# DETERMINANTS OF MANUFACTURING COMPANY STOCK PRICES

**Zulher[1] , Cicih Ratnasih[2]**
Bangkinang College of Economics[1]
Borobudur University[2]
h.zulher@gmail.com[1]
cicih_ratnasih@borobudur.ac.id[2]

## Abstract

*The purpose of this study was to determine the effect of Return on Investment, Earning per Share and Dividend Per Share on the Stock Price of a manufacturing company that has several factors. Factors that influence stock price fluctuations are internal and external factors. This study uses secondary data and the population of this study are real estate and property companies that are still listed and go public on the Indonesia Stock Exchange in the 2012-2017 period. The research method and sample technique used was purposive sampling and based on several criteria selected 11 companies to be analyzed. The results of this study are the variable Return On Investment, Erning Per Share and Dividend Per Share have a positive and significant effect on stock prices. Determination Coefficient (R2) in this study has a value of 75.22% with the ability of the independent variable being able to explain the results of the stock price, while the remaining 24.78% is explained by other variables not examined. In addition, partial Return On Investment is 0.325154 <1.684 with a probability of 0.7468> 0.05. So Return on Investment has no effect on stock prices. From the results of the F test, the results show that ROI, EPS and DPS simultaneously have a significant effect on rising stock prices.*

*Keywords: return on investment, earnings per share, dividend per share, share price of manufactured companies, Indonesia Stock Exchange.*

The Indonesia stock exchange is a capital market for a variety of long-term financial instruments that can be traded, both in the form of debt and own capital. The Indonesia Stock Exchange has a very big role for the country's economy because it provides two functions at once, namely the financial function and economic function. High and low interest of an investor in stock investment is influenced by the quality of the value of shares in the capital market. According to Abdul Djazuli (2006: p.51) the high or low value of shares is reflected in the company's performance which is reflected in the financial performance of a company. As an information tool and as a consideration tool investors need data to consider investment decisions. One of them uses the company's financial statements. One of the manufacturing sub-sectors that has good growth is the real estate and property subsector. this can be seen from developments in Indonesia in the past 15 years. growth in a country's development is a good thing because it can be seen the development of a country's economy. The growth of the real estate and property sector is supported by the capital structure due to the large number of foreign investors investing in Indonesia, especially in this sector.

The development of the property and real estate sector will certainly attract investor interest due to rising land and building prices that tend to increase, land supply is permanent while demand will always increase in line with population growth and increasing human needs for shelter, offices, shopping centers, and others. The stock price of a company is determined by the high demand for shares and offering on the capital market. If the demand for a stock increases, indirectly the company's stock price will increase, and vice versa if the demand for a stock decreases, the share price will decrease. Increased

stock demand is an assessment of the company's performance and good performance, with the increasing demand for stock prices will get returns from shares owned by investors in the form of capital gains. Capital gains in companies that have gone public are the difference between the selling price and the buying price of the shares.

It can help investors see the size of the nominal stock price, because the increase or decrease that occurs at any time can determine the profit or loss for investors of a stock owned. Property and real estate companies in Indonesia can grow rapidly as seen from the amount of corporate profits which also has an impact on rising stock prices. Following is the development of share prices in several property and real estate companies in 2012-2015

Table 1 Share Prices of Real Estate and Property Companies registered on the Indonesia Stock Exchange 2012-2015

|  | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|
| PWON | 225 | 270 | 515 | 495 |
| APLN | 370 | 215 | 335 | 334 |
| SMRA | 1900 | 780 | 1520 | 1650 |
| DILD | 335 | 315 | 650 | 489 |
| BSDE | 1100 | 1290 | 1805 | 1800 |
| MTLA | 540 | 380 | 390 | 215 |
| LPKR | 1000 | 910 | 1020 | 1035 |
| CTRA | 800 | 790 | 1250 | 1460 |
| ASRI | 600 | 430 | 560 | 343 |
| CTRP | 660 | 620 | 845 | 410 |
| CTRS | 1000 | 1250 | 2150 | 2240 |
| MEAN | 865.45 | 695.09 | 1,003.64 | 952.00 |

Source: Indonesia Stock Exchange 2012-2015

In the table above, it can be seen that in 2013 the stock prices of real estate and property companies decreased by 659.09 from the previous year which was 865.45 and rose again in 2014. Share prices in this sector continued to fluctuate until 2015 due to mid-2015 Property sales mainly housing plummeted by 21.8% affected by the slowing down of the Indonesian economy until mid-year. The Central Statistics Agency (BPS) recorded Indonesia's economic growth in the second quarter of 2015 of 4.67 percent year on year (yoy). This figure is slowing when compared with economic growth in the first quarter of 2015 which amounted to 4.71 percent. The ability of managers to manage assets in investments that will generate profits for the company has an important role on the company's performance to increase profits, so the ROI ratio can be used as an indicator in assessing the company's performance in this case to assess its effect on the value of the company reflected in stock prices. ROI table of real estate and property companies listed on the Indonesia Stock Exchange 2012-2015.

Graph1. ROI Real Estate and Property Sub Sector Manufacturing Companies listed on the Indonesia Stock Exchange 2012-2015
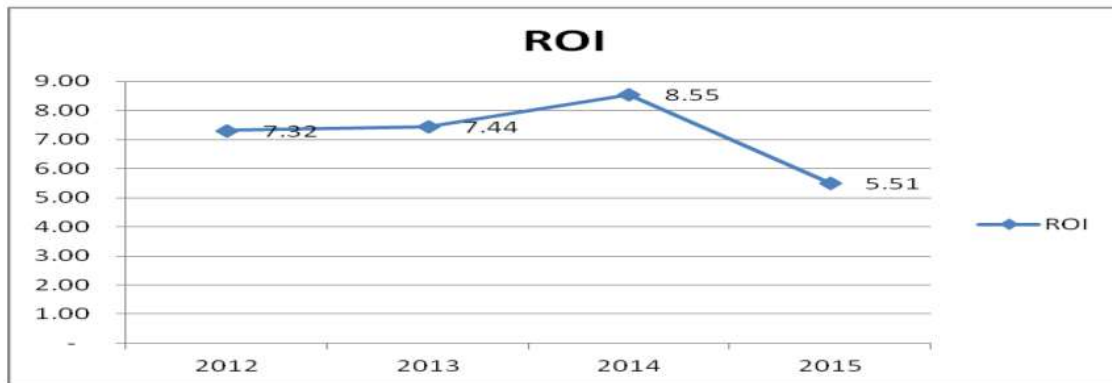


Graph 2. Earning per Share Sub-Sector Real Estate and Property registered on the Indonesia Stock Exchange 2012-2015

Investors also have an interest in the level of ROI in investing because by looking at the ROI ratio, the company's performance will be seen. If the company's performance is good and generates high net profit on the optimal use of the company's total assets, it can affect the value of the company. In addition to policies regarding investment activities, stock prices are also influenced by the company's efforts by the company in increasing the company's earnings per share. In research conducted by Wiguna and Anastasya Sri Mendari (2008: p.130) investors in making decisions pay a lot of attention to the growth of Earning Per Share (EPS). The following is the Earning per Share Graph for 2012-2015, real estate and property sub-sectors.
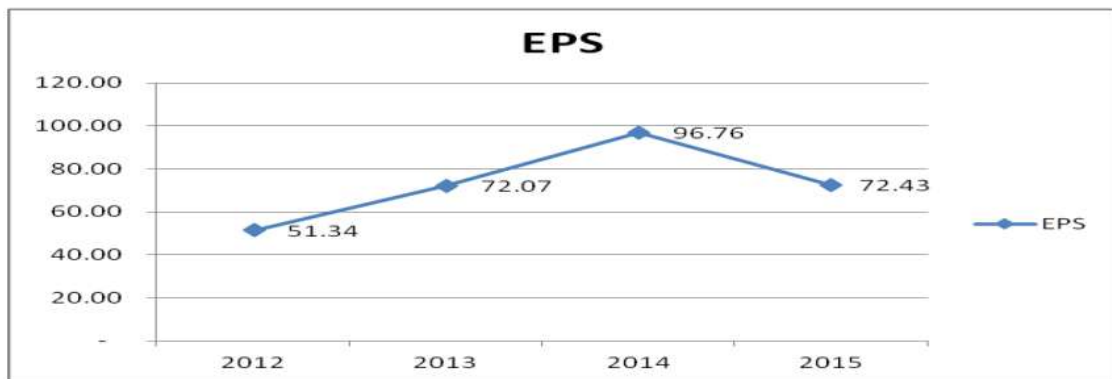


Source: Indonesia Stock Exchange 2012-2015

It can be seen from the graph above that earnings per share of the real estate and property industry in 2012-2014 continued to increase and in 2015 decreased. The weak condition of the Indonesian economy from the beginning to the middle of 2015 had a negative impact on earnings per share and the lack of foreign investors which left the company underfunded. In the first three months of 2015, BI recorded an average property loan growth of 16.7%, lower than the same period last year which reached 25%.

Efficient financial management requires goals and objectives that are used as standards in providing an assessment of the efficiency of financial decisions. To be able to make the right financial decisions, management needs to determine the objectives to be achieved. The right decision is a decision that will help achieve that goal. Normatively, the purpose of financial decisions is to maximize the value of the company because it can increase the prosperity of the company owners (shareholders).

According to Horned and Wachowicz Jr. (2012: p.4) regarding management goals is the same as maximizing corporate goals, namely "maximizing the welfare of the current owner of the company". So it can be concluded that the purpose of financial management carried out in financial management is planning to obtain and use funds to maximize the value of the company.

According to Eugene.F.Brigham and Joel F Houston (2007: p.4) which was translated by Robinson Tarigan on the definition of financial management, they argued that financial management can be explained based on the functions and responsibilities of financial managers. The main function of financial management is to plan, find and utilize funds in various ways to maximize the efficiency (usability) of the company's operations. Based on this opinion, it can be said that financial management is activities that involve planning, searching, and utilizing company funds as wisely as possible for the achievement of company goals. There are several factors that can affect fluctuations in stock prices on the capital market. This happens because stock prices can be influenced by external factors of any company, as well as internal factors of the company. According to Brigham and Houston (2006: p.33) stock prices are influenced by several main factors, namely internal and external factors of the company. While the problems that occur are as follows:

(1) Fluctuating stock prices of Manufacturing Companies that cause investor uncertainty in investing their capital.
(2) A change in earnings per share (earnings per share) that causes changes in shareholder risk.
(3) Low Dividends per Share which causes companies to have poor prospects.
(4) Low Return on Investment that causes the benefits obtained are not as expected.

Based on the background and problems above, the problems that can be formulated are as follows:
(1) What is the effect of ROI, EPS and Dividend per share on the share prices of manufacturing companies in the real estate and property sub-sector in 2012-2015 which are simultaneously listed on the Indonesia Stock Exchange?
(2) What is the effect of ROI on the manufacturing prices of the 2012-2015 real estate and property industry sub-sectors which are partially listed on the Indonesia Stock Exchange?
(3) How partially does EPS influence the manufacturing prices of the 2012-2015 real estate and property industry sub-sectors listed on the Indonesia Stock Exchange?
(4) What is the effect of dividend per share on the price of shares of manufacturers in the real estate and property sub-sector in 2012-2015 which is partially listed on the Indonesia Stock Exchange?

The population of this research is the real estate and property sub-sector manufacturing companies listed on the Indonesia stock exchange which publicize the company's performance from the period 2012-2015.

Table 1 List of Companies Manufacturing (Sub Sector real estate and property) listed on the 2012-2015 Indonesia stock exchange

| NO | KODE | NAMA PERUSAHAN | NO | KODE | NAMA PERUSAHAAN |
|---|---|---|---|---|---|
| 1 | APLN | PT Agung Podomoro Land Tbk | 26 | JRPT | PT Jaya Real Property Tbk |
| 2 | ASRI | PT Alam Sutra Realty Tbk | 27 | KIJA | PT Kawasan Industri Jababeka Tbk |
| 3 | BAPA | PT Bekasi Asri Pemula Tbk | 28 | LAMI | PT Lamicitra Nusantara Tbk |
| 4 | BCIP | PT Bumi Citra Permai Tbk | 29 | LCGP | PT Eureka Prima Jakarta Tbk |
| 5 | BEST | PT Bekasi Fajar Industrial Estate Tbk | 30 | LPCK | PT Lippo Cikarang Tbk |
| 6 | BIKA | PT Binakarya Jaya Abadi Tbk | 31 | LPKR | PT Lippo Karawaci Tbk |
| 7 | BIPP | Bhuwanatala Indah Permai Tbk | 32 | MDLN | PT ModernLand Realty Tbk |
| 8 | BKDP | PT Bukit Dharma Property Tbk | 33 | MKPI | PT Metropolitan Kentjana Tbk |
| 9 | BKSL | PT Sentul City Tbk | 34 | MMPL | PT Mega Manunggal Property Tbk |
| 10 | BSDE | PT Bumi Serpong Damai | 35 | MTLA | PT Metropolitan Land Tbk |
| 11 | COWL | PT Cowell Development Tbk | 36 | MTSM | PT Metro Realty Tbk |
| 12 | CTRA | PT Ciputra Development Tbk | 37 | NIRO | PT Nirvana Development Tbk |
| 13 | CTRP | PT Ciputra Property Tbk | 38 | MORE | PT Indonesia Prima Property Tbk |
| 14 | CTRS | PT Ciputra Surya Tbk | 39 | PPRO | PT PP Property Tbk |
| 15 | DART | PT Duta Anggada Realty Tbk | 40 | PLIN | PT Plaza Indonesia Realty Tbk |
| 16 | DILD | PT Intiland Development Tbk | 41 | PUDP | PT Pudjiati Prestige Tbk |
| 17 | DMAS | PT Puradelta Lestari Tbk | 42 | PWON | PT Pakuwon Jati Tbk |
| 18 | DUTI | PT Duta Pertiwi Tbk | 43 | RBMS | PT Rista Bintang Mahkota Sejati Tbk |
| 19 | ELTY | PT BakrieLand Development Tbk | 44 | RDTX | PT Roda Vivatex Tbk |
| 20 | EMDE | PT Megapolitan Development Tbk | 45 | RODA | PT Pikko Land Development Tbk |
| 21 | FMII | PT Fortune Mate Indonesia Tbk | 46 | SDBD | PT Dadanayasa Artha Tama Tbk |
| 22 | GAMA | PT Gading Development Tbk | 47 | SMDM | PT Surya Mas Duta Makmur Tbk |
| 23 | GMTD | PT Goa Makasar Tourism Development Tbk | 48 | SMRA | PT Summarecon Agung Tbk |
| 24 | GPRA | PT Perdana Gapura Prima Tbk | 49 | TARA | PT Sitara Propertindo Tbk |
| 25 | GWSA | PT Greenwood Sejahtera Tbk | | | |

Source: Indonesia Stock Exchange 2012-2015

The sample is part of a number of characteristics possessed by the population used for research Sujarweni, (2015: p.223). The sampling technique used in this study is the Purposive Sampling Method, which is a sample drawn using consideration. The sample selection criteria studied are:

(1) Real estate and property sub sector Manufacturing Companies that are active on the IDX and their shares have been actively traded during the 2012-2015 period
(2) Financial reports are available during the study period (2012-2015 period).
(3) The company distributes dividends during the 2012-2015 period.

In accordance with the above considerations, the manufacturing companies in the real estate and property industry sub-sector are listed on the IDX. Of the various types of manufacturing companies, real estate and property sub-sectors available on the Indonesia Stock Exchange for the 2012-2015 period, there were 11 companies.

Table 2 List of Samples Manufacturing Companies Sub-sector Real Estate and properties that meet sample selection criteria

| CODE | COMPANY | Equipments | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| APLN | PT Agung Podomoro Land Tbk | v | V | v |
| ASRI | PT Alam Sutra Realty Tbk | v | V | v |
| BSDE | PT Bumi Serpong Damai Tbk | v | V | v |
| CTRA | PT Ciputra Development Tbk | v | V | v |
| CTRP | PT Ciputra Property Tbk | v | V | v |
| CTRS | PT Ciputra Surya Tbk | v | V | v |
| DILD | PT Intiland Development Tbk | v | V | v |
| LPKR | PT Lippo Karaawaci Tbk | v | V | v |
| MTLA | PT Metropolitan Land Tbk | v | V | v |
| PWON | PT Pakuwon Jaati Tbk | v | V | v |
| SMRA | PT Summarecon Agung Tbk | v | V | v |

Variable research is everything that will be the object of research in which shows some differences (variations). There are two research variables, namely the dependent variable and the independent variable.

The dependent variable in this study is the manufacturing company stock price. While the Independent Variables in this study are: ROI (Return On Investment)

ROI is an independent variable in this study. ROI is one of the profitability ratios that can measure the ability of the company with the overall funds invested in the assets used for the company's operations to generate profits. The ROI formula is as follows

ROI = EAT / (TOTAL ASSETS) X 100%

EPS (Earning Per Share)

Earning per sahare is an independent variable in this study. EPS is the level of profit obtained from each share. EPS is a comparison of net income after tax in one financial year with the number of shares issued. EPS can be calculated using the formula:

EPS = (Net profit) / (number of shares outstanding)

DPS (Dividend per Share)

Dividend per share is an independent variable in this study. Dividend per share is a measure of a company's ability to produce certainty from its invested capital, which is in the form of dividends. The method of analysis uses multiple regression, with analysis techniques using Eviews 8 software. While for descriptive statistical testing, a classic assumption test, normality test, multicollinearity test, heterokedasticity test, and autocorrelation test. While the hypothesis test is the f test and t test, and finally the coefficient of determination testing.

The form of the regression equation in this study is:

Y = f (x1, x2, x3)

Y = a + b1 (x1) + b2 (x2) + b3 (x3) + e

Y = Stock price of manufacturing companies

X1 = ROI (Return On Investment)

X2 = EPS (Earning Per Share)

X3 = DPS (Dividend per Share)

The interpretation of the above regression is as follows:

1. Constants

This means that if the variable Return on Investment (ROI), Earning per Share (EPS) and Dividend per Share has a value of zero (0) or fixed then the value of the share price increases by 1.6076

2. Return on Investment (X1)

The coefficient value for Return on Investment is 0.0466. This implies that if an increase in Return on Investment means that the stock price will rise by 0.0466.

3. Earning per Share (X2)

The coefficient value for earnings per share is 0.4985. this implies that if the increase in Earning per Share means the stock price will rise by 0.4985.

4. Dividends per Share (X3)

The coefficient value for Dividend per Share is 0.3303. This implies that if the increase in Dividends per Share means the stock price will rise by 0.3303.

T test or partial effect

The t test aims to determine the effect of independent variables consisting of ROI, EPS and DPS on Stock Prices in Real Estate and Property Manufacturing Companies in 2012-2015. Thus based on the multiple linear regression table conclusions can be drawn:

The Effect of Return on Investment on the Price of Sub-Sector Real Estate and Property 2012-2015.

From the calculation table results obtained in multiple linear regression tables, statistically shows that t arithmetic <t table is 0.325154 <1,684 with a probability of 0.7468> 0.05. It can be concluded that partially Return on Investment has no positive effect on the stock price and real estate sub-sector and property.

The Influence of Earning per Share on the Share Price of the Real Estate and Property Sub Sector 2012-2015.

From the calculation table results obtained in multiple linear regression tables, partially shows that t arithmetic> t table is 3.849989> 1.684 with a probability of 0.0004 <0.05. Then it can be concluded that partially Earning per Share has a positive and significant effect on the share price of the real estate and property sub-sector.

Effect of Dividends per Share on the Share Prices of the Real Estate and Property Sub Sector 2012-2015.

From the calculation table results obtained in multiple linear regression tables, partially shows that t arithmetic> t table is 3.469414> 1.684 with probability 0.0013 <0.05. Then it can be concluded that partially Dividend per Share has a positive and significant effect on the share price of the real estate and property sub-sector.

Test F or Simultaneous Influence

Statistical F test is used to determine the relationship between the Independent variables together influencing the dependent variable. To prove whether H0 is accepted or not in this study is used by looking at the probability. Based on the probability value (significant) the basis of decision making is

- If the probability is> 0.05 then Ho is accepted, Ha is rejected
- If the probability is <0.05 then Ho is rejected, Ha is accepted
- If F arithmetic <F table, then Ho is accepted, Ha is rejected
- If F arithmetic> F table, then Ho is rejected, Ha is accepted

The calculation results obtained from the F test obtained F count of 40.49218> F table 2.839 with df1 (k-1) = (4-1) = 3 and df2 (nk) = (44-4) = 40 and based on the linear model estimation table has a probability of 0.0000 <0.05 this means that it has a significant effect, indicating that ROI, EPS and DPS for 4 years from the 2012-2015 period simultaneously have an influence on manufacturing stock prices (Real Estate and Property Sub Sector), on the Indonesia Stock Exchange.

Adjusted Determination Coefficient (R2)

Testing the adjusted R2 coefficient of determination is used to measure the ability of the model to explain the relationship between the independent variable and the dependent variable. The coefficient of determination is between zero and one (0 <R2 <1), which is owned by R2 can be overcome by adjusted R2. The greater the adjusted R2 value, the better the model (Wing Wahyu Winarto, 2007: p. 21) From the regression results R2 value of 0.752286 shows that 75.22% which means that the ROI EPS and DPS (Independent Variables) are able to explain variations in stock prices (Dependent Variable). while the remaining 24.78% is explained by other variables not examined.

Test F or Simultaneous Influence

Statistical F test is used to determine the relationship between the Independent variables together influencing the dependent variable. To prove whether H0 is accepted or not in this study is used by looking at the probability. Based on the probability value (significant) the basis of decision making is:

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- If F arithmetic <F table, then Ho is accepted, Ha is rejected
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## CONCLUSION

Based on the results of the discussion of data analysis through proving the hypotheses of the issues raised regarding the factors affecting the stock prices of real estate and property companies listed on the Indonesia Stock Exchange in 2012-2015 that have been described, the conclusions from this study can be drawn as follows:

1. Variable Return on Investment (ROI), Earning per Share (EPS) and Dividend per Share (DPS) have a simultaneous effect on the Stock Prices of manufacturing companies in the real estate and property sub sector listed on the 2012-2015 stock exchange. F count is 40.49218> F table 2.839 with df1 (k-1) = (4-1) = 3 and df2 (nk) = (44-4) = 40 and based on table 4.13 it has a probability of 0.0000 <0.05 this means that it has a significant effect , shows that ROI, EPS and DPS for 4 years from the period 2012-2015 simultaneously have an influence on the Stock Price of manufacturing companies (Real Estate and Property Sub Sector), on the Indonesia Stock Exchange.
2. Variable Return on Investment (ROI) t arithmetic <t table that is 0.325154 <1,684 with probability 0.7468> 0.05 Then it can be concluded that partially Return on Investment has no positive effect and

on the Stock Price of manufacturing companies (Real Estate and Property Sub Sector), on the Indonesia Stock Exchange.

3. Earning per Share (EPS) variable, partially shows that t arithmetic> t table is 3.849989> 1,684 with probability 0.0004 <0.05. Then it can be concluded that partially Earning per Share has a positive and significant effect on the Stock Price of manufacturing companies (Real Estate and Property Sub Sector), on the Indonesia Stock Exchange.

4. Dividend variable per Share (DPS) partially shows that t arithmetic> t table is 3,469414> 1,684 with probability 0.0013 <0.05. Then it can be concluded that partially Dividend per Share has a positive and significant effect on the Stock Prices of manufacturing companies (Real Estate and Property Sub Sector), on the Indonesia Stock Exchange.

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