# Analysis of Factors Affecting Stock Prices: 

Case Study PT. Telekomunikasi Indonesia, 2016-2020

Sulistiyowati, Lia Budi ${ }^{\text {1 }}$; Pitri, Selfa Benika ${ }^{\text {2 }}$; Rofiah, Zakiatur ${ }^{\text {3) }}$; Safitri, Nabilah ${ }^{\text {4) }}$<br>${ }^{1)}$ Lias4979@gmail.com, Department of Management, Faculty of Economics and Bussiness, Mercu Buana University, Indonesia<br>${ }^{2)}$ Selfa.benika1401@gmail.com, Department of Management, Faculty of Economics and Bussiness, Mercu Buana University, Indonesia<br>${ }^{3)}$ Zakiaturrofiah@gmail.com, Department of Management, Faculty of Economics and Bussiness, Mercu Buana University, Indonesia<br>${ }^{4}$ Nabilahsafitri35@gmail.com, Department of Management, Faculty of Economics and Bussiness, Mercu Buana University, Indonesia

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## Abstract

This study aims to determine and analyze the effect of Earning Per Share (EPS), Price Earning Ratio (PER) and Debt to Equity Ratio (DER) on the stock price of the company PT. Telekomunikasi Indonesia (Persero) Tbk is listed on the IDX for the 2016-2020 period, either simultaneously or partially. The sample of the population used is a PT Telecommunications company for the 2016-2020 period. This study uses multiple linear regression analysis to see the effect of the independent variable on the dependent variable. The results showed that simultaneously, showing that Earning Per Share (EPS), Price Earning Ratio (PER) and Debt to Equity Ratio (DER) had no significant effect on stock prices at PT. Telekomunikasi Indonesia (Persero) Tbk which is listed on the Indonesia Stock Exchange for the 2016-2020 period. While partially shows that Earning Per Share (EPS), Price Earning Ratio (PER) and Debt to Equity Ratio (DER) have no significant effect on stock prices at PT. Telekomunikasi Indonesia (Persero) Tbk which is listed on the Indonesia Stock Exchange for the 2016-2020 period.

## INTRODUCTION

In the current era of globalization, the business world has experienced rapid development from day to day. In line with the very rapid developments that occur in the business world, every company requires large enough funds to fulfill its operational activities so that the business is run smoothly.

Funding or capital is a factor that cannot be separated in a business activity. To run a business activity, whatever type it requires funds or capital. This fact requires the company to seek additional funds to implement the policy of increasing the capital. The need for these sources of funds can be met by making loans to other parties or selling their shares to the public through the capital market.

The capital market is a meeting between parties who have excess funds and those who need funds by trading securities. The capital market is also defined as a meeting place between buyers and sellers with the risk of profit and loss (Jogiyanto, 2010:29).

For investors, the capital market is a place to channel their funds in the form of stocks or bonds. Stock investment has an attraction for investors because by investing in shares,
investors have the hope of obtaining high profits in the form of capital gains or stock dividends. The capital market can be used by investors to obtain a high level of income and also has a high risk of the investment. Meanwhile, for companies that go public, the capital market is a place to obtain additional funds for the company's operational activities so that the company's survival can survive and be able to compete with other companies.

The movement of stock prices is inseparable from the strength of demand and supply for these shares (Risman, et al, 2021, 2017). The share price will change at any time, due to the instantaneous assessment by the sellers and buyers who are influenced by many factors. Factors that affect the stock price include earnings per share (Earning Per Share), the ratio of earnings to price per share (Price Earning Ratio), the ratio of the level of use of debt as a source of financing for the company's operations (Debt to Equity Ratio), and valuation the market for the company's performance (Market Value Added).

EPS Value of PT. Telkom Indonesia Tbk. A larger number indicates a larger company's ability to generate net profits from each share. The higher the EPS value, the more attractive investors will be in investing their capital, because EPS shows the profit that shareholders are entitled to receive on one share they own.

PER shows the profit growth of the company by comparing the price of the shares purchased with the profit that will be obtained in the future so that it shows that investors believe in the amount of profit given by the company PT. Telkom Indonesia Tbk. which will be distributed to shareholders in the form of dividends in the future.

DER or the level of use of debt as a source of financing for the company's operations. If PT. Telkom Indonesia Tbk. being able to take advantage of their debts for the company's operational costs, it will have a positive impact on investors to invest in the company and the stock price will rise, otherwise if PT. Telkom Indonesia Tbk. not being able to take advantage of their debt will have a negative impact on investors in making decisions to buy shares.

In Indonesia, the government owns the telecommunications industry which is a StateOwned Enterprise (BUMN), namely PT. Telkom Indonesia Tbk. as an information and communication company as well as the most complete telecommunications service and network provider in Indonesia. PT. Telkom Indonesia Tbk. have assets of great value so that they can occupy the list of the largest companies in Indonesia, but large assets are not a determining factor that these companies have good or bad financial performance.

The problem in this study is that the movement of the stock price of PT. Telkom Indonesia Tbk. cannot be predicted with certainty. The price of a share of PT. Telkom Indonesia Tbk. determined according to the law of supply and demand (bargaining power). The more people who buy the stock, the price of the stock tends to rise. On the other hand, the more people sell the stock, the lower the stock price tends to be. Therefore, changes or uncertainty in stock prices have an impact on changes in the volume of share sales. This is in line with the results of the analysis of stock price movements and sales volume of shares in the company PT. Telkom Indonesia Tbk. The period 2007-2017 which for more details the author presents in table 1.1 as follows:

Table 1. Share Price of PT. Telekomunikasi Indonesia Tbk Period 2016-2020

| Year | Highest | Lowest | Closing |
| :--- | :--- | :--- | :--- |
| $\mathbf{2 0 1 6}$ | 4570 | 3045 | 3980 |
| $\mathbf{2 0 1 7}$ | 4840 | 3780 | 4440 |
| $\mathbf{2 0 1 8}$ | 4460 | 3250 | 3750 |


| $\mathbf{2 0 1 9}$ | 4500 | 3480 | 3970 |
| :--- | :--- | :--- | :--- |
| $\mathbf{2 0 2 0}$ | 4030 | 2450 | 3310 |
| Average | 4480 | 3201 | 3890 |

Source : Annual Report PT. Telkom Indonesia Tbk
Based on the table above, that the share price of PT. Telkom Indonesia Tbk for 5 years fluctuated. The occurrence of stock price fluctuations indicates an investor's assessment of the company's performance and policies so that it has an impact on the ups and downs of the company's shares. The increase in sales and profits indicates the company's performance has increased, resulting in an increase in demand for shares by investors. The company's policy for business expansion is to finance investment from loans so that investors assume there will be risks so that stock prices decline due to decreased demand.

The occurrence of high stock price fluctuations is caused by the company aggressively seeking loans to finance its investment or business development, which consequently leads to an increase in the company's high debt ratio. This can result in the company being faced with high risks as well as in the ability to pay interest costs and principal installments of debt. This risk causes the company to be involved, the conditions in the situation determine the stock business situation will fluctuate (Fahmi, 2012: 87). Even though the debt ratio is high, the company is generally in demand by many investors and subsequently encourages high demand for these shares, so that the company's share price will increase sharply. The results of this research are expected to provide benefits for various parties in making economic decisions, management decisions, and developing knowledge for academics.

Based on the identification of the problem above, the problem can be formulated as follows:

1. How is the effect of Earning Per Share (EPS) on the share price of PT. Telkom Indonesia Tbk. listed on the IDX for the 2016-2020 period?
2. How is the effect of Price Earning Ratio (PER) on the stock price of PT. Telkom Indonesia Tbk. listed on the IDX for the 2016-2020 period?
3. How does the Debt to Equity Ratio (DER) influence the stock price of PT. Telkom Indonesia Tbk. listed on the IDX for the 2016-2020 period?

## LITERATURE REVIEW

## 1. Theoretical Foundation

### 1.1. Understanding Shares

Stocks are one of the most sought after capital market instruments for investors because they provide an attractive rate of return. Shares can be defined as a sign of one's or one-sided equity participation (business entity) in a company or limited liability company. By including this capital, the party has a claim on the company's income, a claim on the company's assets, and is entitled to attend the general meeting of shareholders (RUPS).

According to Mohamad Samsul (2015:59) Shares are proof of company ownership. Shareholders are also called shareholders (shareholders or stockholders). Evidence that a person or party can be considered a shareholder if a person or a party has been registered as a shareholder in a book called the shareholder register. According to Darmadji and Fakhruddin (2011: 5) stock is a sign of participation or ownership of a person or entity in a company or
limited liability company. Shares are in the form of a piece of paper that explains that the owner of the paper is the owner of the company that issued the securities.

Based on the understanding of the experts above, shares are proof of ownership of a company in which the nominal value, company name, and rights and obligations are explained to each holder.

### 1.2. $\quad$ Stock Price

The share price is the value of a share that reflects the wealth of the company that issued the shares, where changes or fluctuations are largely determined by the forces of supply and demand that occur in the stock market (secondary market). The more investors who want to buy or hold the stock, the higher the price. Conversely, the more investors who want to sell or release a stock, the price will move down.

There are three types of information that can affect stock prices, namely past stock price movements, publicly available information, and all information both publicly available and owned by the company as follows:
a) Weak form

Its share price fully reflects past information.
b) Semi-strong form

Its share price not only reflects the price trend of the previous period but also other information that has been published.
c) Strong form

Its share price reflects the trend of price changes in the previous period, information that has been published and is privately informed. Every investor who invests in stocks will often monitor the latest developments in the condition of issuers in which they invest money and observe the movement of stocks on the stock exchange as a whole.

## Effect of Earning Per Share (EPS) on Stock Price

For investors, information about Earning Per Share (EPS) is a very basic need in decision-making needs. Such information can reduce the uncertainty and risk that may occur, so that the decisions taken are expected to be in accordance with the desired objectives. Earnings per share (Earnings Per Share) can be used as an indicator of the level of company value. Earnings per share (Earnings Per Share) is also one way to measure success in achieving profits for shareholders in the company.

According to Sartono (2010:9) one of the factors that affect stock prices is earnings per share (Earnings Per Share). An investor who invests in a company will receive a return on the shares he owns. The higher the earnings per share (earnings per share) provided by the company, the share price also increases. This will encourage investors to invest even more so that the company's stock price will increase.

## Effect of Price Earning Ratio (PER) on Stock Prices

According to Ambarwati (2019:101) Price Earning Ratio because PER information indicates the amount of rupiah that investors must pay to get one rupiah of company earnings. Besides, PER is also a measure of the relative price of a company's stock.

According to Sartono (2010: 9) one of the factors that influence the formation of stock prices is the ratio of earnings to prices per share or Price Earning Ratio. Investors will calculate how many times the value of earnings is reflected in a stock.

## The Effect of Debt to Equity Ratio (DER) on Stock Prices

Debt to Equity Ratio as the level of use of debt as a source of company financing. From the perspective of the lower ability to pay long-term obligations, DER will have an impact on increasing stock prices and also the company will be better at paying long-term obligations. Information on increasing DER will be accepted by the market as a bad signal that will provide negative input for investors in making decisions to buy shares. This causes demand and stock prices to decline. This statement is supported by research by Ratih (2013), Safitri (2013), and Raharjo (2013) in the journal Reza Bagus Wicaksono (2015).

Debt to Equity Ratio (DER) is a ratio used to measure the level of leverage to the company's total shareholder equity. The larger the DER indicates the greater the cost of debt that must be paid by the company so that profitability will decrease. This causes the rights of shareholders to decrease, and will affect the interest of investors which will also affect the declining share price. This statement is supported by research by Abigael K and Ika S (2008) and Stella (2009) and Hatta and Dwiyanto (2012) in the research journal Abied Luthfi Safitri.

## 2. Conceptual Framework

Figure 1. Conceptual Framework


## METHOD

## 1. Types of Research and Data Sources

The type of research used in this research is quantitative research. The selection of this type of research is quantitative because the research data used are in the form of numbers that will be analyzed using statistical data with the aim of testing the predetermined hypothesis. According to Sugiyono (2017:8) draw the following conclusions:

Quantitative research can be interpreted as a research method based on the philosophy of positivism, used to examine certain populations or samples, random sampling techniques
and data collection using research instruments, quantitative/statistical data analysis aimed at testing the established hypothesis.

The data sources in this study are financial reports and annual reports at PT telecommunications companies for the 2016-2021 period.

## 2. Population and Research Sample

The population is the entire research subject (Arikunto, 2016:203). The population used by the researcher is PT telecommunication for the period 2016-2020.

The sample is part or representative of the population under study with certain characteristics (Arikunto, 2016:174). The sample of the population used is a PT telecommunications company for the period 2016-2020.

## 3. Data collection technique

The data collection technique used in this study was to obtain data in the form of documentation, namely collecting, recording, and reviewing secondary data in the form of the 2016-2020 annual financial statements of PT Telekomunikasi Indonesia and through the IDX's official website, www.idx.co.id. Other supporting data used are literature study methods and scientific journals, as well as other literature containing discussions based on this research.

## OPERATIONAL DEFINITION AND MEASUREMENT OF VARIABLES

## 1. Independent Variable Earnings Per Share (EPS)

Earning Per Share (EPS) is a form of giving benefits to shareholders and each share owned. (Irham Fahmi, 2013:96). Earning Per Share (EPS) can be formulated as follows:

$$
(\mathrm{EPS})=\frac{\text { net profit }}{\text { number of shares outstanding }}
$$

## Price Earning Ratio (PER)

Price Earning Ratio is a ratio that measures how investors assess the company's growth prospects in the future, and is reflected in the share price investors are willing to pay for every rupiah of profit earned by the company. (Sudana, 2011:23) Price Earning Ratio (PER) can be formulated as follows:

$$
(\mathrm{PER})=\frac{\text { Market Price per share }}{\text { profit per sheet }}
$$

## Debt to Equity Ratio (DER)

Debt to equity ratio is a ratio used to determine the ratio between total debt and equity. This ratio is useful for knowing how much the company's assets are financed from debt. (Kasmir, 2012:166). Debt to Equity Ratio (DER) can be formulated as follows:

$$
\text { Debt to equity ratio }=\frac{\text { Total Liability }}{\text { Total Ekuity }}
$$

## 2. Dependent Variable

The share price is the price formed by the trading of the company's shares on the Indonesia Stock Exchange. The stock price in this study refers to the closing stock price or the company's stock price at the close of the year on the Indonesia Stock Exchange.
Stock price $=$ closing price

## 3. Data Analysis Technique

The data analysis technique used in this study uses multiple regression analysis model with the SPSS program as a medium for analyzing data. Data analysis for testing this hypothesis uses multiple linear regression analysis to test whether there is an effect of the independent variables (EPS, PER, and DER) on the dependent variable (Stock Price).

## RESULTS AND DISCUSSION

## 1. Classic Assumption Test

Table 2. Normality Test with Sample Test Kolmogorov-Smirnov

|  | Mean | Unstandardized <br> Residual |
| :--- | :--- | ---: |
| N | St. Deviation | , 0000000 |
| Normal Parameters ${ }^{\text {a,b }}$ | Absolute | 107,17490140 |
| Most Extreme Differences | Positive | , 319 |
|  | Negative | , 156 |
|  |  | ,- 319 |
| Test Statistic | , 319 |  |
| Asymp. Sig. (2-tailed) |  | , $107^{\text {c }}$ |

On the value of Kolmogorov Smirnov it is known that the value of asymp. Sig (2tailed) was 0,107 and above of the significant value $(0,05)$. This means that the residual variable is normally distributed (good).

Table 3. Multicollinearity Test

|  | Model |  | Collinearity Statistics |  |
| :--- | :--- | :--- | :--- | :---: |
|  |  | Tolerance | VIF |  |
| 1 | (Constant) |  |  |  |
|  | EPS | , 720 | 1,388 |  |
|  | PER | , 318 | 3,146 |  |
|  | DER | , 334 | 2,994 |  |

In this test, seen from the good regression model, it is characterized by no intercorrelation between independent variables (no symptoms of multicollinearity).

Symptoms of multicollinearity can be seen from the large tolerance. Multikoneritas test can be done if the tolerance value is $>0,1$ and the VIF (Variance Inflation Factors) value is $<10$.

Table 4. Heteroscedasticity Test

| Model |  | Unstandardized Coefficients |  | Standardized Coefficients | t | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | Std. Error | Beta |  |  |
| 1 | (Constant) | -792,722 | 3053,716 |  | -,260 | ,838 |
|  | EPS | 14,913 | 6,359 | ,728 | 2,345 | ,257 |
|  | PER | 142,206 | 86,106 | ,772 | 1,652 | ,347 |
|  | DER | -1216,872 | 1371,878 | -,404 | -,887 | ,538 |

The test results in the table can be seen that the significance level of each independent variable is $>0,05$, it can be concluded that there is no heteroscedasticity in the regression model used.

Table 5. Autocorrelation Test

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate | Durbin-Watson |
| :--- | :--- | ---: | ---: | ---: | ---: |
| 1 | , $965^{\text {a }}$ | , 931 | , 722 | 214,350 | 2,074 |

a. Predictors: (Constant), DER, EPS, PER
b. Dependent Variable: HARGA SAHAM

Based on the autocorrelation test, the Durbin-Watson statistical value is 2,074 . The Durbin-Watson statistical value is not less than 1 or greater than 3, so it can be concluded that there is no autocorrelation symptom.

## 2. Hypothesis Test

Here are the results of the F statistical test:
Table 6. F Statistics Test (Simultaneous)

|  | Model | Sum of <br> Squares | df | Mean <br> Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| 1 | Regression | 615534,162 | 3 | 205178,054 | 4,466 | , $332^{\mathrm{b}}$ |
|  | Residual | 45945,838 | 1 | 45945,838 |  |  |
|  | Total | 661480,000 | 4 |  |  |  |

a. Dependent Variable: HARGA SAHAM
b. Predictors: (Constant), DER, EPS, PER

From the table above, the results of simultaneous testing, the Fcount value shows a value of 4,466 and the Ftable value of 12,71 . This shows that Fcount < Ftable, so it can be concluded that the EPS, PER, and DER variables have no effect on stock prices. From the results of testing the data obtained a significant value of 0,332 . Because the significance value
is 0,000 < from 0,05 , it can be concluded that the EPS, PER, and DER variables have no effect on stock prices.

Table 7. Test Statistics $t$ (Partial)

|  | Model | Unstandardized <br> Coefficients |  | Standardized <br> Coefficients | T | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
|  |  | B | Std. Error | Beta |  |  |
| 1 | (Constant) | $-792,722$ | 3053,716 |  | ,- 260 | , 838 |
|  | EPS | 14,913 | 6,359 | , 728 | 2,345 | , 257 |
|  | PER | 142,206 | 86,106 | , 772 | 1,652 | , 347 |
|  | DER | $-1216,872$ | 1371,878 | ,- 404 | ,- 887 | , 538 |

From the results of multiple linear regression analysis with the SPSS program as shown in Table, it can be concluded that the EPS, PER, DER variables have no effect on stock prices because the significant value is $>0,05$.

The following is a multiple regression equation that can be formed in this study based on the t statistical test (Partial):

$$
Y=-792,722+14,913 \times 1+142,206 \times 2-1216,872 \times 3
$$

From the regression equation that has been formulated, it can be explained as follows:

1. The constant value of -792.722 states that if the independent variable is considered constant, then the value of Stock Price ( Y ) is -792.722.
2. The regression coefficient value of the EPS variable (X1) has a regression coefficient value of 14,913 . The coefficient is positive, meaning that every increase in EPS (X1) is 1 and results in an increase in Stock Price (Y) of 14,913 (with the other independent variables being constant).
3. The regression coefficient value of the PER (X2) variable has a regression coefficient value of 142,206 . The coefficient is positive, meaning that every increase in PER (X2) is 1 and results in an increase in Stock Price (Y) of 142,206 (with a note that other independent variables are constant).
4. The regression coefficient value of the DER variable (X3) has a regression coefficient value of $-1216,872$. The coefficient is negative, meaning that every increase in DER (X3) is 1 and results in a decrease in Stock Price (Y) of 1216,872 (with other independent variables being constant).

## 3. Coefficient of Determination Test

Table 7. Coefficient of Determination Test

| Model | R | R Square | Adjusted R <br> Square | Std. Error of <br> the Estimate |
| :--- | :--- | ---: | ---: | ---: |
| 1 | , $965^{\mathrm{a}}$ | , 931 | , 722 | 214,350 |

a. Predictors: (Constant), DER, EPS, PER
b. Dependent Variable: HARGA SAHAM

From the table above, in multiple regression, the use of the adjusted coefficient of determination (adjusted R Square) is better in seeing how well the regression model is compared to the coefficient of determination. The test results show the value of the adjusted coefficient of determination (adjusted R Square) of 0,722 or $72,2 \%$, meaning the influence of the independent variable (X) namely DER, EPS and PER on the dependent variable (Y) Stock Price.

## CONCLUSION

From the above test results simultaneously show that EPS, PER, and DER have no significant effect on stock prices at PT. Telekomunikasi Indonesia (Persero) Tbk which is listed on the Indonesia Stock Exchange for the 2016-2020 period. While partially shows that EPS, PER, and DER have no significant effect on stock prices at PT. Telekomunikasi Indonesia (Persero) Tbk which is listed on the Indonesia Stock Exchange for the 2016-2020 period.

This research still has many limitations. Researchers used the variables EPS, PER and DER. These variables are the company's internal factors. But there are still many factors that affect stock prices, such as inflation, interest rates, and government policies. The object of research and the year of observation used in this study was only research on the company PT. Telekomunikasi Indonesia (Persero) Tbk which is listed on the Indonesia Stock Exchange from 2016-2020.

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