REVIEW OF INTERNATIONAL GEOGRAPHICAL EDUCATION

ISSN: 2146-0353 ● © RIGEO ● 11(6), SPRING, 2021

www.rigeo.org

Research Article

Development Of Lq45 Share Price Index During 2012-2016

Agatha Rinta Suhardi[1]
Faculty of Economics and Business Universitas Widyatama, Indonesia
agatha.rinta@widyatama.ac.id

Vina Silviani Marinda[2]
Faculty of Economics and Business Universitas Widyatama, Indonesia

Arus Reka Prasetia [3]
Faculty of Economics and Business Universitas Widyatama, Indonesia

Titto Rohendra[4]
Faculty of Economics and Business Universitas Widyatama, Indonesia

Andi Budiawan[5]
Faculty of Economics and Business
Universitas Widyatama, Indonesia

Abstract
The share price of a company is influenced by financial performance. Financial performance in this study is measured by return on equity, debt to asset ratio, earnings per share, company size, cash position and trading volume. This study aims to determine the development of stock prices that are influenced by financial performance in companies listed in the LQ45 Index for the period 2012-2016. The population in this study are companies listed in the LQ45 Index for the period 2012-2016 which consists of 45 companies. Sampling using purposive sampling technique and obtained 21 companies as a sample of legal researchers. The data analysis technique used is panel data regression with a random effect model. The results showed that earning per share, cash position and trading volume partially had a significant effect on stock prices. Meanwhile, return on equity, debt to asset ratio and company size have no partial significant effect on stock prices.

Keywords
Stock price, financial ratio, LQ45.

To cite this article: Suhardi A, R.; Marinda, V, S.; Prasetia A, R , Rohendra , T, and Budiawan, A. (2021) Development Of Lq45 Share Price Index During 2012-2016. *Review of International Geographical Education (RIGEO), 11*(6), 16-22. doi: 10.48047/rigeo.11.06.3

Submitted: 10-10-2020 ● **Revised:** 12-12-2020 ● **Accepted:** 16-02-2021

Introduction

In era of industry 4.0, the capital market has very important role, where the capital market is one of prime mover of the state economy. The Capital market run two functions, that is as facilities for company to get funds from communities facilities for the financier and invest in stock, financial instrument bonds, warrants, right, mutual, and various instrument such as futures, options, and others. The capital market instrument that is often traded is stocks. Shares is proof of ownership of capital participation or an enterprise (Oehler & Horn, 2021). The advantage of owning shares for investors is getting capital gains and dividends earned every year. All these benefits can be obtained by investors if the company has good financial performance.

An increase in stock prices causes the value of the company to increase as well. This illustrates the high level of investor confidence in the stock issuing company (Brigham & Houston, 2021). This study uses the LQ45 Index because the LQ45 Index is an index that uses 45 issuers selected based on considerations of liquidity and market capitalization, with predetermined criteria. The stocks listed in it are definitely the companies with the best stocks and have a high level of liquidity and good capitalization. Every 6 months (at the beginning of February and August), LQ45 Index shares experience changes or changes according to market capitalization and stock liquidity.

The analytical tool regarding stock valuation is fundamental analysis using data derived from financial reports. Fundamental analysis believes that the performance of a company that issues shares will greatly influence the company's value (Siahaan, Tampubolon, & Iskandar, 2021). Financial reports produce financial ratios that are the basis for conducting fundamental analysis. To assess the financial condition and performance of the company, five types of financial ratios are often used (liquidity, solvency, activity, profitability and market size) (Hery & Si, 2016).

Table 1. Development of Stock Prices, Size, Cash Position and EPS On Companies Listed In The LQ45 Index

Year	Share Price		Size		Cash Position		EPS	
		Growth		Growth		Growth		Growth
2012	10810	-	17.03	-	1.46	-	592.78	-
2013	9877	-9%	17.18	0.89%	1.62	11%	528.22	-11%
2014	11874	20%	17.33	0.89%	1.46	-10%	613.10	16%
2015	10225	-14%	17.42	0.53%	1.93	32%	519.74	-15%
2016	11024	8%	17.49	0.36%	6.41	233%	487.09	-6%

Source: Data Processing (2021)

Table 1 shows that stock prices and EPS fluctuated. The decline in stock prices in 2012-2013, an increase in the size and cash position of the company. Increase in share price in 2014. Decrease in share price in 2015, increase in size and increase in the company's cash position. Decline in earnings per share in 2016.

Literature Review

Return On Equity (ROE)

For investors, ROE analysis is important because with this analysis it can be seen the benefits that can be obtained from the investment made. For analysis companies, this is important because it is an attractive factor for investors to invest. High ROE means that firms have a chance to give a large income for the shareholders. A good company condition will generate high profits so that income for shareholders will also be high. Companies can use their equity effectively and efficiently so that they will be able to provide greater income in the future and increase share prices. The formula for calculating ROE :

$$Return\ On\ Equity = \frac{Earning\ After\ Tax}{Owner's\ equity} \times 100\%$$

Debt To Asset Ratio (DAR)

Debt To Asset Ratio is the ratio which is used to measure the comparison of the total debt with the total asset. From the measurement results, if the ratio is higher, there will be more debt financing, which means that it is increasingly difficult for companies to obtain additional loans. This ratio is also called a ratio that looks at the company's debt ratio, which is obtained from the ratio of total debt divided by total assets. If debt ratio calculation results are lower, the better because it is safe for creditors during liquidation (Oehler & Horn, 2021). The formula used to calculate the debt asset ratio (DAR) :

$$Debt\ To\ Asset\ Ratio = \frac{Total\ debt}{Total\ assets}$$

Earnings Per Share (EPS)

Earnings per share (EPS) is net income for each share was collected an company in running their business activities. The amount of eps provide information to investors on the shares of company, if the shares having a huge profit or not. This ratio also known as the ratio of the book value, is the ratio of to measure management success in achieving profit for the shareholders. EPS is a ratio describing the number of the rupiah which obtained for each share or profit ready for distribution to shareholders for corporate profits (Ndanyi, 2021). Earning per share (EPS) can be formulated as:

$$Earning\ Per\ Share = \frac{Earning\ After\ Tax}{The\ number\ of\ shares\ outstanding}$$

Firm Size

Large companies have lower risk than a small company. This is because large companies have control better about market conditions so that they can survive the competition economy . A company that has been established will have easy access to capital market to increase the funds to a lower cost, while the new and small companies with less experience will have much trouble to access to the capital market .

The size of the company is a scale on which can be classified the size of the company according to various ways among others is the total asset, a log size, the stock price and others. The size of the company is a measure describing the size of a company shown by the total asset company (Amelia, Chandra, & Fancella, 2021). The formula for calculating firm size: $\text{Firm Size} = \ln(\text{Total Asset})$

Cash Position (CP)

Cash has a central position in an effort to maintain the smooth operation of the company. Excessive or insufficient amounts of cash both have negative consequences for the company. Lack of cash can result in non-payment of various obligations such as salary payable, bank interest and accounts payable. Conversely, if cash is excessive, it means absorbing scarce and expensive working capital funds that increase the company's fixed burden (Allen, Merlo, Lawrence, Slutsky, & Gray, 2021). Cash position is a measure of consideration before taking a decision to determine the size of dividends to be paid to shareholders (AROFAH, 2021). Cash position can be formulated by:

$$Cash\ Position = \frac{Ending\ cash\ balance}{Earning\ After\ Tax}$$

Trading Volume

Trading volume could be referred to study information in the capital market and assessment

towards the shares. A performance shares can be measured by its trading volume. Are increasingly frequent traded indicates that of the of the active and attractive to investors.
Comparing the number of shares of the company that were traded in a certain period with the total number of shares outstanding during the same period calculate the volume of stock trading (Total Volume Activity). The formula for calculating the trading volume:

$$\text{Total Volume Activity (TVA)}_{it} = \frac{\sum \text{shares traded}_i}{\Sigma \text{ shares outstanding on the IDX}_i}$$

The Stock Price

The stock price is an indicator of company management. Success in generating profits will provide satisfaction for rational investors. A high enough share price will provide advatages in capital gains and a better image for the company, it management easier to get funds from outside the company. The stock price is formed on various factors. One of them is determined according to the law of supply and demand where the more people who want to buy, the stock price tends to move up. In addition, there are other factors, such as fundamental influences in the form of financial reports and technical or company history influences. Several ways are used to analyze stock prices, namely:

1. Technical analysis, used for short-term investment decisions. This occurs because the price movement of the security is no longer random but is repeated repeatedly and forms a certain identifiable pattern. The principles that can be used in understanding technical analysis are:
a. Everything that happens can affect both rational and irrational, is already reflected in the price that is formed. The standard of technical analysis is that the true value of a stock is determined by the strength of demand and demand which is reflected in the stock price.
b. Prices move in a trend and this trend is impossible to manipulate. If the trend is indeed moving in an upward direction, it is impossible to make it go down unless at a certain point there will be a peak to then reverse (reversal).
c. Market action is always repeated, meaning that technical analysts believe that every investor will repeat the same actions if market conditions are the same. This situation is mapped in a diagram. The diagram will form a pattern that is always repeated and used to predict future stock price movements.
2. Fundamental analysis, the target is to provide an answer whether the company is in good health or not so it is suitable to be a place of investment. Criteria for finding these answers using RLS (Rentability, Liquidity, and Solvency). Fundamental analysis has six steps:
a. Searching. The steps are looking for data or information such as a balance sheet or profit and loss
b. Counting. Calculating financial ratios.
c. Comparing. Compare the RLS ratios of the companies we analyze with their comparators. This comparison consists of theory, historical data, industry averages, similar companies and the same scale.
d. Calculating. Add up each of these ratings.
e. Concluding. Summing up the ratio calculation results.
f. Recommending. Provide recommendations according to the analysis that has been concluded so that the results will be relevant.

Research Methods

Descriptive method is used as method in this research. The variables in this research are:

a. The independent variables are ROE (X1), DAR (X2), EPS (X3), Firm Size (X4), cash position (X5), and Trading Volume (X6).
b. The dependent variable is the Stock Price (Y)
The stages of data analysis carried out were descriptive statistics, determining the panel data model to be used, panel data regression and hypothesis testing. There are three estimation model techniques used to determine the best model, namely the common effect, fixed effect, and random effect. The stages of the panel data model analysis include:

1. Chow Testing (Likelihood Test Ratio)

The Chow test is used to choose between the fixed effect model or the common effect model that should be used. If the results of the specification test show that the cross-section probability of chi-squares is <0.05, the correct model is the fixed effect and if the probability value is> 0.05, the correct model is the common effect model.

2. Hausman Test

The Hausman test is used to determine which random effect model or fixed affect model should be used. This test uses a probability value of 0.05 with decision-making criteria if the probability F <0.05 then the fixed effects model is better to use. Conversely, if the probability value of F> 0.05 then the random effect model is better to use.

3. Lagrange Multiplier (LM)

This test is used to determine which model from the chow test results or the model from the Hausman test that should be used. The LM test criterion is if the Breusch-Pagan (BP) probability value <0.05, the model chosen is the model from the Hausman test results and if the Breusch-Pagan (BP) probability value> 0.05, the model chosen is the model from the Chow test results.

Results and Discussion

Results

Descriptive analysis aims to get an overview of each variable used in the study. Following are the results of descriptive statistics, namely

Table 2. Descriptive Statistics

	Share Price	ROE	DAR	EPS	Size	CP	Volume
Mean	10761.81	21.30829	0.421238	548.1960	17.28937	2.575949	497592.6
Median	5850.000	15.69000	0.410000	285.1600	17.15444	1.479807	195345.0
Maximum	63900.00	135.8500	1.210000	3344.780	19.38330	97.35577	3168955.
Minimum	343.0000	0.100000	0.130000	2.580000	15.82844	0.047465	12653.00
Observation	105	105	105	105	105	105	105

Source: Data Processing (2021)

Table 2 presents the descriptive statistical test results of the dependent variable and the independent variable. The data used in this study for each variable amounting to 105 obtained from 21 companies during the 5 year observation period.

The next stage of analysis is to determine the best model to be used. Chow's test produces the appropriate model is the common effect. Hausman test results show that the model that is better used is the random effect model. The results of the LM test show that the random effects model is used to estimate the equation. The conclusion of the three analysis of model determination is the panel data regression model using random effects. Furthermore, a model that represents this research is formulated, namely:

$$Y = 15.064 + 0.129\text{ROE} + 0.076\text{DAR} + 0.274\text{EPS} + 0.814\ \text{Size} + 0.011\text{CP} - 0.068\text{Volume} + \varepsilon$$

The above interpretation is :

1. A constant of 15,604 indicates that if ROE, DAR, EPS, Size, CP and trading volume are 0, then the stock price will increase by 15,064.
2. The ROE coefficient value is positive at 0.129, if the ROE increases by one unit and the other independent variables are 0 then the stock price will increase by 0.129.
3. The DAR coefficient value is positive at 0.076, if DAR is increased by one unit and the other independent variables are 0 then the stock price will increase by 0.076.
4. The positive EPS coefficient value is 0.274, if the EPS increases by one unit and the other independent variables are 0 then the stock price will increase by 0.274.
5. The coefficient value of Size is positive at 0.814, if Size increases by one unit and the other independent variables are 0. then the stock price will increase by 0.814.
6. The coefficient value of the Cash Position is positive at 0.011, if the Cash Position increases by one unit and the other independent variables are 0, then the stock price will increase by 0.011.
7. The volume coefficient value is negative 0.068, if the volume increases by one unit and the other independent variables are 0 then the stock price will decrease by 0.068.

The next step is hypothesis testing which includes partial test of each independent variable (t test) and joint test (F test). This hypothesis testing is done to see if there are independent variables that do not affect the dependent variable (stock price).

Table 3. T Test Results

Variable	T-Value	Sig. Value	Conclusion
ROE	0.4881	0.05	Has no significant effect
DAR	0.7699	0.05	Has no significant effect
EPS	0.0005	0.05	Has a significant effect
Size	0.8659	0.05	Has no significant effect
Cash Position	0.0143	0.05	Has a significant effect
Volume	0.0068	0.05	Has a significant effect

Source: Data Processing (2021)

Furthermore, the F test results that the regression model is correct and can be used. The coefficient of determination shows the contribution of all X variables in explaining Y variables by 75.8%. and the rest is explained by other variables outside the research model.

Discussion

Broadly speaking, there are at least five types of financial ratios that are often used to assess the company's financial condition and performance, namely liquidity ratios, livelihood ratios, activity ratios, profitability ratios, and appraisal ratios or market size ratios (Hery & Si, 2016). This study resulted in the ROE variable not having a significant effect on stock prices. This contradicts the statements of other researchers that partially the ROE variable has a positive and significant effect on stock prices (Hendiarto et al., 2021). The absence of the effect of ROE on stock prices indicates that most investors are not interested in getting long-term profits in the form of dividends but are more interested in getting short-term profits in the form of capital gains so that the company's ROE is not considered in purchasing shares but following trends in the market, and The exposure to the global economic crisis has added to negative sentiment for investors regarding the company's prospects regarding efficiency in using its own capital to generate profits. This study presents that DAR has no significant effect on stock prices which is in line with the statements of other researchers that how much DAR increases or decreases does not affect stock prices (Asikin, Afifah, Aldiba, Kania, & Firdaus, 2021). This shows that investors do not pay attention to DAR in making stock investment decisions. EPS has a significant effect on stock prices according to other studies (Hendiarto et al., 2021).

Conclusion and Suggestion

Conclusion

Refer to the results of of the research that has been carried out, the conclusions are:

1. The development of financial performance in companies listed in the LQ45 Index as measured by ROE has decreased for 5 consecutive years (2012-2016). Measurement through DAR, financial performance has increased in 2012-2013 then decreased in 2014 and increased again in 2015 then decreased in 2016. While measurement through EPS, financial performance has decreased in 2012-2013 then increased in 2014 and decreased again in 2015 and 2016. Measurement of financial performance through Size shows an increase for 5 consecutive years (2012-2016). Measurement of financial performance through cash position has fluctuated (2012-2013 experienced an increase, 2014 experienced a decline, 2015 experienced an increase and 2016 experienced a significant increase). Measurement of financial performance through trade volume has fluctuated (2012-2014 experienced an increase, 2015 experienced a decline, 2016 experienced an increase again). The development of share prices during 2012-2016 fluctuated (2012-2013 decreased, 2014 experienced an increase, 2015 experienced a decline again, and 2016 experienced a rise again).
2. Based on the results of the t test, it can be concluded that the Earning Per Share, Cash Position and trading volume variables have a significant effect on stock prices while ROE, DAR and Size have no significant effect on stock prices during 2012-2016.

Suggestion

Some suggestions for companies and investors are as follows:

a. Companies can improve their company's financial performance by still consider the ratio of corporate finance that serve as the measure by investors. The value of a stable financial ratio will increase the purchase of shares or invest so that the company's stock price increases.
b. Investors should pay more attention to the effect of earnings per share, cash position and trading volume in making investment decisions in companies because earnings per share, cash position and trading volume have a significant effect on stock prices.

References

Allen, T. D., Merlo, K., Lawrence, R. C., Slutsky, J., & Gray, C. E. (2021). Boundary management and work-nonwork balance while working from home. Applied Psychology, 70(1), 60-84. doi:https://doi.org/10.1111/apps.12300

Amelia, J. B. L., Chandra, A., & Fancella, C. (2021). The Effect of Liquidity Capital Structure, Company Size, Debt Policy and Profitability on Company Value in Property, Real Estate and Building Construction Companies Listed on the Indonesia Stock Exchange for the 2016-2019 Period. Jurnal Mantik, 5(1), 279-291. doi:https://doi.org/10.35335/mantik.Vol5.2021.1332.pp279-291

AROFAH, L. L. (2021). PENGARUH EARNING PER SHARE (EPS), DEBT TO EQUITY RATIO (DER), RETURN ON ASSETS (ROA) DAN CURRENT RATIO (CR) TERHADAP RETURN SAHAM Studi Pada Perusahaan Tekstil Dan Garment Yang Terdaftar Di Bursa Efek Indonesia (BEI) Tahun 2015-2020. Universitas Muhammadiyah Ponorogo. Retrieved from http://eprints.umpo.ac.id/id/eprint/7137

Asikin, B., Afifah, E. S. N., Aldiba, H., Kania, N. A. N., & Firdaus, R. A. A. A. R. (2021). The Effect of Liquidity, Solvency, And Profitability on Stock Return (Empirical Study on Property, Real Estate, And Building Construction Companies Listed on The Indonesia Stock Exchange for the 2014-2017 Period). Review of International Geographical Education Online, 11(5), 872-885. doi:10.48047/rigeo.11.05.83

Brigham, E. F., & Houston, J. F. (2021). Fundamentals of Financial Management: Cengage Learning. Retrieved from https://books.google.com.pk/books?id=9uUXEAAAQBAJ.

Hendiarto, R. S., Nurbuwat, D. A., Natalia, A., Rahmawati, R., Munawaroh, I., & Anindita, S. (2021). The Effect of Capital Structure on Firm Value (Case Study on Mining Sector Companies Listed On the Indonesia Stock Exchange (Period 2014-2018). Review of International Geographical Education Online, 11(5), 3198-3206. Retrieved from https://rigeo.org/submit-a-menuscript/index.php/submission/article/view/1137

Hery, H., & Si, M. (2016). Financial Ratio for Business. Jakarta: PT Grasindo. Retrieved from https://opac.perpusnas.go.id/DetailOpac.aspx?id=1025869

Ndanyi, M. D. (2021). Internal control systems and the financial management function in urban governance in Uganda. Journal of Public Administration and Policy Research, 13(2), 32-38. doi:https://doi.org/10.5897/JPAPR2020.0497

Oehler, A., & Horn, M. (2021). Behavioural portfolio theory revisited: lessons learned from the field. Accounting & Finance, 61, 1743-1774. doi:https://doi.org/10.1111/acfi.12643

Siahaan, L., Tampubolon, L. D., & Iskandar, D. (2021). The Effect Of Capital Structure Mediation On The Influence Of Liquidity And Profitability On Firm Value. Primanomics: Jurnal Ekonomi & Bisnis, 19(3), 35-48. doi:https://doi.org/10.31253/pe.v19i3.634