities or current debt are debts that will be paid off within one year.

$$\text{Current Ratio} = \frac{\text{Aktiva Lancar}}{\text{Utang Lancar}}$$

Source :(Herry, 2017)

### **SBI Interest Rate**

Bank Indonesia's reference interest rate is the policy interest rate which reflects the monetary policy determined and issued by Bank Indonesia announced to the public.

$$\text{SBI Rate} = \text{SBI Interest Rate}$$

Source:(Bank Indonesia, 2022b)

## **METHOD**

### **Object of research**

The object of this research is the financial reports and corporate bond reports listed on the Indonesia Stock Exchange for the 2017-2021 period. The focus of this research is corporate bond companies listed on the Indonesia Stock Exchange for the 2017-2021 period.

### **Research methods**

The method used in this research is a quantitative research method, which means analysis based on the philosophy of positivism, used to research certain populations and samples, data collection using research instruments, data analysis is quantitative/statistical in nature. With the aim of testing the hypothesis that has been established (Sugiyono, 2019)

### **Data analysis method**

The analytical method used in this research is the descriptive method and verification method.

1. To answer the problem formulation, the first steps taken are to analyze the development of each variable (bond rating, debt to equity ratio, liquidity, SBI interest rate and yield to maturity).
2. To answer the second problem formulation, the steps that must be taken are to create a bond rating relationship model ( $X_1$ ), debt to equity ratio ( $X_2$ ), liquidity ( $X_3$ ), SBI interest rate ( $X_4$ ) on yield to maturity with multiple linear regression and conducting a partial test (t statistical test).
3. To answer the third problem formulation, the steps that must be taken are to carry out a coefficient of determination test ( $R^2$ ) and carry out tests simultaneously (F statistical test).

## **RESULTS AND DISCUSSION**

### **Multiple Linear Analysis Results**

Based on the SPSS version 26.0 software output results in table 6, the multiple linear regression equation is obtained as follows:

$$Y = 17,858 - 0.451X_1 + 0,054X_2 - 0.351X_3 - 0.522X_4$$

Information:

- Y : Yield To Maturity (YTM)  
 a : Constant  
 $b_1, b_2, b_3, b_4$  : Regression coefficient  
 $X_1$  : Bond Rating  
 $X_2$  : Debt To Equity Ratio  
 $X_3$  : Liquidity  
 $X_4$  : SBI Interest Rate  
 e : Error

**Table 7. Results of Multiple Linear Regression Analysis Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
		B	Std. Error	Beta		
1	(Constant)	17,858	,872		20,474	,000



	Bond Ratings	-.451	.059	-.753	-7,587	.000
	DER	.054	.032	.142	1,677	.124
	Liquidity	-.351	.471	-.067	-.744	.474
	SBI Interest Rate	-.522	.143	-.332	-3,663	.004

a. Dependent Variable: YTM

Source: Data processed by SPSS 2022

From the equation above it can be interpreted as follows:

1. A constant of 17,858 with positive parameters indicates that if the Debt To Equity Ratio, Liquidity and SBI interest rate values are 0, then *Yield To Maturity* (YTM) has a value of 17,858
2. Bond rating variable regression coefficient value ( $b_1$ ) has a negative value, namely -.451 This can be interpreted as meaning that every increase in the bond rating by 1 unit will reduce the response coefficient *Yield To Maturity* (YTM) of -.451 units assuming other independent variables have fixed values.
3. The regression coefficient value of the Debt To Equity Ratio variable ( $b_2$ ) has a positive value, namely .054 can be interpreted as meaning that every increase in the Debt To Equity Ratio by 1 unit will increase the response coefficient *Yield To Maturity* (YTM) of .054 units assuming other independent variables have constant values.
4. The regression coefficient value of the Liquidity variable ( $b_3$ ) has a negative value, namely -.351 This can be interpreted as meaning that every increase in liquidity by 1 unit will reduce the response coefficient *Yield To Maturity* (YTM) of -.351 units assuming other independent variables have constant values.
5. The regression coefficient value of the SBI Interest Rate variable ( $b_4$ ) is negative, i.e. -.522 This can be interpreted as meaning that every increase in the SBI interest rate by 1 unit will reduce the response coefficient *Yield To Maturity* (YTM) of -.522 units assuming other independent variables have constant values.

### Partial Test Results (t Test)

1. Testing the Bond Rating Coefficient. When looking at the output, the value obtained is equal to  $t_{hitung} -7,587$  significantly 000 and  $t_{tabel}$  which can be seen from the statistical table at a significance of  $0.05/2 = 0.025$  (two-sided test) with degrees of freedom  $df = n - k - 1$  or  $35 - 4 - 1 = 30$ , the results obtained are 2,042. So the value or  $(2.042 t_{tabel} \pm t_{tabel} > t_{hitung} > -7,587)$  and significant 0.05 ( $0, < 00 < 0.05$ ) then: rejected and accepted. This shows that there is a significant influence between the bond rating variables on Yield To Maturity (YTM).  $H_0 H_A$ .
2. Testing the Debt To Equity Ratio Coefficient. Where seen from the output, the value obtained is  $t_{hitung} 1,677$  with a significance of 0.124 and  $t_{tabel}$  which can be seen from the statistical table at a significance of  $0.05/2 = 0.025$  (two-sided test) with degrees of freedom  $df = n - k - 1$  or  $35 - 4 - 1 = 30$ , the results obtained are 2,042. So the value or (2.042) and significant is 0.05 (0.124) then: accepted and: rejected. This shows that there is no significant influence between the Debt To Equity Ratio variable on Yield To Maturity (YTM).  $t_{tabel} \pm t_{tabel} > t_{hitung} > 1.677 >> 0,05 H_0 H_A$
3. Liquidity Coefficient Testing Where looking at the output, a value of 0  $t_{hitung} - 744$  with a significance of 0.474 and  $t_{tabel}$  which can be seen from the statistical table at a significance of  $0.05/2 = 0.025$  (two-sided test) with degrees of freedom  $df = n - k - 1$  or  $35 - 4 - 1 = 30$ , the results obtained are 2,042. So the value or (2.042) and significant 0.05 ( $t_{tabel} \pm t_{tabel} > t_{hitung} > -744 > 0.474 > 0.05$ ) then: accepted and:

rejected. This shows that there is no significant influence between the Liquidity variable on Yield To Maturity (YTM).  $H_0 H_A$

4. Testing the SBI Interest Rate Coefficient. Where seen from the output, the value obtained is  $t_{hitung} - 3.663$  with a significance of 0.004 and  $t_{tabel}$  which can be seen from the statistical table at a significance of  $0.05/2 = 0.025$  (two-sided test) with degrees of freedom  $df = n - k - 1$  or  $35 - 4 - 1 = 30$ , the results obtained are 2,042. So the value or (2.042) and significant 0.05 (0.004) then: rejected and accepted. This shows that the SBI interest rate variable has a significant effect on Yield To Maturity (YTM).  $t_{hitung} \pm t_{tabel} < t_{hitung} - 3.663 \lll 0,05 H_0 H_A$

### Simultaneous Test Results (F Test)

**Table 8. Results of Simultaneous Test Analysis ANOVAa**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	23,186	4	5,796	38,602	,000b
	Residual	1,502	10	,150		
	Total	24,687	14			

a. Dependent Variable: YTM

b. Predictors: (Constant), SBI Interest Rate, Liquidity, DER, Bond Rating

Source: Data processed by SPSS 2022

Based on table 8, it is obtained  $F_{hitung} 38,602$  with a significant value of 0.000.  $F_{tabel}$  which can be seen in the statistical table with a level of 0.05 with  $(k - 1)$  or  $4 - 1 = 3$  ( $n - k$ ) or  $35 - 4 = 31$  ( $k$  is the number of variables) so that it is 2.68. So conclusion  $> \text{ordf}_1 F_{tabel} F_{hitung} F_{tabel} 38,602 > 2.68$  and the significance is smaller 0.05 ( $0.000 < 0.05$ ) so  $H_0$  rejected and accepted means that there is at least one variable  $H_a$

### Coefficient of Determination

**Table 9. Results of Determination Coefficient Analysis Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.969a	.939	.915	.38750

a. Predictors: (Constant), SBI Interest Rate, Liquidity, DER, Bond Rating

Source: Data processed by SPSS 2022

Table 9 shows that the value of the coefficient of determination (adjusted R square) is 0.915, which means that the contribution of the independent variables, namely the debt to equity ratio bond rating, liquidity and SBI interest rate to Yield To Maturity (YTM) is 91.5% while the remaining 8, 5% ( $100\% - 8.5\%$ ) is contributed by other variables not examined in this research

### CONCLUSION

The analysis results show that bond ratings and SBI interest rates have a significant influence on the yield to maturity on corporate bonds listed on the Indonesia Stock Exchange (BEI) during the 2017-2021 period. On the other hand, the debt to equity ratio and liquidity variables do not have a significant influence on yield to maturity. These findings provide an indication that factors such as the credibility of bond ratings and SBI interest rates play a crucial role in determining the yield to maturity of corporate bonds. The F test results also

reveal that at least one of the independent variables included in this study has an effect on yield to maturity, with a coefficient of determination reaching 91.5%. The remaining 8.5% of variability can be attributed to other factors not examined in this study. This conclusion provides important insight into the factors that can influence the yield to maturity of corporate bonds on the IDX, which can be a guide for market players and companies in making financial decisions.

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