

## ATTACHMENT

### Determinant Factors of Bond Ratings (Study on Property and Building Construction Companies Listed on the Indonesia Stock Exchange in 2013-2017)

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**Abstract:** Bond ratings provide signal about the probability of a company's default. However, the rating issued by the agency rating was inconsistent due to the bias information. The purpose of this research was to determine whether there was an effect of profitability, leverage, liquidity, and firm size on company's bond ratings by using logistic regression analysis. The sampling method was census with criteria. The research objects were 9 properties and building construction companies listed on the Indonesia Stock Exchange, had bonds payable from 2013 to 2017, and were categorized as investment grade.

The research findings indicated that leverage and firm size had significant effects on the company's bond ratings. On the other hand, liquidity did not have a significant effect on the company's bond rating. However, inconsistent results were shown on leverage. Leverage that was measured by ICR (interest coverage ratio) showed that it had a relationship with the company's bond rating, while the leverage measured by DER (debt to equity ratio) did not affect the company's bond rating. Based on the four independent variables, profitability was the most dominant variable affecting the company's bond rating.

**Keywords:** bond ratings, logistic regression, profitability, leverage, liquidity, firm size

**Abstrak:** Peringkat obligasi dapat memberikan sinyal tentang probabilitas kegagalan perusahaan dalam membayar hutangnya. Namun, peringkat yang dikeluarkan oleh lembaga pemeringkat tidak konsisten karena adanya informasi bias. Tujuan dari penelitian ini adalah untuk menentukan apakah ada pengaruh dari profitabilitas, leverage, likuiditas, dan ukuran perusahaan terhadap peringkat obligasi perusahaan dengan menggunakan analisis regresi logistik. Metode pengambilan sampel menggunakan *census with criteria*. Objek penelitian terdiri dari 9 perusahaan konstruksi properti dan bangunan yang terdaftar di Bursa Efek Indonesia, memiliki utang obligasi dari tahun 2013-2017, dan tergolong dalam kategori *investment grade*.

Hasil temuan dalam penelitian ini menunjukkan bahwa *leverage* dan ukuran perusahaan berpengaruh signifikan terhadap peringkat obligasi perusahaan. Sedangkan likuiditas tidak memiliki pengaruh yang signifikan terhadap peringkat obligasi perusahaan. Namun hasil yang tidak konsisten ditunjukkan pada *leverage*. Dimana *leverage* yang diukur dengan ICR (*interest coverage ratio*) menunjukkan memiliki hubungan dengan peringkat obligasi perusahaan, sedangkan *leverage* yang diukur dengan DER (*debt to equity ratio*) tidak memiliki pengaruh terhadap peringkat obligasi perusahaan. Berdasarkan keempat variabel *independent* tersebut, profitabilitas merupakan variabel yang paling dominan mempengaruhi peringkat obligasi perusahaan.

**Kata Kunci:** peringkat obligasi, regresi logistik, profitabilitas, *leverage*, likuiditas, ukuran perusahaan

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
BR	115	1	15	7.64	4.739
ROA	115	-49.92	76.05	1.2190	9.90184
DER	115	-10.83	21.12	2.2978	3.39594
SIZE	115	10.26	18.87	16.1830	1.70722
Valid N (listwise)	115				

Correlations					
		BR	ROA	DER	SIZE
Pearson Correlation	BR	1.000	0.374	-0.103	0.308
	ROA	0.374	1.000	0.125	0.002
	DER	-0.103	0.125	1.000	-0.089
	SIZE	0.308	0.002	-0.089	1.000
Sig. (1-tailed)	BR		0.000	0.137	0.000
	ROA	0.000		0.091	0.493
	DER	0.137	0.091		0.173
	SIZE	0.000	0.493	0.173	
N	BR	115	115	115	115
	ROA	115	115	115	115
	DER	115	115	115	115
	SIZE	115	115	115	115

Variables Entered/Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	SIZE, ROA, DER <sup>b</sup>		Enter

a. Dependent Variable: BR

b. All requested variables entered.

Model Summary <sup>b</sup>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	
1	.500 <sup>a</sup>	0.250	0.230	4.159	0.250	

a. Predictors: (Constant), SIZE, ROA, DER

b. Dependent Variable: BR

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	640.199	3	213.400	12.336	.000 <sup>b</sup>
	Residual	1920.184	111	17.299		
	Total	2560.383	114			

a. Dependent Variable: BR

b. Predictors: (Constant), SIZE, ROA, DER

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-5.498	3.760		-1.462	0.147		
	ROA	0.186	0.040	0.389	4.700	0.000	0.984	1.016
	DER	-0.175	0.116	-0.126	-1.510	0.134	0.976	1.024
	SIZE	0.823	0.229	0.296	3.592	0.000	0.992	1.008

a. Dependent Variable: BR

Collinearity Diagnostics <sup>a</sup>							
Model		Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	ROA	DER	SIZE
1	1	2.466	1.000	0.00	0.01	0.06	0.00
	2	0.973	1.592	0.00	0.95	0.00	0.00
	3	0.555	2.107	0.00	0.04	0.92	0.00
	4	0.005	21.398	1.00	0.00	0.02	1.00

a. Dependent Variable: BR