Jurnal Ekonomi dan Bisnis Jagaditha

Volume 5, Nomor 2, 2018, pp. 109-118



EISSN 2579-8162

ISSN 2355-4150 https://ejournal.warmadewa.ac.id/index.php/jagaditha



The Effect of Commodity Price on Indonesia Rupiah Exchange Rate and Dow Jones Index on Indonesia Stock Exchange

Siti Hernita Oktavia*, Anis Rachma Utary and Felisitas Defung

Magister of Management Program, Economic and Business Faculty, Universitas Mulawarman, Samarinda, Kalimantan Timur, Indonesia
*sitihernitaoktavia@ymail.com

Received: 12/06/2018 Revised: 10/07/2018 Published: 30/09/2018

How to cite (in APA style):

Oktavia, S, H., Utary, A, R., & Defung, F. (2018). The Effect of Commodity Price on Indonesia Rupiah Exchange Rate and Dow Jones Index on Indonesia Stock Exchange. *Jurnal Ekonomi dan Bisnis Jagaditha*, 5(2), 109-118. http://dx.doi.org/10.22225/jj.5.2.809.109-118

Abstract Capital market is one of today's economic instruments that has developed very rapidly. One way to measure the performance of capital market is through stock index. There are many affecting factors to the stock index, such as domestic interest rates, foreign exchange rates, international economic conditions, the country's economic cycle, inflation rates, tax regulations, the amount of money in circulation (M. Samsul, 2008). The purpose of this study is to analyze the effect of Oil Prices, World Gold Prices, Exchange Rate of Indonesian Rupiah, and Dow Jones on IHSG (Indonesia Stock Exchange). We used analytical method with multiple regression analysis performed with SPSS 24 to conduct the study. In advance to applying multiple regression analysis, we administered a classic assumption test. This is necessary to make the regression equation is BLUE (Best, Linear, Unbiased, Estimator). Results of data analysis showed that Gold Price and Indonesia Rupiah Exchange rate negatively affected the Indonesia Stock Exchange; the Oil Prices and Dow Jones index also had a positive effect on Indonesia Stock Exchange. The value of adjusted R square is 59.7%. This means that by 59.7% Indonesia Stock Exchange movement can be predicted from the movement of the independent variables.

Keywords: Commodity Price; Dow Jones Index; Indonesia Stock Exchange; Indonesia Rupiah.

INTRODUCTION

Capital markets have an important role in the economy, especially in the allocation of public funds. According to (Jogiyanto, 2010), the capital market is a means companies use to increase their long term needs by selling shares or issuing bonds. Investment is the activity of investing directly or indirectly in the hope that in time the capital owners will get a number of benefits from the investment (Samsul, 2008). Investors, through the capital market can choose the object of investment with different levels of return and risk level faced, issuers through the capital market can collect longterm funds to support business continuity. One of the investment activities that can be selected by investors is to invest in the capital market. In Indonesia, investors who are interested in

investing in the capital market can invest in the Indonesia Stock Exchange (IDX). The housing market features distinctive search friction due to heterogeneity in house characteristics and consumer tastes (Gan, Wang, & Zhang, 2018).

One index that investors often pay attention to when investing in the Indonesia Stock Exchange is the Composite Stock Price Index (CSPI). Through the movement of the CSPI, an investor can see whether the market conditions are conducively accurate. There will be differences in market condition and the differences would require different strategies from investors in doing investment. Many factors can influence the Stock Exchange, including changes in central bank interest rates, global economic conditions, the level of world energy commodities prices, political

stability of a country, etc. (Blanchard, 2006). In addition to these factors, investors' own behavior will also give effect to the movement of the Stock Index. Furthermore, energy also holds an important role in the Indonesian economy.

In 2015 the mining sector declined but gradually improved from 2016 to 2017. This is motivated by that on the Indonesia Stock Exchange, the value of capitalization of mining companies listed on the Junior Chamber International (JCI) reached 21.93%. In addition to oil, gold is an important commodity that can affect the movement of the stock market because gold is an alternative investment that tends to be safe and risk free (Sunariyah, 2011).

Indonesia's economy itself is now increasingly integrated in the global economy. The Indonesian economy is open from the side of the balance of payments from trade, capital inflow or outflow, and government activities through the withdrawal and payment of foreign debt. For United States the index that can be used as a proxy is the Dow Jones Index. The Dow Jones index is the oldest stock market index and is a representation of the industry's most important performance in the United States. Dow Jones index is moving up, indicating the performance of the United States economy in general that it is in a good position. With good economic condition, it will move the Indonesian economy through export activities as well as capital inflows either directly or through capital market (Sunariyah, 2011). Capital inflows through the capital market will certainly have an effect on the changes in the Composite Stock Price Index.

In respect to the stated factors that affecting the capital market, in general, if world energy price falls, the stock price index in a country will rise (Sunariyah, 2011). With low interest rate and low energy price, companies can freely expand their activities by increasing their returns. If the company's profit increases, investors would be interested in purchasing shares from the issuers so that this can push up the stock price index.

METHOD

The dependent variable in this study is the CSPI. JCI is a composite share price index issued by the Indonesia Stock Exchange every day. JCI data were obtained directly from www.finance.yahoo.com . The data used were time series at the end of each month during the observation period between 2014-2017.

Meanwhile, the Independent variables in this study are Oil Prices, Gold Prices, IDR Rates, and Dow Jones Index. This study was conducted during from November 2017 until February 2018. The object of the study was the Indonesia Stock Exchange. The data used in this study JCI, world oil price, world gold price, IDR exchange rate against dollar, and Dow Jones index during January 2014 until June 2017. Additionally, we collected a number of literature reviews and previous studies related to the present study. We obtained the additional data from Bank Indonesia internet, and literature. The reason for choosing the year period used was to get more accurate results in accordance with the current situation. Monthly data selection is done to avoid bias that occurs due to panic market in reacting an information, so with the use of monthly data, it is expected to obtain accurate results. Data collection techniques in this study were collected by means of documentation from various sources. JCI data collection is carried out on the IDX corner. In addition, the collection of data and information is done by taking from the internet, articles, journals, and studying from books that support the study. This study used quantitative methods with multiple regression analysis tools. Multiple regression analysis was used to examine the effect of world oil prices, world gold prices, IDR exchange rates, and the Dow Jones Index on the JCI. How much independent variables affect the dependent variable is calculated using the multiple regression line equation (Algifari 2000, p.44) with the formula:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + e$$

Explanation:

Y = JCI

a = constant

b = regression line coefficient

 X_1 = world oil prices

 X_2 = world gold prices

 X_3 = IDR exchange rate against the US

dollar

 X_4 = Dow Jones Index

e = standard error

RESULT AND DISCUSSION

Table 1 - Descriptive Statistics World Commodity Prices, IDR Rates and Stock Index

	N	Minimum	Maximum	Mean	Std. Deviation
JCI	42	4,223.91	5,738.15	5,013.3757	376.00375
Gold	42	1,150	13,218	11,689.31	2,464.808
Oil	42	416	10,537	5,267.52	3,064.131
Exchange Rate	42	11427	14396	12922,60	757,791
DJI	42	15,698.85	21,349.63	17,932.6619	1,424.56864
Valid N (listwise)	42				

Based on calculation results with the number of observations for 42 months starting from January 2014 to June 2017, it can be seen that the lowest value JCI is 4.233.9 which occurred in October 2015, while the highest value of JCI is 5.738.2 which occurred in June year 2017. The average value of Indonesia

Stock Exchange is 5.013376 with a standard deviation of 376,0037 and with the value of this very large standard deviation it indicates that the value of Indonesia Stock Exchange fluctuate sharply. This can be seen from the graph of each movement of commodity prices, rupiah exchange rate and stock index in figure 1.

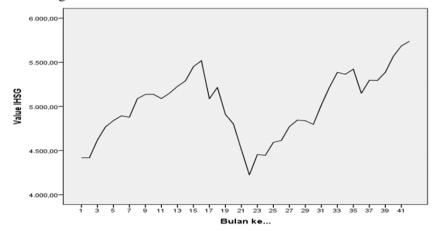


Figure 1 - JCI Movement

Source: SPSS version 24

During the period of observation the JCI value always moved up, with the exception of the 2015 period where the JCI declined. The sharp decline of the JCI in 2015 was caused by the world economic crisis which resulted in a

sharp decline in the stock price index around the world (www.kompas.com). Although it experienced a sharp decline in 2015, JCI finally returned to pre-crisis levels in the range of 5000-5500 in mid-2017

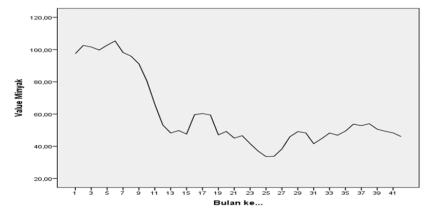


Figure 2 - World Oil Prices Movement

Source: SPSS version 24 The increase of world oil prices is

motivated by the increase in world oil consumption (www.reuters.com). Increased consumption is based on low interest rates of the Central Bank of the United States-which resulted in the availability of funding sources at low cost-thus encouraging the company to expand its business. As oil prices rise on the basis of increased demand, rather than reduced supply, the rise in oil prices alone directly or

indirectly boosted the JCI. The decreased of world oil prices was caused by reduced demand and excessive oil stocks, rising dollar values, and China's economic slowdown. However, this decline did not affect the JCI significantly. It can be seen that during the period of observation, the movement of Indonesia Stock Exchange and world oil prices are not undirectional.

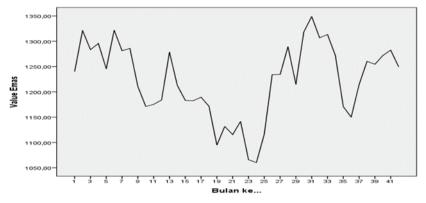


Figure 3 - World Gold Movement

Source: SPSS version 24

In general, the price of gold will always increase over time due to the amount of which is increasingly rare. In addition, gold prices always adjust to inflation, so choice is often made by investors who have the characteristics of avoiding risk as a measure to protect the value of its investment. During the observation period, the sharp rise in gold prices began in September 2016. This was due to political issues, such as the global recession, disputes

between countries or wars that made gold prices rise. One of them is the issue of Brexit (UK exit from the European Union due to recent poll results related to the European Union). This resulted in panic investors and that they began to buy gold in large numbers. Investors who want to reduce the risk of losses in the financial markets divert most of their investments into gold. This resulted in an increase in world gold prices from September 2016 to the present.

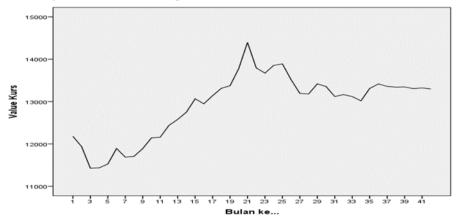


Figure 4 - Exchange Rate Movement

Source: SPSS version 24

Based on the above graph it can be seen that the rupiah exchange rate is relatively stable. Exchange rate movements can be well maintained by Bank Indonesia as the Indonesian monetary authority. In 2015 when the exchange rate jumped sharply from 13,000

to 14,000, the JCI fell from the level of 5200 to the level of 4000. This is in line with what was described in the literature review that the exchange rate has a negative relationship with the JCI.

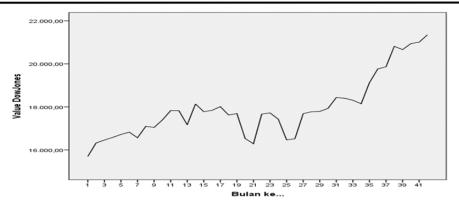


Figure 5 - Dow Jones Index Movement

Based on the above graph it can be seen that in general Dow Jones Index during the observation period has increased. Exceptions occurred in the period of 2015 where the Dow Jones Index experienced a decrease. This is due to the fact that by the year 2015 the US economic crisis has peaked, resulting in a decline in all world index (www.nytimes.com). From the chart above, in general the movement of Dow Jones Index in line with JCI can be seen. This certainly supports the hypothesis of the present study.

Classic Assumption Test

Normality test is used to test whether in the regression model both independent variables and dependent variables have normal data distribution or not. A good regression model is one that has a normal or near-normal distribution of data (Ghozali, 2011). In this study the normality test used the Kolmogorov-Smirnov test. The following results are presented from the Kolmogorov-Smirnov test in Table 2

Tabel 2 - One-Sample of Kolmogorov-Smirnov Test

		Unstandardized Residual
N		42
ah ah	Mean	,0000000
Normal Parameters ^{a,b}	Std. Deviation	226,64434630
	Absolute	,050
Most Extreme Differences	Positive	,042
	Negative	-,050
Test Statistic	Test Statistic	
Asymp. Sig. (2-tailed)		,050 ,200 ^{c,d}

a. Test distribution is Normal.

Source: SPSS version 24

Based on SPSS result it can be concluded that all variables used in this study are JCI, World Oil Price, World Gold Price, Exchange Rate, Dow Jones Index, and have a significance level above 0.05. This means that the data used in this study has a normal distribution and showed that the regression model had feasible to measure.

Autocorrelation Test

The autocorrelation test aims to test

whether in a linear regression model there is a correlation between the confounding error in the current period and the previous period. A good regression model is free of autocorrelation. If there is a correlation it is called an auto-correlation problem. Auto-correlation arises because of sequential observation over time related to each other (Ghozali, 2011). Decision-making whether or not there is autocorrelation using run test statistic. To verify whether there is auto-correlation is to use Durbin-Watson test (Ghozali, 2011). Table 3 presents calculation of auto-correlation test

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

using SPSS version 24.

Tabel 3- Value od Durbin Watson Test

Model	Durbin-Watson
1	1,890

Source: SPSS version 24

The results of SPSS above show that the value of Durbin Watson is 1.890. Durbin-Watson values based on tables with a confidence level of 0.05 are dl of 1.53 and du of 1.83, so the 4-du values is 2.17. Durbin Watson's value in this study was 1,890, so that it was located between du and 4-du, and thus this regression model showed no autocorrelation and was suitable for use.

Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is a

variance inequality of the residual one observation to another observation. If the variance of the residual one observation to another observation remains, then it is called good homoscedasticity. Α model homoscedasticity (Ghozali, 2011). In this study test the occurrence to heteroskedastisitas or not by using graphical analysis. Detection of whether or not heteroskedastisitas can be done by looking at the presence or absence of certain patterns in the scatterplot between the dependent variable (ZPRED) with residualnya (SRESID). The basis of graphical analysis (Ghozali, 2011) is: if there are certain patterns such as the dots that form a certain pattern that is regular, it indicates the occurrence of heteroscedasticity. If there is no clear pattern, and the points that spread above and below the zero on the Y axis indicate the absence of heteroscedasticity.

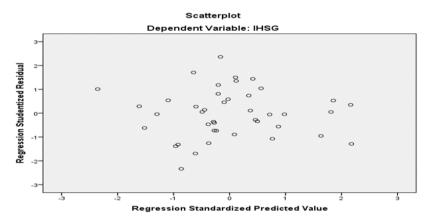


Figure 6 – Heteroscedastidity Test Result

Source: SPSS version 24

Based on the figure above showed that the existing dots do not form a particular pattern or the points that exist spread above and below the zero so it can be concluded that in this study the regression model used did not experience heteroscedasticity.

Multicollinearity Test

Multicollinearity test aims to test whether the regression model found a correlation between independent variables. A good regression model should not have a correlation between the independent variables. The orthogonal variable is the independent variable whose correlation value among free variables equals zero (Ghozali, 2011). The SPSS results from this multicollinearity test can be seen from the following table.

Tabel 4 – Multicollinearity Test Result

		Collinearity Statistics		
Model		Tolerance	VIF	
1	Gold	,632	1,581	
	Oil	,381	2,627	
	Exchange Rate	,282	3,548	
	DJI	,749	1,336	

The results of the multicollinearity test showed that all independent variables from the regression model did not have multicollinearity as indicated by the VIF value below 10 and the tolerance value greater than 0.1. This shows that this regression model is feasible to use because there are no variables that experience multicollinearity.

Hypothesis Testing

Coefficient of Determination

Coefficient of determination (R²) measures how far the ability of the model in explaining the variation of the dependent variable. The coefficient of determination is between zero and one. The small R² value

means the ability of the independent variable to explain the dependent variable is very limited. A value close to one means that the independent variable provides almost all the information needed to predict the variation of the dependent variable (Ghozali, 2011).

In this statistical calculation the R² value used is adjusted R square. Adjusted R square is an indicator used to determine the effect of adding an independent variable to a regression equation. Adjusted R² value has been released from the influence of degree of freedom, which means that the value has really shown how the independent variables influence the dependent variable. The following is the coefficient of determination from this study which is presented in table 5.

Table 5 – Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,798ª	,637	,597	238.58106

a. Predictors: (Constant), DowJones, Gold, Oil, Exchange rate

b. Dependent Variable: JCI *Source: SPSS version 24*

Based on table 5, the adjusted R square value is equal to 0.597 indicating that the variation of the independent variable is able to explain 59.7% of the variation of the dependent

variable, while the remaining 40.3% is explained by other variables outside the independent variable. Correlation coefficient

value (R) of 0.798 indicates that the strong relationship between the independent variables on the dependent variable is 79.8%.

F Test

The F statistical test basically shows whether all independent variables included in the model have a simultaneous effect on all dependent variables (Ghozali, 2011). The following results of Test F were processed using SPSS which are presented in Table 6

 $Table\ 6-F\ Test\ Result$

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3690457,480	4	922614,370	16,209	,000 ^b
	Residual	2106074,048	37	56920,920		
	Total	5796531,529	41			

Source: SPSS version 24

The results of the calculation can be seen that the significant value is 0,000 and the calculated F value is 16,209. The basis for decision making is the level of significant of 5% or 0.05. Because the significant value is less than 0.05, it shows the influence of World Oil Prices, World Gold Prices, IDR Exchange Rates, and Dow Jones Index simultaneously on

the JCI.

T Test

The statistical test t basically shows how far the influence of an independent variable partially explains the variation of the dependent variable (Ghozali, 2011). The following SPSS results from the t test are presented in table 7

Table 7 - Particular Parametric Statistics Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	5088,251	1694,641		3,003	,005
Oil	,040	,020	-,326	2,029	,001

The Effect of Commodity Price on Indonesia Rupiah Exchange Rate and Dow Jones Index on Indonesia Stock Exchange

Gold	-,141	,635	-,028	-,222	,825
IDR Exchange Rate	-,272	,093	-,548	-2,937	,004
Dow Jones	,213	,030	,808	7,053	,000

Table 7 showed the results of the four independent variables so that the regression equation can be composed as follows:

JCI = 5088,251 + 0.040 Oil - 0.141 Gold - 0.272 Exchange + 0.213 DJI + e

The results of the research hypothesis on the effect of World Oil Prices, World Gold Prices, IDR Exchange Rates, and the Dow Jones Index on the JCI will be partially discussed as follows:

- 1. Constants 5088.251 indicate that if there is no Oil, Gold, Exchange rate, Dow Jones, then the value of INDONESIA STOCK EXCHANGE is 5088.251.
- 2. In the regression equation above, it can be seen that the coefficient value of the World Oil Price is 0.040 with a t-count of 2.029 and a significance level of 0.001. Because the significance value is smaller than 0.05 and the value of t arithmetic (¬2.029) is greater than t table (1.96) then there is a positive and significant influence between the World Oil Price variable on JCI. This means that if the World Oil Price increases 1 unit then the JCI will also increase 0.040 so if the world Oil prices fall then the JCI will decrease with the assumption that other variables Gold, Exchange and Dow Jones are unchanged or constant.
- 3. In the regression equation above, it can be seen that the coefficient value of the World Gold Price is -0.141 with a t-count value of -0.222 and a significance level of 0.825. Because the value of significance is greater than 0.05 and the value of t arithmetic (-0.222) is smaller than t table (1.96) then there is a negative and insignificant influence between the World Gold Price on JCI. This means that there is no influence between dependent and independent variables ie World Gold Price does not affect the JCI with other assumptions such as Oil, Exchange and Dow Jones are unchanged or constant.
- 4. In the regression equation above, it can be seen that the coefficient of the IDR exchange rate is -0.2272 with the value of t-count -2.937 and significance level of 0.004. Because the significance value is smaller than 0.05 and the value of t arithmetic (-2.937) is smaller than t table (1.96) then there is a negative and

- significant influence between the variable of the IDR Exchange Rate against the JCI. This means that the IDR exchange rate variables affect the JCI variables, if the exchange rate decreased 1 unit then the JCI will decrease -0.272 assuming other variables Oil, Gold, and Dow Jones are unchanged or constant.
- 5. In the regression equation above, it can be seen that the coefficient value of the Dow Jones index is 0.213 with the value of tcount 7.053 with a significance level of 0.000. Because the significance value is smaller than 0.05 and the t value (7.053) is greater than t table (1.96) then there is a positive and significant influence between Dow Jones Index on JCI. This means that if the Dow Jones Index increased 1 unit then it will automatically affect the JCI will also rise 0.213 and vice versa if the Dow Jones Index decreased then the JCI will also experience the same thing with the assumption that other variables Oil, Gold, and Exchange are unchanged or constant

CONCLUSION

The test results partially indicated that world oil prices have a positive and significant effect on JCI. This is reinforced from the literature review on world oil prices that always fluctuate due to the demand and supply of international trade and impact on the rise of Indonesian JCI. Indicating that the world gold price has a negative effect on JCI, this result is certainly contrary to what has been described in the literature review. This is due to the fact that during the observation period from 2014 to 2017, the level of income of Indonesian people in general increased. Increasing public income is certainly resulted in investors can diversify investments to reduce risk. One investment that tends to be risk free is gold. This is based on the nature of gold whose value is relatively free from inflationary pressures, in addition to that its value tends to rise from year after year.

REFERENCES

Algifari. (2000). Analisis Regresi: Teori, Kasus dan Solusi. BPFE Univeritas Gajah Mada. Yogyakarta.

Bakri, A.K., Sabri., & Abdul, K. (2008). Stock Market Integration: Malaysia and It's Major Trading Partner.

Bernanke, B.S., & Kenneth, N.K., (2003). What

- Explaint the Stock Market's Reaction to Federal Reserve Policy. www.federalreserve.gov.
- Bernd, H., & Ali, M., K. (2004). The Impact of News, Oil Prices and Global Market Developments on Russian Financial Markets. www.ideas.repec.org.
- Blanchard, O. (2006). *Macroeconomic 4 edition*. *Pearson Prentice Hall*. New Jersey.
- Dimitrova, D. (2005). The Relationship between Exchange Rates and Stock Prices: Studied in a Multivariate Model. *Issues in Political Economy*, 14.
- Djalal, N. (2006). Pendekatan Populer dan Praktis Ekonometrika untuk Analisis Ekonomi dan Keuangan. FEUI. Jakarta.
- Eduardus, T. (2001). Analisis Investasi dan Manajemen. BPFE. Yogyakarta.
- Elton, E.J., & Martin J.G. (1993). *Modern Portofolio Theory and Investment Analysis. John Wiley & Sons.* Toronto.
- Gan, L., Wang, P., & Zhang, Q. (2018). Market thickness and the impact of unemployment on housing market outcomes. *Journal of Monetary Economics*.
- Ghozali, I. (2011). Aplikasi Analisis Multivariate dengan Program SPSS. BP Undip. Semarang.
- Graham, S. (2001) The Price of Gold and Stock Price Indices for the United States. Www. Ideas.repec.org.
- Gujarati, D. (2003). Dasar-Dasar Ekonometrika. Erlangga. Jakarta.
- Jogiyanto, H.M. (2010). Teori Portofolio dan Analisis Investasi. BPFE.
- Jose, R.J. (2007). Pasar Uang dan Pasar Valuta Asing. Salemba Empat. Jakarta.
- Kewal, S. (2012). Pengaruh Inflasi, Suku Bunga, Kurs, dan Pertumbuhan PDB. Terhadap Indeks Harga Saham Gabungan. *Jurnal Economia*, 8(1).
- Kuncoro, M. (2011). Metode Kuantitatif: Teori dan Aplikasi untuk Bisnis dan Ekonomi. UPP STIM YKPN. Yogyakarta.
- Kane, D.R. (2002). Principle of International Finance, Croom Helm, in association with Routledge. Chapman & Hall. New York.
- Lipsey., Richard, G., et al. (1997). *Pengantar Makro Ekonomi Jilid 2. Bina Rupa, Aksara*. Jakarta.
- Lutz, K., & Cheolbeom, P. (2007). The Impact of Oil Price Shocks on the U.S. Stock Market. www.ideas.repec.org.
- Markus., Bodie., & Kane. (2004). Investment 5th edition. Mc Graw Hil.
- Martalena., & Malinda. (2011). Pengantar Pasar Modal. Yogyakarta.
- Moore., & Geoffrey, H. (1990). Gold Prices and a Leading Index of Inflation. *Challenge*, 33 (4), 52-56.
- Mohammad, S. (2008). Pasar Modal dan

- Manajemen Portofolio. Erlangga. Jakarta.
- Novita, M. & Nachrowi, D. N. (2005). Dynamic Analysis of the Stock Price Index and the Exchange Rate Using Vector Autoregression (VAR): An Empirical Study of the Jakarta Stock Exchange 2001-2004. *Journal of Economics and Finance in Indonesia*, 53(3), 263-278.
- Nasry, A. (2003). Globalization Effect on Stock Exchange Integration. www.proquest.com.
- Pieper, P., & Vogel, R. (1997). The Stock Market Integration in Latin America. CAER II Discussion Paper No.21. Harvard Institute for International Development.
- Ruhendi., & Arifin, J. (2003). Dampak Perubahan Kurs Rupiah dan Indeks Saham Power Jones di NY Stock Exchange terhadap INDONESIA STOCK EXCHANGE di BEJ. Jurnal Wahana, 6, 45-55.
- Rusbariandi, S.P. (2012). Analisis Pengaruh Tingkat Inflasi, Harga Minyak Dunia, Harga Emas Dunia, dan Kurs Rupiah terhadap Jakarta Islamic Index di Bursa Efek Indonesia (Periode 2005-2012). Universitas Gunadarma. Depok.
- Suad, H. (2003). Manajemen Keuangan Teori dan Penerapan (keputusan jangka pendek), edisi keempat. BPFE. Yogyakarta.
- Sulaiman, W. (2002). *Jalan pintas menguasai* SPSS 10.0. Andi. Yogyakarta.
- Sunariyah. (2011). Pengantar Pengetahuan Pasar Modal, Edisi Keenam. UPP STIM YKPN. Yogyakarta.
- Tjiptono, D., & Hendy, M.F. (2001). Pasar Modal Indonesia: Pendekatan Tanya Jawab. Salemba empat. Jakarta.
- Twite, G. (2002). Gold Prices, Exchange Rates, Gold Stocks and the Gold Premium. www.ideas.repec.org.
- Valadkhani, A., Surachai, C., & Charles, H. (2006). The Interplay Between the Thai and Several Other International Stock Markets. www.ideas.repec.org.
- www.antara.com. Darmin: surplus neraca perdagangan modal dorong pertumbuhan."https://
 www.antaranews.com/berita/629423/
 darmin-surplus-neraca-perdaganganmodal-dorong-pertumbuhan. Diakses 20
 November 2017.
- www.bappenas.go.id. Pertumbuhan Ekonomi Dunia dan Asia Timur. "https://www.bappenas.go.id/files/5713/5230/1564/pertumbuhan-ekonomi-dunia-dan-asia-timur_20081123060601_1004_0.pdf". Diakses tanggal 16 Desember 2017.
- www.bi.go.id "http://www.bi.go.id/id/pencarian/ Default.aspx?k=kurs". Diakses tanggal 13

- November 2017.
- www.finance.yahoo.com. Dow Jones Historical Price. "https://finance.yahoo.com/quote/%5EDJI/history?period1=1391097600&period2=1498752000&interval=1mo&filter=history&frequency=1mo". Diakses tanggal 16 November 2017.
- www.goldfixing.com. Harga emas Data. "https://goldprice.org/id/gold-price-data.html...
 Diakses tanggal 16 November 2017.
- www.id.wikipedia.org. Dow Jones Industrial Average. "https://id.wikipedia.org/wiki/Dow_Jones_Industrial_Average. Diakses tanggal 8 November 2017.
- www.idx.co.id. Indeks Pasar. http://www.idx.co.id/id-id/beranda/informasipasar/indekspasar.aspx''. Diakses tanggal 11 November 2017.
- https://id.investing.com/commodities/crude-oil-historical-data. Diakses tanggal 15 November 2017.
- www.investopedia.com. Commodities Trading:
 An Overview. https://
 www.investopedia.com/investing/

- commodities-trading-overview/? ad=dirN&qo=investopediaSiteSearch&qsr c=0&o=40186. Diakses tanggal 8 November 2017
- www.imf.org. The Year In Review. "http://www.imf.org/external/index.htm" Diakses tanggal 2 Desember 2017.
- www.kompas.com. Ekonomi Indonesia di Dominasi Asing. "http:// search.kompas.com/search/? q=perusahaan+asing+di+indonesia&subm it=Submit+Query" Diakses tanggal 5 Desember 2017.
- www.nyse.com. Trading Information. "https://www.nyse.com/markets/nyse-american/trading-info" Diakses tanggal 3 Desember 2017.
- www.reuters.com. Markets & Finance News. "https://www.reuters.com/finance/markets" Diakses tanggal 29 November 2017.
- www.useconomy.about.com. Hal yang mempengaruhi Minyak Dunia. "/od/ economicindicators/p/Crude_Oil.htm". Diakses tanggal 15 November 2017