

# EFFECT OF PER, DER, EPS, AND PBV ON STOCK PRICES IN BANKING COMPANIES ON IDX 

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#### Abstract

This research intends to analyze the influence of PER, DER, EPS and PBV on share prices partially and simultaneously in banking companies listed on the IDX for the period 2016- 2019. This finding uses a population of 42 banking companies registered with the IDX for the period 2016-2019. This research uses quantitative methods. The secondary datai usedi is obtained from the official website of the www.idx.co.id and www.idnfinancials.com. In this study used for sampling is the Purposive Sampling technique. The method of investigation used is a double linear regression method. The findings showed that PER, DER and EPS partially had a negative and significant effect oni the stocki price, pbv partially had a positive and significant effect on the stock price. Based on simultaneous PER, DER, EPS and PBV significantly affect the stock price in banking companies listed on the Indonesia Stock Exchange (IDX) period 2016-2019.


Keywords: PER, DER, EPS, PBV, Stock Prices

## INTRODUCTION

Share price is a company that determines the price of ownership of a share for stock buyers who wish to control the company's shares. In the stock price the value will be able to change at any time. Sellers and buyers of shares can affect the value of the share price by the interaction of supply and demand. The company's performance is directly proportional to the ups and downs of the price of a stock in the capital market. On the stock exchange, you can find all the information you need regarding the share price of the company concerned. In the capital market, the wealth of the shareholder is determined by the share price, so for investors, information about the share price is very important.

This stock price is a finding that is commonly known in research. PER, DER, EPS and PBV is the price of a stock that is influenced by several factors. If PER, DER, EPS and PBV look good, have a significant positive effect and are continuously stable, the power to fulfill profits to shareholders will certainly increase and be good.

In this study, it is intended to determine the effect that occurs in PER, DER, EPS and PBV simultaneously and partially on the value of a share in banking companies listed on the IDX in 2016-2019. This research is different from previous research, namely from the year of research, period, and variables in the study. PER, DER, EPS, and PBV produced mixed and varied results in previous studies involving these variables.

The occurrence of ups and downs in PER every year in the company causes
stock return volatility. Companies with optimal growth in financial performance often also have optimal PER, a more optimistic view of financial results is indicated by this. On the other hand, even companies with low PER tend to see a decline in financial performance.

In the company's activities the debt ratio is needed to describe how much debt is used by the company to bear the cost of company assets.

The achievement of a company can also be measured using the PBV ratio. If this ratio increases, there will be greater market confidence in the company's performance. The stock price ratio shown by the PBV variable is how high the ability of a company to realize a value comparable to the PBV shows how much the company's ability to create value is proportional to the amount of initial funds invested by investors.

Based on the opinion of Irham Fahmi (2013:138), it is known that in increasing the expected profit growth, it can be compared between market price per share and earnings per share. A high PER value can indicate that the level of profit per share generated by the company is high, which is compared to the share price. This also gives an influence or picture that companies that have a high PER can maximize profits.

Based on Gitman's opinion (2015: 131), the thing that is often used to determine shareholder value is PER. The PER ratio calculates the amount paid for each company's profit. If a company's PER increases, it is likely that investor confidence will be high. The company's share price will be more expensive if the
company's PER is greater than net income per share, and vice versa, the company's share price will be cheaper if the company's PER is getting smaller.

According to Hanafi (2013: 43), it is known that PER can show the income earned relative to the market price of its shares.

It is known in his statement that, the higher the DER ratio, this is because the debt to the company is higher than the capital prepared by the shareholders. It can also be explained that if this ratio is greater, it will reduce investor interest in investing and this will also affect the company's stock price (Kasmir, 2016).

It is known from the opinion of Cahyani \& Winarto (2017), that DER is a ratio that can show how high a company's ability to settle debts with total funds is. This will have a good effect on the company's stock price if the company is able to settle its debts or obligations and will attract investors.

From the idea of Bambang Wahyudiono (2014: 75), the DER ratio is a ratio that compares the company's total debt and its own invested funds. It is known that the total debt in the short term plus the long term is the total debt of the company.

Based on Fitriani (2016)'s view, it can be explained that there is a significant good relationship between PBV and stock prices. This is shown if the book value of the company increases automatically the value of the company has a significant effect on the share price also increasing.

Based on the opinion of Murhadi (2015: 66), it can be explained that the

PBV ratio shows a balance between the stock price in the stock market and the book value of equity as reported in the company's statement of financial position.

According to Rivai, et al (2013:163), PBV is used to determine whether the stock value is undervalued or overvalued. A stock is said to be undervalued if the book value of the company is above the share price, on the other hand if it is overvalued if the book value does not exceed the share price.

## RESEARCH METHODS

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This study uses a sample in library research or research documentation techniques. According to Sugiyono (2015: 329), documentary data collection is a stage for obtaining physical and nonphysical data as well as information that
can be in the form of written numbers, books, archives, pictures, documents, and images that can help research. Documentation in this case is used to collect data and then revised. In this finding, the documentation technique is carried out by analyzing the financial statements of banking companies listed on the IDX in 2016-2019 which are found on the official websites www.idx.co.id and www.idnfinancials.com.

The population in this finding is 42 companies in the banking sector listed on the IDX from 2016-2019.

The normality test, according to Ghozali (2013: 154), has a purpose in research to examine the regression model, confounding factors or residuals whether the distribution is normal in this study. The normality test can use a normal probability graph which is said to be normally distributed if the graph points follow the diagonal.

According to Ghozali (2013:103) multicollinearity test, the multicollinearity test can be used to determine whether or not there is a relationship between the independent variables on the regression model or not. It is believed that the right type of regression should have no relationship between the independent variables. If the tolerance output value is > 0.10 and the vif value is less than 10 , it is estimated that there is no multicollinearity indicator.

According to Ghozali (2013: 110), the Autocorrelation Test is used to determine the absence of a relationship between the barrier error in period $t$ and disturbance errors in the (previous) period $\mathrm{t}-1$ can be determined using the autocorrelation test.

This autocorrelation test can use the Durbin Watson test. It is said that when the Durbin-Watson value is between du and (4-du), it shows no autocorrelation (4-du).

Heteroscedasticity test according to Ghozali (2013:139), it is known whether the regression model shows inequality in the form of the residual from one observation to another observation which usually uses a scatterplot graph, this is the purpose of heteroscedasticity testing.

## RESULTS AND DISCUSSION

Based on the total data as a whole, descriptive statistics in the findings obtained by researchers there are 96 data as samples multiplied by 4 years from 42 companies during the study period (20162019). In this study, the results of descriptive statistical tests can be seen from the following table:

|  | Descriptive Statistics |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: |
|  | N | Minimum |  | Maximum | Mean |  |  |  |
| Std. Deviation |  |  |  |  |  |  |  |  |
| LN_PER | 96 | .00 | 7.33 | 7.0975 | .73635 |  |  |  |
| LN_DER | 96 | -1.07 | 2.69 | 1.5028 | .72369 |  |  |  |
| LN_EPS | 96 | .00 | 6.77 | 5.7799 | .74183 |  |  |  |
| LN_PBV | 96 | -2.26 | 1.79 | .2431 | .69952 |  |  |  |
| LN_HargaSaham | 96 | 3.91 | 8.35 | 5.8642 | 1.27441 |  |  |  |
| Valid N (listwise) | 96 |  |  |  |  |  |  |  |

Figure 1. Descriptive Statistic

Price to Earnings Ratio (PER) has a minimum value of 0.00 and a maximum value of 7.33 . The mean value is 7.09 and the standard deviation is 0.73 .

DER has a minimum value of -1.07 and a maximum value of 2.69 . The mean value is 1.50 and the standard deviation is 0.72 .

EPS has a minimum value of 0.00 and a maximum value of 6.77 . The mean
value is 5.77 and the standard deviation is 0.74 .

Price to Book Value (PBV) has a minimum value of -2.26 and a maximum value of 1.79 . The mean value is 0.24 and the standard deviation is 0.69 .

The share price has a minimum value of 3.91 and a maximum value of 8.35. The mean value is 5.86 and the standard deviation is 1.27.

In this normality test, the cause is the significance value obtained is $0.000<$ 0.05 , it is known that this will require data improvement and choosing the Natural Logarithmic (LN) transformation, so it can be understood that this test is before carrying out the data transformation it has not completed the assumption of normality.


Figure 2. Normality Test
The results of the histogram normality test above after performing the transformation show that the data is normally distributed because it is symmetrical and does not deviate to the left or right of the graph. In addition to the histogram, the probability plot graph (PPlot) can also show the results of the normality test which can be seen from the diagonal line followed by a moving plot.


Figure 3. P-Plot Result
The non-parametric statistic One Sample Kolmogrov-Smirnov Test (K-S) was used to test for normality in his research. In making decisions on distribution data, it can be seen that the provisions include:

1. It is declared to be normally distributed if the significant value is $>0.05$.
2. It is declared that the distribution is not normal if the significance value is $<0.05$.

| One-Sample Kolmogorov-Smirnov Test |  |  |
| :--- | :--- | ---: |
|  |  | Unstandardized <br> Residual |
| N |  | 96 |
| Normal Parameters ${ }^{\text {as,b }}$ | Mean | .0000000 |
| Most Extreme Differences | Absolute | 1.10309094 |
|  | Positive | .080 |
|  | Negative | .055 |
| Test Statistic |  | -.080 |
| Asymp. Sig. (2-tailed) |  | .080 |
| a. Test distribution is Normal. | $.147^{c}$ |  |
| b. Calculated from data. |  |  |
| c. Lilliefors Significance Correction. |  |  |

Figure 4. One Sample KolmogrovSmirnov Test (K-S)
Based on the results of the One Sample Kolmogrov-Smirnov Test (K-S) examination, a significant value of $0.147>$ 0.05 was obtained, it can be concluded that
after being transformed, the data is normally distributed and has met the requirements of the normality assumption.

| Coefficients ${ }^{\text {a }}$ |  |  |
| :---: | :---: | :---: |
| Model | Collinearity Statistics |  |
|  | Tolerance | VIF |
| 1 LN_PER | . 998 | 1.002 |
| LN_DER | . 969 | 1.032 |
| LN_EPS | . 998 | 1.002 |
| LN_PBV | . 970 | 1.031 |

Figure 5. Results of the multicollinearity
The conclusion from the results of the multicollinearity test in table 3.3 above, the data shows that there is no correlation between the independent variables, because it can be seen that the output value of Tolerance > 0.100 and VIF value < 10.0.


Figure 6. Multiple Linear Regression Analysis

Based on the data in table 3.4, the Cochrane-Orcutt test was chosen for autocorrelation testing, because in the study before using the Cochrane-Orcutt test there was a correlation. In the autocorrelation test obtained in the table, the Durbin-Watson value is 1.767 . According to the Durbin-Watson criteria, du < dw < (4-du) is $1.7553<1.767<$ 2.2674. So the conclusion is that there is no autocorrelation symptom.


Figure 7. Scatterpot
The results of the scatterplot graph test show that the data spreads below and above the zero line on the Y axis. Thus, it can be concluded that the heteroscedasticity test in this study did not occur heteroscedasticity symptoms.

| Coefficients ${ }^{\text {a }}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unstandardized Coefficients |  |  |  | Standardized <br> Coefficients <br> Beta |  | Sig. |
| Model |  | B | Std. Error |  | $t$ |  |
| 1 | (Constant) | 10.494 | 1.484 |  | 7.073 | . 000 |
|  | LN_PER | -. 069 | . 157 | -. 040 | -. 442 | . 660 |
|  | LN_DER | -. 179 | . 162 | -. 101 | -1.101 | 274 |
|  | LN_EPS | -. 690 | . 156 | -. 402 | -4.423 | . 000 |
|  | LN_PBV | 494 | . 168 | 271 | 2.942 | . 004 |

Figure 8. Multiple Linear Regression Analysis and Coefficient of Determination

The calculation of the multiple linear regression equation is as follows, namely:

Share Price $=10,494-0.069$ PER -0.179
DER - 0.690 EPS + 0.494 PBV
From the calculation of multiple linear regression it can be described below:

1. The constant (a) of 10,494 states that if the Price to Earnings Ratio, Debt to Equity Ratio, Earning Per Share, and Price to Book Value are constant and value 0 so that the Share Price will increase by 10,494.
2. b1X1 of -0.069 can be interpreted that every increase in Price to Earnings Ratio
as much as 1 unit can result in a depreciation of the Price to Earnings Ratio of $6.9 \%$.
3. b2X2 of -0.179 can be interpreted that every increase in Debt to Equity Ratio
as much as 1 unit can result in depreciation of the Debt to Equity Ratio of $17.9 \%$.
4. b3X3 of -0.690 can be interpreted that each increase in Earning Per Share by 1 unit can result in a decrease in Earning Per Share by $69 \%$.
5. b4X4 of 0.494 can be interpreted that for every 1 unit increase in Price to Book Value, there can be an increase in Price to Book Value of 49.9\%.

| Model Summary ${ }^{\text {b }}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .501 ${ }^{\text {a }}$ | 251 | . 218 | 1.1270 |
| a. Predictors: (Constant), LN_PBV, LN_EPS, LN_PER, LN_DER |  |  |  |  |
| b. Dependent Variable: LN_HargaSaham |  |  |  |  |

Figure 9. Coefficient of Determination
The coefficient of determination (R2) only indicates whether the model can explain the variation of the dependent variable. Based on these findings, the value of Adjusted R Square 0.218 or $21.8 \%$ through the dependent variable on the independent variables used, namely PER, DER, EPS and PBV, it is known that the remaining $78.2 \%$ is explained in other variables such as ROI , DPS, and so on.

| ANOVA ${ }^{\text {a }}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model |  | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 38.696 | 4 | 9.674 | 7.615 | . 00 |
|  | Residual | 115.597 | 91 | 1.270 |  |  |
|  | Total | 154.292 | 95 |  |  |  |

a. Dependent Variable: LN_HargaSaham
b. Predictors: (Constant), LN_PBV, LN_EPS, LN_PER, LN_DER

Figure 10. F Test
In the simultaneous examination of the F test, the value of Fcount is 7.615.

The value in Ftable is significant 0.05 for df $1=4$ and df $2=91$, which is 2.47 . So, the results of the simultaneous test of F obtained the value of Fcount 7.615 > Ftable and a significance value of 0.000 $<0.05$ so that it can be explained by the fact that Ha is accepted and Ho is rejected, then the conclusion based on the results of the simultaneous F test can be interpreted that the dependent variable simultaneously affects the dependent variable.

| Coefficients ${ }^{\text {a }}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model |  | Unstandardized Coefficients |  | Standardized <br> Coefficients <br> Beta | t | Sig. |
|  |  | B | Std. Error |  |  |  |
| 1 | (Constant) | 10.494 | 1.484 |  | 7.073 | . 000 |
|  | LN_PER | -. 069 | . 157 | -. 040 | -. 442 | . 660 |
|  | LN_DER | -. 179 | . 162 | -. 101 | -1.101 | 274 |
|  | LN_EPS | -. 690 | . 156 | -. 402 | -4.423 | . 000 |
|  | LN_PBV | . 494 | . 168 | 271 | 2.942 | . 004 |

Figure 11. T Test
The size of the ttable $=(0.05 / 2$; $96-4-1)=(0.025 ; 91)=1.98638$. By comparing the results of the partial test with the size of the ttable studied in banking companies on the IDX in the 2016-2019 period, then:

1. It is known that this finding has shown the results of the $t$-test that the PER variable has a value of -tcount - 0.442 > ttable -1.98638 with a significance of $0.660>0.05$ Ha rejected and Ho accepted. So it can be interpreted that the PER variable has no significant effect on the stock price.
2. It is known that this finding has proven the results of the $t$-test that the DER variable has a value of -tcount -1.101 > ttable -1.98638 with a significance of $0.274>0.05 \mathrm{Ha}$ is rejected and Ho is accepted. So it can be interpreted that the

DER variable does not have a significant influence on the stock price.
3. It is known that this finding has shown the results of the $t$-test that the EPS variable has a value of -tcount $-4.423<-$ ttable -1.98638 with a significance of $0.000<0.05 \mathrm{Ho}$ is rejected and Ha is accepted. So it can be interpreted that the EPS variable has a negative and significant effect on the stock price.
4. It is known that this finding has proven the results of the $t$ test that the PBV variable has a tcount value of $2,942>$ ttable 1,98638 with a significant $0.004<$ 0.05 Ho is rejected and Ha is accepted. So it can be interpreted that the PBV variable has a positive and significant influence on the stock price.

These findings are obtained and cannot prove that PER has a significant effect on stock prices. It can be said that this is due to the number of tcount < ttable and is negative and not significant because the significant value is 0.660 . The conclusion of this study strengthens Wang Junjie (2013), who says that the Price to Earnings Ratio has no effect on stock prices.

In this study, this is not in accordance with the theory of Irham Fahmi (2013: 138), it is known that in increasing the expected profit growth, it can be compared between market price per share and earnings per share. A high PER value can indicate that the level of profit per share generated by the company is high, which is compared to the share price. This also gives an influence or picture that companies that have a high PER can maximize profits.

This study concludes that the PER value cannot be used as a guide for investment decisions or to predict the future value of company shares.

The acquisition of these findings cannot show a significant effect of DER on the price of a stock. It can be said that this is because the number of tcount is negative and not significant because the significant value is 0.274 in the $t$-test results. It is known that these findings are in line with previous findings by Fendi H.R (2017), the expert stated that DER does not have a significant effect on stock prices.

The results of the research above can be interpreted that investors in making an investment in the company are known to not see the use of debt or interest returns, this does not affect the views of investors, it can be seen that investors only see the investment management of the company properly so as to generate profits.

The acquisition of research data shows that EPS has a significant negative impact on its share price. It can be seen that this is because the number of tcount > ttable and is negative and significant because it does not exceed sig 0.05 . The results in this study are supported by the findings carried out by Nurlia (2016) EPS has a significant and negative effect on stock prices.

This finding is also in line with Sari's (2017) theory, it turns out that the high purchasing power or the level of net profit of a company, so that it will have a positive influence on investors, that is, it will be able to generate fairly good earnings per share.

Thus, all the results of the Earning Per Share research are used as a basis for

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assessing the level of company profit on shares owned by the company so that there are more opportunities for investors to invest in shares or invest.

In this finding, the results show that the PER variable has a positive and significant effect on stock prices. It can be seen that this is due to the number for tcount > ttable and it is positive and significant because the value is 0.004 on the $t$ test results. The results in this study are in line with Fitriani's research (2016), in showing a significant positive relationship between PER on stock prices, it can be seen that if the company's book value rises well so that the company value shown along with its share price will automatically increase.

The results of the research above show that PER plays an important role, where a high number of PER can significantly mean for the public or investors so that the book value of the company is expected to increase and its share price will increase.

## CONCLUSION

Price to Earnings Ratio partially and has no influence on stock prices in banking companies on the IDX in the 2016-2019 period. Partially DER has no influence on stock prices in banking sector companies on the IDX in the 2016-2019 period. Partially EPS has a negative and significant effect on stock prices in banking companies on the IDX for the 2016-2019 period. Partially PBV has a significant and positive effect on its share price in banking companies on the IDX in the 2016-2019 period. Simultaneously, the independent variables PER, DER, EPS and PBV have an impact on the share price of
issuers in the banking sector on the IDX in the 2016-2019 period. Based on the impact of variations on the independent variable on the dependent variable which is known through the number in the adjusted R Square in the coefficient of determination test, it is $21.8 \%$ of which the remaining $78.2 \%$ is influenced by other variables.

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