

## Impact of Global Index, Gold Price and Macro Economic Variable for Indonesia Composite Index

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### Abstract

The purpose of this research to analyze the influence of DJIA Index, FTSE100 Index, NIKKEI225 Index, KOSPI Index, Hang Sheng Index, Gold Price, Money Supply and net export to Indonesia Composite Index. Data for this research have been taken from Indonesian statistic center for macroeconomic variables, yahoo finance for index, and London Bullion Market Association (LBMA) for gold price. The methods of data analysis were multiple linear regression models. The result of this study shows that DJIA, FTSE100, Hang Seng, money Supply and net export have not influence to Indonesia Composite Index. Meanwhile NIKKEI 225, KOSPI and gold price have positive relation with Indonesia Composite Index. The suggestion can be given to investors and listed companies is to respond the information regarding the Nikkei 225 index, Kospi, and the world gold price to predict Indonesia Composite Index investment decision on the right stock and when it will make the policy valuation company stock. For further research is recommended to increase the number of others who influence the stock price index is not included in this study are economic factors or external factors such as other indexes that exist in the world, the variable inflation, exchange rates, GDP, oil price and others. Subsequent research has also suggested using another index, for example a Kompas 100, LQ-45, and other indices

**Keywords:** Global Index, Gold Price, Indonesia Composite Index, Macro Economic Variable.

**JEL classification:** G14;G15;E51;E62

### 1. Introduction

Investment is the kind of commitment on some funds or other resources done at the moment, with the goal of gaining numerous advantages in the future (Tandelilin, 2010:2). Investment in financial assets is more ownership claims rights or assets which are realized in the form of a legal document that then called as securities (bonds). The investment in financial assets can be done on the money market and capital market.

The capital market is an important factor in the national economy because it provides an overview of the economic conditions of a country. Capital market development of a country can be seen from the movement of the stock price index that uses company recorded. One index that is often overlooked investor when investing in Indonesia is Indonesia Composite Index, because those index use all of the shares listed on the Indonesia Stock Exchange as a component of the index calculation. It means that the components of the existing shares in eight other indices are also calculated in Indonesia Composite Index ([www.idx.co.id](http://www.idx.co.id)).

Capital Market of Indonesia through the Indonesian Stock Exchange has liberalized in 1989, so that foreign investors can invest in equities in Indonesia and local investors also can trade in equities in foreign countries. Now Investors can get more profit by diversifying the portfolio with a mix of stocks from various stock market indices (Patel et al., 2012). The international diversification has created linkages between the states of the capital market in other countries. This theory is called the contagion effect or modern domino theory, it said that the effect caused by the economy of another country against a country, regional or world (Eichengreen et al., 1996).

The development of Indonesia Composite Index which fluctuates from year 2008-2015 is largely influenced by the economy of other countries. As the shock of the crisis as a crisis in the American sub-prime mortgage in 2008 which led to a decrease of 50.64% of Indonesia Composite Index ([economy.okezone.com](http://economy.okezone.com)) and the European debt crisis. The world economy has interconnected through trade and investment, so the information about a condition of economic fundamentals of a country would have an impact to other countries (Riantani and Tambunan, 2013).

Global stock price index could be expected to affect the Indonesia Composite Index is DJIA index of the American capital market, FTSE 100 index of the UK capital markets, and NIKKEI 225 index of Japanese capital markets. These three share price indexes are considered be able to represent the developed countries and be able to represent the strength of the world economy and its effects on Indonesia (Andiyasa et al., 2014).

This is supported by research Singh et al. (2010) and Wong et al. (2004) which stated that the capital markets in the United States, Britain and Japan have a significant effect on the capital markets in Asia Pacific included in the emerging market is one of Indonesia. But this contradicts with the Gom's study (2013), Hartanto (2013), Hasibuan and Hidayat (2011) which stated that the DJIA index, FTSE 100 and Nikkei 225 have no effect

on Indonesia Composite Index. Contrary to Riantani and Tambunan (2013), stated that DJIA index significant negative effect on the Indonesia Composite Index.

In addition, Asian stocks price index as represented by Hang Seng index and KOSPI index also considered capable of affecting the movement of the stock price index in Asia, like Indonesia (Singh et al., 2010). This is in line with research Riantani and Tambunan (2013) which showed that Hang Seng Index (HSI) positive effect on Indonesia Composite Index. In contrast to research Hartanto (2013) which showed that Hang Seng Index (HSI) has no effect on Indonesia Composite Index. This statement is also supported by research of Singh et al. (2010), Hasibuan and Hidayat (2011) which stated that the capital markets in Asia such as Korea can provide a strong and positive influence on other Asian markets. This contrast with research Hartanto (2013) which showed that KOSPI index does not affect the Indonesia Composite Index movement.

Besides the global stock price index, stock investments can also be influenced by the gold price and macroeconomic variables such as the money supply and net exports. Along with expanding the world of investing, the gold can be used as one of the major investments to support an investment portfolio. So the price of gold becomes one of the commodities that affect the movement of the stock market. It is based that gold is one alternative of investments tend to be safe and risk-free. Therefore, when the economic conditions are less stable and resulted in volatility in the stock market, investors will turn to gold as an investment tools (Nisha, 2015).

The research was conducted by Nisha (2015) showed that gold prices negatively affect the stock price index in the US and India. In contrast with Twite (2002) which showed that the price of gold has positive influence on stock price index in Australia. While research Lawrence (2013) showed that the price of gold does not affect the Indonesia Composite Index.

The next variable is money supply. The money supply is the amount of money available in the economy (Mankiw, 2012: 144). The research of Maysami et al. (2004) showed the positive influence of money supply on Indonesia Composite Index. It means that the larger of money supply will increase the stock price. This increase shows the amount of cash required to buy securities. The result of this study is supported by Lawrence's research (2013) which showed that the money supply gives positive effect on Indonesia Composite Index. In contrast with Nisha (2015) which showed that the money supply gives negative affect to stock returns in Taiwan. Different with research of Habibullah and Baharumshah (1996) that showed money supply does not affect the stock price in Malaysia.

Net export is the difference between exports and imports. Increased of net exports will affect the balance of payments and caused a surplus balance of payments (Mankiw, 2012: 12). Good balance of payments that will attract foreign and local investors to invest in the country and will have an impact on the increase in share trading in the stock market. Conversely, if the balance of trade deficit, the capital market will decline. This statement is supported by Affandi (2015) which showed net exports gives positive effect on Indonesia Composite Index. Contrary to Batthacharya and Mukherjee (2000) suggested that net export does not affect the Indonesia Composite Index.

Based on the background and previous research that there are differences of opinion among researchers, the researcher is interested to further analyze the "Impact of Global Index, Gold Price and Macro Economic Variable for Indonesia Composite Index (ICI) " ..

## 2. Literature Review and Hypothesis

### 2.1 Contagion Effect Theory

Contagion Effect or is often called the modern domino theory is the effect caused by the economy of another country to a country, regional or world. Economic events that occur in a country will encourage other economic events in the countries of the world. The effect tends to be relative and different for each country. It is highly influenced by relations, economic cooperation and regional countries.

According to Eichengreen et al. (1996) contagion effect can be due to the interdependence of the similarity of the market economy as macroeconomic, trade and loans from banks. The second cause is more emphasis on investor behavior, the type of contagion is derived from information asymmetry, collective behavior and loss of confidence regardless a concerned of a country macroeconomic performance. Due to capital market participants received the same information, so a little new information can be spread throughout the world and gives the signal that triggers the same change reaction. This market perception can be interpreted by the investors in the capital market as an indication brings up a crisis in the near future.

Contagion is widely used to describe the spread of the market downturn from a country to another country which is characterized by the movement in exchange rates, stock prices, and capital flows. According to Forbes and Rigobon (2001) 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 interdependence here is the shock that is transferred between countries

because 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 be a cause investors withdraw their investments regardless of the country economic fundamentals. This type of contagion is often caused by the phenomenon of irrational investor that led to the financial panic, herding behavior, loss of confidence and an increase in risk aversion.

### 2.2 Random Walk Theory

According to Maurice Kendall (1953) stock price patterns are not predictable because move randomly (random walk). Stock prices move randomly means that the stock price fluctuations will depend on the information received, but that information not known when it will be accepted, so the new information and stock prices is called unpredictable (Samson, 2006: 269). Information is bad news or good news also unknown. If already known, that information is called nowadays information.

Bad news means that the information would have a negative impact on stock prices, which is stock prices decrease. Examples of bad news is the sharp increase in bank interest rates, the sharp increase in fuel prices, a sharp increase in inflation, and a burned down of issuers factory. The example of good news includes a sharp rise in sales, the decline in mortgage interest rates, and business expansion. Information can also be ambiguous depending on the field of business. For example, the increase in foreign exchange rates is viewed favorably by companies engaged in exports, but the disadvantage of companies engaged in the import or foreign currency debtor.

### 2.3 Factors Affecting Indonesia Composite Index

#### 2.3.1 Dow Jones Industrial Average (DJIA)

Dow Jones is the average stock price index largest in the world in American capital market. Therefore, the movement of the Dow Jones can affect almost all share price index of the world, including Indonesia Composite Index in Indonesia (Singh et al., 2010). Effect of Dow Jones stock index is positive, which means that the decline in the Dow Jones index will result in a decrease in Indonesia Composite Index. Likewise, if the Dow Jones index rises, the Indonesia Composite Index will also increase (Andiyasa et al., 2014).

The crisis in the US which cause the Dow Jones fall has given investors a negative sentiment against Indonesia Composite Index in Indonesia at that time also decreased. An investor can use this index to measure changes in the value of the index with compare today's performance with the performance of the previous (to yesterday, last month, last year, and so on).

#### 2.3.2 FTSE 100

The FTSE 100 is the index which represents approximately 81 percent of the market capitalization of all the London Stock Exchange and is the leading share index with 100 the biggest company in the United Kingdom. In the beginning of 2010, debt crisis occurred in Europe. One of the European countries affected by the impact of the debt crisis is English. The UK economy experienced deceleration since the debt crisis in 2010. The National Institute of Economic and Social Research (NIESR) in the research saw the growth of the British economy 2012 located in the range of 0.7%.

Research of Singh et al. (2010) and Wong et al. (2004) stated that the capital market in the UK provide the influence of the capital market in other countries in the world. This condition happened remember England is a country that entered in the sequence of the big ten country in the world that has the largest GDP, so that the economic conditions in the country English course can affect economic growth in other countries from both the flow of investment funds and the value of export and import (Andiyasa et al. 2014). In addition, as developed countries, the UK economy is likely to have an impact on the economy of developing countries, one of them is Indonesia.

#### 2.3.3 NIKKEI 225

Nikkei 225 is a stock market index in Tokyo Stock Exchange. The companies that listed on the Nikkei 225 are a great company that has been operating globally, including in Indonesia. With the rise in the Nikkei index 225, it means the performance of the Japanese economy also improved. As one of the export destination country of Indonesia, Japanese economic growth can promote economic growth in Indonesia through export activities and the flow of capital investment either directly or through capital market (Sunariyah, 2011:28).

The movement of the index in the capital market in a country affected by capital market indexes world. This is due to the flow of trade between countries, the existence of freedom of information flow and the deregulation of capital market regulations that cause investors more easily to enter in the capital market in a country (Samsul, 2008:17). So that the movement of the share price index in Indonesia capital market can be influenced by the Japanese market.

#### 2.3.4 *Hang Seng*

Hang Seng is Hong Kong's main stock index which are calculated using a weighted value method (Bloomberg). Hang Seng Index (HSI) is a stock index that is used by almost all financial or fund manager in Asia Pacific as trade standards. Research of Singh et al. (2010) stated that the Hong Kong capital market in the country has a strong influence on the capital markets in Asia, including Indonesia. In line with the research Riantani and Tambunan (2013) which showed that the Hang Seng Index (HSI) positive effect on Indonesia Composite Index. It can be concluded the Hang Seng index effect on other countries including Indonesia Composite Index (Riantani and Tambunan, 2013).

#### 2.3.5 *KOSPI*

KOSPI is South Korea's main stock index. KOSPI as one of Korea's stock index, which is a country that has an advantage in any economic transaction will make any information in the Korean stock market movements directly affect the Indonesian market (Hasibuan and Hidayat, 2011). This statement is supported by the research of Singh et al. (2010) which stated that the capital markets in Korea have a strong influence on the capital markets in Asia. Similarly, the research of Hasibuan and Hidayat (2011) showed the positive influence KOSPI against Indonesia Composite Index.

#### 2.3.6 *World Gold Prices*

Along with expanding the world of investing, the current gold can be used as one of the major investments to support an investment portfolio. So the price of gold becomes a commodity that affects Indonesia Composite Index. Price is determined by the London gold fix bullion Market Association (LBMA). The process of determining the price of gold is done twice a day, at 10.30 (gold price Gold A.M) and 15.00 (gold price Gold p.m). Gold p.m is generally regarded as the closing price on the trading day and is often used as a benchmark gold contract value worldwide.

Gold is considered as a commodity that affects the economic activities both in Indonesia and the world. The advantage of gold investment is a strong durability against inflation (zero inflation). Therefore, the increase in gold prices will push down stock price index as investors who initially invested in the capital market to divert their funds to invest in gold with a relatively lower risk than investing in the stock (Nisha, 2015).

#### 2.3.7 *Money Supply*

According to Sukirno (2011: 281), definition of money supply needs to be divided into two senses, that is limited understanding and a broader sense. In a broad sense, the money supply includes currency in circulation, demand deposits and quasi-money. Money supply in a broad sense is also named as liquidity in the economy or M2.

The demand for cash for the purpose of speculation shows the amount of cash required for the purpose of financing transactions / expenditure speculative such as buy securities (bonds) or stocks. The money supply will affect positively on the performance of stocks (Maysami et al., 2004). It means that the larger money supply in circulation, the greater the amount of money used to invest. Increasing the amount of money to invest will increase demand for stocks and shares increased demand will drive up stock prices.

#### 2.3.8 *Net Exports*

Net export is the difference between exports and imports. The increase in net exports means exports will be greater than imports (Mankiw, 2012: 12). Increased net exports will affect the balance of payments and cause a balance of payments surplus. According to Affandi (2015) is a good balance of payments will create the economic conditions in the country are increasing as well. This increased the economy is an important factor in attracting foreign and local investors to invest in the country. One of the capital investments is in the stock market and the impact on the increase stock trading in the capital market.

Based on the background, theoretical basis, and previous research framework, the hypothesis of this study are:

- H1: DJIA has positive effect on Indonesia Composite Index.
- H2: FTSE 100 index has positive effect on Indonesia Composite Index.
- H3: Nikkei 225 Index has positive effect on Indonesia Composite Index.
- H3: Hang Seng Index has positive effect on Indonesia Composite Index.
- H5: KOSPI index has positive effect on Indonesia Composite Index.
- H6: World gold prices have negative effect Indonesia Composite Index.
- H7: Money supply has positive effect on Indonesia Composite Index.
- H8: Net exports has positive effect on Indonesia Composite Index..

### 3. Research Method

There is influence of independent variables include the influence of global index, the price of gold and macro-economic indicators to dependent variable is the Indonesia Composite 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 Indonesia Composite Index, Dow Jones Industrial Average (DJIA), FTSE 100 Index, Nikkei 225, Hang Seng Index and KOSPI index period from 2008 to 2015,

obtained from the web page world Investment and Finance Yahoo that is [www.duniainvestasi.com](http://www.duniainvestasi.com) and [www.finance.yahoo.com](http://www.finance.yahoo.com). Money Supply and Net Exports 2008-2015 period obtained from the Central Statistics Agency web page that is [www.bps.go.id](http://www.bps.go.id). Whereas for the price of gold is obtained from the web of the London Bullion Market Association (LBMA).

The population in this study is the closing price Indonesia Composite Index is a monthly during December 2007 to December 2015. 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 Indonesia Composite Index is a monthly during December 2007 until December 2015. Therefore, the data sample used was 96 months.

In this study, the variables used are divided into two; those are dependent variable and independent variable. Dependent variable (Y) in this study is the Indonesia Composite Index is represented by the changes. According to Witjaksono (2010) price index monthly indices obtained from the closing price monthly published through the website yahoo finance. Here is the formula for calculating changes in the stock price index every month:

$$CI = \frac{ICI_t - ICI_{t-1}}{ICI_{t-1}} \times 100\% \quad (1)$$

Explanation:

ICI<sub>t</sub> = Indonesia Composite Index period t

ICI-1 = Indonesia Composite Index period t-1

The independent variable (X) used in this study include: The Dow Jones Industrial Average (X1), FTSE 100 Index (X2), NIKKEI 225 Index (X3), Hang Seng Index (X4), KOSPI (X5), world gold price (X6), Money Supply (X7) and Net Exports (X8). Variable global index, world gold price and macroeconomic are using monthly data that taken at the end of the month (closing price) on each variable (Witjaksono, 2010).

a. Dow Jones Industrial Average (DJIA)

Dow Jones Industrial Average is using close prices monthly on the Dow Jones Industrial Average. Calculation of changes in the DJIA Index with the following formula:

$$DJIA = \frac{DJIA_t - DJIA_{t-1}}{DJIA_{t-1}} \times 100\% \quad (2)$$

Explanation:

DJIA t : DJIA Stock Price Period t

DJIA t - 1 : DJIA Stock Price period t - 1

b. FTSE 100

In this study, the measurement of FTSE 100 Index is represented using the change of FTSE 100 Index. The data used is the monthly closing price of the FTSE 100 Index with the following formula:

$$FTSE = \frac{FTSE_t - FTSE_{t-1}}{FTSE_{t-1}} \times 100\% \quad (3)$$

Explanation:

FTSE<sub>t</sub> = FTSE 100 index of period t

FTSE<sub>t-1</sub> = FTSE 100 index of period t-1

c. Nikkei 225

In this study, the measurement of Nikkei 225 Index is represented using changes of Nikkei 225 index. The data used is the monthly closing price Nikkei 225 Index with the following formula:

$$NIKKEI = \frac{NIKKEI_t - NIKKEI_{t-1}}{NIKKEI_{t-1}} \times 100\% \quad (4)$$

Explanation:

NIKKEI<sub>t</sub> = Nikkei 225 index period t

NIKKEI<sub>t-1</sub> = Nikkei 225 index period t-1

d. Hang Seng

In this study, the measurement of the Hang Seng Index is represented using the change of Hang Seng Index. The data used is monthly closing price data of Hang Seng Index with the following formula:

$$Hang\ Seng = \frac{Hang\ Seng_t - Hang\ Seng_{t-1}}{Hang\ Seng_{t-1}} \times 100\% \quad (5)$$

Explanation:

Hang Sengt = Hang Seng index period t

Hang Sengt-1 = Hang Seng index periode t-1

e. KOSPI

In this study, the measurement of KOSPI Index is represented using the change of KOSPI Index. The data used is monthly closing price data of KOSPI Index with the following formula:

$$KOSPI = \frac{KOSPI_t - KOSPI_{t-1}}{KOSPI_{t-1}} \times 100\% \quad (6)$$

Explanation:

KOSPI<sub>t</sub> = KOSPI index period t

KOSPI<sub>t-1</sub> = KOSPI index period t-1

f. World Gold Price

In this study, the measurement of gold price is represented using the change of gold price. The data used is London Gold Fix P.M monthly with the following formula:

$$Gold\ Price = \frac{Gold\ Price_t - Gold\ Price_{t-1}}{Gold\ Price_{t-1}} \times 100\% \quad (7)$$

Explanation:

Gold Price t = Gold Price periodt

Gold Price t-1 = Gold Price periodt-1

g. Money Supply

In this study, the measurement of money supply is represented using the change of money supply. The data used is the monthly closing price of the money supply with the following formula:

$$Money\ Supply = \frac{Money\ Supply_t - Money\ Supply_{t-1}}{Money\ supply_{t-1}} \times 100\% \quad (8)$$

Money Supply<sub>t</sub> = Money Supply periodt

Money Supply<sub>t-1</sub> = Money Supply periodt-1

h. Net Exports

In this study, the measurement of net export is represented using the change of net export. The data used is the monthly closing price with the following formula:

$$Net\ Ekspor = \frac{Net\ Ekspor_t - Net\ Ekspor_{t-1}}{Net\ Ekspor_{t-1}} \times 100\% \quad (9)$$

Explanation:

Net Export t = Net Export periodt

Net Export t-1 = Net Export periodt-1

The techniques of data analysis was used in this research is multiple linear regression analysis with the help of analysis tools IBM SPSS 20 computer program to determine the effect of independent variables and the dependent variable. Before the regression analysis performs, first performe is classical assumption that aims to test the regression model are not biased or that the regression model BLUE (Best Linear Unbiased Estimator). The accuracy of the regression function in assessing the actual value can be measured from determination coefficient value, the value of F statistics and t statistical values (Ghozali, 2011: 97).

## 4. Results and Discussion

### 4.1 Result

The test results using multiple linear regression showed that the value of simultaneous hypothesis test (Test F) in Table 1 has a value of F count = 15,900 with a significance of 0.000. This suggests that the significance  $\leq 0.05$  so it can be concluded that index dow jones industrial average (DJIA), FTSE 100, NIKKEI 225, Hang Seng, KOSPI, world gold prices, money supply and net exports together affect the Indonesia Composite Index. The results of partial hypothesis test (t test) in this study indicate that the variable's Nikkei 225 index, Kospi, and world gold price has positive influence on Indonesia Composite Index. But the world gold price is not consistent with the hypothesis of the study. While the DJIA index, FTSE 100, Hang Seng, money supply and net exports did not affect the Indonesia Composite Index.

Table 1. Test Results Statistics

| t Test                        |           |        |       |                       |
|-------------------------------|-----------|--------|-------|-----------------------|
| Model                         | B         | t      | Sig.  | Information           |
| (Constant)                    | 0,768     | 1,379  | 0,171 |                       |
| DJIA                          | 0,118     | 0,566  | 0,573 | No effect             |
| FTSE100                       | 0,169     | 0,803  | 0,424 | No effect             |
| NIKKEI225                     | 0,243     | 2,239  | 0,028 | Positive effect       |
| HANGSENG                      | -0,013    | -0,107 | 0,915 | No effect             |
| KOSPI                         | 0,507     | 3,882  | 0,000 | Positive effect       |
| Gold Price                    | 0,214     | 2,576  | 0,012 | Positive effect       |
| Money Supply                  | -0,301    | -1,031 | 0,305 | No effect             |
| Net Exports                   | -8,16E-05 | -0,621 | 0,536 | No effect             |
| <b>Ftest</b>                  |           |        | 0,000 | Simultaneously effect |
| <b>Adjusted R<sup>2</sup></b> |           |        | 0,556 |                       |

Table 1 shows that the variable Nikkei 225 index, KOSPI, and gold prices affect the Indonesia Composite Index, it is seen from the significant value  $\alpha < 0.05$  and a coefficient B shows the direction of the influence of the independent variables on Indonesia Composite Index. Based on the results of multiple linear regression analysis can be formulated multiple linear regression equation as follows:

$$\text{Indonesia Composite Index} = 0,243 \text{ NIKKEI } 225 + 0,507 \text{ KOSPI} + 0,214 \text{ World Gold Price} + e$$

The coefficient of determination (R<sup>2</sup>) is seen through the Adjusted R<sup>2</sup> values in Table 1 have a value of 0556, or 55.6%. This shows that independent variables such as Nikkei 225 index, Kospi, and world gold price was able to explain 55.6% of the Indonesia Composite Index, while the remaining 44.4% is explained by other variables outside independent variables in this study, such as inflation, exchange rates, GDP, and other.

## 4.2 Discussion

### 4.2.1 The influence of DJIA Index on Indonesia Composite Index

This study showed that DJIA Index variables did not affect the Indonesia Composite Index. This happened because of the stock price index was not only influenced by economic factors as changes in stock market indices in Indonesia besides influenced by foreign capital markets but also affected by the conditions of the non-economic, security, political and trading day itself was culturally different from the capital market in the United States.

According to Johan (2007) Effect of capital markets in the US are not shown directly in the Indonesian capital market due to changes in market indices DJIA is not on the same day impact on Indonesia Composite Index. In this case the capital market in Indonesia is still young not seem to have the same pattern with the stock exchanges in the US. This shows that although the DJIA is a large stock exchange in the world, but the changes that occurred in the capital market does not directly affect foreign stock exchanges, including in Indonesia. Differences in the size of both the capital market can not seem to explain the absence of a direct influence on both exchanges. DJIA index so that the movement does not affect the Indonesia Composite Index movement. The results of this study agree with the research of Gom (2013).

### 4.2.2 The influence of FTSE 100 Index on Indonesia Composite Index

This study showed that the FTSE 100 Index did not affect the Indonesia Composite Index. This happened because of the bad economic situation in the UK is different from the economic conditions in Indonesia that have increased where Indonesia Composite Index continued to show rising trend. The crisis in Europe and the impact on British economics is not used by Indonesia for basis of investment decisions, because the results of this study FTSE 100 index had no significant effect on the Indonesia Composite Index (Utama and Artini, 2015). The results support the research of Hartanto (2013).

### 4.2.3 The influence of NIKKEI 225 on Index on Indonesia Composite Index

This study found the results that the Nikkei 225 index positive influence on Indonesia Composite Index. It is clear that with the rise in the Nikkei 225 index this means improved performance of the Japanese economy participated. As one of destination country of Indonesian exports, Japan's economic growth may push Indonesia's economic growth through exports and investment inflows of capital either directly or through capital markets (Sunariyah, 2011: 28). Likewise, the movement of the stock price index in the Indonesia capital market can be influenced by the Japanese capital market. It is also due to the link between the exchanges with other exchanges, especially the exchanges that are in the region (Immanuel, 2015).

This results supported by the research Wong et al. (2004), Karim et al. (2009), and Singh et al. (2010) which stated that the capital markets in Japan have a strong influence on the capital markets in Indonesia and

some countries in Asia are included in the emerging market. This study is also consistent with research of Hartanto (2013) which showed a positive effect on the Nikkei 225 to Indonesia Composite Index.

#### 4.2.4 *The influence of HANG SENG Index on Indonesia Composite Index*

This study showed that the Hang Seng Index has no effect on Indonesia Composite Index. This is because Hong Kong's largest political unrest since the sixties has made the capital market competitiveness of the region weakened. The decline in the Hang Seng index made investors shift their investment to the Shanghai Stock Exchange Composite Index (SHCOMP) ([market.bisnis.com](http://market.bisnis.com)). That information and unstable conditions in Hong Kong are not responded by the investor in Indonesia because Indonesia is still stable condition so that the movement of the Hang Seng Index does not affect the Indonesia Composite Index. The results are consistent with research of Hartanto (2013).

#### 4.2.5 *The influence of KOSPI Index on Indonesia Composite Index*

This study found that the results of the Kospi index positive influence on Indonesia Composite Index. This is because the Kospi Index as one of Korea's stock index, which is a country that has an advantage in any economic transaction will make any information in the Korean stock market movements directly affect the Indonesian market (Hasibuan and Hidayat, 2011). In addition, Immanuel (2015) due to the linkages between the exchanges with other exchanges, especially the exchanges those are in the region leads to increase in Kospi index will cause an increase in Indonesia Composite Index. It is also suspected due to the local market only became a follower of the market is more dominant. The results are consistent with research of Hasibuan and Hidayat (2011).

#### 4.2.6 *The influence of World Gold Prices on Indonesia Composite Index*

This study showed that the world gold price has positive influence on Indonesia Composite Index. This is because the period of 2008-2013, the income level of Indonesian society in general increases. Increasing people's income is certainly leads investors can diversify their investments to reduce risk. One tends to a risk-free investment is gold. This is based on the nature of gold whose value is free from inflationary pressures. In addition, its value is likely to rise from year to year ([www.goldfixing.com](http://www.goldfixing.com)). So that when the world gold price is high, investors are also interested in buying shares that its investment portfolio is varied and also to reduce the investment risk, so the stock price also increased. The results of this study supported by the research conducted by Twite (2002) who argued that changes in the world gold price will be a positive influence on stock market indices in Australia.

#### 4.2.7 *The influence of Money Supply on Indonesia Composite Index*

This study showed that the money supply has no effect on Indonesia Composite Index. This is due to Indonesia Composite Index during the years 2008-2015 is not supported by macro-economic performance such as the money supply. The movement of the money supply tends to increase every year, in contrast to the Indonesia Composite Index movement fluctuating. So peforma exchanges also do not represent the movement of the money supply. In addition, investors who have invested in Indonesia is still dominated by foreign investors in the amount of 65% ([bisnis.liputan6.com](http://bisnis.liputan6.com)), thus increasing the money supply in the country cannot indicate demand for shares in the capital market as a whole. The results of this study support research of Habibullah and Baharumshah (1996) which shows that the money supply has no effect on stock prices in Malaysia.

#### 4.2.8 *The influence of Net Exports on Indonesia Composite Index*

This research showed that the net export variable change does not affect the Indonesia Composite Index. This is due in 2012 Indonesia Composite Index and Net Exports showed movements that do not affect each other. The results of this study also are not in accordance with the theory of random walk which should get a decrease in net exports which is bad news because it can cause balance of payments deficit will make investors hold their funds to invest. But the truth is the information does not affect the Indonesia Composite Index movement, because most of the local investors in Indonesia just be a follower of a foreign investor (Hasibuan and Hidayat, 2011). So that the movement in net exports is not used as a reference or consideration in investment decisions in the capital market, especially the stock. The results are consistent with research of Bhattacharya and Mukherjee (2001).

## 5. Conclusion

Based on the presentation and analysis has been done with the author, it can be concluded as follows: (1) DJIA has no effect on Indonesia Composite Index. (2) FTSE 100 has no effect on Indonesia Composite Index. (3) Nikkei 225 significant positive effect on Indonesia Composite Index. (4) Hang Seng Index has no effect on Indonesia Composite Index. (5) Kospi index significant positive effect on Indonesia Composite Index. (6) Price of gold has significant positive influence on Indonesia Composite Index. (7) Money supply has no effect on Indonesia Composite Index. (8) Net exports did not affect the Indonesia Composite Index.

The suggestion can be given to investors and listed companies based on the research that has been done is to respond the information regarding the Nikkei 225 index, Kospi, and the world gold price to predict Indonesia Composite Index investment decision on the right stock and when it will make the policy valuation company stock.



For further research is recommended to increase the number of others who influence the stock price index is not included in this study are economic factors or external factors such as other indexes that exist in the world, the variable inflation, exchange rates, GDP, oil price and others. Subsequent research has also suggested using another index, for example a Kompas 100, LQ-45, and other indices

## References

- Affandi, Farah Rizky Fauzia. 2015. "Hubungan Keterkaitan Tingkat Konsumsi, Investasi, Pengeluaran Pemerintah, Dan Net Ekspor Terhadap Indeks Harga Saham Gabungan", (*Online*), (<http://www.jimfeb.ub.ac.id/index.php/jimfeb/article/viewFile/1753/1605>, accessed 2 December 2015)
- Andiyasa, I Gusti Agus, Purbawangsa, Ida Bagus Anom, dan Rahyuda, Henny. 2014. "Pengaruh Beberapa Indeks Saham Dan Indikator Ekonomi Global Terhadap Kondisi Pasar Modal Indonesia", (*Online*), (<http://ojs.unud.ac.id/index.php/EEB/article/viewFile/7806/6415>, accessed 2 November 2015)
- Bhattacharya, Basabi and Mukherjee, Jaydeep. 2001. "Causal Relationship Between Stock Market and Exchange Rate, Foreign Exchange Reserves and Value Of Trade Balance: A Case Study For India", (*Online*), (<http://www.oii.igidr.ac.in:8080/jspui/bitstream/2275/185/1/basabi.pdf>, downloaded 2 January 2016)
- Eichengreen, Barry, Rose, Andrew K., and Wyplosz, Charles. 1996. "Contagious Currency Crises". *NBER Working Paper* 5681. (*Online*), (<http://www.citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.27.5712&rep=rep1&type=pdf>, downloaded 13 March 2016)
- Forbes, Kristin J. And Rigobon, Roberto. 2001." No Contagion, Only Interdependence: Measuring Stock Market Co-Movements". *Journal of Finance*, (*Online*), (<https://www.researchgate.net/>, downloaded 12 March 2016)
- Ghozali, Imam. 2011." Aplikasi Analisis Multivariate dengan Program IBM SPSS 19". Edisi 5. Semarang : Universitas Diponegoro.
- Gom, Hotneri Gom. 2013. "Analisis Pengaruh The Fed Rate, Indeks Dow Jones Dan Indeks Nikkei225 Terhadap Indeks Harga Saham Gabungan (IHSG) Di Bursa Efek Indonesia (BEI) Periode 2008-2013". (*Online*), (<http://jurnal.usu.ac.id/index.php/edk/article/viewFile/9447/4105>, downloaded 29 November 2015)
- Habibullah, Muzafar Shah dan Baharumshah, Ahmad Zubaidi. 1996. "Money, Output And Stock Prices In Malaysia: An Application Of The Cointegration Tests". *International Economic Journal*, (*Online*), Vol. 10, No. 2:hal 121-130. ([http://www.researchgate.net/profile/Muzafar\\_Habibullah/publication/24081685\\_MONEY\\_OUTP\\_UT\\_AND\\_STOCK\\_PRICES\\_IN\\_MALAYSIA\\_AN\\_APPLICATION\\_OF\\_THE\\_COINTEGRATION\\_TESTS/links/09e4150e62075c3563000000.pdf](http://www.researchgate.net/profile/Muzafar_Habibullah/publication/24081685_MONEY_OUTP_UT_AND_STOCK_PRICES_IN_MALAYSIA_AN_APPLICATION_OF_THE_COINTEGRATION_TESTS/links/09e4150e62075c3563000000.pdf), downloaded 29 November 2015)
- Hartanto, Andrew. 2013. "Analisa Hubungan Indeks Saham antar Negara G20 dan Pengaruh terhadap Indeks Harga Saham Gabungan". *Jurnal FINESTA*, (*Online*), Vol. 1, No. 2:hal 136-140. (<http://studentjournal.petra.ac.id/index.php/manajemen-keuangan/article/viewFile/1273/1157>, downloaded 19 October 2015)
- Hasibuan, Ali Fikri dan Hidayat, Taufik. 2011. "Pengaruh indeks harga saham global terhadap pergerakan indeks harga saham gabungan (IHSG)". *Jurnal Keuangan dan Bisnis*, Vol. 3, No. 3:hal 262-276. <http://bisnis.liputan6.com>, accessed 30 June 2016  
<http://economy.okezone.com>, accessed 4 November 2015  
<http://www.bloomberg.com>, accessed 4 November 2015  
<http://www.bps.go.id>, accessed 19 November 2015  
<http://www.duniainvestasi.com>, accessed 4 November 2015  
<http://www.idx.co.id>, accessed 30 November 2015
- Immanuel, Roisondo. 2015." Analisis Pengaruh Indikator Makroekonomi, dan Indeks Saham Regional ASEAN terhadap Pasar Saham Indonesia (IHSG) Periode Tahun 2009-2014", (*Online*), ([jimfeb.ub.ac.id/index.php/jimfeb/article/download/1742/1595](http://jimfeb.ub.ac.id/index.php/jimfeb/article/download/1742/1595), accessed 23 May 2016)
- Johan, Harun. 2007. "Analisis Pengaruh Bursa Efek Luar Negeri Terhadap Bursa Efek Jakarta". *Tesis*. Semarang: PPs Universitas Diponegoro.
- Karim, B. A., Majid, M. S. A., dan Karim, S. A. A. 2009." Integration of Stock Markets Between Indonesia and Its Major Trading Partners". *MPRA Paper* No. 17277, (*Online*). (<http://mpra.ub.uni-muenchen.de/17277/>, downloaded 29 February 2016)
- Lawrence, Steven Sugiarto. 2013. "Pengaruh Variabel Makro Ekonomi dan Harga Komoditas Terhadap Indeks Harga Saham Gabungan Di Indonesia". *Jurnal FINESTA*, (*Online*), Vol. 1, No. 2:hal 18-23. (<http://studentjournal.petra.ac.id/index.php/manajemen-keuangan/article/download/1167/1054>, downloaded 3 November 2015)
- Mankiw, N. Gregory, Quah, Euston, dan Wilson, Peter. 2012. "Pengantar Ekonomi Makro". Terjemahan Biro

- Bahasa Alkemis. Jakarta: Salemba Empat  
market.bisnis.com, accessed 23 May 2016
- Maysami, Ramin Cooper, Howe, Lee Chuin and Hamzah, Mohamad Atkin. 2004. "Relationship between Macroeconomic Variables and Stock Market Indices: Cointegration Evidence from Stock Exchange of Singapore's All-S Sector Indices". *Jurnal Pengurusan*, (Online), Hal 47-77. ([http://www.ukm.my/penerbit/jurnal\\_pdf/Jp24-03.pdf](http://www.ukm.my/penerbit/jurnal_pdf/Jp24-03.pdf), downloaded 29 November 2015)
- Nisha, Nabila. 2015. "Impact of Macroeconomic Variables on Stock Returns: Evidence from Bombay Stock Exchange (BSE)". *Journal of Investment and Management*, Vol, 4 (5) : hal 162-170, ISSN : 2328-7721, (Online), (<http://www.sciencepublishinggroup.com/j/jim>, downloaded 31 October 2015)
- Patel, Nikunj R, Mohanty, Sushil, and Pathak, Neeta. 2012. "Are Stock Markets Interdependent? A Study On Selected Stock Markets". *Asian Journal of Research in Business Economics and Management*, (Online), Vol. 2 (11), ISSN: 2249-7307, ([https://www.academia.edu/2078179/Are\\_Stock\\_Markets\\_Interdependent\\_A\\_Study\\_On\\_Selected\\_Stock\\_Markets](https://www.academia.edu/2078179/Are_Stock_Markets_Interdependent_A_Study_On_Selected_Stock_Markets), downloaded 2 April 2016).
- Riantani, Suskim dan Tambunan, Maria. 2013. "Analisis Pengaruh Variabel Makroekonomi dan Indeks Global terhadap Return Saham". *SEMANTIK* 2013, (Online), ISBN. 979-26-0266-6: hal 532-537. (<http://publikasi.dinus.ac.id/index.php/semantik/article/download/814/601>, downloaded 19 October 2015)
- Samsul, Mohammad. 2008. "Pasar Modal dan Manajemen Portofolio". Jakarta : Erlangga
- Samsul, Muhammad. 2006. "Pasar Modal dan Manajemen Portofolio". Jakarta : Erlangga.
- Singh, Priyanka, Kumar, Brajesh, and Pandey, Ajay. 2010. "Price and volatility spillovers across North American, European and Asian stock markets". *International Review of Financial Analysis*, No. 19; hal 55-64. (<http://iima.edu.in/assets/snippets/workingpaperpdf/2008-12-04Priyanka.pdf>, downloaded 11 March 2016)
- Sukirno, Sadono. 2011. "Makroekonomi Teori Pengantar". Jakarta: PT Raja Grafindo Persada.
- Sunariyah. 2011. "Pengantar Pengetahuan Pasar Modal". Keempat. Yogyakarta : UPP AMP YKPN.
- Tandelilin, Eduardus. 2010. "Portofolio dan Investasi : Teori dan Aplikasi". Edisi Pertama. Yogyakarta : Kanisius.
- Twite, Garry. 2002. "Gold Prices, Exchange Rates, Gold Stocks and the Gold Premium". *Australian Journal of Management*. Vol. 27, No. 2: pp. 123-140, (Online), (<http://aum.sagepub.com/content/27/2/123>, downloaded 7 March 2016)
- Utama, I Wayan Agus Budi dan Artini, Luh Gede Sri. 2015. "Pengaruh Indeks Bursa Dunia Pada Indeks Harga Saham Gabungan Bursa Efek Indonesia". *Jurnal Manajemen, Strategi Bisnis dan Kewirausahaan*, (Online), Vol. 9, No. 1. (<http://ojs.unud.ac.id/index.php/jmbk/article/download/14401/9899>, downloaded 1 November 2015)
- Witjaksono, Ardian Agung. 2010. "Analisis Pengaruh Tingkat Suku Bunga SBI, Harga Minyak Dunia, Harga Emas Dunia, Kurs Rupiah, Indeks Nikkei 225, dan Indeks Dow Jones terhadap IHSG". *Tesis*. Semarang: PPs Universitas Diponegoro.
- Wong, W. K., Penm, Jack., Terrell, R. D., and Lim, K. Y. C. 2004. "The Relationship Between Stock Markets of Major Developed Countries and Asian Emerging Markets". *Journal of Applied Mathematics and Decision Sciences*, (online), Vol.8, pp. 201-218. (<http://www.downloads.hindawi.com/journals/ads/2004/613545.pdf>, downloaded 10 March 2016)
- [www.finance.yahoo.com](http://www.finance.yahoo.com), accessed 30 October 2015
- [www.goldfixing.com](http://www.goldfixing.com), accessed 30 October 2015
- [www.kompasiana.com](http://www.kompasiana.com), accessed 10 October 2015