

# THE EFFECT OF RETURN ON ASSET, DEBT TO EQUITY RATIO AND CURRENT RATIO ON PRICE TO BOOK VALUE (CASE STUDY ON FOOD AND BEVERAGE SUBSECTOR COMPANIES LISTED ON THE INDONESIAN STOCK EXCHANGE PERIOD 2019-2021)

Dinatonia Joverly Matruty<sup>1</sup>, Lilian Sonya Loppies<sup>2</sup>, Medellin Jesica Lawalata<sup>3</sup>  
<sup>1,2,3</sup>Department of Management, Pattimura University

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## ARTICLE INFO

### Keywords:

Return On Assets,  
Debt to Equity Ratio,  
Current Ratio,  
Price to Book Value.

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## ABSTRACT

This research aims to determine the effect of return on assets, debt to equity ratio and current ratio to *Price to Book Value* in Food and Beverage companies listed on the Indonesia Stock Exchange (BEI) in 2019-2021. Companies listed on the Indonesia Stock Exchange (BEI) in the food and beverage subsector from 2019 to 2021 constitute the population of this research. Purposive sampling was used for this research, resulting in a research sample of 30 companies. This research uses secondary data obtained from the official website of the Indonesian Stock Exchange ([www.idx.co.id](http://www.idx.co.id)). The E-Views 9 tool was used to perform panel data regression analysis on the data collected in this research. According to research results, ROA has a positive and significant effect on Price to Book Value. DER has a positive and significant effect on PBV and CR has a negative and insignificant effect on PBV.

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### E-mail:

[dinatonia\\_matruty@yahoo.com](mailto:dinatonia_matruty@yahoo.com)

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## 1. INTRODUCTION

Companies operating in the food and beverage industry are experiencing substantial growth. This development is due to the large demand for food and drinks. This is not surprising considering the generally consumerist nature of Indonesian society (Azizah & Widyawati, 2021). The food and beverage industry will always be a better sector because this industry is a non-cyclical sector. The non-cyclical sector or often referred to as the defensive sector is a sector that is resistant to economic crises, where the company's performance usually does not depend on economic conditions. The conditions in question include GDP growth, interest rate fluctuations, and various other factors (Smart, 2016). Even though Indonesia experienced an economic crisis in 2019 due to the Covid pandemic, the production process at food and beverage companies will continue to run smoothly. This is because in any condition, consumers always need food and drink.

The goal of a company is to maximize its value. The value in question is how much money investors can pay if one day the company is bought and sold. Based on this, it can be concluded that the higher the value, the bigger the offer offered to the company owner. Before investing in a company, investors tend to engage in comprehensive research pertaining to the prevailing market conditions and business environment of the target company. Additionally, they conduct careful analysis of financial statements. Companies that have effective management usually have a PBV ratio that exceeds the threshold of 1, this indicates a good level of prosperity for the company owners. (Marantika, 2012). Based on the data presented from the company's annual financial report, it can be seen that there has been a decline in the value of companies operating in the food and beverage sector. This can be seen from the large PBV ratio of food and beverage companies which in the 2019-2021 period experienced decline in company value as depicted in table 1.

**Table 1.** Average Value of Food and Beverage Companies as measured by Price to Book Value (PBV) 2019-2021

Year	Average PBV
2019	3.29084
2020	2.74452
2021	2.66734

The decline in company value as in table 1 can be caused by many factors, including those related to growth in company assets, growth in company sales, company size, financial risk, managerial ownership, company ownership, and the performance of the company itself. Of the many factors that the author has described, according to (Utami & Welas, 2019), company performance is considered to have a big influence on whether a company's value is large or not. This is supported by the statement that when a company's PBV ratio continues to increase, its performance will also increase accordingly.

What companies do to increase their value is to focus on improving performance. Measuring company performance from a financial perspective can be done by analyzing financial ratios. The purpose of this ratio is as a basis for evaluating and identifying the financial position of a company to make decisions (Suwandi et al., 2022). Many different ratios are used in financial analysis reports to evaluate the success or failure of a business. Common examples of these ratios are those that measure profitability, solvency/leverage, liquidity, and market performance (Student, 2021).

ROA is a profitability ratio that is widely used in the field of financial analysis, often used to evaluate company performance. This ratio relates to the company's capacity to generate returns on the assets used (Frederica, 2019). The amount of profitability achieved by a company can have an impact on the value of the company. If a company has large or stable profits, the company has the potential to attract significant investor interest because of the profits that investors can obtain. The company's ability to generate large profits will foster a perception of trust among investors.

The debt to equity ratio (DER) is a ratio to measure a company's financial health. The DER value ranges which means that the company is in a healthy condition and is able to pay its debts if undesirable circumstances occur, such as bankruptcy. When a company's debt exceeds its capital, it is likely to face difficulties. This phenomenon can be attributed to the fact that a large part of the income generated is allocated to debt repayment, especially of a short-term nature  $\leq 1$  (Frederica, 2019). *Current Ratio* 200% is considered sufficient and if liquidity occurs, the company can easily convert assets into money to meet these obligations. When a company's current ratio (CR) is high, it means investors and shareholders place a high value on the business. The ability to meet financial obligations is demonstrated, in particular, by a high current value ratio, thus attracting investors to invest their capital (Maldina et al., 2021).

Based on the results of research conducted by previous researchers including: (Azizah & Widyawati, 2021), (Raindraputri & Wahyuati, 2019), (Frederica, 2019), ROA is stated to have a positive and significant effect on PBV. But it's different from research (Oktaviani & Dara, 2022), which shows that ROA has no influence on PBV. From research conducted by (Azizah & Widyawati, 2021), (Raindraputri & Wahyuati, 2019), (Oktaviani & Dara, 2022), (Andrianti & Dara, 2022) The research results show that DER has a significant and positive influence on Price to Book Value (PBV). However, this statement contradicts the results of research from Frederica (2019), which did not find any significant influence of DER on PBV. Raindraputri and Wahyuati (2019) and Oktaviani and Dara (2022) stated that CR has an effect on PBV but the results of other studies state that there is no significant relationship between CR and PBV, as shown by the research of Azizah and Widyawati (2021) and Frederica (2021). 2019).

### Research purposes

Based on the phenomena that occur and to explore differences in previous research results, this research was conducted with the aim of:

1. To determine the effect of Return On Assets (ROA) on Price to Book Value (PBV) in Food & Beverage companies listed on the Indonesian stock exchange for the 2019-2021 period.
2. To determine the effect of Debt to Equity Ratio (DER) on Price to Book Value (PBV) in Food & Beverage companies listed on the Indonesian stock exchange for the 2019-2021 period.

3. To determine the influence of the Current Ratio (CR) on Price to Book Value (PBV) in Food & Beverage companies listed on the Indonesian stock exchange for the 2019-2021 period.

## 2. METHOD

Annual financial reports on food and beverage companies listed on the Indonesia Stock Exchange from 2019 to 2021 are used as secondary data in this quantitative type of research. Purposive sampling was used in this research, which involves taking a small sample based on certain criteria. Panel data was processed with the help of E-Views 9 software. Combining cross-sectional (individual) with time-series methods produced a panel data regression model in this study.

## 3. RESULTS AND DISCUSSION

### Descriptive Statistics2

**Table 2.** Descriptive Statistics

Date: 06/20/23  
Time: 19:31  
Sample: 2019 2021

	PBV	ROA	DER	CR
Mean	2.900899	0.085623	0.838651	2.817292
Median	1.916128	0.070873	0.753981	2.080367
Maximum	28.49764	0.416320	2.299672	13.30906
Minimum	0.336875	0.000526	0.121670	0.731924
Std. Dev.	3.662394	0.065891	0.587736	2.449788
Observations	90	90	90	90

Based on the results of the descriptive statistical analysis shown in table 2 above, the interpretation of the output results is as follows:

- a. In the PBV variable, the company with a maximum value of 28.49764 is MLBI and the company with a minimum value of 0.336875 is BUDI.
- b. In the ROA variable, the company with a maximum value of 0.416320 is MLBI and the company with a minimum value of 0.000526 is SKBM.
- c. In the DER variable, the company with a maximum value of 2.299672 is TBLA and the company with a minimum value of 0.121670 is CAMP.
- d. In the CR variable, the company with a maximum value of 13.30906 is CAMP and the company with a minimum value of 0.731924 is MLBI.

### Regression Model Selection

- a. Chow Test (CEM vs FEM)

**Table 3.** Chow Test Results

#### Hasil Uji Chow

Redundant Fixed Effects Tests  
Equation: FEM  
Test cross-section fixed effects

Effects Test	Statistic	d.f	Prob.
Cross-section F	9.890429	(29,57)	0.0000
Cross-section Chi-square	161.736665	29	0.0000

The chow test results in table 3 show that the value of Prob. F is  $0.00 < 0.05$ . Based on the rules of decision making, then  $H_0$  rejected or chose the fixed effect model rather than the common effect model.

- b. Hausman Test (FEM vs REM)

**Table 4.** Housman Test Results

**Hasil Uji Hausman**

Correlated Random Effects - Hausman Test  
 Equation: REM  
 Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f	Prob.
Cross-section random	3.806926	3	0.2831

The chi square probability of 0.2831 is greater than the significance level of 0.05 as shown in table 4. According to the criteria,  $H_0$  is accepted or chooses random effect rather than fixed effect model.

c. Lagrange Multiplier Test (CEM vs REM)

**Table 5.** LM Test Results

**Hasil Uji LM**

Lagrange Multiplier Tests for Random Effects  
 Null hypotheses: No effects  
 Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	45.35666 (0.0000)	0.536903 (0.4637)	45.89356 (0.0000)

Table 5 displays the results of the LM test, which shows that the probability value of 0.00 is smaller than the previously determined significance level of 0.05. So  $H_0$  rejected and accepted or chose the random effect model rather than the common effect model.  $H_a$

d. Interpretation of Panel Data Regression Models

**Table 6.** Regression Results

**Hasil Regresi Data Panel Model Terpilih: Random Effect Model (REM)**

Dependent Variable: PBV  
 Method: Panel EGLS (Cross-section random effects)  
 Date: 03/04/23 Time: 13:30  
 Sample: 2019 2021  
 Periods included: 3  
 Cross-sections included: 30  
 Total panel (balanced) observations: 90  
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.748509	1.034057	-0.723857	0.4711
ROA	33.44420	3.756070	8.904040	0.0000
DER	1.504617	0.638010	2.358297	0.0206
CR	-0.168965	0.169904	-0.994469	0.3228
Effects Specification				
			S.D.	Rho
Cross-section random			2.270572	0.7606
Idiosyncratic random			1.273710	0.2394
Weighted Statistics				
R-squared	0.485660	Mean dependent var		0.893813
Adjusted R-squared	0.467718	S.D. dependent var		1.753992
S.E. of regression	1.279671	Sum squared resid		140.8300
F-statistic	27.06820	Durbin-Watson stat		1.268979
Prob(F-statistic)	0.000000			
Unweighted Statistics				
R-squared	0.507980	Mean dependent var		2.900899
Sum squared resid	587.3582	Durbin-Watson stat		0.304261

Based on the selected regression model, namely the random effect model, the panel data regression model (table 6) is as follows;

$$Y = -0.748509 + 33.44420 ROA + 1.504617 DER - 0.168965 CR$$

Interpretation:

1) Effect of Return on Assets ( $X_1$ ) to Price to Book Value (Y)

Based on the tests carried out, it is known that the variable regression coefficient is 33.44420, with a probability value of 0.0000. The results of this research show that there is a positive and significant influence between return on assets and price to book value. The results of this research are in line with previous research conducted by Oktaviani and Dara (2022), Karyatun and Ardhana (2022), and Sari and Yudiantoro (2023). However, this is different from the results of research conducted by Andrianti and Dara (2022) and Irawan et al. (2019). This means that the results of this study indicate that the achievement of additional financial profits by a company has the potential to improve its overall performance. A high return on assets (ROA) value functions as an indicator of a company's ability to manage its assets efficiently to generate profits (Karyatun & Ardhana, 2022).

2) Influence of Debt to Equity Ratio ( $X_2$ ) to Price to Book Value (Y)

Based on the tests carried out, it is known that the regression coefficient for this variable is 1.504617, with a probability value of 0.0206. The results of this study show that there is a positive and significant relationship between debt to equity ratio and price to book value. The results of this research are consistent with previous scientific research conducted by Andrianti and Dara (2022) and Irawan et al. (2019), but deviates from research conducted by Santania and Jonnardi (2020). The results of this research indicate that DER affects PBV because with large debts the tax charged will be small so that cash outflow can be saved (Irawan et al. 2019).

3) Influence of Current Ratio ( $X_3$ ) to Price to Book Value (Y)

Statistical analysis leads to the conclusion that the variable regression coefficient should be set at -0.168965, with a corresponding probability value of 0.3228. There is a negative relationship found between the current ratio and price to book value, but the effect is not significant. In contrast to the results of research by Hadari et al. (2022), Irawan et al. (2019), and Elviana & HR (2020), the results of this research are in line with Kristianti (2022) and Frederica (2019). The presence of uncollectible accounts and unsold inventory can lead to a high current ratio. If this component exceeds other elements in the current assets category, it will definitely affect the company's current ratio, resulting in a higher value and creating the perception that the company is in a highly liquid state. (Frederica, 2019).

#### 4. CONCLUSION

Based on the analysis and discussion above, it is concluded: For 2019-2021, companies in the food and beverage sector listed on the Indonesia Stock Exchange have a positive and significant relationship between return on assets and price to book value. The research results show that during the 2019-2021 period, the price to book value of food and beverage companies listed on the Indonesia Stock Exchange has a positive and significant influence on the debt to equity ratio. Third, the research results show that from 2019 to 2021 the current ratio has a negative effect on the price to book value of food and beverage industry companies listed on the Indonesia Stock Exchange.

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