

THE INFLUENCE OF FIRM SIZE, PROFITABILITY, AND LEVERAGE ON STOCK PRICES OF PROPERTY AND REAL ESTATE COMPANIES LISTED IN INDONESIA STOCK EXCHANGE IN 2015 2018

1st Nirmala Hayuning Tyas, 2nd Siti Almurni

Departemen Akuntansi
Sekolah Tinggi Ilmu Ekonomi Indonesia
Jakarta, Indonesia

nirmalahayuningtyas@gmail.com ; siti_almurni@stei.ac.id

Abstract– This study aims to determine the effect of firm size, profitability, and leverage on stock prices. Profitability is measured by Net Profit Margin (NPM) and Return On Equity (ROE), then Leverage which is measured by Debt to Equity Ratio (DER) in property and real estate companies in 2015-2018. This study uses a research strategy that is quantitative with the type of causal research. The population in this study were property and real estate companies listed on the IDX in 2015-2018. The sample was determined based on the purposive sampling method. The data used are secondary data with data collection methods carried out in this study with documentation through the official website www.idx.co.id. This study uses panel data regression. The results prove that company size has an influence on stock prices, profitability with NPM and ROE has no effect on stock prices, Leverage with DER has a negative effect on stock prices.

Kata Kunci: Firm Size, Profitability, Leverage, Stock Price.

I. INTRODUCTION

The property and real estate sector is an important sector in contributing to the country's economy. According to Basuki (2017) a productive economy cannot be achieved if the state infrastructure is inadequate. The increase in infrastructure development has made a large number of workers. This means that it contributes to reducing unemployment and improving the country's economy. This sector is also considered to be a benchmark for the country's economic growth. The property and real estate industry is one of the sectors that signals the rise and fall of a country's economy.

The development of companies in the property and real estate sector in Indonesia has increased from 2014 to 2016. This is due to an increase in economic growth in Indonesia by 6.5%. In 2013-2014, property and real estate sales reached their peak due to low interest rates, which led to passionate property and real estate sales. Property and real estate conditions slowed down in 2014 due to tightening Bank Indonesia regulations and political conditions. Until 2016 the property and real estate sectors were not in a good position. From this trend, it can be said that until 2016 the property and real estate sector was under pressure, but improved in 2017. Property and real estate growth reached its peak, and property and real estate prices experienced a very high increase in 2018-2019 (Asriman, 2019).

One of the investment alternatives most widely used by investors in the capital market is stocks. Compared to bonds, stocks provide greater returns and investors do not spend large enough funds. Actually, investing in stocks also has a high risk in accordance with the principle of high risk, high return, and low risk of low return. Investors should understand stocks and share price movements, should analyze in advance and consider the risks that may be obtained due to the fluctuating or fluctuating stock price movements.

Stock prices in the property and real estate sector have fluctuated or fluctuated. Quoting from IDX data and conveyed by the Director of Investa Saran Mandiri, Hans Kwee, that in 2017 the property and real estate index decreased by 5.67%. One of them, namely PT Pakuwon (PWON) fell 2.4% to the level of Rp610 per share. The decline also occurred in the shares of PT Metropolitan Kentjana Tbk (MKPI) up to 3.16 percent at the level of Rp24,500 per share and PT Jaya Real Property Tbk 1.19 percent to the level of Rp825 per share. Meanwhile, Summarecon Agung at the level of IDR 830 per share (cnnIndonesia.com by Dinda Audriene Mutmainah, 17 July 2017). In 2018 property and real estate stocks increased. Binaartha Parama Sekuritas analyst Muhammad Nafan Aji said that the performance in the property and real estate index rose 2.75% to the level of 462 in trading. PT Ciputra Development Tbk (CTRA) shares led the increase of 11.67% to the level of Rp1,005. Furthermore, PT Sumarecon Agung Tbk (SMRA) which managed to rank second with an increase of 10.49% to Rp.895, then PT Pakuwon (PWON) which was 7.86% to the level of Rp535 (investment.kontan.co.id dated 24 May 2018).

Stock prices declined in 2017 due to weak consumer purchasing power. The low purchasing power of the public can be seen from a survey conducted by Bank Indonesia (BI). The BI survey results showed that the *Indeks Keyakinan Konsumen* (IKK) in July 2017 was 122.4 or down 3.5 points when compared to the previous month (Bank Indonesia, 2017). On the other hand, property and real estate prices are quite expensive, and tend to rise every year, making it difficult for people to catch up with property and real estate prices. This has led many investors to sell their shares, especially foreign investors. Investors have difficulty selling property and real estate. It can be said, the decline in share prices in 2017 was caused by external factors, as they are related to the people's economy. However, property and real estate stocks are still promising and profitable. It can be seen that in 2018 to early 2019 share prices have increased, because the property and real estate industry has developed along with the addition and growth of society. Make investors invest in the long term property and real estate sector.

II. LITERATURE STUDY

2.1 Theoretical Study

Agency Theory

Agency theory according to Supriyono (2018: 63) is a concept that describes the relationship between the principal (contract giver) and the principal agent (contract recipient) contracting the agent to work for the interests or objectives of the principal so that the principal gives decision-making authority to the agent to achieve that goal. Meanwhile, according to Jensen and Meckling (1976 in Noviananda & Juliarto 2019), there is a relationship between shareholders (principal) and

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management (agents). In this relationship, management or the agent has a contract to perform certain tasks for the principal and the principal has a contract to reward the agent.

Principals who act as shareholders, then agents act as management or company managers. Shareholders assign duties and authorities to the management of the company. Where the company management is responsible for managing the company related to the company's performance so that the interests of shareholders can be carried out properly. In this case, even though it is the shareholder who assigns duties and authority to the management of the company, the shareholder cannot interfere in the technical affairs or operations of the company.

Then in agency theory, Jensen and Meckling (1976 in Noviananda & Juliarto, 2019) argue that there may be problems such as differences in interests and information asymmetry between managers as agents and owners (shareholders) or principal. The existence of information asymmetry allows managers to maximize the value of company shares through disclosure of accounting information in order to obtain personal incentives and bonuses. This can happen because the manager has more information on the company than the owner. Meanwhile, on the other hand, the owner needs real information from the company that is run by the manager, this gives the owner a cost.

Capital Market

The term market is usually used in terms of exchange, exchange and market. Meanwhile, the term capital is often used the term securities, securities and stock. The capital market is trading in long-term financial instruments (securities), namely in the form of equity (stock) and debt (bonds), both issued by the government (public authorities) and by private companies (private sector). The definition of capital markets in accordance with Law Number 8 of 1995 concerning Capital Markets (UUPM) is activities related to Public Offerings and Securities trading, Public Companies related to the Securities they issue, as well as institutions and professions related to Securities (Huda and Mohammad, 2010).

Share

According to Hermuningsih (2012: 78) shares are one of the securities traded in the capital market which is ownership. Stock is also a sign of a person's or business entity's capital participation in a company or limited liability company. Meanwhile, according to Martalena and Malinda (2011: 55) shares are one of the most popular financial market instruments. Issuing shares is one of the company's options when deciding to fund the company. On the other hand, stocks are an investment instrument that many investors choose because they are able to provide attractive returns.

Shares can be defined as a sign of the participation or ownership of a person or entity in a company or limited liability company. The amount of ownership is determined by how much investment is invested in the company (Darmadji and Fakhruddin, 2012). Shares or stock is a proof or certificate of ownership of a company as a limited liability company.

The Types of Shares

There are 2 types of shares as seen from the rights attached to shares, namely common stock and preferred stock. Common stock is the stock most recognized by the public. The right to claim for the return of the shares is the latest. Ordinary shares, a securities sold by a company that explains the nominal value, where the holder is given the right to attend the "General Meeting of Shareholders" and "Extraordinary General Meeting of Shareholders" and the right to decide to buy a right issue (share sale) limited) or not, then at the end of the year will get profit in the form of dividends (Fahmi, 2012).

Then preferred stock is a special class of stock that has several preferences or advantages or features that common stock does not. The characteristic that distinguishes common stock and preferred stock lies in its more closed and negative nature besides its preference. For example,

preferred stocks have no voting rights, are not cumulative, and are non-participating (Kieso, et al, 2014: 316).

Stock Price

According to Jogiyanto (2008: 167 in Hutapea 2017) share price is the price of a share that occurs on the stock market at a certain time determined by market players and determined by the demand and supply of shares concerned in the capital market. Share price means the value of the stock itself. Shareholders will receive returns on their capital in the form of dividends and capital gains.

Share prices according to Widiatmojo (2001: 45 in Rohmah, et al 2017), can be divided into several types, namely:

1. Nominal Price
The nominal price is the value set by the issuer to value each share issued. This nominal price is stated in the share sheet.
2. Prime Price
The initial price is the price before the price is recorded on the stock exchange. The amount of this initial price depends on the agreement between the issuer and the underwriter. Harga Nominal
3. Market Prices
The market price is the selling price from one investor to another. Market price occurs after the shares are listed on the stock exchange.
4. Opening Price
The opening price is the price asked by the seller from the buyer at the time the exchange opens.
5. Closing Price
The closing price is the market price that occurs on the IDX at the end of the year concerned.
6. Highest Price
Stock prices are not only once or twice a day, but can be repeated and did not occur in the old stock price. Of the prices that occur, of course there is a price that is the highest on that one trading day, that price is called the highest price.
7. Lowest Price
The lowest price is the opposite of the highest price, which is the lowest price on a trading day.
8. Average Price
The average price is the average of the highest and lowest prices. This price can be recorded for transactions daily, monthly, or annually.

Stock Analysis

Technical Analysis

According to Sutrisno (2012: 309) technical analysis is an investment approach by studying historical data and stock prices and relating them to trading volume that occurs with the current economic conditions. This analysis only considers stock price movements without paying attention to the performance of the company that issued the shares. The stock price movements are associated with events at that time.

According to Utomo (2016: 40) technical analysis is a tool to predict price movements with the aim of predicting the direction of stock price movements in the future. Then according to Ong (2016: 1) technical analysis is a method of evaluating stocks or securities, by statistically analyzing the data obtained from past market analysis with the aim of predicting future stock prices.

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Fundamental Analysis

According to Susanto & Sabardi (2002: 2 in Nawangwulan, Sudjana & Endang 2018) fundamental analysis is a method of forecasting the movement of financial instruments based on economy, politics, the environment and relevant factors that can affect supply and demand. Fundamental analysis practices stock prices in the future by estimating the value of fundamental factors that affect future stock prices and applying the relationship of these variables (Martalena, 2011).

According to Bodie, et al (2014: 217, in Egam, et al. 2017: 3) stock valuation is the process of using information about the present and future profits of a company to find and predict the fair price value of a share. There are two approaches in stock price analysis that are used to evaluate stock prices, namely fundamental analysis and technical analysis. The most commonly used company analysis is the financial ratio approach.

Fundamental Factors That Affect Stock Prices

According to Sutrisno (2012: 309) fundamental analysis is an approach to stock price analysis that focuses on company performance. The company's performance can be seen from the company's development, company's balance sheet and profit and loss report. As stated by Wijayanti (2010 in Arifin & Agustami 2016) that stock prices change (fluctuate) in accordance with the forces of demand (demand) and supply, one of the factors that influence share purchases (demand) is based on fundamental considerations, namely financial performance. companies, with good financial performance, the company is able to generate high profits and at the same time can set aside that part of the profits as high dividends, so that it will affect the demand for shares.

One of the factors that affect the stock price is the condition of the company, in this case it is defined as the company's financial performance, company performance is very important, because company performance is influential and can be used as a tool to determine whether the company is experiencing development or vice versa, a measure of company performance. the longest and most widely used is financial performance as measured from the company's financial statements, analysis of financial statements can be done by calculating financial ratios, types of financial ratios that are often used in assessing corporate financial performance are liquidity ratios, activity ratios, solvency ratios, profitability ratios, and market ratios, Zuliarni (2012 in Arifin & Agustami 2016).

Firm Size

Firm size is the size or amount of total assets owned by the company. Firm size is measured by means of the natural logarithmic value of the total assets of the company Susdarsi, (2012 in Wehantouw, et al, 2015: 4). Meanwhile, according to Jogiyanto (2013: 282) Firm size is a scale where the size of the company can be classified according to various ways such as total assets, log size, stock market value, and others.

Firm size is a scale that can classify the size of a company. Firm size can be measured by total assets, sales, and market capitalization. Firm size is measured by total assets using natural logarithm calculations. Companies with a high number of assets are often considered companies with good prospects and can provide benefits to shareholders, so that these shares can survive in the capital market and the price will increase if there are many investor's interest (Arifin, 2016).

Large companies that are well established will find it easier to obtain capital in the capital market compared to small companies. The greater the total assets owned, the company can invest properly and meet demand. Companies that have high assets are considered by companies with good prospects so that they provide benefits to shareholders. These stocks can survive in the capital market and the price will increase if many investors are interested. The formula used in calculating Firm Size according to Jogiyanto (2013: 282) is:

$$Firm\ Size = Ln\ Total\ Asset$$

Profitability

Munawir (2014: 33) defines profitability as showing the company's ability to generate profits during a certain period. The profitability of a company is measured by the success of the company and the ability to use its assets productively, thus the profitability of a company can be determined by comparing the profit earned in a period with the total assets or amount of capital of the company. Net Profit Margin is assessed by comparing net income with sales.

Net profit margin shows the proportion of sales that are remaining after deducting related costs. NPM is used to measure how efficiently management manages the company and also estimates future profitability based on sales made by management. By comparing net income to net sales, investors can see what percentage of income is used to pay for non-operating and operating expenses. The greater the NPM, the more productive the company's performance will be, thereby increasing investor confidence in investing in the company. According to Jusuf (2014: 146) the formula for Net Profit Margin (NPM) is as follows:

$$NPM = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100\%$$

Return On Equity is used to measure net profit after tax (EAT) with own capital. Shareholders or investors tend to see ROE, because ROE is directly related to the company's equity compared to the company's assets. The higher ROE figure gives an indication to shareholders that the return on investment is getting higher. According to (Kasmir, 2014: 137) ROE can be calculated using the following formula:

$$ROE = \frac{\text{Earning After Tax (EAT)}}{\text{Total Equity}} \times 100$$

Leverage

According to Fahmi (2012: 127) the leverage ratio or so-called solvency is a description of a company's ability to fulfill and maintain its ability to always be able to fulfill its obligations to pay debts on time. This ratio measures how much the company is financed with debt.

According to Kasmir (2014: 157) states that the Debt to Equity Ratio is a ratio used to assess debt to equity. This ratio is sought by comparing all debt, including current debt, and total equity. This ratio is used to determine the amount of funds provided by the borrower (creditor) and the owner of the company. In other words, this ratio serves to determine each rupiah of own capital that is used as debt collateral. Meanwhile, according to Joel G. Siegel and Jae K. Shim in Fahmi (2012: 128), the definition of Debt to Equity Ratio is a measure used in analyzing financial statements to show the amount of collateral available to creditors. According to Kasmir (2014: 158) DER can be calculated using the formula:

$$DER = \frac{\text{Total Liability}}{\text{Total Equity}} \times 100$$

2.2 The Correlation Of Research Variables

Effect of Firm Size on Stock Price

This firm size measures how big a company is, by looking at the total assets in the company's financial statements. Companies with high total assets are often assessed as companies with good prospects and can provide benefits to shareholders, so that these shares can survive in the capital market and the price will increase if there is a lot of interest from investors. The larger the company size which can be seen from the total assets, the higher the company's stock price, whereas if the company size is getting smaller, the company's stock price will be lower.

The larger the size of the company, it is no doubt that the company is superior in terms of wealth and good performance, so that it will attract investors to trust and invest by buying shares,

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this causes the stock price to move up. Thus it can be concluded that the size of the company is positive on stock prices. This is supported by research by Muhammad (2017) which states that company size has a positive influence on stock prices.

Effect of Profitability on Stock Price

The profitability ratio measures the effectiveness of the management as a whole, which is indicated by the size of the level of profits obtained in relation to sales and investment. Net Profit Margin (NPM) is the ratio of net profit after tax to total sales. This ratio is to measure the company's ability to generate net income on total sales. With this NPM interpret the level of efficiency of the company, where and to what extent the company's ability to reduce operating costs in a certain period.

With the increase in NPM, this will increase investor confidence in the company and the demand for shares will also increase, so that the stock price will also increase. This is supported by research by Muhammad (2017) which concludes that the Net Profit Margin (NPM) variable has a positive influence on stock prices.

Return on equity (ROE) is the ratio used to measure the company's ability as seen from the company's capital to generate profits for all shareholders. This ratio is used by investors to see how much the company can provide benefits in the future. If the higher ROE, the better because it provides a greater rate of return to shareholders, this reflects good management performance and the owner will be satisfied with management performance. Information on increasing ROE will be accepted by the market as a good signal that will provide positive input for investors in making decisions to buy shares, this will make the demand for stocks increase, so that the price will increase. This is supported by research results from Gultom, et al (2019) and Tumandung, Murni, Baramuli (2015) which show that ROE has a significant positive effect on closing stock prices.

Effect of Leverage on Stock Price

Leverage, which is proxied by Debt to Equity Ratio (DER), is a ratio used to measure a company's own capital ability to be used as collateral for all company debt. According to Kasmir (2014: 157) states that the Debt to Equity Ratio is a ratio used to assess debt to equity. Companies with a low Debt to Equity Ratio will have a smaller risk of loss when economic conditions decline, but when economic conditions improve, the opportunity to earn profits is low. On the other hand, companies with high leverage ratios are at risk of bearing large losses when economic conditions decline, but have the opportunity to earn large profits when economic conditions improve. This is supported by research conducted by Om & Goel (2017) which states that DER has a negative effect on stock prices.

Hypothesis Development

H₁ : Firm size has an influence on stock prices in property and real estate companies.

H₂ : Profitability has an influence on stock prices in property and real estate companies.

H₃ : Leverage has an influence on stock prices in property and real estate companies.

Based on the development of the above hypothesis, the conceptual framework can be described as follows :

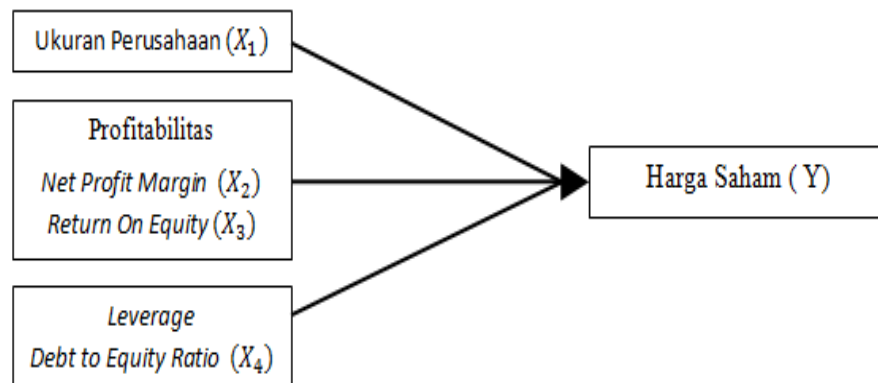


Image 2.1 : Kerangka Konseptual

Information:

X_1, X_2, X_3, X_4 = independent variable

Y = dependent variable

→ = the influence of each variable partially on

III. RESEARCH METHODOLOGY

This study uses a strategy with quantitative approach techniques and this type of research uses a type of causal research, namely research that aims to determine the relationship between two or more variables. A causal relationship is a relationship that is causal in nature, one of the (independent) variables affects the other (dependent) variables (Sugiyono, 2016: 55). In this study, there were 54 companies as a population and with a purposive sampling method into 29 companies in the property and real estate sector. The data used in this research is secondary data. In this study, secondary data used were annual financial report data, stock data, and accounting data. The share data used is the closing share price data for four years from 2015 to 2018. The accounting data used is the financial statements in the form of a statement of financial position and an income statement.

Secondary data sources in this study were obtained from property and real estate companies listed on the Indonesia Stock Exchange (IDX). The data source for the list of companies used was obtained through www.edusaham.com and data on closing share prices was obtained through www.idx.co.id. Then the source of accounting data used in the research from 2015 to 2018 was obtained through the IDX website www.idx.co.id. This research data is categorized as panel data, namely, a combination of two data, time series and cross section which is able to provide more data so that it will produce a greater degree of freedom. Therefore, the data analysis method used in this study is a method with a quantitative approach using mathematical and statistical models which are classified in panel data analysis. The formulation of panel data regression analysis systematically is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Information :

Y = Stock Price

α = Constant coefficient

β_1 = Firm Size regression coefficient

X_1 = Firm Size

β_2 = Regression coefficient NPM

X_2 = *Net Profit Margin* (NPM)

β_3 = Regression coefficient ROE

X_3 = *Return On Equity* (ROE)

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B₄= Regression coefficient DER

X₄= Debt to Equity Ratio (DER)

€ = Error rate

IV THE RESULT OF RESEARCH

4.1 Descriptive statistics

From the results of descriptive statistical testing of these variables with a research sample of 116 for four years, descriptive statistics were obtained according to the table below:

(Table 4.1)

	Harga Saham	Ukuran Perusahaan	NPM	ROE	DER
Mean	2280.457	26.25599	0.425362	0.103698	0.80206
Maximum	36500	31.584	15.093	0.412	3.701
Minimum	50	15.966	0.006	0	0.074
Std. Dev.	5216.808	3.929297	1.406718	0.084332	0.559716
Observations	116	116	116	116	116

Source: Output Eviews versi 9

From table 4.1 above, it can be seen that the dependent variable, namely the stock price, shows a maximum value of Rp. 36500 owned by PT Metropolitan Kentjana Tbk in 2017. While the minimum value is Rp. 50 was owned by PT Bekasi Asri Pemula Tbk in 2015 and 2016, also owned by PT Gading Developments Tbk in 2016. Then the average property and real estate company was Rp. 2280,457. This shows that the average share price of property and real estate companies obtained from investors is Rp. 2280,457. Then the standard deviation value of stock prices in this study is Rp. 5216.80 shows that share prices in property and real estate companies during the study year have a low level of data variation.

The independent variable, firm size, shows a maximum value of 31,584 owned by PT Bumi Serpong Damai Tbk in 2018. Meanwhile, the minimum value of 15,966 is owned by PT Lippo Cikarang Tbk in 2018. Then the average value in this study is 26,25599. The value of the standard deviation of company size in this study is 3.929297. This means that the companies studied have an average total assets of 26.25599.

The net profit margin variable shows the maximum value of 15,093 owned by PT Greenwood Sejahtera Tbk in 2015. Meanwhile, the minimum NPM value of 0.006 is owned by PT Gading Developments Tbk in 2017. Then the average value of property and real estate companies is 0.425362. The standard deviation value of NPM in this study is 1.406718. The standard deviation value which shows the number is greater when compared to the average value, this means that the NPM data deviation is not good. This means that on average the company earned a net profit of 42.5362% of the total net sales generated by the company.

The return on equity variable shows a maximum value of 0.412 owned by PT Fortune Mate Indonesia Tbk in 2016. While the minimum value of 0 is owned by PT Gading Developments Tbk in 2017. Then the average ROE value is 0.103698. The standard deviation value of ROE in this study is 0.084332. This shows that the deviation of ROE data is quite good because the standard deviation value is smaller than the average value of property and real estate companies. This means that on average the company earns a profit of 10.3698% of the total equity held.

The debt to equity ratio variable shows a maximum value of 3,701 owned by PT Plaza Indonesia Realty Tbk in 2017. While the minimum value of 0.074 is owned by PT Greenwood Sejahtera Tbk in 2017. Then the average DER value in this research is 0.80206. The standard deviation value of DER is 0.559716. The standard deviation value which is smaller than the average value indicates that the DER data deviation is quite good. This means that the average total debt earned by the company is 8.0206% of the total equity held.

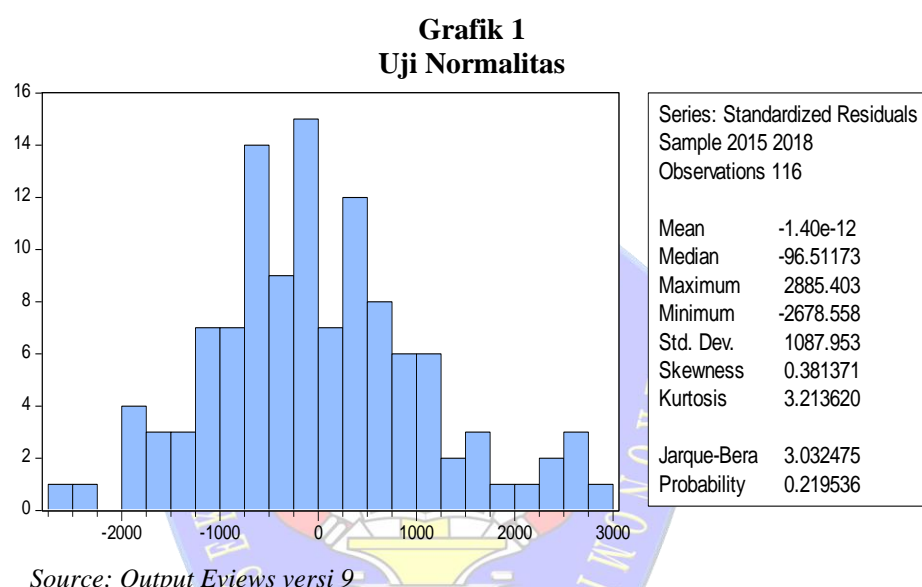
4.2 Classic assumption test

1. Normality Test

This normality test is used to test whether in the regression model the independent and dependent variables are normally distributed or not. In the normality test in this study using the histogram graph method and the Jarque-Bera statistical test (JB test). The following is the basis for making normality test decisions:

1. If the probability value is > 0.05 , the data can be said to be normally distributed.
2. If the probability value is < 0.05 , it can be said that the data is not normally distributed.

The following is a graph of the normality test that has been carried out using Eviews version 9:



Based on Figure 4.1 the histogram graph and the Jarque-Bera test results above show the results of a probability value of **0.219536**, it can be concluded that the data used in this study is normally distributed because the probability value is greater than 0.05, namely $0.219536 > 0.05$.

2. Multicollinearity Test

Multicollinearity test is used to test whether there is a correlation between the independent and dependent variables. The requirements for decision making in multicollinearity testing are as follows:

1. If the correlation value < 0.80 , then there is no multicollinearity problem.
2. If the correlation value > 0.80 , then there is a multicollinearity problem.

Table 2
Multicollinearity Test

	Ukuran Perusahaan	NPM	ROE	DER
Ukuran Perusahaan	1	0.107447274	-0.13360265	-0.318107428
NPM	0.107447274	1	0.176742027	-0.194320292
ROE	-0.133602648	0.176742027	1	0.117824521
DER	-0.318107428	-0.194320292	0.117824521	1

Source: Output eviews versi 9

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Based on table 4.2, the multicollinearity test above shows that the variables consisting of Company Size, NPM, ROE, and DER do not have a multicollinearity problem because the correlation value is smaller than 0.08. Whereas Company Size with NPM has a correlation value of 0.107447274. Company size with ROE has a correlation value of -0.133602648. Company size with DER has a correlation value of -0.318107428. NPM with ROE has a correlation value of 0.176742027. NPM and DER have a correlation value of -0.194320292. ROE with DER has a correlation value of 0.117824521.

3. Heteroscedasticity Test

Heteroscedasticity test is used to test whether the regression model is inequality or variable differences from the residuals from one observation to another. In this study, to detect the presence or absence of heteroscedasticity problems, the Glejser test was used. The basis for making decisions to determine whether there is a heteroscedasticity problem is as follows:

1. If the Chi-square Probability value at Obs * R-square is smaller than 0.05, it means that there is a heteroscedasticity problem.
2. If the Chi-square Probability value at Obs * R-square is greater than 0.05, it means that there is no heteroscedasticity problem.

Table 3
Heteroscedasticity Test

Heteroskedasticity Test: Glejser			
F-statistic	15.07142	Prob. F(4,111)	0.3476
Obs*R-squared	40.82734	Prob. Chi-Square(4)	0.3732
Scaled explained SS	70.60872	Prob. Chi-Square(4)	0.3971

Source: Output Eviews versi 9

Based on table 4.3, the heteroscedasticity test shows that the probability value on Obs * R-squared is 0.3732, it can be concluded that in this study there are no symptoms of heteroscedasticity because the probability value is greater than 0.05, namely $0.3732 > 0.05$.

4. Autocorrelation Test

The autocorrelation test is used to test whether there is a correlation in a linear regression model between the confounding error in period t with the error of the previous period (t-1). In this study, the Durbin Watson (DW) test was used to determine whether autocorrelation was present and also used the Durbin Watson (DW) table.

Table 4
Autocorrelation Test

Dependent Variable: HARGA_SAHAM			
Method: Least Squares			
R-squared	0.418075	S.D. dependent var	4480.857
Adjusted R-squared	0.386042	Durbin-Watson stat	1.91192

Source: Output Eviews versi 9

Based on table 4.4 above, it shows that the autocorrelation test using Durbin Watson has a value of 1.911920. Based on Durbin Watson's table with $\alpha = 5\%$, $n = 116$, and $k = 4$, the value of $dL = 1.6265$ and $dU = 1.7690$ is obtained, so the DW value of 1.911920 is located between $dU < dw < 4 - dU$, namely $1.7690 < 1.911920 < 2.2310$ so it can be it means that in this regression model there is no positive or negative autocorrelation.

4.3 Panel Data Regression Analysis

This panel data regression analysis aims to examine the effect of the independent variable on the dependent variable where there are several companies in certain periods of time.

Table 5
Panel Data Regression Analysis and t Test

Method: Least Square (Cross-section weights)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Ukuran_Perusahaan	128.2928	49.21772	2.606639	0.0108
NPM	-7.771028	4.225210	-1.839205	0.0695
ROE	563.7185	313.3417	1.799054	0.0756
DER	-310.1307	99.91703	-3.103882	0.0026
C	-894.4066	1300.420	-0.687783	0.4935

Source: Output Eviews versi 9

Based on the table 4.10 above, the results of panel data regression analysis can be formulated with the following equation:

$$\text{STOCK PRICE} = -894.4066 + 128.2928 \text{ FIRM SIZE} - 7.771028 \text{ NPM} + 563.7185 \text{ ROE} - 310.1307 \text{ DER}$$

Based on the panel data regression equation above, it can be analyzed as follows:

1. A constant of -894,4066 means that the Firm Size, NPM, ROE, and DER are considered constant or the value is equal to 0, then the value of the Share Price is 894,4066.
2. The firm size variable has a coefficient value of 128.2928 with a positive coefficient, it means that any increase in the value of the company size will increase the value of the stock price by 128.2928.
3. The NPM variable has a coefficient value of -7.771028, with a negative coefficient, it means that any increase in the value of NPM will decrease the value of the stock price by 7.771028.
4. The ROE variable has a coefficient value of 563.7185, with a positive coefficient, it means that any increase in the value of ROE will increase the value of the stock price by 563.7185.
5. The DER variable has a coefficient value of -310.1307, with a negative coefficient, it means that each increase in DER value will decrease the value of the Stock Price by 310.1307.

4.4 Hypothesis test

1. t Test

The t statistical test aims to determine the effect of the independent variable on the dependent variable partially. Determining whether the hypothesis is accepted or rejected by comparing t count with t table, the significance value in this study is the level of significance of $\alpha = 0.05$. If $t\text{-count} > t\text{-table}$ then the independent variable has an influence on the dependent variable, conversely if $t\text{-count} < t\text{-table}$ then the independent variable has no influence on the dependent variable. This study has a total of 116 samples, with the independent variable that is 4 and the level of significance is 0.05. Then the degree of freedom (df) is 111 then the t table is 1.981567.

The first hypothesis (H1) in this study is that firm size affects stock prices. The results of statistical tests show that the t-count value is greater than the t-table ($2.606639 > 1.981567$) and the

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probability result is smaller than the significance level ($0.0108 < 0.05$). So it can be concluded that H1 states that firm size on the stock price is **accepted** and firm size of the affects the stock price .

Then Profitability which is proxied by Net Profit Margin (NPM) has an effect on stock prices. The results of statistical tests show that the t-count value is smaller than the t-table ($-1.839205 < 1.981567$) and the probability result is greater than the significance level ($0.0695 > 0.05$). Thus it can be concluded that H2 states that NPM on the stock price is **rejected** and NPM has no influence on the stock price.

Profitability variable which is proxied by Return On Equity (ROE) affects the stock price. The results of statistical tests show that the tcount value is smaller than the ttable ($1.799054 < 1.981567$) and the probability result is greater than the significance level ($0.0756 > 0.05$). Thus it can be concluded that H2 states that ROE on stock prices is **rejected** and ROE has no effect on stock prices

The third hypothesis (H3) in this study is leverage which is proxied by the Debt to Equity Ratio (DER) which affects stock prices. The statistical test results show that the t-count value is greater than t-table or ($-3.103882 > 1.981567$) and the probability result is smaller than the significance level ($0.0026 < 0.05$). Thus it can be concluded that H3 states that Leverage (DER) on the Share Price is **accepted** and Leverage (DER) has an influence on the Share Price.

2. Determination Coefficient Test

Tabel 6
Determination Coefficient Test

Dependent Variable: HARGA_SAHAM			
Method: Least Squares (Cross-section weights)			
R-squared	0.946681	Mean dependent var	5314.208
Adjusted R-squared	0.926125	S.D. dependent var	3768.256
Prob(F-statistic)	0		

Source: Output Eviews versi 9

Based on table 4.6 above, the FEM results show that there is a constant value of -894.4066, which means that the value of the other independent variables is 0 and the value of the stock price is 894.4066. Then the probability of 0.4935 which is greater than 0.05 means that the independent variables together have no influence on stock prices. The Fixed Effect Model regression equation has an adjusted R2 of 0.926125, explaining that the variants of Company Size, NPM, ROE, and DER are 92.61% and the remaining 7.3875% is influenced by other independent variables not examined in the study.

V. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on data analysis and discussion of the effect of firm size, profitability, and leverage on share prices in property and real estate companies listed on the IDX in 2015-2018, the following conclusions are drawn:

1. Firm size has a positive influence on share prices in property and real estate companies listed on the IDX in 2015-2018. This means that any changes that occur in the size of the company will affect the stock price. Property and real estate companies that have high total assets indicate good company characteristics, this makes it easier for companies to get capital in the capital market and attracts investors to invest in the company so that it affects the company's stock price itself.

2. Profitability with the ratio of net profit margin (NPM) and return on equity (ROE) has no effect on share prices in property and real estate companies listed on the IDX in 2015-2018. This happens because the NPM ratio does not represent the overall components of the company in generating profits which only shows from the company's net sales, and the ROE ratio which only describes the return on investment from shareholders, does not describe the whole. Property and real estate companies that are considered to have good prospects in the future make investors not really consider the NPM and ROE ratios.
3. Leverage with a debt to equity ratio has a negative effect on share prices in property and real estate companies listed on the IDX in 2015-2018. This happens because the greater the DER, the greater the risk the company gets, this makes investors' interest in investing their capital decreases which results in a decline in share prices.

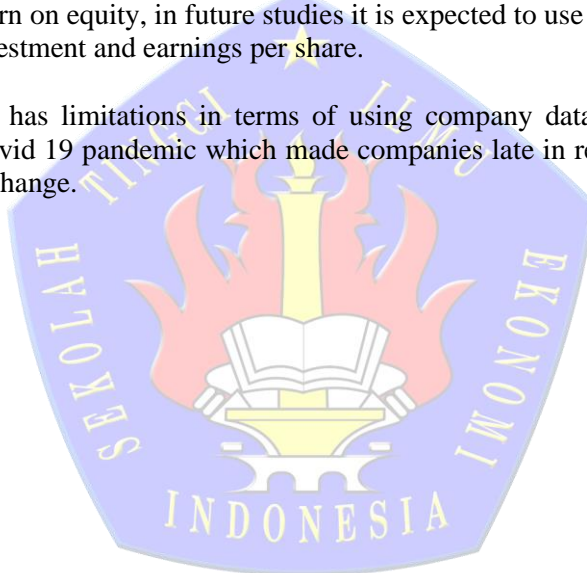
Recommendations

Based on the research that has been done, there are suggestions related to research as follows:

1. In further research, it is expected to expand the use of variable measurement, such as firm size in this study measured by total assets, it is suggested that further research can use other measurements such as total sales or total company capital.
2. This study uses the profitability variable which only focuses on measurement by net profit margin and return on equity, in future studies it is expected to use other measurements such as return on investment and earnings per share.

Research Limitations

This study still has limitations in terms of using company data that are not up to date (updated) due to the Covid 19 pandemic which made companies late in releasing financial data on the Indonesia Stock Exchange.



REFERENCES

- Arifin, Nita Firiani. Silviana Agustami. 2016. Pengaruh Likuiditas, Solvabilitas, Profitabilitas, Rasio Pasar, dan Ukuran Perusahaan Terhadap Harga Saham (Studi Pada Perusahaan Subsektor Perkebunan Yang Terdaftar Di Bursa Efek Indonesia Tahun 2010-2014. *Jurnal Akuntansi dan Keuangan*. Vol 4 No 3 [1189-1210].
- Asriman, Akhiruddin Tanjung. 2019. *Siklus Sektor Properti dan Real Estate*. Jakarta.
- Basuki, A. T. dan N. Prawoto. 2017. *Analisis Regresi Dalam Penelitian Ekonomi & Bisnis : Dilengkapi Aplikasi SPSS & EViews*. Depok: PT Rajagrafindo Persada.
- Bursa Efek Indonesia. *Daftar Saham Perusahaan Sektor Properti dan Real Estate*. Diunduh 04 Januari 2020. <https://www.idx.co.id>.
- Darmadji, Tjiptono. Fakhrudin. 2012. *Pasar Modal Di Indonesia*. Edisi Ketiga. Jakarta : Salemba Empat.
- E.Kieso, Donald. Jerry J Weygandt. dan Terry D Warfield. 2014. *Akuntansi Intermediate*. Jilid 2. Jakarta : Erlangga.
- Egam, Gerald Edsel Yermia. Ventje Ilat. Sonny Pangerapan. 2017. Pengaruh *Return On Asset, Return On Equity, Net Profit Margin*, dan *Earning Per Share* Terhadap Harga Saham Perusahaan Yang Tergabung Dalam Indeks LQ45 Di Bursa Efek Indonesia Periode Tahun 2013-2015. *Jurnal Ekonomi Manajemen Bisnis dan Akuntansi*. Vol 5 [105-114].
- Fahmi, Irham. 2012. *Manajemen Investasi: Teori Dan Soal Jawaban*. Jakarta: Salemba Empat.
- Hartono, Jogiyanto. 2013. *Teori Portofolio dan Analisis Investasi*. BPFE: Yogyakarta.
- Hermuningsih, Sri. 2012. *Pengantar Pasar Modal Indonesia*. Yogyakarta : UPP STIM YKPN.
- Hutapea, Albertha W. Ivonne S. Saerang. Joy E. Tulung. 2017. Pengaruh *Return On Assets, Net Profit Margin, Debt To Equity Ratio*, dan *Total Assets Turnover* Terhadap Harga Saham Industri Otomotif Dan Komponen Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal EMBA*. Vol 5 [2303-1174].
- Jusuf, Jopie. 2014, *Analisis Kredit Untuk Account Officer*. Jakarta: PT Gramedia.
- Kasmir, 2014. *Analisis Laporan Keuangan*, cetakan ke-7. Jakarta: PT Raja Grafindo Persada.
- Martalena, Malinda Maya. 2011. *Pengantar Pasar Modal*. Yogyakarta : ANDI
- Munawir. 2014. *Analisa Laporan Keuangan*. Yogyakarta: Liberty
- Mutmainah, Dinda Audriene. 2017. *Daya Beli Lemah Indeks Sektor Properti Melempem*. Diunduh 27 November 2019. <https://www.cnnindonesia.com>

- Nawangwulan A, Rery. Nengah Sudjana. M G Wi Endang. 2018. Kewajaran Harga Saham Menggunakan Analisis Fundamental *Price Earning Rasio* (Per) Sebagai Dasar Pengambilan Keputusan Investasi (Studi Pada Perusahaan Subsektor Industri Barang Konsumsi Yang *Listed* Di Bursa Efek Indonesia Tahun 2013-2016). *Jurnal Administrasi Bisnis (JAB)* Vol. 62 No. 2.
- Noviananda, Rizal. Agung Juliarto. 2019. Pengaruh Kinerja Keuangan Dan *Corporate Governance* Terhadap Harga Pasar Saham. *Journal Of Accounting*. Volume 8, No 4 [1-12]. ISSN (Online): 2337-3806.
- Nurul Huda, Heykal Mohammad. 2010. *Lembaga Keuangan Islam, Tinjauan Teoritis dan Praktis*, Jakarta.
- Ong, E. 2016. *Technical Analysis for Mega Profit* (Edisi Kedelapan). Gramedia Pustaka Utama. Jakarta.
- Pertiwi, Dian Sari. 2018. Saham Properti Kembali Merangkak Naik. Diunduh pada tanggal 27 November 2019. <https://investasi.kontan.co.id>
- Rohmah, Rita. Mochamad Muslich. Dedi Rianto Rahadi. 2017. Pengaruh Keputusan Investasi, Keputusan Pendanaan, Dan Kinerja Keuangan Terhadap Harga Saham (Studi Pada Perusahaan Manufaktur Yang Terdaftar Di BEI). *Jurnal Kewirausahaan, Akuntansi dan Manajemen*. Vol 1 No 1.
- Sugiyono. 2016. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: PT Alfabet.
- Supriyono, R. A. (2018). *Akuntansi Keprilakuan*. Gajah Mada University Press.
- Sutrisno. 2012. *Manajemen Keuangan Teori Konsep dan Aplikasi*. Yogyakarta : Ekonisia.
- Utomo, S. 2016. *Trading Saham dengan Menggunakan Fibonacci Retracement*. Gramedia. PT. Elex Media Komputindo. Jakarta.
- Wehantouw, Jolie D. Perengkuan Tommy. Jeffry L.A Tampenawas. 2015. Pengaruh Struktur Modal, Ukuran Perusahaan, dan Profitabilitas Terhadap Harga Saham Pada Perusahaan Industri Sektor Makanan Dan Minuman Yang Terdaftar Di Bursa Efek Indonesia Periode 2012-2015. *Jurnal Ekonomi Manajemen Bisnis dan Akuntansi*. Vol 5 [3385-3394].
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