



## The Effect of Profitability and Capital Structure on Price Book Value with Dividend Payout Ratio as Moderating Variables in the Consumer Goods Industry Listed on the Stock Exchange Indonesia for 2017-2020

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### **Abstract**

This research aimed to analyze the effect of profitability and capital structure on price book value with dividend payout ratio as a moderating variable in the goods industry consumption listed on the Indonesia Stock Exchange for the period of 2017-2020. The population in this research were 51 Consumer Goods Industries listed on the Indonesia Stock Exchange for the period of 2017-2020. The sample of this research amounted to 60 financial reports from 15 Consumer Goods Industries listed on the Indonesia Stock Exchange for the period of 2017-2020. The data analysis tool used Partial Least Square (PLS). The results of the analysis showed that profitability (return on equity) had an effect on Price Book Value in the Consumer Goods Industry listed on the Indonesia Stock Exchange for the period of 2017-2020. Capital structure affected the Price Book Value of the Consumer Goods Industry listed on the Indonesia Stock Exchange for the period of 2017-2020. Dividend Payout Ratio had no effect on Price Book Value in the Consumer Goods Industry listed on the Indonesia Stock Exchange the period of 2017-2020. Dividend Payout Ratio did not moderate the effect of profitability (return on assets) on Price Book Value in the Consumer Goods Industry listed on the Indonesia Stock Exchange the period of 2017-2020. Dividend Payout Ratio moderated the effect of profitability (return on equity) on Price Book Value in the Consumer Goods Industry listed on the Indonesia Stock Exchange the period of 2017-2020. Dividend Payout Ratio did not moderate the effect of capital structure on Price Book Value in the Consumer Goods Industry listed on the Indonesia Stock Exchange the period of 2017-2020.

**Keywords:** *Profitability; Capital Structure; Price Book Value and Dividend Payout Ratio*

### **Introduction**

#### **Background**

Along with the passage of time when Indonesia entered the Corona Virus Disease (Covid-19) outbreak which was announced on March 2, 2020. The government in an effort to prevent the spread of

the Covid-19 outbreak by doing physical distancing by wearing masks, closing schools, doing work from home. During this pandemic, it had a significant impact on the Indonesian economy, which was also felt by the Consumer Goods Industry.

Since the Covid-19 pandemic has become a challenge for the business world, including the Consumer Goods Industry, which has resulted in the company's goals experiencing obstacles, especially a decline in Price Book Value. Price Book Value can be influenced by the company's share price in the capital market, if the company's share price in the capital market is stable and continue to increase in the long term means the company will experience good growth continuously in the future. There are several factors that affect the Price Book Value such as profitability and capital structure.

The Consumer Goods Industry can carry out its operating activities, it must be in a favorable condition or gain profitability. Companies with no profits will have difficulty getting capital from outside. The Consumer Goods Industry has high profitability, so investors will be interested in its shares so the profitability can affect the Price Book Value. The better the profitability listed on the company's income statement, the better the value of the company since the prosperity of shareholders lies in the company's share price. High profitability will provide an indication of good company prospects so it can attract investors to participate in increasing demand for shares. The increased demand for shares will cause the Price Book Value to increase and show the company's ability to pay dividends to investors is also high. The distribution of dividends to shareholders has an effect on Price Book Value in terms of stock prices since investors prefer returns from dividends.

One of the factors that affect the Price Book Value of the Dividend Payout Ratio. Dividend policy has become a problem at both the regulatory and practitioner levels recently. The problem come from whether a dividend policy should be applied or not. There are regulations regarding the payment of dividends, although it is also stated that paying dividends is not an obligation that must be carried out by the company. This was decided at the General Meeting of Shareholders (Kusnadi and Tandika, 2018:477).

Profitability measures the company's ability to generate profits. Companies with high levels of profitability reflect high company values, and vice versa. In addition to the level of profitability, investors usually also focus their attention on dividend policy. This is because the companies' value can also be reflected in the company's ability to pay dividends to its shareholders. The amount of cash dividends distributed to shareholders can affect the value of the company which is proxied in the share price in a period (Puspitaningtyas, 2017:174).

The company's activities are no less important in the capital structure. The right capital structure is expected to increase Price Book Value and measurement of capital structure with Debt to Equity Ratio (DER). This capital structure shows the company's funding comes from debt. When public confidence decreases, the negative reaction of the shareholders will be seen in the form of the release of shares that have a negative impact on the Dividend Payout Ratio. The dividend payout ratio taken by the company has the nature of influencing each other or even changing the company's capital structure so the dividend payments are low.

The inconsistency of research results that examine the effect of capital structure and profitability on company value indicates that there are contingency variables that affect the relationship between them. Interesting dividend policy is used as a moderating variable of the relationship between capital structure and profitability to the company value, because dividend policy is an integral part of corporate funding decisions concerning the company's internal spending so it can be seen its effect on company value or company share price. Dividends have information as a condition of the company's prospects. The greater the dividend distributed to shareholders, the company's performance will be considered good, and in the

end the assessment of the company reflected in the share price will be even better (Burhanudin and Nuraini, 2018: 3).

Dividend Payout Ratio as one of the most important dividend payment decisions in the company. The distribution of dividends provides information or signals about the company's financial performance in the eyes of investors. The company has a stable dividend payout ratio, or even increases from year to year, it will be able to generate positive sentiment for investors, which can increase stock prices and Price Book Value.

Based on the pre-existing background, it encourages researchers to discuss the title **“The Effect of Profitability and Capital Structure on Price Book Value with Dividend Payout Ratio as Moderating Variables in The Consumer Goods Industry Listed on the Stock Exchange Indonesia for 2017-2020.”**

### Hypothesis

Based on the conceptual framework, the hypotheses of this research are as follows:

1. Profitability (return on equity) affects the Price Book Value of the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.
2. Capital structure affects the Price Book Value of the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.
3. Dividend Payout Ratio moderates the effect of profitability (return on equity) on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.
4. Dividend Payout Ratio moderates the effect of capital structure on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.

### Research Methods

The population in this research were 51 Consumer Goods Industries Listed on the Indonesia Stock Exchange for the period of 2017-2020.

Table 2.1 Research Sample

Criteria	Sample
1. Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.	51
2. Consumer Goods Industry that does not/has not published financial reports for the period of 2017-2020.	(15)
3. Consumer Goods Industry that does not have a positive net profit in a row for the period of 2017-2020.	(10)
4. Consumer Goods Industry that does not distribute dividends in a row for the period of 2017-2020.	(12)
Total sample studied for the period of 2017-2020	14
Total sample 14 x 4 years	56

Source: www.idx.co.id (processed data)

The sample of this research amounted to 60 financial reports from 14 Consumer Goods Industries Listed on the Indonesia Stock Exchange for the period of 2017-2020.

Table 2.2, Variable Operational Definition

No	Variable	Variable Definition	Indicator	Scale
1.	Profitability (X <sub>1</sub> )	Profitability ratio is the ratio used to measure the company's ability to generate profits obtained by the company related to its relationship with sales and investment.	$Return\ on\ Equity = \frac{Earning\ After\ Interest\ and\ Tax(EAIT)}{Equity}$	Ratio
2.	Capital Structure (X <sub>2</sub> )	Capital structure is a balance or comparison between debt and own capital.	$Debt\ to\ Equity\ Ratio = \frac{Total\ of\ Money}{Equity}$	Ratio
3.	Price Book Value (Y)	PBV (Price to Book Value) is a ratio that compares the price that prospective buyers are willing to pay in the capital market, especially the share price with the book value of the shares.	$Price\ Book\ Value = \frac{Market\ Price\ Per\ Share}{Book\ Value\ Per\ Share}$	Ratio
4.	Dividen Payout Ratio(Z)	Dividend payout ratio is a policy set by the management in determining dividends per share to be distributed to shareholders as dividends or to be retained in the form of retained earnings to finance investment in the future.	$DPR = \frac{Dividend}{Earning\ after\ taxes}$	Ratio

According to Hussein (2015) Partial Least Square (PLS) uses the bootstrapping method or random doubling. Therefore, the assumption of normality will not be a problem for PLS. In addition to data normality, by doing bootstrapping, PLS does not require a minimum number of samples. Research with a small sample can still use PLS.

### Descriptive Statistical Analysis

Descriptive statistics provide an overview or description of a data seen from the average value (mean), standard deviation, variance, minimum, sum, range, kurtosis and skewness (skew of distribution) of each variable. The variables used include profitability (return on equity), capital structure, Dividend Payout Ratio and Price Book Value. From the data of one dependent variable, two independent variables and one moderating variable, descriptive statistical tests were tested, the results obtained according to the following table:

Table 3.1, Descriptive statistics

	N	Mean	Median	Min	Max	Std. Dev
X <sub>1</sub> (ROE)	60	0,286	0,170	0,000	1,450	0,363
X <sub>2</sub> (Capital Structure)	60	0,722	0,510	0,090	3,160	0,638
Z (Dividen Payout Ratio)	60	8,914	3,430	0,000	82,440	15,742
Y (Price Book Value)	60	1,196	0,420	0,000	33,860	4,377

Source: Data processed with SmartPLS, 2022

Based on table 3.1, it shows the minimum value, maximum value, average value (mean), and standard deviation of the profitability variables (return on equity), capital structure, Dividend Payout Ratio and Price Book Value with the following details:

1. The profitability variable (return on equity) has a sample size of 60, with a minimum value of 0.000 and a maximum value of 1.450 while the average value (mean) is 0.286 with a standard deviation of 0.363.

2. The capital structure variable has a sample size of 60, with a minimum value of 0.090 and a maximum value of 3.160 while the average value (mean) is 0.722 with a standard deviation of 0.638.
3. The Dividend Payout Ratio variable has a sample size of 60, with a minimum value of 0.000 and a maximum value of 33,860 while the average value (mean) is 1.196 with a standard deviation of 4.377.
4. The Price Book Value variable has a sample size of 60, with a minimum value of 0.000 and a maximum value of 82,440 while the average value (mean) is 8,914 with a standard deviation of 15,742.

### Inner Model Evaluation (Structural Model)

Conducting structural evaluation (inner model) which includes R-Square, goodness of fit and path coefficient. The results of the inner model testing are as follows:

Table 3.2, Inner Model Evaluation

	R Square	R Square Adjusted
PBV Y	0,896	0,887

Source: Data processed with SmartPLS, 2021

Based on the table above can be described as follows:

The R-Square value of the Price Book Value variable is 0.896, this shows that Profitability (return on equity) ( $X_1$ ), Capital structure ( $X_2$ ) and Dividend Payout Ratio ( $Z$ ) can explain the Price Book Value ( $Y$ ) of the remaining 89.6% or the remaining 10.4% is explained by other variables.

### Hypothesis Test Results

The next analysis after analyzing the model is hypothesis testing. This analysis was carried out by comparing the T-table value with the T-statistics value generated from the results of bootstrapping in PLS. The hypothesis is accepted (supported) if the T-statistics value is higher than the T-table value, the T-statistics value > T-table where the T-table used is 1.96 while the significance value is seen from the P-value < 0.05. The results of the process PLS bootstrapping can be seen in table 3.3.

Table 3.3, Hypothesis Test Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
ROE → PBV (Y)	0,759	0,724	0,200	3,806	0,000
DER → PBV (Y)	0,239	0,269	0,113	2,106	0,036
DPR (Z) → PBV (Y)	0,220	0,155	0,600	0,366	0,715
Moderating Effect ROE → PBV (Y)	0,260	0,113	1,161	0,224	0,823
Moderating Effect DER → PBV (Y)	-0,075	0,253	0,470	0,159	0,874

From table 3.3 it can be seen that

#### 1. Hypothesis 1: Profitability (return on equity) affects Price Book Value

Based on the analysis results of table 4.3, it can be seen that the results of the path coefficient test between Profitability (return on equity) have an effect on Price Book Value has a parameter coefficient of

0.759 with a significance value of T-Statistics  $3.806 > 1.96$  and a P-Value of  $0.000 < 0, 05$ . This shows that profitability (return on equity) has an effect on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.

## 2.Hypothesis 2: Capital structure affects Price Book Value

Based on the analysis results of table 4.3, it can be seen that the path coefficient test results between capital structure have an effect on Price Book Value has a parameter coefficient of 0.239 with a significance value of T-Statistics  $2.106 > 1.96$  and a P-Value of  $0.036 < 0.05$ . This shows that the capital structure affects the Price Book Value of the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.

## 3.Hypothesis 3: Dividend Payout Ratio Effects Price Book Value

Based on the analysis results of table 4.3, it can be seen that the results of the path coefficient test between the Dividend Payout Ratio have an effect on Price Book Value has a parameter coefficient of 0.220 with a T-Statistics significance value of  $0.366 < 1.96$  and a P-Value of  $0.715 > 0.05$ . This shows that the Dividend Payout Ratio does not affect the Price Book Value of the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.

## 4.Hypothesis 4: Dividend Payout Ratio moderates the effect of profitability (return on equity) on Price Book Value

Based on the analysis results of table 4.3, it can be seen that the results of the Dividend Payout Ratio hypothesis test moderate the effect of profitability (return on equity) on Price Book Value. It has a parameter coefficient of 0.260 with a significance value of T-Statistics  $0.224 < 1.96$  and a P-Value of  $0.823 > 0.05$ . This shows that the Dividend Payout Ratio does not moderate the effect of profitability (return on equity) on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.

## 5.Hypothesis 5: Dividend Payout Ratio moderates the effect of capital structure on Price Book Value

Based on the analysis results of table 4.3, it can be seen that the dividend payout ratio hypothesis test moderates the effect of capital structure on Price Book Value, has a parameter coefficient of -0.075 with a significance value of T-Statistics  $0.159 < 1.96$  and a P-Value of  $0.874 > 0.05$ . This shows that the Dividend Payout Ratio does not moderate the effect of capital structure on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.

## F<sup>2</sup> Test for Effect Size

The f square value is 0.02 as small, 0.15 as medium and 0.35 as large. Values less than 0.02 can be ignored or considered no effect.

Table 3.4, F<sup>2</sup> result for effect size

Variable Name	PBV Y
ROE X1	1,234
DER X2	0,162
DPR Z	0,005
Moderating Effect ROE X1	0,004
Moderating Efect DER X2	0,008

Source: Data processed by researchers (2022)

Based on Figure 3.4, it can be stated as follows:

1. The effect of profitability (return on equity) on Price Book Value has  $f^2 = 1.234$  is a large category.
2. The effect of capital structure on Price Book Value has  $f^2 = 0.162$  is a large category.
3. The effect of Dividend Payout Ratio moderating the effect of profitability (return on equity) on Price Book Value has  $f^2 = 0.004$  is a weak or small category.
4. The effect of Dividend Payout Ratio moderating the effect of capital structure on Price Book Value has  $f^2 = 0.008$  is a weak or small category.

## ***Discussion***

### **Profitability (return on equity) has an effect on Price Book Value**

Based on the results of this research, profitability (return on equity) effected the Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020. This was because the profitability of everything looked good and if this condition continued in a stable manner, then the market value ratio was also being high, the share price was likely to be high as expected. The results of this research are in line with Sunyoto and Susanti (2015: 34) the aim of maximizing the value of the company also has several advantages, especially in company purchases and company mergers. For companies that go public, it will be easier to measure the value of the company compared to companies that do not go public. The results of this research are in line with research by Burhanudin and Nuraini (2018) which states that profitability partially has a significant effect on company value. The results of this research are in line with Tio (2019) which states that profitability has a significant effect on company value. The profitability value of the Property and Real Estate Sub-Sector Companies for the 2013-2016 period fluctuated and tended to decline. This is due to profit after tax which tends to decrease while total assets tend to increase.

### **Capital structure affects Price Book Value**

Based on the results of this research, capital structure had an effect on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020. This was because if the manager was able to manage the company well, the debt funding will be smaller so the equity funding will be larger. The size of this debt funding will affect the value of the company. The results of this research are in line with Kamaludin and Indriani (2018:321) the increase in company value occurs because interest payments on debt are tax deductions, therefore the operating profit received by investors will be greater.

The next effect is because the profit received is greater, the value of the company will also be greater. The results of this research are in line with research by Alipudin (2019) which states that capital structure as measured by the Debt to Equity Ratio (DER) has an effect on company value. Based on the results of research conducted partially, the capital structure with the Debt to Equity Ratio (DER) indicator had a significant effect on the value of agricultural companies listed on the Indonesia Stock Exchange for the period of 2014-2018. Based on the trade-off theory, if the position of the capital structure is above the target of the optimal capital structure, then any increase in debt will reduce the value of the company. In the results of this research found that there was a positive influence on company value, this positive relationship indicated that the higher the capital structure of the company, the higher the firm value and vice versa.

### **Dividend Payout Ratio affects the Price Book Value**

Based on the results of this research, the Dividend Payout Ratio had no effect on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020. The results of this research are in line with Maharani's (2021) research which states that dividend policy has a negative and insignificant effect on company value in the banking sector listed on the IDX for the period of 2017-2019.

### **Dividend Payout Ratio moderates the effect of profitability (return on equity) on Price Book Value**

Based on the results of this research, the Dividend Payout Ratio moderated the effect of profitability (return on equity) on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020. This showed that dividend policy affected on reducing company value. The level of profitability was able to give a positive signal to investors on the company value, but the dividend policy had not been able to strengthen investors' assessment of the company's shares when there was an increase in profitability. The results of this research are in line with the research of Pratiwi and Mertha (2017), showing that dividend policy is not able to moderate the effect of profitability on company value.

### **Dividend Payout Ratio moderates the effect of capital structure on Price Book Value**

Based on the results of this research, the Dividend Payout Ratio did not moderate the effect of capital structure on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020. This happened because when investors saw the capital structure of large companies, the dividend policy designed by the company would not influence the decisions of investors on the grounds that investors did not want to take that risk, in addition when the company had a high capital structure, the company tended to pay off its long-term debt rather than distributing it in the form of dividends. The results of this research are in line with Saleh's research (2020) which shows that the Dividend Policy (DPR) is not able to moderate the effect of Debt Policy (DER) on company value.

### **Conclusion**

Based on the results of the research, several conclusions can be inferred as follows: Profitability (return on equity) affects the Price Book Value of the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020. Capital structure affects the Price Book Value of the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020. Dividend Payout Ratio has no effect on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020 period. Dividend Payout Ratio does not moderate the effect of profitability (return on assets) on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020. Dividend Payout Ratio moderates the effect of profitability (return on equity) on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020. Dividend Payout Ratio does not moderate the effect of capital structure on Price Book Value in the Consumer Goods Industry Listed on the Indonesia Stock Exchange for the period of 2017-2020.

### **Suggestion**

Based on the results, the suggestions that researchers can give are as follows: For companies, the dividend payout ratio is an important variable in determining companies to pay dividends to shareholders every year. For future researchers, further researchers are advised to use more samples with more diverse



characteristics from various sectors and extend the research period. In addition, further researchers should also change and add independent variables (NPM, liquidity) that also affect company value. For Prima Indonesia University, the results of this research can be used as a reference in enriching scientific works.

### References

- Alipudin. 2019. Model Peningkatan Nilai Perusahaan Melalui Struktur Modal Dan Profitabilitas Pada Perusahaan Agrikultur Di Bursa Efek Indonesia.
- Burhanudin Dan Nuraini. 2018. Pengaruh Struktur Modal Dan Profitabilitas Terhadap Nilai Perusahaan Dengan Kebijakan Dividen Sebagai Variabel Pemoderasi. *Eco-Entrepreneurship*. Vol 3 No 2 Juni 2018.
- Hussein, Ananda Sabil. 2015. *Penelitian Bisnis dan Manajemen Menggunakan Partial Least Squares (PLS) dengan smartPLS 3.0*.
- Kamaludin dan Rini Indriani. 2018. *Manajemen Keuangan : Konsep Dasar dan Penerapannya*. Bandung: Mandar Maju.
- Kusnadi, Tiara Widi dan Dikdik Tandika. 2018. Pengaruh *Return On Asset* terhadap Nilai Perusahaan dengan Kebijakan Dividen sebagai Variabel Moderasi (Studi pada Sektor Perbankan Konvensional yang Terdaftar di Bursa Efek Indonesia Periode 2014-2016). *Prosiding Manajemen*. ISSN: 2460-6545. Universitas Islam Bandung.
- Maharani. 2021. Pengaruh Rasio Profitabilitas, Leverage dan Kebijakan Dividen terhadap Nilai Perusahaan (Studi pada Sektor Perbankan di Bursa Efek Indonesia).
- Pratiwi dan Mertha. 2017. Pengaruh Kebijakan Hutang Dan Profitabilitas Pada Nilai Perusahaan Dengan Kebijakan Dividen Sebagai Variabel Pemoderasi.
- Puspitaningtyas, Zarah. 2017. Efek Moderasi Kebijakan Dividen Dalam Pengaruh Profitabilitas Terhadap Nilai Perusahaan Manufaktur. *Jurnal Akuntansi, Ekonomi dan Manajemen Bisnis*. Vol. 5, No. 2, December 2017. Universitas Jember.
- Salah. 2020. Pengaruh Kebijakan Hutang, Profitabilitas, Dan Keputusan Investasi Terhadap Nilai Perusahaan Dengan Kebijakan Dividen Sebagai Variabel Moderasi (Studi Pada Perusahaan Jasa Sektor Keuangan Sub-Sektor Asuransi Periode 2014 – 2018).
- Sunyoto, Danang dan Susanti, Fathonah Eka. 2015. *Manajemen Keuangan Untuk Perusahaan Konsep dan Aplikasi*. Yogyakarta : Penerbit Caps.

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