Research Article

THE EFFECT OF MACRO-ECONOMIC INDICATORS ON SHARE PRICES IN THE CONSTRUCTION SUB-SECTOR AND BUILDING COMPANIES LISTED IN INDONESIA STOCK EXCHANGE 2013-2018

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Abstract: The role of the construction and building sector as a conducive national economic driver is influenced by many factors, including through the support of government regulations, sectoral policies, good governance, business structure, the composition of the size of the market supply and demand and economic growth. The purpose of this study is to determine the effect of exchange rates, inflation, world oil prices, and exchange rates on stock prices in the construction and building sub-sector on the Indonesia Stock Exchange 2013-2018 period. The population in this study is the construction and building sub-sector companies in the Indonesia Stock Exchange, amounting to 16 companies with a sample of 9 companies selected using purposive sampling. The type of data used in this study is secondary data in the form of comparisons, world oil prices, and exchange rates. Methods of data analysis using panel data regression method using a random effect model (RE). The results showed that inflation and world oil prices have an effect on stock prices. Meanwhile, the exchange rate does not affect the stock price.

Keywords: Inflation, World Oil Price Level, Exchange Rate, Stock Price

1. Introduction

The construction and building sub-sector is one of the mainstay sectors to encourage economic growth and is always required to continue to increase its contribution through benchmarks of national GDP. This is a formidable challenge, considering that the global economy is currently experiencing a crisis which is feared to have an impact on the increase in the cost of infrastructure production processes and a decrease in the liquidity of construction and building companies.

Construction and building companies are one of the industrial sub-sectors listed on the Indonesia Stock Exchange (IDX). The development of the construction and building industry is so rapid, as evidenced by the increasing number of companies listed on the IDX. In the 1990s the number of companies registered was only one, but from the 2000s to 2017 the number of companies registered was 16 companies (source: SahamOk).

The increase in the role of the construction and building sectors as a conducive driving force for the national economy is influenced by many factors, including support from government regulations, sectoral policies, good governance, business structure, the composition of the volume of market supply and demand and economic growth. One of the main impacts of the growth in the construction and building sector is the increasing demand for jobs in construction service business entities, and the need for construction workers. So that researchers are interested in making the sub-sector of construction and building as objects to be studied.

The macroeconomic environment can affect the company's operations. Investors who have the ability to predict, understand and predict future macroeconomic conditions will be very useful for making profitable investment decisions. For this reason, investors must consider a number of macroeconomic indicators that can help investors make profitable investments. Macroeconomic indicators that are often associated with the capital market are fluctuations in inflation and the rupiah exchange rate. The stock price is a benchmark for investors to invest because in the stock price investors can find out the next general picture for making investment decisions. Share price movements can change at any time due to an increase in the number of shares outstanding due to new issuers listed on the IDX. The stock price can be related to the state of the country's economy, if the stock price strengthens it means that the economic condition is good.

2. Theoretical framework used and hypothesis

Stock price

The share price in the capital market will always change according to market conditions. Factors that can influence stock market prices are unstable political and economic conditions, unpredictable increases or decreases in interest rates and foreign exchange rates. According to Brigham and Houston (2013), "Share price determines shareholder wealth. Maximizing shareholder wealth means maximizing the share price of a company. The price of a share at any given time will depend on the cash flow that is expected to be received in the future by the average investor if the investor buy shares ".

Inflation

Inflation is an increase in the general level of prices in the economy that continues over time. Annual price increases can be either small or high increases and increase rapidly. The inflation rate can be calculated using the consumer price index which is an index of percentages per year. Inflation itself occurs due to excess demand at the level of employment opportunities from national output which raises the price level, increases in input costs (wages and raw materials) which pushes up the price level. In calculating inflation, usually using the Consumer Price Index (CPI). Inflation is an unavoidable factor, the inflation factor directly affects the high level of products and services in the market, the increase in inflation will cause the stock price in the capital market to rise and cause investors not to invest in stocks. Kismawadi (2013) argues that inflation describes an unhealthy economic condition, this is caused by a decrease in people's purchasing power with an increase in prices. With higher inflation, the economy will deteriorate and have an impact on corporate profits and will have an impact on lower share prices.

World Oil Price Level

Crude oil or crude oil is one of the most vital energies today, because refined crude oil is one of the energy sources. Crude oil is the same as currency and gold which is one of the many indicators that are always involved in the process of the world economic system, because volatility follows the economic and political events of a country. These types of oil include West Texas Intermediate (WTI), also known as Light-Sweet, Brent Bland, OPEC Basket Price and Russian Export Blend. The world oil price can be measured from the spot price of the world oil market (Nizar, 2014; Garcia et al., 2019). Generally used to be the Brent standard. The crude oil traded at WTI is high quality crude.

Brent is one of the many oil brand names, which are sold on world oil exchanges. The price of brent oil has been the benchmark price since 1971 for about 40% of the worldwide level of oil, especially for Russian-Ural oil. Hence, it is used as a brenchmark for oils. The price of oil is usually 1 dollar / barrel lower than the WTI price. However, that changed in 2007 and brent oil was sold at a WTI premium. The world oil price is measured by the spot price of the world oil market, generally the oil price which is used as the world standard price is West Texas Intermediate (WTI).

Exchange rate

The exchange rate is the ratio between the value of a country's currency against other countries. The decline in the exchange rate (exchange rate) indicates a decline in demand from the public for the rupiah due to the decreasing role of the national economy or due to the increasing demand for US $ foreign exchange used for international payment instruments. The strengthening of the rupiah exchange rate to some extent reflects an improvement in the performance of the money market. As a result of the increase in the inflation rate, the exchange rate (exchange rate) is getting weaker against foreign currencies. This causes a decline in the performance of a company and reduces investment in the capital market.

Hypothesis

Hypotheses are temporary answers or assumptions about the problem in research. The formulation of the hypothesis in this study are:

H1: Inflation, World Oil Price Levels, and Exchange Rates affect share prices in construction and building sub-sector companies 2013-2018.

H2: Inflation affects the Stock Price of the Construction and Building Sub-Sector listed on the Indonesia Stock Exchange 2013-2018.

H3: The World Oil Price Level Affects the Stock Price of the Construction and Building Sub-Sector listed on the Indonesia Stock Exchange in 2013-2018.

H4: Exchange Rate Affects the Stock Price of the Construction and Building Sub-Sector listed on the Indonesia Stock Exchange in 2013-2018.

3. Research methods

Sample Classification

The population used in this study is the construction and building sub-sector companies listed on the Indonesia Stock Exchange for the period 2013-2018. The sampling technique used was purposive sampling where the researcher chose samples based on several characteristics (Mudrajad Kuncoro 2013). Sampling with the following criteria: Construction and Building Sub-Sector Companies use rupiah as their share unit price, and are listed on the Indonesia Stock Exchange for the 2013-2018 period. There are 9 companies that meet the above criteria for the period 2013 to 2018.

Research data

This study took a sample of companies listed on the Indonesia Stock Exchange for the period 2009-2013 with predetermined criteria. The data used in this research is quantitative data using secondary data because the data obtained comes from company data. The data used is the annual share price data obtained from the Indonesia Stock Exchange (BEI).

Research variable

The research variables used in this study are stock prices as the dependent variable, and inflation, world oil price levels, and exchange rates as independent variables.

4. Research results and discussion

Descriptive Analysis

This study uses four variables to be analyzed, namely inflation, exchange rates, world oil price levels, and stock prices. This descriptive statistical measurement uses the Eviews 9.0 program.

Table 1. Descriptive Statistic Variabel

	Stock Price	Inflation	World Oil Price Level	Exchange Rate
Mean	1066.602	0.050000	820815.1	12617.15
Median	787.5000	0.050000	792216.5	13393.88
Maximum	3762.000	0.070000	1021074.	14267.33
Minimum	1061.000	0.030000	650860.6	10583.00
Std. Dev.	1048.449	0.014275	170497.0	1475.088

1. The average value (mean) of the Share Price is 1066,602 and the standard value is 1048,449. The comparison of the mean (mean) of stock prices is greater than the standard deviation which indicates that the stock price data is well distributed. The maximum value of 3762,000 is the highest share price that occurred in 2016. The minimum value of 1,061,000 is the lowest share price that occurred in 2013.
2. The average value (inflation) is 0.050000 and the standard value is 0.014275. A comparison of the average (mean) inflation that is greater than the standard deviation shows that the inflation data is well distributed. The maximum value of 0.070000 is the highest inflation that occurred in 2013. The minimum value of 0.030000 is the lowest inflation that occurred in August 2018.
3. The mean value of the World Oil Price Level is 820815.1 and the standard design value is 170497.0. The comparison of the mean (mean) level of world oil prices is greater than the standard deviation which indicates that the data on the World Oil Price Level are well distributed. The maximum value of 1021074 is the highest level of world oil prices that occurred in 2014. The minimum value of 650860.6 is the lowest level of world oil prices that occurred in 2017.
4. The average exchange rate value is 12617.15 and the standard deviation value is 1475.088. Comparison of the mean (mean) of exchange rates that is greater than the standard deviation indicates that the Exchange Rate data is well distributed. The maximum value of 14,267.33 is the Highest Exchange Rate that occurred in 2018. The minimum value of 10,583.00 is the lowest World Oil Price Level that occurred in 2014.

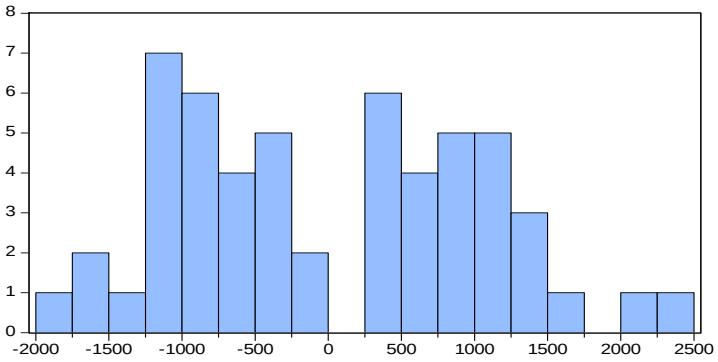

Figure 1. Normality Test

It can be seen that the histogram graph shows that the data is normally distributed and the test results using the Jarque-Bera test produce a probability value of 0.266593> 0.05 which indicates that the data is normally distributed.

Table 2. Estimation Results of Regression Parameters Using the Random Effect Model Approach

Dependent Variable: STOCK PRICE
Method: Panel EGLS (Cross-section random effects)
Date: 11/25/19 Time: 09:09
Sample: 2013 2018
Periods included: 6
Cross-sections included: 9
Total panel (balanced) observations: 54
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION	0.000974	0.000392	2.485369	0.0168
WORLD OIL PRICE	-7.498865	3.576095	-2.096942	0.0418
EXCHANGE RATE	-0.988826	1.423937	-0.694431	0.4911
C	30.07362	13.94596	2.156439	0.0366

R-squared	0.671149	Mean dependent var	-9.80E-12
Adjusted R-squared	0.636894	S.D. dependent var	1042.667
S.E. of regression	628.2933	Akaike info criterion	15.82833
Sum squared resid	18948121	Schwarz criterion	16.04933
Log likelihood	-421.3649	Hannan-Quinn criter.	15.91356
F-statistic	19.59256	Durbin-Watson stat	2.198106
Prob(F-statistic)	0.000000		

It shows that the calculated F value is 19.59256 and Prob (F-statistic) is 0.000000 while the F table is 3.18 at the significant level of 0.05. These results indicate that Fcount is 19.59256> Ftable 3.18 and Prob (F-statistic) is 0.000000 <0.05, which means that the inflation variable, world oil price level, and exchange rate have a linear

relationship with stock prices or models. used correctly. So there is a simultaneous or simultaneous influence on the Inflation (X1), World Oil Price Level (X2), and Exchange Rates (X3) on Stock Prices (Y).

The coefficient of determination (R-squared) of 0.671149 or 67.11% indicates that inflation (X1), the level of world oil prices (X2), and exchange rates (X3) have an effect on 67.11% of stock prices (Y), while the remaining 32.89% is influenced by other variables not observed in the study.

The results of data processing show that the inflation variable has a prob value. t statistic is 0.0168 <0.05, which means that the inflation variable has an effect on stock prices. The results of data processing show that the level of world oil prices has a prob value. t statistic 0.0418 <0.05, which means that the world oil price level variable has an effect on stock prices. The results of data processing indicate that the exchange rate variable has a prob value. t statistic 0.4911> 0.05, which means that the exchange rate variable has no effect on stock prices.

5. Result and discussion

The Effect of Inflation, the Value of World Oil Prices and Exchange Rates on Stock Prices

Based on the results of the F test, it illustrates that the independent variables used in this study are able to explain the dependent variable well or the regression model used is appropriate. The Prob value (F-statistic) of 0.000000 is smaller than the significance level of 0.05, so it can be concluded that inflation, world oil prices and exchange rates have a linear relationship with stock prices in the construction and building sub-sector. The results of this study are in line with research by Mara Sutan Hanfiah et al (2012) which states that inflation, the level of world oil prices and the exchange rate simultaneously affect stock prices because they have a significant value of 0,000 which is below the 0.05 significance level. the test results with panel data shows that inflation affects the stock prices of construction and building sub-sector companies on the Indonesia Stock Exchange in the period 2013-2018 with a coefficient of 2.485369. The significant probability number in the table of 0.0168 is smaller than the significant tariff used which is equal to 0.05 which means there is a significant relationship.

The results of this study are in line with Susanto's (2015) research which shows that inflation has a significant effect on the stock prices of property and real estate companies listed on the IDX. Other research conducted by Rohmanda, Suhadak, and Topowijono (2014) shows that inflation has a significant effect on sectoral stock prices on the Indonesia Stock Exchange for the period 2005-2013. Another study conducted by Sembiring (2017) shows that inflation has a significant positive effect on stock prices in property and real estate companies on the IDX for the 2011-2015 period.

The Influence of the Level of World Oil Prices on Stock Prices

From the test results with panel data shows that the level of world oil prices affects the stock prices of the construction and building sub-sector on the Indonesia Stock Exchange for the period 2013-2018 with a coefficient of -2.096942. The significant probability figure in the 0.0418 table is smaller than the significant rate used, namely 0.05, which means that there is a significant relationship.

The results of this study are in line with research conducted by Movahedi Zadeh et al. (2014) which shows that there is a significant influence between the level of world oil prices on stock prices. Other research conducted by Syarofi and Muharamam (2014), Putra (2020) shows that there is a significant negative effect between the level of world oil prices on stock prices.

The Effect of Exchange Rates on Stock Prices

From the test results with panel data shows that the exchange rate has no effect on the stock prices of companies in the construction and building sub-sector on the Indonesia Stock Exchange for the period 2013-2018 with a coefficient of -0.694431. The significant probability figure in the table 0.4911 is greater than the significant rate used, which is 0.05, which means that there is no significant relationship.

The results of this study are in line with research conducted by Krisna and Wirawati (2013) which shows that exchange rates have no effect on stock prices. Another study conducted by Rachmandhanto and Raharja (2014) shows that there is no influence between the level of world oil prices on stock prices.

6. Conclusion

Based on the results of research and discussion entitled The Effect of Inflation, World Oil Price Levels, and Exchange Rates on Stock Prices for the 2013-2018 Period, the following conclusions can be drawn:

1. Inflation, World Oil Price Exchange and Exchange Rate based on the test results have a linear relationship with the Stock Price of the Construction and Building Sub-Sector in 2013-2018, in other words the Inflation variable, World Oil Price Level and Exchange Rate have an effect on Building Prices in the Construction Sub-Sector. 2013-2018 period.
2. Inflation has a significant positive effect on Stock Prices in the Construction and Building Sub-Sector in 2013-2018.
3. The World Oil Price Level has a significant negative effect on Stock Prices in the Construction and Building Sub-Sector in 2013-2018.
4. The Exchange Rate has no effect on the Stock Price of the Construction and Building Sub-Sector in 2013-2018.

7. Suggestion

Based on the research results, the authors provide several suggestions to be input for related parties, including:

1. For future researchers, it is recommended to include other macroeconomic variables that are still relevant for research such as the Money Supply, Gold Price, Interest Rates, Gross Domestic Product and so on, because these variables are currently in an increasing state. , so that researchers can see how the relationship between these variables and stock prices. In addition, it is hoped that it can use a longer period of time so that it is hoped that more general conclusions or generalizations can be made.
2. The public should first study the macroeconomic relationship with stock prices before becoming an investor so that people can reconsider the decisions that must be taken before becoming an investor.
3. It is recommended to investors and potential investors to always pay attention to and follow macroeconomic developments, especially inflation and world oil prices because based on the research these two variables affect stock prices and will be able to accurately influence and make accurate investment decisions, especially in company stocks. construction and building sub sector in Indonesia.
4. For companies, managers must consider all decisions related to macroeconomics. With the macroeconomic situation that occurs, the company can estimate what needs to be done so that the company can reduce the level of risk that can endanger the company's condition. There are macroeconomic changes that can be used as a benchmark for the quality of the company itself.

References

1. Adiwarman, A. Karim.2013. Bank Islam: Fiqih dan keuangan. Edisi 5. Cetakan ke 9. PT.RajaGrafindo Persada: Jakarta.
2. Afdi Nizar, Muhammad. (2014). Dampak Fluktuasi Harga Minyak Dunia Terhadap Perekonomian Indonesia. Buletin Ilmiah Litbang Perdagangan, Vol.6 No.2, Desember 2012. Jakarta: Pusat Kebijakan Ekonomi Makro, Badan Kebijakan Fiskal, Kementrian KeuanganRI.
3. Agus D., Harjito dan Martono. 2013. Manajemen Keuangan, Edisi kedua. Yogyakarta: EKONISA.
4. Agus Sartono. 2014. Manajemen Keuangan Teori dan Aplikasi. Edisi empat . Cetakan ke tujuh Yogyakarta:Penerbit BPFE.
5. Agustin. 2016. Analisis Portofolio Optimal dengan Single Index Model. Bandung: Rafika Aditama.
6. Anak Agung Gde Aditya Krisna dan Ni Gusti Putu Wirawati, 2013. Pengaruh Inflasi, Nilai Tukar Rupiah, Suku Bunga SBI Pada Indeks Harga Saham Gabungan di BEI. ISSN: 2302-8556 E-Jurnal Akuntansi Universitas Udayana 3.2 (2013): 421-435.
7. Antonio, Muhammad Syafi'I, dkk. 2013. The Islamic Capital market Volatility: A Comparative Study between in Indonesia and Malaysia. Buletin Ekonomi Moneter dan Perbankan.
8. Ary, Tatang Gumanti. 2013. Manajemen Investasi-Konsep, Teori dan Aplikasi, Mitra Wacana Media, Jakarta.
9. Azis, M., Mintarti, S., Nadir, M. (2015). Manajemen Investasi Fundamental, Teknikal, Perilaku Investor dan Return Saham. Yogyakarta: DEEPUBLISH (Grup Penerbitan CV BUDI UTAMA).
10. Brigham, F. Eugene dan Joel F. Houston. 2013. Dasar-dasar Manajemen Keuangan. Jakarta: Salemba Empat.
11. Ekananda Mahyus. 2014. Ekonomi Internasional. Jakarta: Erlangga.
12. Effendi, S dan Tukiran. 2014. Metode Penelitian Survei. Jakarta: LP3ES.
13. Fahmi, Irham. 2015. Pengantar Manajemen Keuangan Teori dan Soal Jawab. Bandung :Alfabeta.
14. Ghozali, Imam dan Ratmono, Dwi. 2017. Analisis Multivariat dan Ekonometrika dengan Eviews 10. Badan Penerbit Universitas Diponegoro: Semarang.

15. García-Ceberino, J. M., de Gracia Gamero, M., Gómez-Carmona, C. D., Antúnez, A., & Feu, S. (2019). Incidence of Organizational Parameters in the Quantification of the External Training Load of the Tasks designed for Teaching of the School Basketball. Revista de Psicologia del Deporte, 28(3), 35-41.
16. Hanafi, Mamduh M. 2015. Manajemen Keuangan. Yogyakarta: BPFE.
17. Hanafiah, Mara Sutan., Sudjana, Nengah., dan Sulasmiyati, Sri. 2015. Pengaruh Harga Minyak Dunia, Nilai Tukar Rupiah Terhadap Dollar, Dan Tingkat Inflasi Terhadap Harga Saham. Jurnal Administrasi Bisnis. Vol. 28 No. 2.
18. Handiani, Sylvia. 2014. Pengaruh Harga Emas Dunia, Harga Minyak Dunia dan Nilai Tukar Dollar Amerika/Rupiah Terhadap Indeks Harga Saham Gabungan Pada Periode 2008-2013. E-Journal Graduate Unpar, Vol.1, No.1. ISSN : 2355-4304.
19. Harianto dan Sudomo, 2015, Perangkat dan Teknik Analisis Investasi di Pasar Modal di Indonesia, BEJ, Jakarta.
20. Harjum, Muharam dan Faris Hamam Syarofi. 2014. "The Impact of the Domestic Interest Rates, Exchage Rate, World Oil Prices, World Gold Prices, DJIA, Nikkei 225 and HSI on the JCI". Jurnal Economics and Business Faculty Diponegoro University.
21. Indah Puspita. 2016. Pengaruh DER, ROA dan PER Terhadap Return Saham Pada Perusahaan Food And Beverage Yang Terdaftar Di Bursa Efek Indonesia (BEI) periode 2011-2014. 5. 3. 1429-1456. Universitas Udayana.
22. Jogiyanto, 2014.Teori Portofolio dan Analisis Investasi (Edisi ke 10). Yogyakarta: BPFE.
23. Kasmir, 2014. Analisis Laporan Keuangan, Edisi Pertama, Cetakan Ketujuh. Jakarta: PT. Rajagrafindo Persada.
24. Kasmir. 2016. Analisis Laporan Keuangan. Jakarta: Raja Grafindo Persada.
25. Kismawadi, E Ridho. 2013. Pengaruh Variabel Makro Ekonomi terhadap *Jakarta Islamic Index*. Skripsi. IAIN Sumatera Utara, Medan.
26. Madura, Jeff., dan Fox, Roland. 2014. International Financial Management. Boston: Cengage Learning.
27. Murni, Asfia. 2015. Ekonomika Makro. Bandung :Rafika Aditama.
28. Nezky, Mita. (2013) Pengaruh Krisis Ekonomi Amerika Serikat Terhadap Bursa Saham dan Perdagangan Indonesia. Buletin Ekonomi dan Perbankan .Universitas Indonesia.
29. Nor Hadi. 2013. Pasar Modal : Acuan Teoretis Dan Praktis Investasi Di Instrument Keuangan Pasar Modal. Yogyakarta: Graha Ilmu.
30. Nopirin (2014). Pengantar Ilmu Ekonomi Mikro-Makro. Yogyakarta: BPFEYogyakarta.
31. Nuryaman dan Veronica Christina. 2015. Metodologi Penelitian Akuntansi dan Bisnis. Bogor: Ghalia Indonesia.
32. Putong, Iskandar. 2013. Economics Pengantar Mikro dan Makro. Jakarta : Mitra Wacana Media.
33. Putra, S.G. (2020). Macroeconomic Factors and Influence on Stock Return That Impact the Corporate Values. International Journal of Finance & Banking Studies, Vol 9 No 1, 2020 ISSN: 2147-4486
34. Riduwan. (2015). Dasar-Dasar Statistika, Bandung: Alfabeta.
35. Rinaldi, Ferry. 2015. Analisis Laporan dan Rasio Keuangan Perusahaan. http://www.kembar.pro/2015/04/analisis-laporan-dan-rasiokeuangan.html (diakses pada 20-12-2016 pukul 21:48)
36. Rohmanda, Deny., Suhadak., dan Topowijono. 2014. Pengaruh Kurs Rupiah, Inflasi Dan Bi Rate Terhadap Harga Saham. Jurnal Administrasi Bisnis. Vol. 13. No. 1.
37. Sekaran, Uma dan Bougie, R. 2017. Metode Penelitian untuk Bisnis Pendekatan Pengembangan-Keahlian. Jakarta. Salemba Empat.
38. Sudana, I Made. (2015). Manajemen Keuangan Perusahaan. Edisi Kedua. Jakarta: Erlangga.
39. Sukirno, Sadono. 2013. Makro Ekonomi, Teori Pengantar. Penerbit PT. Raja Grafindo Persada, Jakarta.
40. Sunariyah. 2013. Pengantar Pengetahuan Pasar Modal (Edisi 6). Penerbit : UPP STIM YKPN, Yogyakarta.
41. Susanto, Bambang "Pengaruh Inflasi, Bunga, dan Nilai Tukar Terhadap Harga Saham (Studi pada Perusahaan Sektor Properti dan Real Estate Tercatat di BEI)" Jurnal ASET, Vol. 7, No. 1, 2015.
42. Suteja, J., & Gunardi, A. (2016). Manajemen Investasi dan Portofolio. Bandung: PT Radika Aditama.
43. Sutrisno. 2013. Manajemen Keuangan Teori Konsep & Aplikasi. Yogyakarta: Ekonisia.
44. Tandelilin, E. 2015. Portofolio dan Investasi. Yogyakarta : Konisius.
45. Xero Limited. (2018). Beautiful Accounting Sofware form https://www.xero.com/us/resources/accounting-glossary/s/what-isfinancial-management/.