

### ANALYSIS OF THE EFFECT OF EPS, ROA, DER ON STOCK PRICES OF FINANCING RESEARCH INSTITUTIONS SUBSECTOR COMPANIES

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Vol.16 No.3, 2022

V 01.10 1 (0.5 , 1

#### **Submit:**

01/05/2022

### **Accept :** 01/07/2022

### **Publish:** 01/09/2022

#### **ABSTRACT**

**Background:** The rate of investment in this era is influenced by various factors, one of which is economic growth. In a country, economic growth is marked by the welfare of its people. Countries with good economic growth have a good level of welfare and vice versa. Method: The method used in this insvestigation is quantitativ research. Use default data available on IDX official website as financial report. The purpose of sampling was to establish the type of sample included in this investigation. Multiple linear regression methods used by researchers to analyze the results of a investigation will be learned and concluded. Result: The revenue investigation shows that the share prices of establishment in the financial institution sub-sector in the period 2017 - 2020 are partially positively and directly related to EPS, while the increase or decrease in stock prices of companies in the financial institutions sub-sector in the period 2017-2020 is partly related to stock prices. It is not affected by ROA or DER. Conclusion: The revenue of this investigation concluded that EPS, ROA, and DER also had a signifikation impact on the stock prices of Financial Institution companies traded on the Indonesian Stock Exchange during the period 2017-2020.

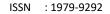
Keywords: EPS, ROA, DER and Stock Price

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PAGE: 416-424

http://publikasi.lldikti10.id/index.php/jit

DOI: https://doi.org/10.22216/jit.v16i3.1049





#### JURNAL IPTEKS TERAPAN

Research of Applied Science and Education V16.i3 (432-440) E-ISSN: 2460-5611

#### INTRODUCTION

The rate of investment in this era is influenced by various factors, one of which is economic growth. In a country, economic growth is marked by the welfare of its people. Countries with good economic growth have a good level of welfare and vice versa(Chinedu Innocent et al., 2013). People with a prosperous standard of living usually have adequate income to meet and fulfill all their needs and have more funds to save and some can be used to open a business or invest in the capital market. However, in deciding to invest in the capital market, there are considerations such as fluctuations in stock prices(Kadim et al., 2020). The price determined by the company to other parties who wish to have share ownership rights is called the share price. At any time the stock price value can go up or down. The good or bad performance of a company is in line with the increase or decrease in its share price in a market. Usually what affects the value of the stock price is supply and demand where there is bargaining from the buyer and the seller of the stock. On the Stock Exchange, you can see information about the company's stock price(Luthfiah & Suherman, 2018).

The first thing we can do if we want to invest in the capital market is to find out the value of earnings per share of the company, the value of total assets and the total value of debt owned by the company(Masdupi et al., 2018). To see the value of total assets and the total value of debt, it can be done by calculating

the ratio. The solvency ratio and the profitability ratio are the ratios used in this study. Profitability ratios that can usually be used as a tool to estimate stock prices or stock returns are Earning Per Share and Return On Assets (ROA)(Amalia, 2021). Earning Per Share (EPS), the profitability ratio is often used to measure how the profitability of a company develops. At a significant level of 5% a share price is influenced by earnings per share. The company's expertise in generating profits or profits obtained in each share is shown by the amount of Earning Per Share(Islami & Rio, 2019). Earning Per Share is usually obtained by dividing the net profit generated by the total shares outstanding in the capital market. Earning Per Share is important to study because it has a significant relationship with stock prices where the increasing value of EPS indicates an increase in the value of profits available to shareholders which stock prices increase(Izzalqurny et al., 2019).

Return on Assets (ROA) is used as a tool to predict the effectiveness of the company to provide profits by optimizing the existing assets in the company. Return on Assets is important to study because it has a relationship with stock prices where increasing Return On Assets means that the company's performance improves, then causes stock prices to increase because the rate of return increases and vice versa(Borhan et al., 2014).

The Debt to Equity Ratio (DER) is also considered to have a relationship with stock returns. Where the Debt To Equity Ratio (DER) is a solvency ratio that

LLDIKTI Wilayah X

432



ISSN : 1979-9292

E-ISSN: 2460-5611

shows whether or not the company is able to carry out its obligations, namely to pay off the company's debt using part of the company's capital. The Debt to Equity Ratio is important to study because it has a relationship with stock prices where the increase in DER shows that the company has a dependence on creditors which causes the risk to increase, thus showing that the amount of debt is higher than the company's equity(Widagdo et al., 2020). Things like this have an impact on the possibility that stock prices will be low on the stock exchange(Toly et al., 2020).

But in reality, all the theories that have been described above are not necessarily in line with the existing evidence. Obviously can observe this figure.

No	Kode Emiten	Tahun	Earning Per Share	Return On Asset	Debt Equity to Ratio	Harga Saham
	PT. Trust	2017	16,68	4,73	0,09	1.300
	Finance	2018	22,04	5,67	0,17	272
1	Indonesia Tbk	2019	21,19	5,39	0,10	282
	(TRUS)	2020	22,67	5,57	0,07	294
	PT. BFI Finance Indonesia (BFIN)	2017	79	7,20	2,36	680
		2018	98	7,60	2,08	665
2		2019	48	3,73	2,14	560
		2020	47	4,61	1,30	560
	nm n	2017	32,55	3,16	1,53	245
	PT. Batavia Prasperind	2018	39,24	3,72	1,37	433
3	o Finance	2019	23,15	4,11	1,22	873
	Tbk (BPFI)	2020	41,99	2,80	0,71	767

Figure 1. Research Phenomenon

Through figure 1 the research phenomenon is clearly seen where there are fluctuations (increases and decreases) in the data above. Where is PT. Trust Finance Indonesia Tbk in 2018 had a Return On Asset value of 5.67, an increase compared to 2017 where the value was 4.73 and the share price in 2018 was Rp. 272 there was a decrease compared to 2017, namely the

share price of Rp. 1,300. This data is not in line with the theory where it is said that if the return on assets value increases, the stock price also increases(Amalia, 2020)

At PT. BFI Finance Indonesia Tbk was seen that in 2017 it had an EPS of 79 and increased in 2018 where Earning Per Share was 98 but the share price in 2017 was Rp. 680 there was a decline in 2018 where the share price was Rp. 665. Should the value of Earning Per Share increase, the share price will also increase. At PT. Batavia Prasperindo Finance Tbk is seen in 2020 has a Debt To Equity Ratio of 0.71 this number has decreased compared to 2019 where the Debt To Equity Ratio of 1.22 is seen this value is followed by a decrease in stock prices from the previous year 2019 of Rp. 873 to Rp. 767 in 2020. This situation is certainly contrary to the concept expressed where it is said that when the Debt to Equity Ratio decreases, there will be an increase in stock prices.

Based on the phenomenal data that the researchers describe, where there are various factors that drive stock price instability, we as researchers are encouraged to conduct research with the title "Analysis of the influence of Earning Per Share, Return On Assets and Debt to Equity Ratio on Stock Prices (Case study on institutional subsector companies). financing listed on the Indonesia Stock Exchange in 2017-2020".

#### RESEARCH METHODS

#### **Research Method**

Any data used in this research is a number, so the research method used is





ISSN : 1979-9292

E-ISSN: 2460-5611

quantitative analysis method. The unit variable in this research can be calculated and measured data so that this is chosen to be a variable in this research. The analytical method is used SPSS application tools in order to be able to present the results of calculations that can be analyzed statistically.

#### Research Approach

The approach taken when conducting each research is quantitative research. Where said Emzir (2009:29) explains that quantitative research is carried out fully using post-psitivists in expanding knowledge (for example, such as cause or effect links, reduction of variables, hypotheses and specific submissions about measurement, review, and theory testing). Experiments that require statistical data and prioritize approaches such as surveys.

#### Types of research

The type of research in conducting this research is descriptive quantitative research. According to Bungin (2015: 48-49) descriptive research is a method used to describe, explain, illustrate and conclude various kinds of problems, characteristics, conditions or various research variables whose circumstances occur how they can be seen, drawn, observed, observed, interviewed. and can be submitted with archiving tools.

#### Nature of Research

The nature of this research is explanatory research. Where said Sugiono (2017: 6) explanatory research is research that describes how variables relate to other variables tested in

research and tested with hypotheses that have been previously formulated.

## Population and Sample Population

Arikunto Suharsimi (1998:117) stated that the population is a set of objects to be studied in research. Population research occurs when someone wants to research or analyze an element contained in a research area.

In this research, the population is appointed from companies in the subsector of financial institutions listed on the Indonesia Stock Exchange with observations in the 2017-2020 period, namely 19 companies.

#### Sample

Sugiyono (2018:118) stated that the sample is part of the population. Purposive sampling method is a technique used in selecting samples in this research. The considerations for taking samples are as follows:

- a. Financing Institutions Sub-Sector Companies listed on the Indonesia Stock Exchange for the period 2017-2020
- b. Financing Institutions Sub-Sector Companies that experienced an increase in profits for the 2017-2020 period
- c. Financial Institutions Sub-Sector Companies that report financial activities and are published in full for the 2017-2020 period

The criteria for determining the sample in this study are:

# **RESULTS AND DISCUSSION Descriptive Statistics**

Statistical analysis that describes the usual explanation of how the characters of the various variables used in research are shown starting from the average,

434





ISSN : 1979-9292

E-ISSN: 2460-5611

minimum, and maximum magnitudes. These are usually referred to as descriptive statistics.

The overall descriptive statistics data from when conducting this research contained 44 data and there were 11 companies as samples during the 4-year survey period (2017-2020). The results of descriptive statistical tests for this research are shown in the table below.

Descriptiv	Statistik

	N	Min	Max	Mean(rata- rata)	Std. Deviation.
EPS	44	-75	142	31.79	40.606
ROA	44	6	1670	407.36	394.521
DER	44	1	682	254.11	197.358
Harga Saham	44	1.30	1300.00	370.2586	308.21666
Valid N (listwiss)	44				

Source: SPSS 22

Figure 2. Descriptive Statistics

In the results of the figure above, it can be explained that:

- 1. The minimum EPS value is -75, the maximum value is 142, the average value (mean) is 31.79 with a standard deviation of 40.606.
- 2.ROA has a minimum value of 6, a maximum value of 1670, a mean of 407.36 with a standard deviation of 394.521.
- 3.DER with a minimum value of 1, a maximum value of 682, the mean is 254.11 with a standard deviation of 197.358.
- 4. Share price with a minimum amount of 1.30, a maximum amount of 1300.00, the mean is 370.2586 and the standard deviation is 308.21666.

#### Classical Assumption Test Normality Test

According to Ghozali (2016) which is used to investigate what is in a

regression model, a dependent variable and an independent variable or both have a distribution that is zero or cannot be known using the normality test. So to describe the data in this study the distribution is normal or not, the researcher perform normality test with nonparametric statistic One-Sample Kolmogorov-Smirnov Test.

The normality test method through nonparametric statistics One-Sample Kollmogorov-Smirnov Test can clearly be seen in the following figure:

One-Sample Kolmogorov-Smirnov Test

		Unstandardizedi Residuals
N		44
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	272.83302897
Most Extrem Difference	Absolute	.101
	Positive	.101
	Negative	090
Test Statistik		.101
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

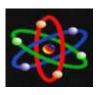
Source: SPSS 22

Figure 3 . Kolmogorov-Smirnov. normality test

The provisions of the Kolmogorov-Smirnov normality test are if the significance is < 0.005 it is said to be abnormal, if the significance is > 0.005 it is said to be normal. The results of the normality test in the table above are said to be normal, because the significance value is > 0.005, which is the Asymp quantity. Sig. (2-tailed) 0.200 > 0.005.

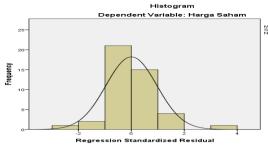
Researchers also used histogram analysis. Here's what the histogram looks like:





ISSN : 1979-9292

E-ISSN: 2460-5611

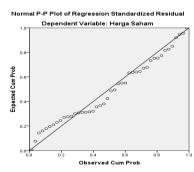


Source: SPSS 22

Figure 4. Histogram Normality Test

In the picture above, it can be seen that the data is normally distributed because the histogram graph shows the right pattern. It can be seen that the diagonal of the graph divides the 2 sides equally, so the researcher concludes that the data is normally distributed.

Probability Plot normality test can be seen in the following figure:



Source: SPSS 22

Figure 5. Probability Plot

In the picture shown, the graph shows the splotches following a diagonal line. So based on the observations, the researcher concludes that the Probability Plot graph is normally distributed, as evidenced by the results of the normality test, the Kolmogorov-Smirnov graph histogram and the P-P

Plot so that it is adequate as a condition for normal assumptions.

#### **Multicollinearity Test**

Those who have the intention to investigate whether in the regression model there is no correlation between one independent variable and another, a multicollinearity test is carried out (Ghozali, 2018:107)

In order to find out whether or not there is multicollinearity in the regression model, it can be seen through the amount of tolerance as well as the varriance inflation factor (VIF) score, that is, if the VIF value is < 10 and the tolerance is < 1, it shows that multicollinearity does not occur.

Coefficient <sup>a</sup>									
	Unstandartized Coefficients		Standardize d Coefficient			Collinear Statistics	iity		
Model	В	Std. Eror	Beta	Т	Sig.	Toleranc e	VIF		
1 (Constant)	386.78 9	111.056		3.483	.001				
EPS	3.007	1.091	.396	2.757	.009	.949	1.054		
ROA	047	.127	060	368	.714	.739	1.353		
DER	366	.250	234	-1.463	.151	.764	1.309		

Source: SPSS 22

Figure 6. Multicollinearity Test

Judging by the results above, the researcher concludes where the data shows that there is no correlation in the midst of one independent variable sharing other independent variables, it can be seen in the table that the value of tolerance is > 0.100 with a VIF value of < 10.0.

#### **Autocorrelation Test**

The autocorrelation test was carried out to investigate the possibility of there being an inaccuracy of the barrier by period t to the inaccuracy of the interference by period t-1 (earlier) (Ghozali, 2018)

LLDIKTI Wilayah X

436



ISSN : 1979-9292

E-ISSN: 2460-5611

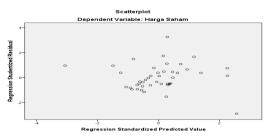
Model Summary <sup>b</sup>								
	Adjust R Std. Error in							
Model	R	R Square	Squares		Estimation			Durbin-Watson
1	.465a	.216	.158		282.8	7931		1.854

Source: SPSS 22

Figure 7. Autocorrelation Test It can be seen from the autocorrelation test table that the Durbin-Watson value is 1.854. In the Durbin-Watson table "k" = 4 (1 dependent variable with 3 independent variables), the number of samples (n) = 44, dl (lower duration) = 1.37940 and du (upper duration) = 1.66467. according to Durbin's provisions -Watson du (upper limit) < dw < (4 - du) > du (upper limit) or 1.66467 < 1.854 < (4 - 1.66467 =2.33533) it can be concluded that there is no autocorrelation.

#### **Heteroscedasticity Test**

The Heteroscedasticity test was carried out with the aim of investigating the possibility that in the regression model the asynchronous variance of the variance with the residuals from one investigation to another by using a Scatterplot graph



Source: SPSS 22

Figure 7. Heteroscedasticity Test

In the picture above with the Scatterplot graph test, it shows that the data spreads above the 0 (zero) line, which is on the Y axis, so that the researchers conclude

from the results of the Scatterplot test that there is no heteroscedasticity.

#### Data Analysis Results Multiple Regression Analysis

To investigate the influence of the dependent with independent, multiple linear regression analysis was performed. It is described in the table below about the results of the multiple regression analysis carried out in this research:

			Coefficienta		
			Standartized Coefficient		
	ca coefficie		Cocincient	Į.	
Models	В	Std. Eror	Beta	T	Sig.
(Constat)	386.789	111.056		3.483	.001
EPS	3.007	1.091	.396	2.757	.009
ROA	047	.127	060	368	.714
DER	366	.250	234	-1.463	.151

Source: SPSS 22

Figure 8. Multiple linear regression analysis

Here is the formula to calculate it:  $Stock\ Price = a + b1X1 + b2X2 + b3X3 + e$  $Stock\ Price = 386,789 + 3,007EPS - 0,047ROA - 0,366DER + e$ 

Stock prices Based on the equations of the linear regression model listed, the researchers came to the following conclusions:

- 1. If the value of constant a is 386,789 then all variables are considered constant with a significant 0 so that the increase in stock prices is 386,789.
- 2.EPS of 3,007 means that every 1 time increase in EPS results in an increase in Earning Per Share of 300.7%.
- 3. ROA of -0.047 means that every 1-time increase in ROA results in a decrease in Return On Assets of -4.7%.
- 4. DER is -0.366, meaning that for every 1-time increase in DER, it results in a



ISSN: 1979-9292

E-ISSN: 2460-5611

depreciation of the Debt to Equity Ratio of -36.6%.

#### **Coefficient of Determination (R2)**

			Model Summary <sup>b</sup>	
				Std. Eror of the
Model	R	R Square	Adjust R Square	Estimate
1	.465a	.216	.158	282.87931

Source: SPSS 22

Figure 9. Coefficient of Determination Test

It is known from the table above that R Square is worth 0.216, the researcher concludes that the variables EPS, ROA, DER affect the stock price of 21.6% and 78.4% affect other variables that the researcher did not consider, namely: ROE, Current Ratio (CR) and BVS.

F. Test

			ANOVA*			
	Model	Sum of Square	Df	Rata-rata Square	F	Sig.
ſ	1 Regresion	884064.832	3	294688.277	3.683	.020b
l	Residual	3200828.053	40	80020.701		
Į	Total	4084892.885	43			

Source: SPSS 22

Figure 10. Test f

Through the table listed above, it is shown where Fcount is 3.683 with a significance of 0.020. While Ftable is 2.822 with a significance of 0.05. Where it is known that Fcount > Ftable or 3.683 > 2.822 and 0.020 < 0.05. So the researcher can conclude that Ho is rejected and Ha is accepted which means that share prices in sub-sector companies. Financial institutions listed on the Indonesian stock exchange in 2017-2020 are influenced and substantially by EPS, ROA, DER.

				Coefficient <sup>a</sup>		
				Standardize		
		Unstandardiz		đ		
		Coefficient		Coefficient		
Mo	del	В	Std. Eror	Beta	T	Sig.
1	(Constant)	386.789	111.056		3.483	.001
	EPS	3.007	1.091	.396	2.757	.009
	ROA	047	.127	060	368	.714
	DER	366	.250	234	-1.463	.151

Source: SPSS 22

Figure 11. T Test

Formula  $T_{tabel t} = (\alpha/2; df)$ Through the power of 95% confidence, the value of  $\alpha = 5\%$  which corresponds to 0.05.

 $T_{tabel} = 0.05/2$ ; df = 44 - 4 $T_{tabel} = 0.025$ ; df = 40

 $T_{tabel} = 2.021$ 

So from the table above, it is known that:

1.EPS with Tcount 2.757 > Ttable 2.021 with a significance of 0.009 <0.05 Ho is rejected, Ha is accepted. So Earning Per Share shows a significant and significant relationship to stock prices in the financial institutions sub-sector companies listed on the Indonesia Stock Exchange in 2017-2020.

2. ROA with -Tcount -368 > Ttable - 2.021 with a significant value of 0.714 > 0.05 H₀ is accepted, Ha is rejected. So that ROA does not show a relationship to stock prices in the financial institutions sub-sector companies which are listed on the Indonesia Stock Exchange in 2017-2020.

3.DER with Tcount -1.463 < Ttable -2.035 where the significance level is 0.151 > 0.05 H₀ is accepted, Ha is rejected. So DER has no effect on stock prices in the financial institutions subsector companies listed on the Indonesia Stock Exchange in 2017-2020.

ISSN : 1979-9292

E-ISSN: 2460-5611

#### **DISCUSSION**

### **Effect of Earning Per Share on Stock Price**

Through the research that has been carried out, the results show that the Earning Per Share variable shows a significant and significant effect on stock prices. Based on the theory stated by Taufik (2002) that EPS is an indicator of income so that it affects and an impact on stock price movements, this view is in line with theory. From previous research by Ratih (2013) stated where Earning Per Share affects stock prices and this impact adds support for the holding of this research. Earning Per Share gives and affects stock prices, which means the size of EPS can affect the rise or fall of stock prices. On the other hand, it means that the more profit the company gets to distribute to investors, the more positive the company's stock price movement is.

### Effect of Return on Assets on Stock Prices

From this research, it is not possible to determine the effect of Return On Assets on stock prices. Through the exposure theory put forward by Sawir (2005), if the ROA of a company is getting better, the more successful the company is in fighting for assets in order to make a profit, then this result is inconsistent with the theory. However, the exposure in this study is in line with previous research, namely the research of Sasonggo and Wulandari (2006) where it is stated that stock prices are partially not influenced by Return on assets. So it shows that companies that have an increasing or decreasing ROA do not always have high or low stock prices. Whether ROA is increasing or good is not necessarily the capacity to influence attractiveness by investors.

### Effect of Debt to Equity Ratio on Stock Price

Through this research, it is not possible to prove or show that the Debt to Equity Ratio affects stock prices, which means that where the dominant or small DER value of a company is not only able to affect stock prices. Different from the theory expressed by Putri (2012), it is said that a Debt To Equity Ratio that is too high has a bad impact on the company's capacity, because if the debt is higher, the interest demands that must be paid by the company will be greater, and profits will decrease. So the greater the debt, the lower the stock price. However, assisted by research that has been carried out previously by Fendi H.R (2017), where it is stated that stock prices are not not influenced by DER significantly add support to research. This makes it possible when investing in a company, investors do not see the use of debt or interest returns and do not affect investors' views of the company.

#### **CONCLUSIONS**

After conducting this research, the researchers obtained the results that:

- 1. Partially, Earning Per Share affects and has an impact on stock prices in Financing Institutions Sub-Sector Companies which are listed on the Indonesia Stock Exchange in 2017-2020
- 2. Partially, Return On Assets does not affect the Share Price in the Financing Institutions Sub-Sector Companies



#### ISSN : 1979-9292



# JURNAL IPTEKS TERAPAN Research of Applied Science and Education V16.i3 (432-440)

E-ISSN: 2460-5611

which are listed on the Indonesia Stock Exchange in 2017-2020.

- 3. The Debt to Equity Ratio partially does not affect the Stock Price in the Financing Institutions Sub-Sector Companies which are listed on the Indonesia Stock Exchange in 2017-2020.
- 4. Simultaneously, the independent variables EPS, ROA, and DER affect the Stock Price in the Financial Institutions Sub-Sector Companies listed on the Indonesia Stock Exchange in 2017-2020.

Based on the impact of variations in the independent variable on the dependent variable which is known through the amount of adjust R Squars in the coefficient of determination test is 21.6% where the remaining 78.4% is influenced by other variables.

#### **BIBLIOGRAPHY**

- Abram, Bintori dkk. (2020). Pengaruh PER, DER, EPS dan PBV terhadap Harga saham perusahaan perbankan di Bursa Efek Indonesia (BEI) Periode 2016-2019. Medan: Jurnal indeks Terapan Padang
- Anjasari, Dwi Retno dkk. (2020). Pengaruh ROA, ROE, EPS Terhadap Harga Saham. Jurnal Ilmiah Manajemen Ubhara 2, no.2.
- Anwar, M. (2022). Pengantar Dasar Ilmu Manajemen. Jakarta: Kencana.

- Brigham, E. F. (2012). Fundamental of Financial Management Jakarta: Salemba Empat.
- Darmaji, dan Hendy (2006). Capital Market in Indonesia. Jakarta: Salemba Empat
- Huwaida, H. (2019). Statistika Deskriptif. Yogyakarta: Poliban Press.
- Mamondol, M. R. (2021). Dasar-Dasar Statistika. Surabaya: Scopindo Media Pustaka.
- Nufusa, Syifa Hepayati & Nana Sahronib. (2020). Pengaruh ROA, ROE dan EPS Terhadap Harga Saham. Jurnal Perbankan dan Keuangan 1, no. 2,: 85-93
- Ruyatnasih, Y., & Megawati, L. (2018).

  Pengantar Manajemen.

  Yogyakarta: Absolute Media.
- Sugiarto, & Setio, H. (2021). Statistika Deskriptif Dan Konsep Peluang Aplikasi R-Stat. Yogyakarta: Andi.
- Suprihanto, J. (2018). Manajemen. Yogyakarta: Ugm Press.