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"Entrepreneurship on Global Economics Development in the Era of Society 5.0"

Canonical Analysis of Global Stock Indices, Commodity Prices and Rupiah Exchange Rate Against The Dollar With the Indonesian Capital Market Index**Muhammad Basri^{1*}**

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*Email : mhdbasri@umsu.ac.id**ABSTRACT**

The purpose of this research was to determine the relationship of Global Stock Index (Dow Jones, Nikkei 225 and the Shanghai Index), commodity prices (oil prices and gold price) and the rupiah exchange rate to Dollar simultaneously with the Indonesian Capital Market Index.

This study uses the type of associative research, which aims to analyze the relationship between one variable with other variables or explain the influence of independent variables on bound. For hypothesis testing is done with canonical correlation. Canonical correlation aims basically the same as simple or multiple correlation, ie want to know whether there is relationship (association) between two variables. The sampling technique used in this study is the census method, one of the non probability sampling technique in which the researcher determines the sampling by taking the entire population into a sample of research, the sample of this study consisted of 72 months.

From the results of this study it is evident that if the Global Index (Dow Jones Index, Nikkei 225 Index and Shanghai Index), Commodity Price and Rupiah Exchange Rate to Dollar simultaneously have significant relationship with Indonesian Capital Market Index (LQ45 and JCI). Of the six independent variables, there are three variables that have a positive relationship, namely Dow Jones Index, Nikkei 225 Index and Gold Price has a positive value with a positive sign, meaning if the covariate increases (Dow Jones Index, Nikkei 225 Index and Gold Price) then LQ45 and JCI also rose. On the other hand, the Shanghai Index, Oil Price and Rupiah exchange rate against the dollar have opposite value with negative sign, meaning if the covariate rises (Shanghai Index, Oil Price and rupiah exchange rate to Dollar) then LQ45 and JCI will decrease.

Keywords : Canonikal Correlation, Dow Jones Index, Nikkei 225 Index, Shanghai Index, Oil Price, Gold Price, rupiah exchange rate to Dollar, LQ45 and JCI

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INTRODUCTION

The capital market is etymologically a meeting place between buyers and sellers to trade capital or securities with the risk of profit and loss. "The capital market can be used as a means for companies to increase the need for long-term funds by selling stocks or issuing bonds" (Hartono, 2009:98). The Capital Market, in addition to providing benefits to securities issuing companies, can also provide profit opportunities to investors. On the one hand, issuers (issuers or issuers) through the capital market can raise long-term funds to support business continuity, while for investors, investing through the capital market provides an attractive option. Investors can choose investment objects with varying degrees of return and the level of risk faced.

Regarding the capital market in Indonesia, it can be said that the capital market in Indonesia is a rapidly developing market. Currently, the Indonesia Stock Exchange has 13 types of stock price indices. One type of index is LQ45, which is an index that uses 45 issuers selected based on liquidity and market capitalization considerations, with predetermined criteria, so that LQ45 can describe and represent the stock market in Indonesia..

In addition to LQ45, the growth of the stock price listed on the Indonesia Stock Exchange (IDX) can also be reflected in the movement of the Composite Stock Price Index (JCI) which has shown much better growth compared to the region even when compared to several major countries in the world. The average growth of the JCI over the past 9 years has reached 21.7% per year, which is far above the average of the indices of major countries in Asia and America, recorded the average growth of the Bombay Index 16.9% per year, the Kuala Lumpur Index 9.4% per year, the Singapore Index 9.5% per year, the Shanghai Index only 11.3% per year, the Nikkei Index 225 11.9% per year, and the Dow Jones Index 11.1% per year. The description of this is explained in table 1 as follows.

Table 1. Average Growth of Stock Price Indices in Several Countries
for the Period 2008 – 2016

Stock Price Index	2008	2009	2010	2011	2012	2013	2014	2015	2016	Growth (in %)
IHSG : Jakarta	1.355,4	2.534,3	3.703,5	3.821,9	4.316,7	4.274,2	5.226,9	4.593,0	5.290,4	21,7
BSESN : Bombay	9.647	17.465	20.509	15.455	19.427	21.171	27.499	26.117,5	26.711,5	16,9
KLSE : Kuala Lumpur	876,70	1.272,70	1.518,90	1.530,70	1.688,90	1.866,90	1.761,20	1.692,50	1.671,54	9,4
STI : Singapura	1.761,5	2.897,6	3.190,0	2.646,3	3.167,0	3.167,4	3.365,1	2.882,7	3.096,61	9,5
SSE : Shanghai	1.820,8	3.277,1	2.808,0	2.199,4	2.269,1	2.115,9	3.234,6	3.539,1	3.105,31	11,3
Nikkei 225	8.859,5	10.546,4	10.228,9	8.455,3	10.395,1	16.291,3	17.450,7	19.033,7	19.298,68	11,9
DJI : US	8776,3	10428	11557,5	12217,5	13104,1	16576,6	17823,7	17425	19.872,86	11,1

Source: www.yahoofinance.com (2018).

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Seeing the rapid growth of the Indonesian Capital Market, it turns out that the capital market in Indonesia is still classified as vulnerable to world macroeconomic conditions in general. In fact, it is possible that a country's internal conditions may affect its capital market, but based on the historical movement of the JCI, when the end of the stock trading period in 2008, the JCI had experienced a drastic decline of 50.6% or 1,390.4 points to a low of 1,355.4 compared to the previous year because it was influenced by investor panic over the financial crisis that occurred in America since the end of 2007 which has worsened the U.S. economy as a whole and resulted in the onset of the world financial crisis, including Indonesia. This can be seen from several major events, such as: the bankruptcy of Lehman Brothers, one of the leading investment banks in the US, the collapse of the Dow Jones Index and the increase in world oil prices to USD 100.01 per barrel which then had an impact on high inflation. Ultimately, these events form a systemic effect in slowing economic growth in the world.

In Indonesia, in 2015 this was reflected in the weakening of the rupiah exchange rate against the US dollar which broke through the level of Rp 14,653.00 per US\$, in September accompanied by the fall in world oil prices to only USD 37.18 per barrel.

The effect of the Lehman Brothers scandal in the United States has an impact on the Indonesian Capital Market, of course, there is a reason, one of the reasons that is often the cause is the integration between exchanges. The issue of stock exchange integration between these countries has been studied since the late 80s, particularly after the 1987 wall street crash. Since that time, several experts have conducted similar research in different parts of the world. In general, experts agree that international stock exchanges are interrelated with each other. In this case, usually larger exchanges will affect smaller exchanges.

Considering that the Indonesian Capital Market is still considered to be developing well, it is undeniable that foreign investors are actually interested in investing their funds in the Indonesian Capital Market.

Even though the role and number of domestic investors are increasing, it is undeniable that there is a habit of domestic investors to carry out follower strategies for foreign investors or at least domestic investors using the behavior of foreign investors as a reference. (Cahyono, 2009:53).

Based on statistical data, it can be seen that since 2010 foreign investors have dominated the proportion of share ownership in the Indonesian Capital Market. It was recorded that until October 2016, share ownership by foreign investors in the Indonesian Capital Market was still dominant at 60%, while domestic investors were only 40%. This condition certainly further confirms that global conditions allow it to affect the capital market in Indonesia.

Looking at the movement of the JCI which has fluctuated over the past few years, and driven by the condition of share ownership dominated by foreign investors and conditions regarding the relationship and relationship between the capital markets in several countries, of course, in plain sight and logic, this shows that the JCI movement is likely not to be a movement that is solely speculative. This certainly needs to be scientifically proven. In accordance with the previous explanation of events in 2008 and 2016, it turns out that there are opinions about several factors that can affect the movement of a country's stock index, including the stock price index of surrounding countries, the level of world commodity prices, especially energy, currency exchange rates, and others.

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LITERATURE REVIEW**Investment**

Investment is to spend a certain amount of money with the aim of obtaining financial benefits in the future. "Investment can be defined as the delay in consumption now to be included in productive assets over a certain period of time" (Hartono, 2009:98).

"Investment can relate to the investment of a certain amount of funds in real assets such as: land, gold, houses and other real assets or on financial assets such as: deposits, stocks, bonds, and other securities" (Tandelilin, 2010:2).

Capital Market

The capital market is a meeting place for parties who have excess funds and parties who experience lack of funds. "In general, the capital market is a place or means of meeting between demand and supply of long-term financial instruments, generally more than one year" (Samsul, 2015:13). According to the Capital Market Law Number 8 of 1995, the definition of the capital market is an activity related to public offering and trading of securities, public companies related to the securities it issues, and institutions and professions related to securities.

Stock Exchange

The Stock Exchange is the party that organizes the trading of securities. According to Law Number 8 of 1995, the Stock Exchange is a party that organizes and provides a system and or means to bring together offers to sell and buy securities of other parties with the aim of trading securities between them.

Types of capital market indices

To provide more complete and transparent information for investors about the development of the Indonesian Capital Market, the IDX disseminates data on stock price movements through print and electronic media. One indicator of the movement of the stock price is the stock price index. Currently on the IDX there are 13 kinds of stock indices:

- 1) Composite Stock Price Index (JCI)
- 2) Sectoral Indices
- 3) LQ45 Index
- 4) IDX30
- 5) Jakarta Islamic Index (JII)
- 6) Indonesia Sharia Stock Index (ISSI)
- 7) Compass Index 100
- 8) BUSINESS-27 Index
- 9) PEFINDO25 Index
- 10) SRI-KEHATI Index
- 11) Main Board Index
- 12) Development Board Index
- 13) Individual Index

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Conceptual Framework

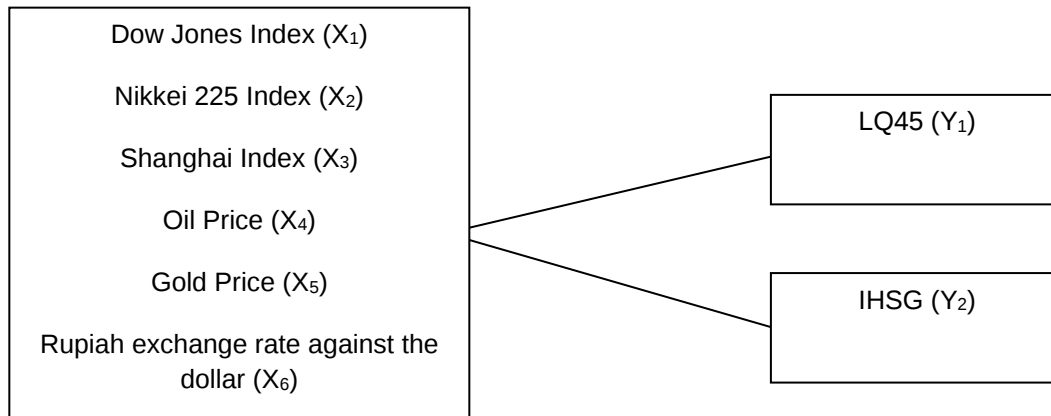


Figure 1 Conceptual Framework

Hypothesis

Based on the formulation of the problem, literature review and empirical studies that have been carried out previously, the research hypothesis can be drawn: The Global Index (Dow Jones Index, Nikkei 225 Index and Shanghai Index), Commodity Prices (Oil Prices and Gold Prices) and the rupiah exchange rate against the dollar simultaneously have a significant relationship with the Indonesian capital market index (LQ45 and JCI).

METHOD

Research Approach

This study uses an associative type of research, which aims to analyze the relationship between one variable and another or explain the influence of free variables on bound.

Research Place and Time

a. Research Site

This research was conducted on the Indonesia Stock Exchange through internet media with various sites

b. Research Time

The timing of this study is from December 2017 to March 2018.

Population and Sample

a. Population Research

This study used monthly data on the Dow Jones Index, Nikkei 225 Index, Shanghai Index, World Oil Price, Gold Price, Rupiah Exchange Rate against the Dollar, LQ45 Index and JCI contained in the IDX Fact Book and yahooofinance.com the period 2011 to 2016 as the study population, so that the population of this study amounted to 72 time series data.

b. Research Samples

The sampling technique used in this study is the census method, which is one of the non-probability sampling techniques where researchers determine sampling by taking the entire population into a research sample, then the sample of this study consists of 72 months.

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Data Analysis Techniques

The secondary data that were successfully collected in this study, were further analyzed using quantitative analysis methods, which include: descriptive statistical analysis and inferential statistics. Descriptive statistical analysis in this study includes frequency distribution analysis, while inferential statistical analysis in this study includes: canonical correlation assumption test and canonical correlation test using SPSS 23.

a. Descriptive Analysis

Descriptive analysis is the description of research data variables through the collection, classification, and interpretation in an objective manner, so as to provide information and an overview of the topics discussed.

b. Inferential Analysis**1. Canonical Correlation Assumption Test**

The canonical correlation assumption test is as stated by Santoso (2015: 266), thus 3 (three) canonical correlation assumption tests will be used, namely the linearity test, the normality test, and the multicollinearity test..

Canonical Correlation Test

The hypotheses of this study are: Global Stock Indices (Dow Jones Index, Nikkei 225 Index and Shanghai Index), Commodity Prices (Crude oil prices, World gold prices) and The rupiah exchange rate against the dollar simultaneously has a significant relationship with the Indonesian Capital Market Index (LQ45 and JCI). For hypothesis testing is carried out with canonical correlation. Canonical correlation aims to be fundamentally the same as simple or multiple correlations, that is, want to know whether there is a relationship (association) between two variables.

RESULT AND DISCUSSION**Testing of Canonical Correlation Assumptions****Table 2.** Linearity Test Results

Spouse	Sum of Squares	F	Sig.
LQ45*DOWJONES	2.727E8	110.406	.000
LQ45*NIKKEI	5.898E8	64.688	.000
LQ45*SSE	3446386.431	24.724	.000
LQ45*HARGA_MINYAK	13884.485	22.332	.000
LQ45*HARGA_EMAS	1052268.349	33.999	.000
LQ45*KURS	1.167E8	43.795	.000
IHSG*DOWJONES	2.774E8	21668.411	.004
IHSG*NIKKEI	5.675E8	78.066	.012
IHSG*SSE	4725094.759	26.907	.035
IHSG*HARGA_MINYAK	5728526.558	22.693	.000
IHSG*HARGA_EMAS	7240133.940	357.535	.000
IHSG*KURS	1.050E7	998.995	.020

Based on the results of such tests it can be known that the 12 pairs of dependent variables with such independent variables have a model significance value smaller than 0.05,

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thus it can be stated that the 12 pairs are linear. This suggests that the conditions of the canonical correlation linearity test have been met.

Table 3. Normality Test Results
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		72
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	33,43805087
Most Extreme Differences	Absolute	,055
	Positive	,046
	Negative	-,055
Test Statistic		,055
Asymp. Sig. (2-tailed)		,200 ^{c,d}
Monte Carlo Sig. (2-tailed)	Sig.	,971 ^e
	99% Confidence Interval	
	Lower Bound	,966
	Upper Bound	,975

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

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

e. Based on 10000 sampled tables with starting seed 2000000.

Based on the results of the data normality test, it can be seen that the magnitude of the kolmogorov-smirnov statistical test is 0.055 and significant at 0.966, because the significance value of this model is 0.966, it can be concluded that the data is normally distributed.

Based on the file in table 4, it can be seen that the tolerance value of the DOW JONES variable is 0.254, the NIKKEI is 0.546, the SSE is 0.615, the HARGA_MINYAK is 0.226, the HARGA_EMAS is 0.135 and the KURS is 0.156. Because the tolerance value for all independent variables is greater than 0.10, so all of these variables are free of symptoms of multicollinearity. Another method for measuring the symptoms of multicollinearity is with the variance inflation factor (VIF) value, the VARIABLE VIF value of DOWJONES is 8.675, the NIKKEI is 1.553, the SSE is 1.627, the HARGA_MINYAK is 4.415, the HARGA_EMAS is 7.383 and the KURS is 7.799. Since the VIF value of all free variables is less than 10.00, it can be concluded that there are no symptoms of multicollinearity.

Table 4. Multicollinearity Test Results
Coefficients^a

Model	Unstandardized Coefficients		Collinearity Statistics	
	B	Std. Error	Tolerance	VIF
1 (Constant)	242,419	167,696		
DOWJONES	,064	,008	,254	8,675
NIKKEI	,009	,005	,546	1,553
SSE	-,020	,009	,615	1,627
HARGA_MINYAK	-1,262	,353	,226	4,415
HARGA_EMAS	,159	,053	,135	7,383
KURS	-,059	,009	,156	7,799

a. Dependent Variable: LQ45,IHSG

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Hypothesis Testing

Table 5. Results of Canonical Correlation Calculation
Eigenvalues and Canonical Correlations

Root No.	Eigenvalue	Pct.	Cum. Pct.	Canon Cor.	Sq.Cor
1	6,77480	95,07652	95,07652	,93348	,87138
2	,35083	4,92348	100,00000	,50962	,25971

Based on table 5 it is known that the eigenvalue at root 1 is 6.77480 and the eigenvalue at root 2 is 0.35083. So the eigenvalue at root 1 is greater than the eigenvalue at root 2. While Canonical Correlations for root 1 is 0.93348 and Canonical Correlations for root 2 is 0.50962. So Canonical Correlations at root 1 is greater than Canonical Correlations at root 2. Furthermore, the Canonical Correlations values of these two roots will be tested for significance as follows:

Table 6. Results of Calculation of Canonical Correlation Significance
Dimension Reduction Analysis

Roots	Wilks L.	F	Hypoth. DF	Error DF	Sig. of F
1 TO 2	,09522	23,90127	12,00	128,00	,000
2 TO 2	,74029	4,56078	5,00	65,00	,001

Table 6 shows that the value of the canonical correlation significance of root 1 is 0.000 and the value of the significance of the canonical correlation of root 2 is 0.001. This result means that the significance value of both roots is smaller than 0.05, which means that it is individually significant. Therefore root 1 and root 2 will be further processed.

Table 7. Results of Calculation of Canonical Coefficiencies Standards
For Dependent Variables

Standardized canonical coefficients for DEPENDENT variables		
Function No.		
Variable	1	2
LQ45	,67187	-2,76043
IHSG	,34276	2,82027

Based on table 7, it is known the relationship of the dependent variable LQ45 (Y_1) and IHSG (Y_2) with its independent variables (Dow Jones Index, Nikkei 225 Index, Shanghai Index, Oil Price, Gold Price and Rupiah Exchange Rate against the dollar) on function 1 and function 2 ignored. The standard canonical coefficient for the variable LQ45 is 0.67187 and for the JCI variable it is 0.34276. This suggests that the canonical coefficient is standard for the variable LQ45 (Y_1) is strong, because its value is 0.67187.

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Table 8. Results of Canonical Loading Calculations for Dependent Variats

Correlations between DEPENDENT and canonical variables

Variable	Function No.	
	1	2
LQ45	,99270	-,12065
IHSG	,97163	,23649

Based on table 8, it is known that the relationship of the variables LQ45 (Y1) and JCI (Y2) with their independent variables (Dow Jones Index, Nikkei Index 225, Shanghai Index, Oil Price, Gold Price and Rupiah Exchange Rate against the dollar) in function 1 and function 2 is ignored. The canonical coefficient for the variable LQ45 is 0.99270 and for the JCI variable is 0.97163, both of which have a very strong loading canonical correlation because the value is close to 1.0.

Table 9. Calculation results of Covariate Correlations and Canonical Variables

Correlations between COVARIATES and canonical variables

Covariate	CAN. VAR.	
	1	2
DOWJONES	,90951	,13698
NIKKEI	,80833	,00767
SSE	-,44180	-,62581
PRICE _MI	-,60030	,17377
PRICE _EM	-,62875	-,15852
Exchange rate	,75473	,20976

Based on table 9 by looking only at root 1, the loading correlation value of each independent variable is obtained. There are three canonical loading that have positive values, namely: Dow Jones Index: 0.90951, Nikkei Index 225: 0.80833 and rupiah exchange rate against the dollar: 0.75473, while canonical loading which has negative values, namely: Shanghai Index: -0.44180, Oil Price: -0.60030 and Gold Price: -0.62875. Thus a positive covariate exerts a unidirectional influence, while a negative covariate exerts an influence in the opposite direction. Based on the canonical weight and canonical loadings, it can be concluded that if the hypothesis is accepted, the Global Index (Dow Jones Index, Nikkei 225 Index and Shanghai Index), Commodity Price and rupiah exchange rate against the dollar simultaneously have a significant relationship with the Indonesian capital market index (LQ45 and JCI).

DISCUSSION

Based on the results of the research previously discussed, the following results were obtained:

In this study there are two roots, root 1 is the relationship of independent variables, namely the Dow Jones Index (X₁), Nikkei 225 Index (X₂), Shanghai Index (X₃), Oil Price (X₄), Gold Price (X₅) and Rupiah Exchange Rate against the Dollar (X₆) with a dependent variable, i.e. LQ45 Index (Y₁), while root 2 is the relationship of independent variables, namely the Dow Jones Index (X₁), Nikkei 225 Index (X₂), Shanghai Index (X₃), Oil Price (X₄), Gold Price (X₅) and Rupiah Exchange Rate against the Dollar (X₆) with a dependent

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variable, namely JCI (Y_2). Based on the calculation of canonical weight in table 7, LQ45: 0.67187 and JCI: 0.34276, which indicate the standard canonical coefficient for the variable LQ45 (Y_1) is strong because the value is above 0.5 and for the JCI variable (Y_2) weak because the value is below 0.5. In other words, there is a significant relationship between the Dow Jones Index (X_1), Nikkei 225 Index (X_2), Shanghai Index (X_3), Oil Price (X_4), Gold Price (X_5) and Rupiah Exchange Rate against the Dollar (X_6) with the LQ45 Index (Y_1). This is in line with Amir's (2015) research which concluded the Dow Jones Index, EIDO, Exchange rate and SBI have a significantly perfect relationship with the LQ45 Index. Furthermore, there is an insignificant relationship between the Dow Jones Index. This is in line with Amir's (2015) research which concluded the Dow Jones Index, EIDO, Exchange rate and SBI have a significantly perfect relationship with the LQ45 Index. Furthermore, there is an insignificant relationship between the Dow Jones Index (X_1), Nikkei 225 Index (X_2), Shanghai Index (X_3), Oil Price (X_4), Gold Price (X_5) and Rupiah Exchange Rate against the Dollar (X_6) with JCI (Y_2) if the testing is carried out in groups. This is not in line with Amir's (2015) research which concluded the Dow Jones Index, EIDO, Exchange Rate and SBI have a significant and very strong relationship with the JCI.

Based on table 9, of the six independent variables, there are three variables that have a positive relationship, namely the Dow Jones Index, the Nikkei 225 Index and the Gold Price have values in the same direction as the positive sign, meaning that if the covariate rises, then LQ45 and JCI also rise. On the contrary, the Shanghai Index, the Oil Price and the rupiah exchange rate against the dollar have values in the opposite direction to the negative sign, meaning that if the covariate rises, the LQ45 and JCI will fall.

Based on table 9, the LQ45 and JCI Indexes, the Dow Jones Index, the Nikkei 225 Index and the rupiah exchange rate against the dollar have a very strong and positive relationship. This confirms and is in line with the results of research that has been carried out by several previous researchers, such as: Hayo and Kuntan (2004), Yang et al. (2003), Darrat and Zhong (2002), Karim et al. (2009), Wong et al. (2004), Amir (2015), Andiyasa (2014) who stated that the capital market in the United States and Japan has an influence on the capital markets of other countries in the world. This can be understood because both the United States and Japan are Indonesia's main trading partners, where Exports of Indonesian products to the United States and Japan were in the range of 11% in 2016. In addition, the strong position of the United States and Japan in the world economic arena greatly affects every country, including Indonesia, every policy issued by the United States and Japan governments will have an impact on Indonesia's economic condition..

The increase in the benchmark interest rate of the Central Bank of the United States, the Federal Reserve, by 25-50 basis points and the increase in the forecast for economic growth in the United States are signals of economic recovery in the United States in 2015. This encouraged the inflow of capital into the American capital market which directly boosted the Dow Jones Index. In line with the American economy, Abenomic policies in Japan have proven to be able to increase market optimism in the Japanese economy, it was noted that the Nikkei 225 Index increased by 4953.82 basis points throughout 2013, in line with the strengthening of the Nikkei 225, the stock price index in Indonesia also rose even though it was only temporary.

Similarly, with the rupiah exchange rate against the dollar, the rupiah as the official currency in Indonesia has a very strong and positive relationship on the LQ45 Index and the JCI, especially when associated with the dollar, the most common currency used in world

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trade transactions. In 2013 the rupiah depreciated quite deeply, namely Rp. 2400.45 per dollar, there were many factors that caused the depth of the depreciation value, the most important of which was due to the plan of the Fed (US central bank) to reduce Quantitative Easing (QE), in line with the depreciation of the rupiah exchange rate against the dollar, the Indonesian capital market index also weakened throughout 2013.

Furthermore, the Price of Oil and the Price of Gold have a moderate and negative relationship. Of course, this confirms the research of Kilian and Park (2007) which states that if the increase in world oil prices is caused by increasing world oil demand due to uncertainty in oil availability in the future, then this will have a negative influence on the capital market. The decline in oil prices throughout 2014 was mainly due to oversupply due to the energy revolution in North America (America, Canada and Mexico). In addition, in order to suppress new industry players and maintain market share, the Organization of oil exporting countries (OPEC) maintains the level of production volumes without limiting production at all, as a result of which oil stocks in the global market are excessive. In contrast to the decline in oil prices, throughout 2014 Indonesia's capital market index compactly strengthened throughout the year, the decline in oil prices during the amatan period resulted in a decrease in the company's operating costs, companies tended to enjoy this decrease in costs so that profits rose and stock prices also rose.

The indication that the price of gold has a negative effect on the movement of the LQ45 Index is more because gold is one of the alternative investment commodities that is considered to tend to be safe and risk-free, so that if economic conditions are less stable and result in instability in the capital market, investors will turn to gold commodities as an investment vehicle. This result is in accordance with Andiyasa's (2014) research which concluded the Gold Price has a negative effect on the stock price index.

The Shanghai Index has a weak and negative relationship with the LQ45 Index and JCI, this is more because China in the year of economic growth has experienced a decline in economic growth, signs of China's economic warming have indeed been seen since 2010. China's central bank (PBOC) for example has raised its benchmark interest rate three times since mid-October 2010, increased the bank's reserve ratio several times, and raised the deposit ratio of the 40 largest banks. The regulator also tightened the flow of banking loans. As a result, the country's manufacturing industry expansion experienced a slowdown in February at its weakest pace in 6 months. Concerns about inflation have prompted central banks in various developing countries to let their currencies strengthen. Indonesia is one of the suppliers of commodities for Chinese industry, due to the decline in China's economic growth where in 2016 it was 6.7% so the impact of Indonesia's commodity exports was not so significant. This is not in line with Andiyasa's research (2014) which concluded that the Shanghai Index has a significant effect on the Indonesian capital market index, but this result is in accordance with the statement of the Minister of Bappenas: "If China's economic growth does not grow above 10% then the Chinese economy will not have much effect on the Indonesian economy" (Brodjonegoro, Kompas: 2016).

CONCLUSION

Based on canonical weight and canonical loadings, it can be concluded that if the hypothesis is accepted, the Global Index (Dow Jones Index, Nikkei 225 Index and Shanghai Index), Commodity Prices (Oil Price and Gold Price) and rupiah exchange rate against the

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dollar simultaneously have a significant relationship with the Indonesian capital market index (LQ45 and JCI).

There is a significant relationship between the Dow Jones Index (X_1), Nikkei 225 Index (X_2), Shanghai Index (X_3), Oil Price (X_4), Gold Price (X_5) and Rupiah Exchange Rate against the Dollar (X_6) with the LQ45 Index (Y_1). On the contrary there is an insignificant relationship between the Dow Jones Index (X_1), Nikkei 225 Index (X_2), Shanghai Index (X_3), Oil Price (X_4), Gold Price (X_5) and Rupiah Exchange Rate against the Dollar (X_6) with JCI (Y_2) if the testing is carried out in groups.

Individually, of the six independent variables, there are three variables that have a positive relationship, namely the Dow Jones Index, the Nikkei 225 Index and the Gold Price have values in the same direction as the positive sign. In contrast to the Shanghai Index, oil price and rupiah exchange rate against the dollar have values in the opposite direction to negative signs

From the results of the study, there are several implications that need to be presented, namely:

It is recommended to the government to always maintain the stability of both the LQ45 Index and the JCI, so that investor confidence is always maintained, because both are a reflection of the state of the Indonesian capital market.

It is recommended to investors in the capital market to pay attention to the movements of the Dow Jones Index, Nikkei 225 Index and Shanghai Index in predicting the movement of the Indonesian capital market index.

It is recommended to investors in the capital market to pay attention to the movement of gold prices, world oil prices and the rupiah exchange rate against the dollar in predicting the movement of the Indonesian capital market index

Furthermore, it is recommended to add other free variables and also add the Pefindo 25 index in bound variables because this index shows the condition of small and medium-sized issuers in Indonesia..

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