

## The Effect of Leverage, Dividend Payout Ratio, Firm Size, Profitability, and Firm Value on Earnings Smoothing

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### ABSTRACT

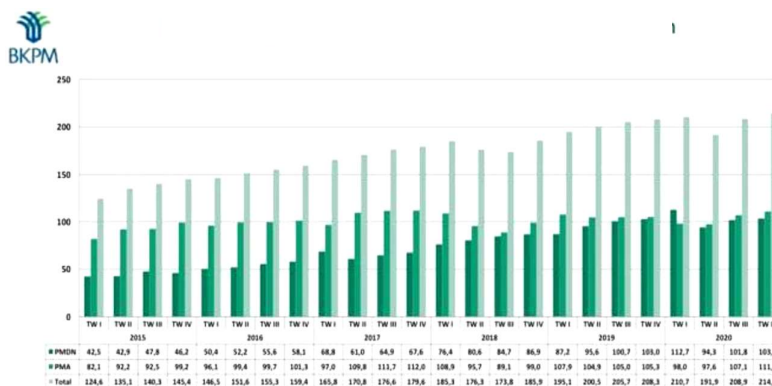
This study aims to obtain empirical evidence regarding the effect of profitability, dividend payout ratio, leverage, firm size, and firm value on earnings smoothing. The research object in the study is a manufacturing company listed on the Indonesia Stock Exchange (IDX). The sample in this study were 18 manufacturing sector companies listed on the IDX during the 2016-2018 period which were selected using purposive sampling and the secondary data used in this study were analyzed using the logistic regression method. The results of this study are profitability (NPM) has no positive effect on earnings smoothing, dividend payout ratio (DPR) has no positive effect on earnings smoothing, leverage (DAR) has no positive effect on earnings smoothing, Firm size (LnTA) has a negative effect on earnings smoothing, Firm Value (PBV) has a negative effect on earnings smoothing, profitability, dividend payout ratio, leverage, firm size, and firm value simultaneously have a significant effect on earnings smoothing.



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## INTRODUCTION

Investment is the initial capital in a country's economic development. Investment itself in Indonesia has investments run by the government and there are also investments owned by the private sector. Government investment comes from government savings as well as those from foreign aid. Meanwhile, private investment is distinguished between foreign investment which is often called Foreign Investment (PMA) and domestic investment or Domestic Investment (PMDN) (Ningsih, et al, 2020). The development of domestic investment realization from 2016 to 2020 per quarter, where the graph shows an increase in total for PMDN and PMA from 2016 to 2018 in the first quarter, and after the first quarter there was a decline until the fourth quarter began to increase again until the first quarter of 2020.



Source: [www.bkpm.go.id](http://www.bkpm.go.id)  
Figure 1 Development of Investment Realization  
2015-2020: Quarterly

The increase in the development of investment realization is inseparable from the contribution of manufacturing companies. In proportion, the manufacturing industry sector was once the dominant sector where investment into the sector in 2016 was recorded at 54.8% of the total incoming investment. In 2018, investment in the manufacturing sector was recorded at only 30.8% of the overall investment realization. Even in 2019, it was recorded at only 26.7% of the overall investment realization. From the BKPM data, it appears that investor interest has begun to shift from the manufacturing industry sector to the service sector. According to Center of Reform on Economics (CORE) Economist Yusuf R.M. The downward trend in manufacturing occurred due to the lack of government support for financing the manufacturing industry in Indonesia. Investment needs to receive more attention in order to attract investors to invest in companies in order to revive the trend of the manufacturing sector. So, the company must be able to maintain and improve its performance. one of them is by improving financial performance so that the company's shares remain in demand by investors or it can also maintain investor confidence in the company.

Financial reports, especially earnings information, can be assessed as an indicator of good performance for the company and as an indicator of management performance assessment in increasing Firm Value (Pradnyandari and Astika, 2019). In the preparation of financial statements, conflicts of interest occur between shareholders or principals and managers as agents where the principal wants the maximum possible return from the investment he makes in the company, while the agent wants to get the maximum possible compensation or bonus for the work he does (Adriani et al., 2018). This relationship allows a conflict of interest between the two parties, the gap in interests between managers and shareholders implies the existence of information asymmetry. The existence of information asymmetry will encourage managers to present information that is not true, especially if the information is related to measuring manager performance. Earnings management is a management effort to intervene with information in the process of preparing financial statements by utilizing accounting policies to achieve a certain level of profit (Oktoriza, 2018).

In some cases, companies may perform earnings smoothing to avoid sanctions or fines from the government or to meet predetermined profit targets. In Indonesia, the phenomenon of earnings management actions has occurred, namely at PT Tiga Pilar Sejahtera Food Tbk (AISA) allegedly manipulating financial statements by increasing the value of receivables and income, as well as inflating funds and assets. This alleged manipulation is related to increasing sales and attracting banks and investors. However, investors became the losers because they bought shares based on reports that did not reflect the actual condition of the company.

Earnings smoothing action is inseparable from several factors that encourage managers to flatten earnings, including profitability, dividend payout ratio, leverage, Firm size, and company value. Profitability is proxied using Net Profit Margin (NPM). NPM is a ratio that shows how much percentage of net profit is earned from each sale. This means that the greater the net profit margin ratio, the better the company's ability to earn high profits (Dewi and Praseono, 2012) in (Yuyun Yunengsih, Ichi, Asep Kurniawan, 2018). The results of research by Kurniawati (2019) and Wati and Amanah (2018) show that profitability proxied by Net Profit Margin (NPM) has a negative effect on earnings smoothing. However, the results of research from Mirwan and Amin (2020) show that Net Profit Margin (NPM) profitability has a positive effect on earnings smoothing.

Then another factor that influences earnings smoothing is the Dividend Payout Ratio. A low Dividend Payout Ratio (DPR) indicates that the company has high retained earnings if high retained earnings indicate high total company equity so that the company has capital that can be used for operations by increasing the company's production or sales. The results of research by Jayanti, et al. (2018) shows that the Dividend Payout Ratio has a negative effect on earnings smoothing. Meanwhile, the results of research (Lahaya, 2017) show that the Dividend Payout Ratio has a positive effect on earnings smoothing. Furthermore, the factor that can influence earnings management actions is leverage. In this study, leverage is measured using the Debt to Assets Ratio (DAR). High DAR means that the assets owned by the company are more heavily financed by debt. The results of Oktoriza's

research (2018). Meanwhile, the results of research (Mirwan and Amin, 2020) state that leverage proxied by the Debt to Assets Ratio (DAR) has a negative effect on earnings smoothing.

The next factor that influences earnings smoothing is Firm size. Firm size is a scale used to determine how large or small the company is which can be seen from the total assets. The results of research (Arum, 2017) show that Firm size has a negative effect on earnings smoothing. Meanwhile, the results of research (Maotama and Astika, 2020), (Pradnyandari and Astika, 2019), (Jayanti, et al, 2018), and (Lahaya, 2017) show that Firm size has a positive effect on earnings smoothing. The next factor that influences earnings smoothing is Firm Value. Firm Value can be interpreted as the company's ability to maximize shareholder prosperity. The results of research (Oktoriza, 2018) and (Lahaya, 2017) show that Firm Value has a positive effect on earnings smoothing. Meanwhile, the results of research from (Herawaty and Sellah, 2019) and (Arum, et al, 2017) show that Firm Value has a negative effect on earnings smoothing.

Based on the phenomena that occur and comparisons with previous research, the objectives achieved from this study are to determine 1) the positive effect of profitability with the proxy net profit margin (NPM), and leverage proxy Debt to Assets Ratio (DAR) on earnings smoothing, 2) the negative effect of dividend payout ratio (DPR), Firm size with the proxy natural logarithm of total assets, and Firm Value with the proxy price to book value (PBV) on earnings smoothing. Research is expected to provide broad benefits for practitioners, academics, companies, as well as investors and other stakeholders in understanding and managing earnings smoothing in manufacturing companies on the Indonesia Stock Exchange. Based on the description and results of previous research, there is still a research gap. So the researcher intends to conduct a study entitled "The Effect of Profitability, Dividend Payout Ratio, Leverage, Firm size and Firm Value on Earnings Smoothing: Empirical Study on Manufacturing Companies Listed on the Indonesia Stock Exchange 2016-2018".

## LITERATURE REVIEW

### Agency Theory

In a company, there are parties who have different interests. Conflicts of interest occur between shareholders or principals and managers as agents, where the agent has more information about the company than the principal, and the agent, must convey information about the company to the principal. This is a problem because in conveying this information the agent can manipulate reports about the company to the principal so that his performance looks good and ultimately gets compensation from the principal (Ramadhan, 2017).

### Profit smoothing

Earnings smoothing is one of the earnings management used to reduce fluctuations in reported earnings to match the expected target so as to achieve tax benefits, stable dividend policies, and give a good impression of management performance to shareholders (Jayanti, et al, 2018). This earnings smoothing is measured using a dummy variable, namely if  $CV\Delta I \geq CV\Delta S$  or Earnings Smoothing Index 1 then the company is not classified as a company that takes earnings smoothing action, while  $CV\Delta I < CV\Delta S$  or Earnings Smoothing Index  $< 1$  then the company is classified as a company that takes earnings smoothing action.  $CV \Delta I$  can be calculated using the following formula:

$$CV\Delta I = \frac{\frac{\sqrt{\sum (\Delta i - \Delta I)^2}}{n-1}}{\Delta I}$$

Description:

$\Delta i$  = Change in profit between year n and n-1

$\Delta I$  = Average change in earnings between years n and n-1

n = Number of years observed

$CV \Delta S$  can be calculated with the following formula:

$$CV\Delta S = \frac{\sqrt{\sum (\Delta s - \Delta S)^2}}{\frac{n-1}{\Delta S}}$$

Description:

$\Delta s$  = Change in sales between year n and n-1

$\Delta S$  = Average sales between year n and n-1

n = Number of years observed

### Profitability

Profitability is a measure expressed in percentages used to measure the extent of the company's capability to generate profits at an acceptable level (Oktoriza, 2018). The effect of profitability on earnings smoothing in this study is proxied by using Net Profit Margin (NPM). Net Profit Margin (NPM) is a comparison of the total amount of net profit with the total amount of company revenue. The higher the profit generated, the higher the net profit margin ratio. Profitability proxied by Net Profit Margin (NPM) is formulated as follows:

$$\text{Net Profit Margin (NPM)} = \frac{\text{Net Income}}{\text{Net sales}}$$

### Dividend Payout Ratio

Dividend payout ratio is a ratio that is used in dividend payments, namely the payout ratio which is the ratio of cash dividends to net income (Weygandt, et al, 2019). Meanwhile, according to Lahaya (2017) the dividend payout ratio is the percentage of dividends to the value of net income owned by the company, according to Lahaya (2017), the Dividend Payout Ratio can be measured as follows:

$$\text{Dividend Payout Ratio (DPR)} = \frac{\text{Cash dividend/share}}{\text{Earning/share}}$$

### Leverage

Leverage is interpreted as the use of liquid assets or funds where for this use the company is required to cover fixed costs or pay fixed expenses. The manager's action of smoothing earnings stems from the manager wanting to show that the company he leads has a low risk and is an attractive investment place to invest capital for investors (Irsyad, 2008) in (Oktoriza, 2018). Leverage ratios show the amount of capital derived from loans (foreign capital) used to finance the company's investment and operations. Sources that come from foreign capital will increase the company's risk. In this study, leverage is proxied using the debt to total asset ratio. According to (Kieso, et al, 2018), the debt to total asset ratio is used to measure the percentage of total assets funded by creditors. Leverage proxied using the Debt to Assets Ratio (DAR) is formulated as follows:

$$\text{Debt Assets Ratio (DAR)} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

### Firm size

According to Rudangga and Sudiarta (2016) Firm size is the average total net sales for the year in question until several years later. Firm size is a scale where the size of a company can be classified according to several ways, including total assets, value per share and others (Oktoriza, 2018). The effect of Firm size on earnings smoothing in this study is proxied by using the natural logarithm of total assets. The formula used to measure Firm size is as follows:

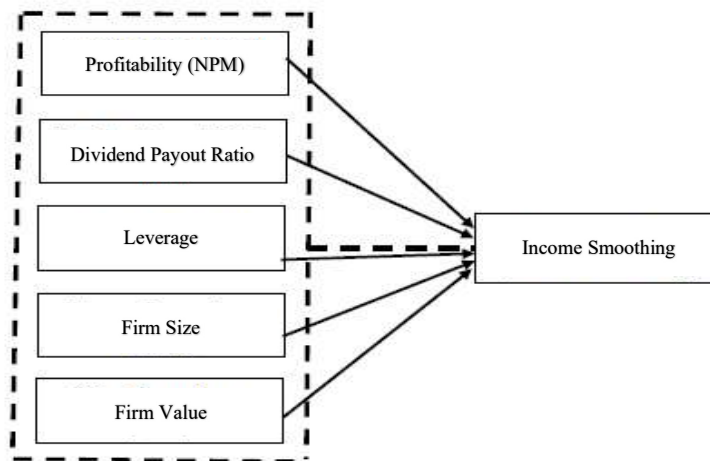
$$\text{Firm size (Frim Size)} = \ln \text{Total Assets}$$

### Company Value

Firm Value can be interpreted as the company's ability to maximize shareholder prosperity. Firm Value can be reflected in the company's stock price. Maximizing Firm Value also means maximizing shareholder prosperity which is the company's main goal (Lahaya, 2017). According to (Mayogi and Fidiana, 2016) Firm Value is a form of company achievement that comes from public trust in the company's performance after going through a long process of activities, namely since the company was founded until now. In this study, the Firm Value uses the ratio, namely Price to Book Value (PBV). According to (Subramanyam, 2017), the formula for Price Book Value (PBV) is as follows:

$$\text{Price to Book Value (PBV)} = \frac{\text{Market price/share}}{\text{Total Assets}}$$

From the previous theoretical description, the research model is presented as below:



**Figure 2. Framework of Thought**

The hypotheses proposed in the study include:

- H1: Profitability proxied by Net Profit Margin (NPM) has a positive influence on earnings smoothing.
- H2: Dividend Payout Ratio (DPR) has a negative influence on earnings smoothing.
- H3: Leverage proxied by Debt to Assets Ratio (DAR) has a positive influence on earnings smoothing.
- H4: Firm size proxied by the natural logarithm of total assets (LnTA) has a negative effect on earnings smoothing.
- H5: Firm Value proxied by Price to Book Value (PBV) has a negative effect on earnings smoothing.
- H6: Dividend Payout Ratio (DPR), Leverage, Firm size, and Firm Value proxied by Price to Book Value (PBV) together have an influence on earnings smoothing.

### RESEARCH METHODS

This research method uses research on causal relationships (Causal Study). According to (Sekaran and Bougie, 2016), Causal Study is a research method used to describe the causal

relationship of one or more problems. The independent variables in this study are profitability, dividend payout ratio, leverage, firm size, and Firm Value, the dependent variable in this study is intermediate earnings. The population of this study are manufacturing companies listed on the Indonesia Stock Exchange for the period 2016 to 2018. Data collection was carried out by purposive sampling. The samples in this study are manufacturing companies that meet the following criteria:

1. Manufacturing companies that have been listed on the Indonesia Stock Exchange (IDX) consecutively from 2016 to 2018.
2. Manufacturing companies that publish financial reports for 2016-2018 with a closing date of December 31 and have been audited by an independent auditor,
3. Manufacturing companies that publish financial reports in rupiah currency consecutively during 2016-2018.
4. Manufacturing companies that report positive profits consecutively during 2014-2018.
5. Manufacturing companies that distribute cash dividends consecutively during 2017-2019.
6. Manufacturing companies that did not take corporate actions such as stock splits, reverse share splits or additional shares during the 2015-2018 period.
7. Manufacturing companies have total assets above Rp. 2,000,000,000,000 in a row during 2016-2018.

The research data is included in the type of secondary data in the form of financial reports and annual reports during the 2016-2018 period. Data obtained from the Indonesia Stock Exchange website, namely the site [www.idx.co.id](http://www.idx.co.id). The data analysis method used in this study uses logistic regression with the help of the SPSS version 24 program. However, previously a descriptive analysis was carried out which provides an overview of a variable seen from the average value (mean), standard deviation, maximum value and minimum value (Ghozali, 2013).

## RESULTS AND DISCUSSION

In this study, the data used is secondary data obtained from the financial statements of manufacturing companies listed on the IDX in the period 2016 - 2018. A summary of the sample selection procedure is presented in the following table:

**Table 1 Sampling Criteria**

No	Sampling Criteria	Total
1	Manufacturing companies that have been listed on the Indonesia Stock Exchange (IDX) consecutively from 2016 to 2018	141 Companies
2	Manufacturing companies that publish financial statements for 2016-2018 with a closing date of December 31 and have been audited by an independent auditor	137 Companies
3	Manufacturing companies that publish financial reports in rupiah currency consecutively during 2016-2018	112 Companies
4	Manufacturing companies that report positive profits consecutively during 2016-2018	67 Companies
5	Manufacturing companies that distribute cash dividends consecutively during 2016-2018	50 Companies
6	Manufacturing companies that did not take corporate actions such as stock splits, reverse share splits or additional shares during the 2016-2018 period	33 Companies
7	Manufacturing companies have total assets above Rp. 2,000,000,000,000 in a row during 2016-2018	18 Companies

**Companies used as samples****18 Companies**

Source: Results of Researchers (2023)

**Descriptive Statistics Test**

This analysis is carried out to determine the minimum, maximum, average (mean), and standard deviation values of the research data. The results of descriptive statistical testing of all variables can be seen in table 2 as follows:

**Table 2 Descriptive Statistical Test Results**

	N	Range	Minimum	Maximum	Mean	Std.Deviation
NPM	54	0.3885	0.0015	0.3900	0.105047	0.0805506
DPR	54	1.8406	0.1333	1.9739	0.504058	0.3619309
DAR	54	0.6495	0.0769	0.7264	0.381869	0.1697690
LnTA	54	5.0610	28.4127	33.4737	30.206879	1.3540123
PBV	54	28.1596	0.5923	28.7519	4.026350	5.7465076
Valid N (listwise)	54					

Source: Results of Data Processing with SPSS 25 (2023)

The descriptive test results in table 4.2 show that the minimum value of the NPM variable is 0.0015 and the maximum value is 0.3900. Then the range value shows 0.3885. Furthermore, the average value is 0.105047 with a standard deviation of 0.0805506. The dividend payout ratio (DPR) variable shows a minimum value of 0.1333, then a maximum of 1.9739. Then the range value shows 1.8406. The average value of DPR is 0.504058 with a standard deviation of 0.3619309. The leverage variable proxied by the debt to asset ratio (DAR) obtained a minimum value of 0.0015, a maximum value of 0.7264, then a range value of 0.6495. The average value of DAR shows 0.381869 with a standard deviation of 0.1697690.

Furthermore, the Firm size variable proxied by the natural logarithm of total assets shows a minimum value of 28.4127, a maximum value of 33.4737, then a range value of 5.0610. The average value of the natural logarithm of total assets is 30.206879 with a standard deviation of 1.3540123. The Firm Value variable proxied by using price to book value (PBV) shows a minimum value of 0.5923, a maximum value of 28.7519. Then the range value is 28.1596. The average value of PBV is 4.026350 with a standard deviation of 5.7465076.

**Hypothesis Testing**

Hypothesis testing in this study uses logistic regression. Logistic regression is used if the assumption of multivariate normal distribution is not met because the independent variable is a mixture of continuous (metric) and categorical (non-metric) variables, in logistic regression does not require the assumption of data normality in the independent variable (Ghozali, 2018).

**Overall Model Fit Assessment**

This test is carried out by comparing the value between the initial -2LogL (Block Number = 0) and the final -2LogL value (Block Number = 1).

**Table 3 -2LogL Test Results (Block Number=0)**

Iteration History <sup>a,b,c</sup>			
Iteration		-2 Log likelihood	Coefficients Constant
Step 0	1	74.563	0.148
	2	74.563	0.148

a. Constant is included in the model.

b. Initial -2 Log Likelihood: 74.563

c. Estimation terminated at iteration number 2 because parameter estimates changed by less than .001.

**Table 4 -2LogL Test Results (Block Number=1)**  
**Iteration History<sup>a,b,c,d</sup>**

Iteration		-2 Log likelihood	Constant	NPM	DPR	Coefficients		
						DAR	LnTA	PBV
Step 1	1	63.308	14.106	5.182	0.580	3.327	-0.502	-0.224
	2	62.615	15.848	6.564	0.883	4.523	-0.573	-0.306
	3	62.575	16.128	6.951	0.971	4.869	-0.587	-0.331
	4	62.575	16.147	6.981	0.976	4.893	-0.588	-0.332
	5	62.575	16.147	6.981	0.976	4.893	-0.588	-0.332

a. Method: Enter

b. Constant is included in the model.

c. Initial -2 Log Likelihood: 74.563

d. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

It is known that the difference in the decrease between -2LogL (block number = 0) and -2LogL (block number = 1) is greater than the value obtained from the table ( $11.948 > 2.571$ ). it can be concluded that the decrease in -2LogL is significant. This means that the addition of new variables in the form of profitability proxied by net profit margin (NPM), dividend payout ratio, leverage proxied by debt to asset ratio (DAR), Firm size proxied by natural logarithm of total assets (LnTA), and Firm Value proxied by price to book value (PBV) into the model improves the fit model.

#### Regression Model Fit Method (*Hosmer and Lemeshow's Goodness of Fit Test*)

This method tests the null hypothesis that the empirical data fits or fits the model (there is no difference between the model and the data so that the data model can be said to be fit). The following are the results of the Hosmer and Lemeshow's Goodness of Fit Test:

**Table 5 Hosmer and Lemeshow's Goodness of Fit Test Results**  
**Hosmer and Lemeshow Test**

Step	Chi-square		
	df	Sig.	
1	4.419	8	0.818

The SPSS output results show that the statistical value of Hosmer and Lemeshow's Goodness of Fit Test is 4.419 with a significance probability of 0.818. Because the significance probability value is greater than 0.05, the null hypothesis cannot be rejected so that the model can be said to be fit and acceptable.

#### Cox and Snell's $R^2$ dan Nagelkerke's $R^2$

Nagelkerke's  $R^2$  value can be interpreted like the  $R^2$  value in multiple regression. The coefficient of determination ( $R^2$ ) measures how far the model's ability to explain variations in the dependent variable (Ghozali, 2018).

**Table 6 Testing Results of Cox and Snell's  $R^2$  and Nagelkerke's  $R^2$**   
**Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square		Nagelkerke R Square
1	62.575 <sup>a</sup>	0.199		0.266

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

The Cox and Snell's  $R^2$  and Nagelkerke's  $R^2$  results for this study amounted to 0.199 and Nagelkerke's  $R^2$  of 0.266. These results indicate that the ability of the NPM, DPR, DAR, LnTA, and PBV variables to explain the earnings smoothing variable is 26.6%, while 73.4% is explained by other variables not tested in the research model.

### Assessing Model Accuracy

The classification table calculates the correct and incorrect estimation values. In the column are two predicted values of the dependent variable, namely smoothing earnings (1) and not smoothing earnings (0), while the row shows the actual observed value of the dependent variable, namely smoothing earnings (1) and not smoothing earnings (0). The following are the results of the classification table test:

**Table 7 Classification Table Testing Results**  
**Classification Table<sup>a</sup>**

Observed			Predicted		Percentag Correct
			INDEKS ECKEL	0	
Step 1	INDEKS	0	15	10	60.0
	ECKEL	1	8	21	72.4
	Overall Percentage				66.7

a. The cut value is .500

The classification table results show that the prediction of companies that do not perform earnings smoothing (0) is 25 companies, while the observation results show that there are 15 companies, so the classification accuracy is 60% (15/25). While the prediction results show that the companies that do earnings smoothing (1) are 29 companies, but the observation results show that there are 21 companies, so the classification accuracy is 72.4% (21/29). So, the overall classification accuracy is 66.7%. This shows that the model is said to be correct because it has classification accuracy above 50%.

### Parameter Estimation and Interpretation

The maximum likelihood estimation of the parameters of the model can be seen in the variable in the equation output display. The following are the results of testing variables in the equation:

**Table 8 Variables in Equation**

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	NPM	6.981	6.517	1.147	1	0.284	1076.159
	DPR	0.976	1.162	0.706	1	0.401	2.655
	DAR	4.893	2.980	2.696	1	0.101	133.330
	LnTA	-0.588	0.250	5.519	1	0.019	0.556
	PBV	-0.332	0.152	4.797	1	0.029	0.717
	Constant	16.147	7.212	5.013	1	0.025	10296258.250

a. Variable(s) entered on step 1: NPM, DPR, DAR, LnTA, PBV.

Based on the results of the variable in the equation output, conclusions can be drawn:

- Net Profit Margin (NPM) has a significance level of 0.284 or greater than 0.05, these results indicate that Ha1 is rejected.
- Dividend Payout Ratio (DPR) has a significance level of 0.401 or greater than 0.05. These results indicate that Ha2 research is rejected,
- Leverage proxied by debt to assets ratio (DAR) has a significance level of 0.101 or greater than 0.05. These results indicate that Ha3 research is rejected,
- Firm size with the natural logarithm of total assets has a significance level of 0.019 or smaller than 0.05. These results indicate that Ha4 is accepted

- Firm Value proxied by price to book value (PBV) has a significance level of 0.029 or smaller than 0.05. These results indicate that Ha5 is accepted

#### Simultaneous Significance Testing (Omnibus Test of Model Coefficient)

**Tabel 9 Hasil Pengujian *Omnibus Test of Model Coefficient***

		Chi-square	Df	Sig.
Step 1	Step	11.988	5	0.035
	Block	11.988	5	0.035
	Model	11.988	5	0.035

From the simultaneous test results (Omnibus Test of Model Coefficient), it can be seen that the chi-square value is 11.988 with a probability of 0.035. Because the resulting probability is smaller than 0.05, it can be concluded that Dividend Payout Ratio (DPR), Leverage, Firm size, and Firm Value are proxied by Price to Book Value (PBV) together on earnings smoothing.

## Discussion

### The effect of profitability proxied by Net Profit Margin (NPM) on earnings smoothing

The first hypothesis shows that profitability proxied by Net Profit Margin (NPM) has no positive effect on earnings smoothing. The results of this study are in line with research such as (Tilaar, et al, 2019) and (Dewi, et al, 2020) which show that profitability proxied by net profit margin (NPM) has no effect on earnings smoothing. This means that companies that have low NPM cannot use the strategy of recognizing revenue from goods in transit that are slower with the FOB destination method. In 15 observations, there was an average increase in shipping costs of 2.9% from the previous period. The average deviation of profit change is 4.4693, which is higher than the deviation of sales change of 0.3831. Thus, the value of the eckel index will be more than 1, indicating that the company does not perform earnings smoothing. Therefore, it can be concluded that profitability does not have a positive influence on earnings smoothing.

### The Effect of Dividend Payout Ratio (DPR) on Earnings Smoothing

The second hypothesis shows that the dividend payout ratio has no negative effect on earnings smoothing. From the research data, the majority of companies have a DPR below the average (67% of observations), and a small portion above the average (33% of observations). Of the companies with low DPR, 44% do not perform earnings smoothing. Although sales and retained earnings increase, companies cannot reduce the increase in earnings by increasing advertising/promotion expenses. The deviation of changes in earnings is greater than the deviation of changes in sales, indicating that the company does not perform earnings smoothing. Thus, it can be concluded that DPR has no effect on earnings smoothing. The results of this study are in line with research (Widhyawan and Dharmadiaksa, 2015) and (Gemilang and Widiasmara, 2019) which state that the dividend payout ratio has no significant effect on earnings smoothing.

### The effect of Leverage proxied by Debt to Assets Ratio (DAR) on earnings smoothing

The third hypothesis shows that leverage proxied by the debt to assets ratio (DAR) has no negative effect on earnings smoothing. This is because the average DAR of observations is 0.3818, where 56% of observations have DAR below the average and 44% have DAR above the average. Companies with low DAR (30 observations) do not perform earnings smoothing as much as 47% of the total. Companies with low DAR are unable to use a high debt strategy due to low liability limitations, so the interest expense on asset purchases or leases is also low. The results of this study are in line with research (Oktoriza, 2018) and (Dewi, et al, 2020) which state that leverage has no significant effect on earnings smoothing.

### **The effect of Firm size proxied by the natural logarithm of total assets (LnTA) on earnings smoothing**

The fourth hypothesis shows that Firm size proxied by the natural logarithm of total assets has a negative effect on earnings smoothing. This means that the taller a company is, the lower the possibility of the company smoothing earnings. Larger companies will be subject to greater scrutiny and stricter regulatory rules, thus making them more careful in reporting their earnings. In addition, larger companies also have more shareholders and more diverse interests, so they must be more transparent and maintain their reputation carefully. The results of this study are in line with research (Arum, 2017) which shows that Firm size has a negative effect on earnings smoothing.

### **The effect of Firm Value proxied by Price to Book Value (PBV) on earnings smoothing**

The fifth hypothesis shows that Firm Value proxied by price to book value (PBV) has a negative effect on earnings smoothing. This means that the higher the PBV, the lower the possibility of the company smoothing earnings. This may indicate that the market has high expectations for the company's growth and profit prospects. In this situation, companies tend to avoid or reduce earnings smoothing actions that can affect their book value. The results of this study are in line with research (Herawaty and Sellah, 2019) which shows that Firm Value has a negative effect on earnings smoothing.

### **The Effect of Dividend Payout Ratio (DPR), Leverage, Firm size, and Firm Value proxied by Price to Book Value (PBV) Together on Earnings Smoothing**

The sixth hypothesis shows that dividend payout ratio (DPR), leverage, firm size, and Firm Value are proxied by price to book value (PBV) together on earnings smoothing. This means that the four factors collectively affect the possibility of a company smoothing earnings. DPR reflects how much dividends the company pays to shareholders, leverage indicates the level of debt use by the company, firm size reflects the scale of operations and assets owned, and PBV reflects the market valuation of the company's book value. The relationship between these factors and earnings smoothing may vary depending on the context and characteristics of the firm.

## **CONCLUSION**

Referring to the research results that have been described, it can be seen that profitability proxied by net profit margin has no positive effect on earnings smoothing. dividend Payout Ratio has no negative effect on earnings smoothing. leverage proxied by debt to assets ratio (DAR) has no positive effect on earnings smoothing. Firm size proxied by the natural logarithm of total assets (LnTA) has a negative effect on earnings smoothing. Firm Value proxied by price to book value (PBV) has a negative effect on earnings smoothing. The limitation of the research is that the objects used in this study are companies included in the manufacturing sector in the 2016-2018 period so that this makes the research results cannot be generalized to all companies listed on the Indonesia Stock Exchange. Then there are other variables that have an influence on earnings smoothing actions that are not examined in this study. This can be seen from the Negelkerke's  $R^2$  value of 0.266 or 26.6% which indicates that the ability of the NPM, DPR, DAR, LnTA, and PBV variables to explain the earnings smoothing variable, while 73.4% is explained by other variables not tested in the research model. Based on the results and limitations of this study, suggestions for future research are to use a sample of companies from other sectors to be used as research objects, so that the research results can be generalized and extend the research period. adding other independent variables that are expected to affect earnings smoothing actions such as managerial ownership, auditor reputation, and winner / loser stock.

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