Effects of Macroeconomic Variables, World Gold Prices, World Oil Prices, and Dow Jones Index on Japanese Stock Index Nikkei 225

Danang Sandhito Prabowo, Nadia Asandimitra

Department of Management, Faculty of Economics, Universitas Negeri Surabaya, Indonesia
Email: danangprabowo@mhs.unesa.ac.id, nadiaharyono@unesa.ac.id

Abstract
Japan is the second-largest foreign investor in Indonesia and has a Nikkei 225 stock index, which is the oldest stock index in Asia. This study aims to determine the effect of inflation, interest rates, GDP, exchange rates, world gold prices, world oil prices, and Dow Jones index on the Nikkei 225 index. This type of quantitative research with a saturated sampling method (census) is using all data. The research object for the monthly Nikkei 225 index closing price 2006-2016. Data is obtained from the Yahoo Finance website, totaling 132 months. The data analysis technique uses multiple linear regression with IBM SPSS version 23. The results of the study, inflation has no effect because the inflation experienced by Japan is below 2%, Japan's benchmark interest rate has no effect because it only changes four times, the Japanese Yen exchange rate has no effect because investors prefer to invest in Japanese Yen-based investments, Japan's GDP is influential because Japan has experienced an economic recession, world gold prices have no effect because gold as a security asset in investing stocks, world oil prices have no effect because Japan is switching to gas energy, Dow Jones index is influential because America is one of the 5 largest economic cooperation countries with Japan.
Keywords: Macroeconomic Factors, World Gold Prices, World Oil Prices, Dow Jones Index, Nikkei 225

Introduction
The capital market has an index as an indicator of stock price movements in a certain period; the index is the value and price of a group of shares that meet the existing criteria. it is used by investors as a measure of company performance in a country whose shares are listed on the index. With the increase in the index, investors assume that the economy in the country is improving, so investing at that time is the right decision.
One of the world benchmark indexes in the Asian region is the Japanese stock index, the Nikkei. The Nikkei is short for Japan's Nikkei 225 Stock Average, the leading and most desirable Japanese stock index. The Nikkei 225 is a price-weighted index consisting of 225 of Japan's top blue-chip companies traded on the Tokyo Exchange Group Stock Exchange. The Japan Exchange Group was the result of the merger of the Tokyo Stock Exchange with the

Osaka Stock Exchange in 2013 which contained the TOPIX index, JPX-Nikkei 400, REIT, Mothers, JASDAQ, Nikkei 225, Nikkei 225 Futures, and Nikkei 225 VI with a total trade value of $ 3.04 trillion in the first 5 months making Japan Exchange Group the third largest Stock Exchange after the NYSE and NASDAQ (Kyodo, 2013).

Japan is the third-largest GDP in the world after America and China (Kompas.com, 2019). Therefore the Nikkei Index can reflect the condition of the Asian economy. In relation to the country of Indonesia, Japan is the second-largest foreign investor, mostly invested in infrastructure with a value of $ 4.5 billion in 2016 (PresidenRI.go.id, 2017). In addition, there are studies by Sinaga & Maulana (2018); Subiantoro (2018); Sutanto & Murhadi (2013) who stated the Nikkei 225 Index has an influence on the Japan Composite Stock Price Index (CSPI) also included in the 5 largest countries in cooperation with the United States with a value of $ 204 billion (Gray, 2018).
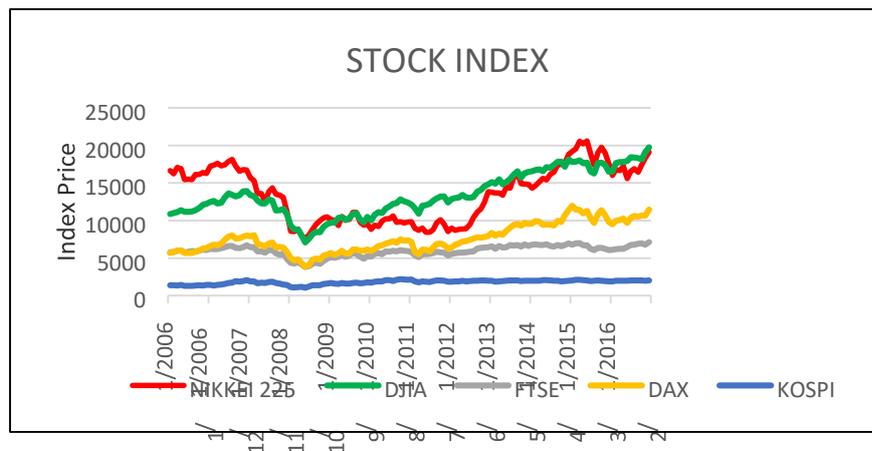

Figure 1. world stock index prices from January 2006 to December 2016 (Source: yahoofinance.com, data processed by the author, 2019)

Figure 1 shows the stock index from japan (Nikkei 225), America (dow jones industrial average), England(FTSE), german (DAX), and South Korea (KOSPI). Japan's stock index experienced the worst price drop compared to the four other world benchmark stocks, which experienced a 55% decline from the initial price in 2006. On the American stock index fell 35%, the British stock index fell 34%, the German stock index experienced 32% decrease, and the South Korean stock index has decreased by 24%. The period of price decline occurred simultaneously by the five countries in 2007-2009 which coincided with a period of world economic crisis caused by the American subprime mortgage crisis.
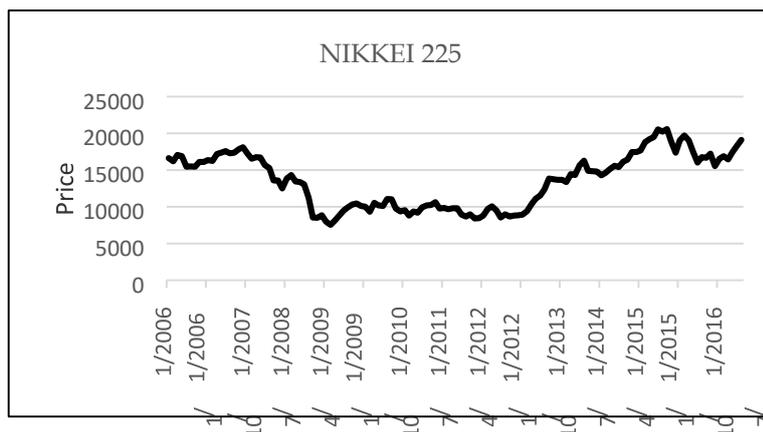
Figure 2. Japan Nikkei 225 stock index prices from January 2006 to December 2016 (Source: yahoofinance.com, data processed by the author, 2019)

Figure 2, there are Japanese Nikkei 225 stock index prices from January 2006 to December 2016. At the beginning of 2016, the Nikkei 225 stock price index was worth $ 16,205 and then increased at the beginning of 2017, with a value of $ 17,604. After the increase, there was a downward trend in the price of the Japanese Nikkei 225 stock index to $ 7,568 in January 2009. Finally rebounded in 2013 with a value of $ 16,291 and experienced a peak increase in 2015 Research on the Nikkei 225 index is based on the object of research because the Nikkei 225 index issuers have a high market capitalization value and the oldest shares in Asia so that it better reflects the economy of the Asian region. Meanwhile the Japanese capital market Japan Exchange Group contains the Tokyo Stock Exchange which has dividend yield characteristics similar to the United States capital market (Rao *et al.*, 1992), besides that the Tokyo Stock Exchange is able to compare with the United States capital market about market sentiments (Ishijima & Kazumi, 2015).

Based on the above phenomenon, researchers are interested in testing the factors that influence the performance of stock indexes, namely macroeconomic factors (internal) consisting of inflation, interest rates, GDP and gold prices, and external factors consisting of indices, exchange rates, world oil prices, and DJIA.

Inflation, inflation drives up prices on all goods which makes production costs increase and corporate profitability falls. the reduced profitability of the company then has an impact on falling stock prices and makes the stock index value decreases This statement is supported by the opinion that inflation has a negative impact on stock prices (Humpe & Macmillan, 2009), thereby reducing the price of the Nikkei 225 index. However, these opinions differ from Murni (2015)opinion that inflation has no effect on the Japanese or Nikkei stock indexes 225. The same thing was stated by Megaravalli & Sampagnaro (2018) that inflation has no impact on the Nikkei 225

Interest rates, rising interest rates make stock investors turn to bank product investments. so that stock investors will sell their stock assets and move to investment bank products. it makes the stock price decrease and then the stock index value decreases. This opinion is supported by Murni (2015) that interest rates have a negative effect on the Nikkei 225 stock index. Humpe & Macmillan (2009) and Kalengkongan & Van Rate (2016) also have the same opinion that interest rates have a negative impact on the Nikkei 225 index because investors would prefer bank products because they have a higher return than stocks. However, there

is an opinion expressed by Kurihara (2006) that interest rates do not affect the Nikkei 225 Index.

Gross Domestic Product, changes in GDP describe the economic conditions in a country and are taken into consideration when investing. If GDP has increased it can be concluded that the economy is in growing track therefore, it is the right time to invest in stocks. The increase in stock purchase makes stock prices rise hence stock index raised. In research Horobet & Dumirescu (2009) in (Hsing, 2011) shows that stock prices are positively influenced by a country's GDP. But in the study of Wu (2012) explained that GDP actually lowered the stock index.

Yen-dollar exchange rate, a fall in the value of the yen-dollar currency will make Japanese products exported outside Japan cheaper than similar products but originating from other countries; this will increase demand for products from Japan and have an impact on increasing company profitability. The increasing profitability of the company makes the company's stock price increase, and then it impacts the value of the stock index. Murni (2015) and Kalengkongan & Van Rate (2016) also argued that with the rise in the Japanese Yen exchange rate, share prices in Japan also increased. However, Kurihara (2006)opinion is different, which is the opinion that the Yen exchange rate has no significant effect on Japanese stock prices.

World gold price, Gold can be an alternative means of investment other than a stock investment when the price of gold goes down; investors will be more interested in investing in gold than stocks because there is a possibility that prices will tend to rise in the future. It will reduce the purchase of shares and reduce the value of shares and then have an impact on the reduced value of the stock index. this opinion is supported by Gaur & Bansal (2010) in (Arfaoui & Rejeb, 2017) that the fall in stock market prices is the impact of rising gold prices, as well as opinions by Le & Chang (2012) in (Arfaoui & Rejeb, 2017) that the price of gold has a significant relationship with the stock market. But this is different from the opinion by Baur & Mcdermott (2010) that the price of gold moves in line with the price of shares in Japan. Choudhry et al. (2015) stated that the price of gold does not affect the performance of the stock market.

World oil prices. Oil is energy in running the industry, If the price of oil rises, the cost of production factors will increase, which results in a reduction in the amount of production. The reduced amount of production will reduce the profitability of the company. It has an impact on lowering stock prices and reducing the value of the stock price index. According to Donoso (2009), oil prices have an influence on the performance of the stock market in Japan. A similar opinion was expressed by Degiannakis et al (2017) that the ups and downs of world oil prices affect the stock market performance in a country. However, it is different from Xu (2013) that the ups and downs of oil prices do not affect the Nikkei Index. According to Donoso (2009), oil prices influence the performance of the stock market in Japan. A similar opinion was expressed by Degiannakis et al. (2017) that the ups and downs of world oil prices affect the stock market performance in a country. However, it is different from Xu (2013) that the ups and downs of oil prices do not modify the Nikkei Index.

Dow Jones index. Dow Jones index illustrates the condition of the United States economy. Japan is the fourth-largest American trading partner, so if the American economy experiences turmoil, it will have an impact on the Japanese economy (United States Trade Representative, 2018). This statement is supported by Chen & Uematsu (2016) research that the Nikkei Index has a strong relationship with the Dow Jones index, so it can be said the DJIA index (Dow Jones Industrial Average) influences the Nikkei 225. But according to Moldovan (2011), when the

crisis occurred, a negative relationship occurred when the DJIA price index rose, it makes the Nikkei 225 price index decrease. whereas Aimprasittichai & Suppakittiwong (2015) argues that the Dow
Jones Index does not influence Asian stock markets

Literature Review Contagion Effect Theory
Contagion is a recurring phenomenon that affects financial markets. If a crisis in a country is spread (spillover) to another country, then that country will experience financial instability and disruption to its banking system and will be able to affect its real economic position (Cappiello et al. 2004)
Contagion widely can be understood as the effects of cross-country overflow, that crises in one country are transmitted to other countries. As in the case of the domestic crisis, the transmission of this crisis between countries can be caused by economic fundamentals (economic relations between countries) or because of capital market imperfections. In a more stringent sense, others argue that transmission is an overflow effect (or co-movement across countries) that are not related to economic fundamentals (Masson, 1999)
Contagion is widely used to describe the spread of the market downturn from a country to anothercountry which is characterized by the movement in exchange rates, stock prices, and capital flows. According to(Forbes & Rigobon, 2002) Contagion can be divided into two categories, such as: a. Spillovers
This category is more emphasis on spillover created by the interdependence between economies and many countries excessively. The purpose of dependence here is the shock transfers between countries because of real links and financial links. b. Financial Crisis
This category involves financial involving the country. This form cannot be linked to the observation of changes in macroeconomic factors or other fundamental factors as it relates to the behavior of investors or other financial institutions. The financial crisis that occurred in a country could cause investors to withdraw their investments regardless of the country's economic fundamentals. This type of contagion is often caused by the phenomenon of irrational investors that led to financial panic, herding behavior, loss of confidence, and an increase in risk aversion.
The contagion effect theory in this study is used to explain the effect of world oil prices, the USD / JPY exchange rate, and the Dow Jones index on the Nikkei 225 Index.

Random Walk Theory
Random Walk Theory is an economic theory that establishes stock prices movement based on random procedures that consequently, stock prices in the market cannot be predicted. According to Kendall (1953), the pattern of stock prices is hard to predict because it moves randomly (random walks). Fama (1995) states that no market can predict stock prices will rise or fall tomorrow. Stock prices move randomly means that fluctuations in stock prices will change following the information received. Still, the information cannot be estimated when it will be

received so that new information and stock prices are called unpredictable (Samsul, 2006: 269). There are two pieces of information which are bad news and good news that cannot be predicted.

Bad news means that the information will negatively impact on stock prices, which is share prices decreasing. Examples of bad news are the sharp rise in bank interest rates, the sharp increase in fuel prices, the sharp increase in inflation, and the decline in the price of gold. Examples of good news include a sharp rise in sales, a fall in bank interest rates, and business expansion. The random walk theory in this study is used to explain the effect of inflation, the Bank of Japan benchmark interest rate, and world gold prices on the Nikkei 225 Index.

Methodology
There is an influence of independent variables include the impact of the global index; the price of gold and macroeconomic indicators to the dependent variable is the Nikkei 225 Index. Source of data used in the form of secondary data with data collection using the documentation techniques. Secondary data used in this research is data Japan Nikkei 225 Index, Japan Inflation, Japan Bank Interest, Japan Gross Domestic Product, Japan Yen Exchange Rate,

World Gold Price, World Oil Price, and Dow Jones index period from 2006 to 2016. Japan Nikkei Index and Dow Jones Index obtained from the web page that is www.finance.yahoo.com. World Oil Price data collected from www.id.investing.com, Japan Inflation data, and Japan Gross Domestic Product data obtained from www.fred.stlouisfed.org, Japan Interest Rate data, and Japan Exchange Rate data obtained from www.boj.or.jp, and Gold World Price data collected from www.lbma.org.

The population in this study is the closing price Japan Nikkei 225 Index is a month from December 2005 to December 2016. The sampling method in this study used a sample of saturated (census) for all members of the population used as a sample. The sample used in this research is data closing price Japan Nikkei 225 Index is a month from December 2007 until December 2015. Therefore, the data sample used was 132 months.

In this study, the variables used are divided into two; those are the dependent variable (Y) and the independent variable (X).

Japan Index Nikkei (Y)
Nikkei 225 is a stock market index for the Tokyo Stock Exchange (TSE). This index has been calculated daily by the Nihon Keizai Shimbun (NIKKEI) since September 7, 1950. At present, the Nikkei is the most quoted index as well as with Dow Jones (Imbayani, 2015). The formula for calculating changes in the Nikkei 225 index rate as follows (Kusumawati & Asandimitra, 2017):

Nikkei 225= $Nikkei \underline{\hspace{3cm}} 225^t - Nikkei\ 225t^{-1}$
Nikkei 225_t-1

Explanation :

Nikkei 225_t = Nikkei225 index period t Nikkei 225_{t-1} = Nikkei 225 index period t-1 **Inflation (X1):** Inflation defined as a continuous increase in the general price level or continuous decline in the value of money (Labonte, 2011). At the time of inflation, the prices of goods increase in general. They are related continuously to market mechanisms that can be caused by various factors, such as an increase in public consumption, excess liquidity in the market that triggers

consumption or even speculation, and as a result of an unequal distribution of goods. The following is the formula for calculating monthly inflation (Yoshino et al. 2017):

$$\text{inflation}_t = \frac{CPI_t - CPI_{t-1}}{CPI_{t-1}} \times 100\%$$

Explanation :
CPI t = Consumer Price Index period t
CPI t-1 = Consumer Price Index period t-1

Interest Rate (X2)

Interest Rate (X2): The interest rate is the amount charged, expressed as a percentage of the principal, by the lender to the borrower for the use of assets. Interest rates are recorded on an annual basis, known as the annual percentage rate (APR). Borrowed assets can include cash, consumer goods, and significant assets, such as vehicles or buildings (Investopedia, 2017). The interest rate that is too high will affect the present value of the company's cash flow so that investment opportunities will not be attractive anymore (Tandelilin, 2010: 213). The formula for calculating interest rates is as follows (Zabidi & Asandimitra, 2018):

$$\text{Interest rate} = \frac{interest\ rate_t - interest\ rate_{t-1}}{interest\ rate_{t-1}}$$

Explanation
Interest rate t = interest rate in period t
Interest rate t-1 = Interest rate in period t-1

Gross Domestic Product (X3)

Gross Domestic Product (X3): There are three types of approaches in looking at the size of GDP, namely according to the production approach, income approach, and expenditure approach. According to the production approach, GDP is the sum of the value of final goods and services produced by various production units in the territory of a country within one year. According to the income approach, GDP is the amount of remuneration received by the factors of production that participate in the production process in the territory of a country within one year. Whereas, according to the expenditure approach, GDP is the sum of all final components include (1) household consumption expenditures and non-profit private institutions; (2) gross domestic fixed capital formation and stock changes; (3) government consumption expenditure; and (4) net exports, i.e., exports minus imports, within a year. (Fauziana et al., 2014). The following formula for calculating GDP as follows (Brasoveanu *et al.*, 2008):

$$\text{GDP} = \frac{GDP_t - GDP_{t-1}}{GDP_{t-1}}$$

Explanation
GDPt = Gross domestic product period t
GDPt-1 = Gross domestic product period t-1

Exchange Rate (X4)

The exchange rate of a currency or exchange rate is the exchange rate of a country's currency against other foreign countries (Thobarry, 2009) in (Muchlas & Alamsyah, 2015). The exchange rate determines the rate or ratio of one of these currencies that can be exchanged with another at a certain point in time. Anyone with experience in trade exchange rates knows

that ratios are only temporary, at least for major currencies. Because the level is determined by the largest financial market of the world, which measured by the value of daily transactions. As will be explained below, the strength of supply and demand causes this exchange rate to fluctuate nonstop (Evans, 2014). The following is the formula for calculating the middle rate each month (Mahyus, 2014:201):

$$\text{Middle Rate} = \frac{buy\ rate\ -\ sell\ rate}{2}$$

Word Gold Price (X5)

Word Gold Price (X5): According to Rosnia (2010) in (Sholeh, 2014) gold is a precious metal that is most sought after by many people. People are willing to spend big enough to buy precious metals that have this type of variety. In general, many choose to invest in the form to obtain profits in the long term. Gold uses as collections and jewelry. Gold investment is a practical investment that usually bought by housewives, mediocre salaried workers, and professionals because gold can be purchased from 1 gram. The following formula calculates the world gold price (Kusumawati & Asandimitra, 2017):

$$\text{Gold Price} = \frac{Gold\ Price_t - Gold\ Price_{t-1}}{Gold\ Price_{t-1}}$$

Explanation :
gold Price   = Price of Gold in period t
gold price t-1 = price of gold in period t-1

World Oil Price (X6)

World Oil Price (X6): World crude oil is one of the critical energy resources at this time. This caused by processed crude oil is an energy source. Now there is a reference price of crude oil that is often used in the world, namely the price of Brent and WTI (West Texas Intermediate) oil. Brent (Brent Crude) is a name for mining oil from the North Sea (Europe), with the name Brent derived from mining fields in the north sea, which was opened in 1970. The price of Brent oil has been the basis of price formation since 1971 for nearly 40% of value oil throughout the world and continues to be used today. However, in its development, United States oil production has increased and significantly contributed to world market share so that the price of WTI oil began to be used as a reference since around 2007. The following formula calculates world oil prices (Yuswandy, 2012):

$$\text{Oil Price} = \frac{oil\ price_t - oil\ price_{t-1}}{oil\ price_{t-1}}$$

Explanation :
Oil Price   = Oil Price in period t
Oil Price t-1 = Oil Price in period t-1

Dow Jones Index (X7)

The Dow Jones Industrial Average (DJIA) follows 30 major U.S. blue-chip companies, which are mostly giant household products like Apple, Coca-Cola, Disney, Microsoft, Nike, and Visa. The Dow Jones Industrial Average is the most recognized index in the world and referred to as "the market." This index covers all industries except transportation and utilities, which are covered by the Dow Jones Transportation Average and the Dow Jones Utility Average, respectively (Folger, 2018). The following is the formula for calculating the Dow Jones index as follows (Kusumawati & Asandimitra, 2017)

$Dow\ Jones\ Index = dow \underline{\hspace{5cm}} jones\ index^t - dow\ jones\ index^{t-1}$
$dow\ jones\ index_t-1$

Explanation
Dow Jones index t = Dow Jones index in period t
Dow Jones index t-1 = Dow Jones index in the period t-1

Result
Before the hypothesis test, the data must be tested by BLUE (*Best Linear Unbiased Estimator contains normality, multicollinearity, heteroscedasticity, autocorrelation, and linearity tests.* The test results using multiple linear regression showed that the value of the simultaneous hypothesis test (Test F) in Table 1 has a value of F count = 2,345 with the significance of 0.037. This suggests that the significance level is 0.05. It can be concluded that Inflation, Japanese Interest rate, Japanese Gross Domestic Product, Japanese Yen Exchange Rate, Word Gold Price, World Oil Price, and Dow Jones Index are simultaneously influencing Nikkei 225 Index. The results of the partial hypothesis test (t-test) in this study indicate that the variable's Japan Gross Domestic Product and Dow Jones Index has a positive influence on Japan Nikkei Index. While the Japan Inflation, Japan Interest Rate, Japan Yen Exchange rate, world gold price, and World oil price did not affect the Nikkei 225 Index.

Table 1
Kolmogorov Smirnov Test (Normality)

		Unstandardized Residual
N		108
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.05549980
Most Extreme Differences	Absolute Positive	.081
		.041
	Negative	-.081
Test Statistic		.081
Asymp. Sig. (2-tailed)		.078[c]

Source: Output of SPSS 18 (data processed by the author, 2019)

Table 1. explains that the results of the SPSS Kolmogorov Smirnov test output show the magnitude of the Kolmogorov Smirnov value of 0.081 and a significance of 0.078. The significance value of 0.078 is higher than the significance level of 5% (0.05), so that it can be concluded that the residuals are normally distributed.

Table 2
Multicollinearity Test

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant) inflation GDP Exchange Rate	-.006 -.865 3.674 .059	.006 2.262 1.810 .318	-.037 .197 .021	-.982 -.382 2.030 .186	.329 .703 .045 .853 .307 .223	.953 .925 .682	1.050 1.081 1.466
World gold price World Oil price **Dow Jones Index**	.168 -.105 .521	.163 .086 .180	.116 -.127 .295	1.027 - 1.227 2.898	.005	.685 .810 .840	1.460 1.235 1.190

a. Dependent Variable: nikkei

 Source: Output of SPSS 18 (data processed by the author, 2019)

Table 2 it can be seen that the VIF and Tolerance values of all independent variables of this study are less than ten and more than 0.1, it can be concluded that the regression model does not experience symptoms of multicollinearity

Table 3
Durbin Watson Test (autocorrelation)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.350[a]	.122	.070	.0571245	1.923

 Source: Output of SPSS 18 (data processed by the author, 2019)

Table 3 Durbin Watson's value is 1,923. In addition to the DW value, Watson's test aims to find out whether there is an autocorrelation problem, dl, and du are values that calculated (the independent variable) and the number of n (number of samples). Based on the Watson Durbin with a confidence level of 5%, k = 7, and n = 108, the dl value is 1.5511, and the du value is 1.88261. So that the 4-du value is 2.1739 (4-1.88261), and the 4-dl value is 2,4489 (4-1,5511). The requirement to be said to be free from the autocorrelation problem is if the dw-value is in an area of more than du and less than 4-du (du <d <4-du). From previous calculations, DW-value is more than 1.8261 and less than 2.1739 or 1.8261 <1.923 <2.1739. It means that the hypothesis H0 is accepted or the regression model is declared free from an autocorrelation

Table 4
White Test (Heterocesdacity)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.334[a]	.111	-.012	.00502607

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	13	.000	.906	.550[b]
	Residual	.002	94	.000		
	Total	.003	107			

 Source: Output of SPSS 18 (data processed by the author, 2019)
 Source: Output of SPSS 18 (data processed by the author, 2019)

Table 4 and Table 4.1 explain White Test which c2 count value c2 = n x R2 (108 x 0.083) of 8,964. While the c2 table is obtained from the significance value of 0.05 and the residual 95 so that the c2 table value is 118.75161. The calculated c2 value <c2 table is 8,964 <118.75161, so that it can be concluded that there is no heteroscedasticity in the model.

Table 5
Lagrange Multiplier Test (linearity)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.235[a]	.055	-.001	.05553103

 Source: Output of SPSS 18 (data processed by the author, 2019)

Table 5.1
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.018	6	.003	.980	.443[b]
	Residual	.311	101	.003		
	Total	.330	107			

 Source: Output of SPSS 18 (data processed by the author, 2019)

Table 5 and Table 5.1 output results obtained R2 value of 0.055 with n = 108, then the calculated c value is 5.94 (108 x 0.055). Then the value is compared with the value of the c2 table with df 101, which is 125.458. From the results of these calculations, it can be seen that the calculated c2 value is smaller than the c2 table. So it can be concluded that the correct model is linear.

Table 6
Test Result Statistics

model	t-test			information
	B	t	sig	
(constant)	-0.006	-0.982	0.329	
inflation	-0.865	-0.382	0.703	no effect
Interest rate	0	0	0	no effect
GDP	3.674	2.03	**0.045**	**Positive Effect**
Exchange Rate	0.059	0.186	0.853	no effect
World gold price	0.168	1.027	0.307	no effect
World Oil price	-0.105	-1.227	0.223	no effect
Dow Jones Index	0.521	2.898	**0.005**	**Positive Effect**
F-test			**0.037**	**simultaneously effect**
Adjusted R^2			0.07	

Source: Output of SPSS 18 (data processed by the author, 2019)

Table shows that the variable Japan GDP and Dow Jones index affect Japan Nikkei 225 Index. It is seen from the significant value α <0.05, and a coefficient B shows the direction of the influence of the independent variables on the Indonesia Composite Index. Based on the results of multiple linear regression analysis can be formulated in multiple linear regression equation as follows:

Japan Nikkei Index = 3.674 Japan GDP + 0.521 Dow Jones Index + e

The coefficient of determination (R2) is seen through the Adjusted R2 values in Table 1 have a value of 0.07, or 7%. This shows that independent variables such as Inflation, Japan Interest rate, Japan Gross Domestic Product, Japan Yen Exchange Rate, Word Gold Price, World Oil Price, and Dow Jones Index was able to explain 7% of the Indonesia Composite Index, while the remaining 93% is explained by other variables outside independent variables in this study such as deposit rate, stock value, market stock volume, and other (Murwaningsari, 2008).

Discussion The Effects of Japan Inflation on Japan Nikkei 225 index
The results showed inflation did not affect the Japan Nikkei 225 index. Because inflation in Japan is stable so the prices of production factors such as raw materials, employee salaries, electricity, etc. have not experienced significant changes so that they do not affect the profitability of the company.
Japan's highest increase in inflation happened in 2008, which rose by 1% after experiencing deflation in the previous year. Products that increase in price are only oil and some fresh food products (The New York Times, 2008). After 2008, an increase in inflation only occurred in 2013 by 0.4%, which was the highest increase after 2008 (McLannahan, 2013). A decision by the Japanese Ministry of Finance (Bank of Japan, 2013) decided to introduce a "price stability target" program that contained an inflation target of 2%. Nevertheless, during the 20062016 research period, Japan's inflation could not meet the goal of still below 2%.

The results of this study also support the results of research by Murni (2015), which states that inflation does not affect the Nikkei 225 index. It means that if the inflation rate changes it will not affect the movement of the Nikkei 225 Index

The Effects of Japan Interest rate on Japan Nikkei 225 Index
Based on the results, the Interest rate does not affect the Japan Nikkei 225 Index. That is because Japanese interest rates during 2006-2016 did not experience significant changes monthly. Even in that period, the Japanese benchmark interest rate only experienced four changes. Namely in July 2006, February 2007, October 2008, and December 2008. Also, changes in Japan's benchmark interest rates during the study period were always below 1%, so that changes in Japanese benchmark interest rates did not make investors change their minds from investing in stocks to investing in bank products given the rates small reference interest.

The statement was supported by data findings, which in Japanese history, in 2006, were the first interest rate increases in almost six years, reflecting increased confidence in Japan's economic recovery. The increase occurred after months of speculation about whether Japan has overcome deflation. Japan has kept interest rates near zero since 2001 to end the downward trend in prices and produce lower corporate earnings and shrinking salaries that mark what is called Japan's "lost decade" event or recession. Higher lending rates can hamper recovery; the bank said very low-interest rates might be maintained for some time. The BoJ's decision is in line with central banks in the US and Europe: last month, the European Central Bank raised its key interest rate to 2.75%, and the US federal reserve has raised interest rates 17 times in a row to 5.25% (McCurry, 2006).

The results of this study support research by Kurihara (2016) which states that interest rates have no effect on the Nikkei Index

The Effects of Japan GDP on Japan Nikkei 225 Index the study period. A depression or a sharp decline in GDP makes the economy sluggish, making the company's stock prices decline and the decrease in the number of stock investors and then have an impact on the Japanese stock index Nikkei 225.

Japan experienced a slump in GDP in 2009 as well as a decline in the Nikkei index which was reported that Japan's Gross Domestic Product (GDP) dropped 12.7 percent during the October-December 2008. This is a sharp decline for Japan since the oil price crisis in 1974. The economic downturn experienced by Japan even far beyond the economic downturn in the United States (3.8 percent) and in the countries of the euro area (1.2 percent) (Kawilarang, R.A, 2009). This shows that Japan is the worst in experiencing a decline in GDP compared to the United States and European countries. Because GDP is a reflection of economic growth, if GDP experiences turmoil, it will affect other parts of the economy, one of which is company stock.

The results of this study support research by Wu (2012) that the level of GDP influences the developed countries' stock index; in this case, the Japanese stock index Nikkei 225. Japan is a developed country that has the second-largest GDP in the world (Embassy of Japan in Indonesia, 2019). This situation illustrates the significant and potential income of the community to be invested in shares.

The Effects of Japan Yen Exchange Rate on Japan Nikkei 225 Index
The results of the study show that the Japan Yen Exchange rate does not affect the Japan Nikkei 225 index. Because investors still choose to invest in yen-based assets during the crisis and post-crisis America and the Yen exchange rate is still under government control so it does not affect the profitability of companies in Japan, especially companies that export and import.

This statement is supported by the findings of the data which was recorded in 2010 the Japanese Yen exchange rate will reach the highest US dollar in 15 years. Japanese Yen rose to 83.4 per dollar. The increase was caused by the rise in Japanese machine product orders, which rose 8.8% (BBC.com, 2010). Among other currencies, the Japanese Yen scored the best performance in 2011. The JPY exchange rate strengthened against all major currencies, including up more than 4% against the dollar. The escalation of the economic crisis between regions led investors to enter Yen-based assets. Although Japanese bond yields are among the lowest in the world and the amount of government debt is huge, foreign ownership in Japanese bonds is now the highest since 2008 (Rachmat, 2011)
The results of this study support research by Kurihara (2016), which states the effect of the yen exchange rate on the Japanese stock index is not significant. Also, there is a study by Owyong (2011), which explains that the Yen exchange rate has a minimal correlation on the Nikkei 225 index.

The Effects World Gold Price on Japan Nikkei 225 Index
The results of the study show that World gold Price does not affect the Japan Nikkei 225 Index. Besides, investors even consider gold as security if the investment loses. Although the price of gold goes up or down, investors continue to buy shares and do not move massively to gold investment when world gold prices rise. Gold is just an addition and safeguards besides investing in stocks.
It was noted that Japanese gold exports to Thailand tripled, and exports to Singapore doubled in the ten months to October from the previous year. Exports have increased, particularly to Southeast Asia and China. Also, purchases by the central bank reached 450 tons. IMF data shows the central bank and Japanese government agencies bought 142 tons in 2010 (Bloomberg, 2011). From the findings, it shows that Japan is one of the gold exporting countries. In 2011 showed its role as a "safe-haven" or low-risk inventory. Japanese people generally already have gold before the beginning of the research period in 2006. In 2011 the Japanese people sold their gold because of the high gold prices. When in 2011, the demand was not from Japan but from the Southeast Asian region and China, which meant an increase in gold investors in the area and a reduction in gold investors in Japan because Japanese gold investors had already sold their gold. Also, the Abenomics Program is felt by the community to have weaknesses in the future in the form of inflation. If inflation occurs, it will make the value of the asset decrease. Therefore investors use the opportunity when the price of gold falls sharply to buy gold to diversify beyond bonds, stocks, and yen (Hodo & Tsukimori, 2013)
The results of this study support research by Smith (2002) and Choudhrye et al (2015) which states the effect of world gold prices on the Japanese stock index is not significant

The Effect of World Oil Price on Japan Nikkei 225 Index
The results of the study note that World Oil Price does not affect the Japan Nikkei 225 Index. Because Japan is turning to gas energy products, Japan once carried out large-scale oil imports

to replace the power of nuclear reactors that died in the earthquake that struck Japan in meeting Japan's electricity needs. Industries in Japan consume only a little oil so that the ups and downs of world oil prices do not change the activities of industrial production in Japan drastically and have no impact on Japanese company shares.

Demand for fuels such as gasoline and diesel is expected to fall an average of 1.3 percent each year. Japan's population has declined over the past seven years, and last year fell to 126.9 million, the lowest since 2000, according to estimates from the U.S. Census Bureau (Emi et al., 2016).

Oil demand in Japan has declined 23% overall since 2006. This decline has resulted from structural factors, such as fuel replacement, declining and aging population, and energy efficiency measures. Oil consumption in the electricity sector began to decline in 2013 because Japan relied more on natural gas and coal as a substitute for nuclear power and because electricity demand fell overall and oil demand had dropped by more than 600,000 b / d between 2012 and 2016, and the Energy Information Administration (EIA) The US assumes that Japan's oil consumption will continue to decline until 2018 because nuclear reactors return to power

((Hellenicshippingnews.com, 2017)

The results of this study support research by Kalengkongan & Van Rate (2016)and Xu (2013) which states that the effect of world oil prices on the Nikkei Index has no effect

The Effect of Dow Jones Index on Japan Nikkei 225 Index

The results of the study note that the Dow Jones Index affects the Japan Nikkei 225 Index. America is one of the five largest Japanese importers, especially motor vehicles. So that if the American economy experiences turmoil, it will make the Japanese business decline in productivity and then contribute to the turmoil in the Japanese economy. The turmoil also caused the prices of Japanese companies' shares go down and made domestic investors and foreign investors hesitate to invest in shares

In this case, Japan is trading with America. Japanese trade declined much faster than the US. Data for February 2009 shows a 50% contraction in Japan's export volume and a 43% decline in import volume. Meanwhile, comparable trade figures in the center of the crisis, the US, showed a decline of only 24% in exports and a 34% decline in imports. There was an uneven decrease in foreign trade between Japan and the US in exports and imports of goods from April 2008 to September 2009. Japanese exports began to fall from October 2008 at a dramatic pace which was even worse than US exports. Both countries' exports have reached their lowest point around March 2009. On the other hand, imports have also suddenly declined for the same period (Tanaka, 2009). The shock of the American crisis in 2008 revealed the vulnerability of the Japanese economy to external shocks, mainly due to weak domestic demand and private consumption. This impact is further strengthened by the structure of the Japanese industry in which the motor vehicle industry plays a dominant role in the industry in Japan. On the other hand, motor vehicle production is strongly influenced by exports, and motor vehicle production has a substantial impact on the output of different industries (Saito, 2018). Meanwhile, motor vehicle exports in Japan are mostly exported to America. The crisis in America caused Japan's motor vehicle exports to decline and then impacted other industries. From this, it caused a crisis in Japan that is making the economy sluggish and have an impact on corporate profitability.

The results of this study support research by Bhunia & Yaman (2017) and Moldovan (2011)which state that the Dow Jones Index has a significant effect on the Nikkei 225 Index

Conclusion

Based on the result of the analysis and discussion described in the previous chapter, it can be concluded that: (1) Japan Inflation does not affects Japan Nikkei 225 Index (2) Interest rate does not affects Japan Nikkei 225 Index (3) Interest rate does not affects Japan Nikkei 225 Index (4) Japan GDP affects Japan Nikkei 225 Index (5) World Gold price not affects Japan Nikkei 225 Index (6) World Oil Price does not affects Japan Nikkei 225 Index (7) Dow Jones Index affects Japan Nikkei 225 Index.

Based on the results of research that has been done, it is expected to make material considerations for potential investors who will buy shares of Japanese companies by taking into account the situation of Japanese GDP and the condition of the American economy, which is reflected in the Dow Jones Index. Also, the Japanese government can make policy preparations for the capital market when Japan's GDP and the American economy, reflected in the Dow Jones index, experience turmoil. Based on the result of the research that has been done, suggestions that can be given to the next study should be that researchers can use other supporting variables, such as social influence, consumption, work, family, and services. This is because the value of Adjusted R Square only 0,07, which means the independent variable can explain 7% of the dependent variable, meanwhile 93% is explained by other variables outside of the independent variables in the study.

References

Aimprasittichai, S., & Suppakittiwong, T. (2015). *A Study of a Relationship Between The U.S. Stock Market and Emerging Stock Markets in Southeast Asia*. *Undergraduate Degree Project*. Sweden. Retrieved from https://www.diva-portal.org/smash/get/diva2:861617/FULLTEXT01.pdf

Arfaoui, M., & Rejeb, A. Ben. (2017). Oil, gold, US dollar, and stock market interdependencies : a global analytical insight. *European Journal of Management and Business Economics*, *26*(3), 278–293. https://doi.org/10.1108/EJMBE-10-2017-016

Bank of Japan. The "Price Stability Target" under the Framework for the Conduct of Monetary Policy (2013). Japan: Bank Of Japan. Retrieved from https://www.boj.or.jp/en/announcements/release_2013/k130122b.pdf

Baur, D. G., & Mcdermott, T. K. (2010). Is gold a safe haven ? International evidence. *Journal of Banking and Finance*, *34*(8), 1886–1898. https://doi.org/10.1016/j.jbankfin.2009.12.008

BBC.com. (2010). Nilai yen menguat terhadap dollar. Retrieved from https://www.bbc.com/indonesia/dunia/2010/09/100908_japanyen

Bhunia, A., & Yaman, D. (2017). Is There a Causal Relationship Between Financial Markets in Asia and the US ? *The Lahore Journal of Economics*, *1*, 71–90.

Bloomberg. (2011). Gold exports at highest level since '85. Retrieved from https://www.japantimes.co.jp/news/2011/12/09/business/gold-exports-at-highest-levelsince-85/#.XOIIKPkzbDc

Brasoveanu, L. O., & Catarama, D. (2008). Correlations Between Capital Market Development And Economic Growth : The Case Of Romania. *Journal Of Applied Quantitaitive Methods*, *3*(1), 64–75. Retrieved from http://www.jaqm.ro/issues/volume-3,issue-1/pdfs/obrejabrasoveanu_dragota_catarama_semenescu.pdf

Cappiello, L., Gerard, B., & Manganelli, S. (2004). The Contagion Box : Measuring Co-movements in Financial Markets by Regression Quantiles. *Econometric Society 2004 Latin American Meetings*, *77*(February), 1–23. Retrieved from https://ideas.repec.org/p/ecm/latm04/77.html

Chen, Z., & Uematsu, K. (2016). Analysis of the Linkage between Nikkei Stock Average and Foreign Stock Markets. *International Research Journal*, *30*(1), 75–86. Retrieved from https://oiu.repo.nii.ac.jp/?action=repository_action_common_download&item_id=745&it em_no=1&attribute_id=18&file_no=1

Choudhry, T., Hassan, S. S., & Shabi, S. (2015). Relationship between gold and stock markets during the global financial crisis: Evidence from nonlinear causality tests. *International Review of Financial Analysis*, *41*(1), 247–256. https://doi.org/10.1016/j.irfa.2015.03.011

Degiannakis, S., Filis, G., & Arora, V. (2017). *Oil Prices and Stock Markets* (Independent Statistics & Analysis No. 20585). Washington. Retrieved from www.eia.gov

Donoso, D. I. C. (2009). *Oil Price Shocks and Stock Markets*. Retrieved from https://www.semanticscholar.org/paper/1-Oil-Price-Shocks-and-Stock-Markets-Donoso/9cfe979f7988fc50f0be95b9b295bd8fa6efb27f

Embassy of Japan in Indonesia. (2019). Ekonomi dan Industri. Retrieved from www.id.embjapan.go.jp

Emi, U., Stapczynski, S., & Inajima, T. (2016). Japan Oil Imports Fall to Lowest Since 1988 as Demand Drops. Retrieved from https://www.bloomberg.com/news/articles/2016-01-25/japan-oil-imports-plunge-to-lowest-since-1998-as-demand-weakens

Evans, G. R. (2014). Exchange Rates. *First Edition March 14*. Retrieved from http://pages.hmc.edu/evans/ExchangeRates.pdf

Fama, E. F. (1995). Random walks in stock market prices. *Financial Analysts Journal*, *51*(1), 75–80. Retrieved from https://www.tandfonline.com/doi/abs/10.2469/faj.v51.n1.1861

Fauziana, L., Mulyaningsih, A., Anggraeni, E., M, S. C. Y., & Rofida, U. (2014). Keterkaitan Investasi Modal Terhadap GDP Indonesia. *Economics Development Analysis Journal*, *3*(2), 372–380.

Folger, J. (2018). Index Investing: The Dow Jones Industrial Average. Retrieved from https://www.investopedia.com/university/indexes/index2.asp

Forbes, K. J., & Rigobon, R. (2002). No Contagion , Only Interdependence : Measuring Stock Market Comovements, *LVII*(5), 2223–2261.

Gray, S. (2018). These Are the Biggest U.S. Trading Partners. Retrieved March 12, 2019, from http://fortune.com/2018/03/07/biggest-us-trade-partners/

Hellenicshippingnews.com. (2017). EIA: Japan Oil Market Overview. Retrieved from https://www.hellenicshippingnews.com/eia-japan-oil-market-overview/

Hodo, C., & Tsukimori, O. (2013). Japanese See Gold as Hedge Against Stocks and Yen. Retrieved July 24, 2019, from https://www.nytimes.com/2013/04/18/business/global/japanese-seegold-as-hedge-against-stocks-and-yen.html

Hsing, Y. (2011). Effects of Macroeconomic Variables on the Stock Market : The Case of the Czech Republic. *Theoretical and Applied Economics*, *XVIII*(7), 53–64.

Humpe, A., & Macmillan, P. (2009). Can macroeconomic variables explain long-term stock market movements ? A comparison of the US and Japan. *Applied Financial Economics*, *3107*. https://doi.org/10.1080/09603100701748956

Imbayani, I. G. A. (2015). Analisis Pengaruh Indeks Dow Jones, Indeks Strait, Times Indeks Nikkei 225, Indeks Hang Seng, Dan Kurs Rupiah Terhadap Indeks Harga Saham Gabungan Di Bursa Efek Indonesia. *Juima*, *5*(1), 12–21.

Investopedia. (2017). Interest Rate. Retrieved from https://www.investopedia.com/terms/i/interestrate.asp

Ishijima, H., & Kazumi, T. (2015). Sentiment analysis for the Japanese stock market Hiroshi Ishijima Takuro Kazumi Akira Maeda *. *Global Business and Economics Review*, *17*(3), 237–255. Retrieved from https://www.researchgate.net/publication/282161635_Sentiment_analysis_for_the_Japanese_stock_market

Kalengkongan, N. C., & Van Rate, P. (2016). Pengaruh Faktor Makro Ekonomi Terhadap Indeks Harga Sahamgabungan Di Indonesia (IHSG) Dan Jepang (Nikkei 225) Periode 2011 – 2015. *Jurnal Berkala Ilmiah Efisiensi*, *16*(03), 321–333.

Kawilarang, R.A, R. (2009). Ekonomi Jepang Alami Kemerosotan Terburuk. Retrieved from https://www.viva.co.id/arsip/30363-ekonomi-jepang-alami-kemerosotan-terburuk

Kendal, M. (1953). The Analysis of Economic Time Series, Part I: Prices. *Journal of the Royal Statistical Society*, *96*, 11–25. Retrieved from http://www.scirp.org/(S(i43dyn45teexjx455qlt3d2q))/reference/ReferencesPapers.aspx?R eferenceID=1125204

Kompas.com. (2019). Beberapa Fakta dan Data Statistik Perbandingan antara Jepang dan Indonesia. Retrieved from https://ohayojepang.kompas.com/read/1305/beberapa-faktadan-data-statistik-perbandingan-antara-jepang-dan-indonesia

Kurihara, Y. (2016). Journal of Economic & Financial Studies Deterministic Elements of Japanese Stock Prices under Low Interest Rates, *04*(02), 24–30.

Kurihara, Y., & Nezu, E. (2006). Recent stock price relationships between Japanese and US stock markets. *Economics and Finance*, *23*(3), 211–226. Retrieved from https://doi.org/10.1108/10867370610711057

Kusumawati, D. A., & Asandimitra, N. (2017). Impact of Global Index, Gold Price and Macro Economic Variable for Indonesia Composite Index. *Research Journal of Finance and Accounting*, *8*(2), 53–62. Retrieved from www.iiste.org

Kyodo. (2013). TSE merger with Osaka bourse up, running. Retrieved March 11, 2019, from https://www.japantimes.co.jp/news/2013/07/16/business/economy-business/tsebecomes-worlds-third-largest-bourse-after-absorbing-ose-trading/

Labonte, M. (2011). *Inflation : Causes , Costs , and Current Status*. Retrieved from www.crs.gov Mahyus, E. (2014). *Ekonomi Internasional*. Jakarta: Erlangga.

Masson, P. (1999). Contagion : macroeconomic models with multiple equilibria. *Journal of International Money and Finance*, *18*, 587–602.

McCurry, J. (2006). Bank of Japan raises rates. Retrieved from https://www.theguardian.com/business/2006/jul/14/interestrates.japan

McLannahan, B. (2013). Japan posts highest inflation rate since 2008. Retrieved from https://www.ft.com/content/46018c54-f5c1-11e2-8388-00144feabdc0

Megaravalli, A. V., & Sampagnaro, G. (2018). Macroeconomic Indicators and Their Impact on Stock Markets in ASIAN 3 : A Pooled Mean Group Approach. *Cogent Economics & Finance*, *6*, 1–14. https://doi.org/10.1080/23322039.2018.1432450

Moldovan, I. (2011). Stock Markets Correlation : before and during the Crisis Analysis. *Theoretical and Applied Economics*, *XVIII*(8), 111–122.

Muchlas, Z., & Alamsyah, A. R. (2015). Faktor-Faktor Yang Mempengaruhi Kurs Rupiah Terhadap Dolar Amerika Pasca Krisis (2000-2010). *Jurnal JIBEKA*, *9*(1), 76–86.

Murni, S. (2015). Analisis Faktor Makroekonomi Terhadap Kinerja Pasar Saham Di Beberapa Negara-Negara Asia. *Jurnal EMBA*, *3*, 1309–1318.

Murwaningsari, E. (2008). Pengaruh Volume Perdagangan Saham , Deposito Dan Kurs Terhadap Ihsg Beserta Prediksi Ihsg. *Jurnal Ekonomi Dan Bisnis Indonesia*, *23*(2), 178–195. Retrieved from https://jurnal.ugm.ac.id/jieb/article/view/6347 Owyong, D. T. (2011). *Impact of Yen on Japanese Stocks*.

PresidenRI.go.id. (2017). Hubungan Saling Menguntungkan Indonesia-Jepang. Retrieved March 12, 2019, from http://www.presidenri.go.id/berita-aktual/hubungan-salingmenguntungkan-indonesia-jepang.html

Rachmat. (2011). Yen Tebar Pesona Di Tahun 2011. Retrieved from https://www.seputarforex.com/yen-tebar-pesona-di-tahun-2011-76642-11

Rao, R. P., Aggarwal, R., & Hiraki, T. (1992). Dividend yields and stock returns : Evidence from the Tokyo Stock Exchange. *Journal of Economics and Business*, *44*(3), 187–200. https://doi.org/10.1016/S0148-6195(05)80012-8

Saito, J. (2018). No TitlWhy Was Japan Struck So Hard by the 2008 Crisis? Retrieved from https://www.jcer.or.jp/english/why-was-japan-struck-so-hard-by-the-2008-crisis

Samsul, M. (2006). *Pasar Modal dan Manajemen Portofolio* (Pertama). Jakarta: Erlangga.

Sholeh, M. (2014). Emas Sebagai Instrumen Investasi Yang Aman Pada Saat Instrumen Investasi Keuangan Lain Mengalami Peningkatan Resiko. *Jurnal Akuntansi Unesa*, *2*(2), 1–20. Retrieved from http://id.portalgaruda.org/?ref=browse&mod=viewarticle&article=138003

Sinaga, B. M., & Maulana, A. (2018). Pengaruh Indeks Bursa Luar Negeri, Indikator Makroekonomi

Dan Krisis Ekonomi Global Terhadap Indeks Harga Saham Gabungan Di Indonesia. *Jurnal Aplikasi Manajemen Dan Bisnis*, *4*(2), 284–295. Retrieved from http://journal.ipb.ac.id/index.php/jabm

Smith, G. (2002). LONDON GOLD PRICES AND STOCK PRICE INDICES IN, (February).

Subiantoro, A. N. (2018). Pengaruh Inflasi , BI Rate , Kurs USD / IDR , Indeks Shcomp , Dan Indeks

Nikkei 225 Terhadap Indeks Harga Saham Gabungan (IHSG) (Studi Pada Bursa Efek Indonesia Periode 2015-2017). *Jurnal Administrasi Bisnis (JAB)*, *61*(3), 198–206. Retrieved from administrasibisnis.studentjournal.ub.ac.id/index.php/jab/.../2614%0A

Suriani, S., Kumar, M. D., Jamil, F., & Muneer, S. (2015). Impact of Exchange Rate on Stock Market. *International Journal of Economics and Financial Issues*, *5*(Special Issue), 385–388.

Sutanto, B., & Murhadi, W. R. (2013). Analisis Pengaruh Ekonomi Makro, Indeks Dow Jones, Dan Indeks Nikkei 225 Terhadap Indeks Harga Saham Gabungan (IHSG) Di Bei Periode 2007-2011. *Jurnal Ilmiah Mahasiswa Universitas Surabaya*, *2*(1), 1–9. Retrieved from repository.ubaya.ac.id/16584/

Tanaka, K. (2009). Trade collapse and international supply chains: Japanese evidence. Retrieved from https://voxeu.org/article/trade-collapse-and-international-supply-chains-japaneseevidence

Tandelilin, E. (2010). *Portofolio dan Investasi (Teori dan Aplikasi)* (pertama). Yogyakarta: KANISIUS.

The New York Times. (2008). Japan's inflation hits decade high in February. Retrieved from https://www.nytimes.com/2008/03/28/business/worldbusiness/28iht28jpecon.11489 303.html

United States Trade Representative. (2018). Japan, Korea, & APEC. Retrieved from https://ustr.gov/countries-regions/japan-korea-apec/japan

Wu, J. (2012). *The linkage between Stock Market Returns and GDP Growth Rate in the United States*. Canada.

Xu, B. (2013). Oil Price Shocks and the Stock Market : Evidence from Japan. *The Energy Journal*. https://doi.org/10.5547/01956574.34.2.7

Yoshino, N., Hesary, T. F., & Miyamoto, H. (2017). *The Effectiveness of Japan's Negative Interest Rate Policy*. *ADBI*. https://doi.org/10.2139/ssrn.3016104

Yuswandy, Y. (2012). Analisis Pengaruh Harga Minyak Dunia, Harga Emas Dunia, Nilai Tukar RP Terhadap USD, Indeks IHSG Terhadap Return Saham (Studi Kasus Saham-Saham Sinarmas Group). *Journal of Capital Market and Banking*, *1*(1), 1–23. Retrieved from http://adlermanurungpress.com/journal/datajournal/Vol 1 No 1/Analisis Pengaruh Harga Minyak Dunia.pdf

Zabidi, I. I., & Asandimitra, N. (2018). Pengaruh Inflasi, Kurs, Suku Bunga SBI, Dow Jones, Dan Nikkei 225 Terhadap Indeks Harga Saham Gabungan Pada Bursa Efek Indonesia Periode 2012-2016. *Jurnal Ilmu Manajemen*, *6*(4), 468–476.