Does the Indonesia Composite Index get Affected By The Asia Composite Index?

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Activities in the capital market are always linked to the stock price index. If there is a large movement in the stock index in a country, then the surrounding countries that are still in one regional region will be affected. This study aims to determine the effect of the Asia Composite Index on the Indonesia Composite Index in 2018. The results show that together the Nikkei 225 (N225), the Hang Seng Index (HIS), the Shanghai Composite Index (SSE), the Korea Composite Stock Price Index (KS11) and Taiwan Capitalization Weighted Stock Index (TAIEX) have an effect on the Indonesia / Jakarta Composite Index (JKSE) of 80.17%. While partially N225 have negative effects on the JKSE but the SSE and the TAIEX have positive effects on the JKSE. The HIS and the KS11 have no effect on the JKSE. The suggestion for this research is that stakeholders always pay attention to the movements of the global Asian index, especially the N225 in Japan, the SSE in China and the TAIEX in Taiwan.

Key words: *N225, HIS, SSE, KS11, TAIEX, JKSE.*

Introduction

Activities in the capital market are linked with the stock price index. This influences investor decisions because the stock price index is an indicator of the movement of money shares used as a tool to assess economic movements in a country, whether the economy is growing or shrinking. The stock prices are used because stocks are the most preferred capital market instruments by investors and their movements are very fast.

Indonesia which is an open economy has encouraged foreign investors to invest their funds in Indonesia. Foreign investors often invest their funds in a nearby stock exchange such as a stock exchange that is still in one regional area. The effect of this decision is that changes in the exchange in a country will have an impact on exchanges in other nearby countries, in this case the larger stock exchange will affect smaller stock exchanges. When foreign investors can see the financial condition of a country and company in the country, it makes the capital market between countries mutually integrated. In addition, the capital market of every open country in the world has been connected online with the online share trading quotation network made by service companies such as *Yahoo Finance* and *Bloomberg*.

Indonesia/ Jakarta Composite Index (JKSE) shows the general movement of stock prices listed on the Indonesia stock exchange. JKSE is the most widely used index in Indonesia and is used as a reference for the development of capital market activities in Indonesia because of its activities that continue to grow and rotate every day.
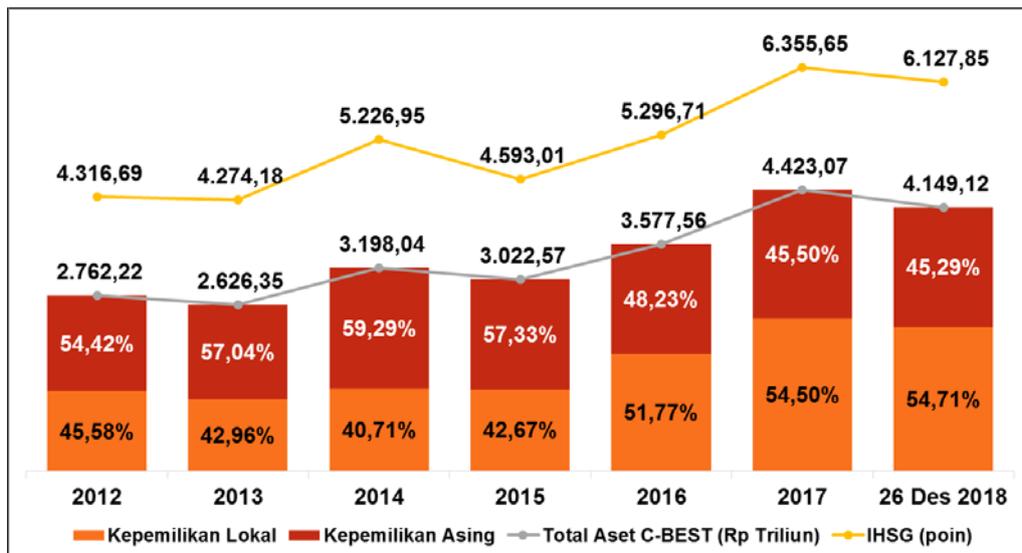
**Figure 1.** Local and Foreign Ownership
Source: ksei.co.id

Based on studies conducted by Kustodian Sentral Efek (Custodian of Central Securities) Indonesia (ksei.co.id), it has been shown that local ownership of company shares in Indonesia is increasing every year; even since 2016 the composition of local ownership has exceeded 50% of total share ownership in Indonesia. However, even though foreign ownership is no longer the majority of a company's total shareholdings in Indonesia, foreign investors have a lot of high-value company shares and the role of foreign investors in the Indonesian capital

market is critical in the Indonesia Stock Exchange. The reason many foreign investors are interested in investing in Indonesia is because Indonesia's economic growth is at rates of more than 5% and stability in the economy is increasing. However, the decision of investors to own shares in Indonesia, besides being influenced by macroeconomic and non-economic conditions in Indonesia, is also influenced by world economic issues.

Foreign investors invest their funds in developing countries due to the attractive advantages of their investments. But on the other hand, the capital markets of developing countries are greatly affected by economic issues and events in developed countries. This is why developing countries are often affected by the movements of the American Central Bank.

Figure 2. Asia Composite Index Performance
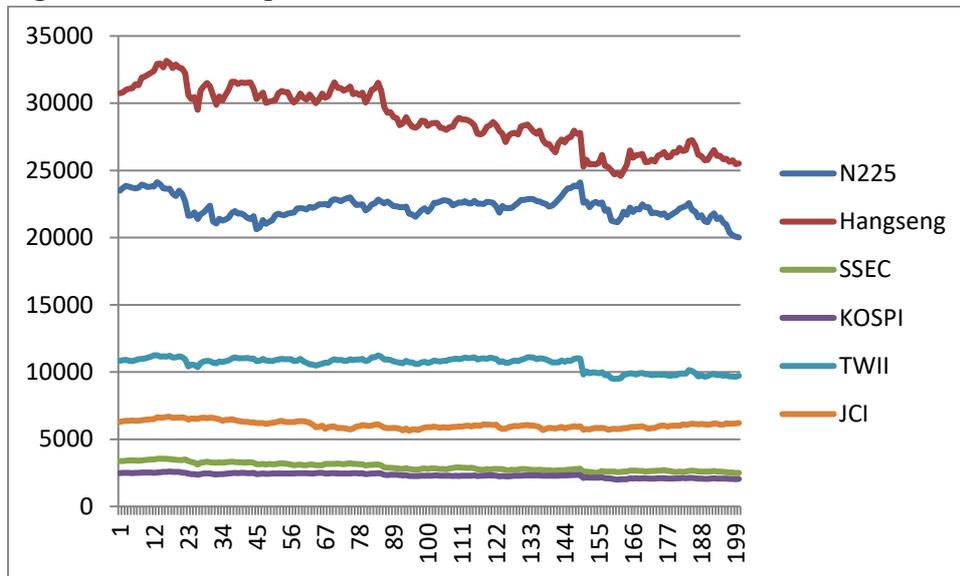
According to Noer Azam Achsani (2000) studies the exchange response to movement in the United States. Only the exchanges in Singapore, New Zealand, Japan, Hong Kong and Taiwan will immediately respond to changes, even though the response is not large. However, if there is a large movement in countries that are in one region such as Japan, Hong Kong and Taiwan, the impact will be felt by the surrounding stock exchanges including Indonesia. This can be seen in the graph above, where the movements of the SSE, KS11, TAIEX and JKSE have almost similar movements; different movements are seen on the N225 and HIS.

Figure 3. Indonesia Composite Index Performance
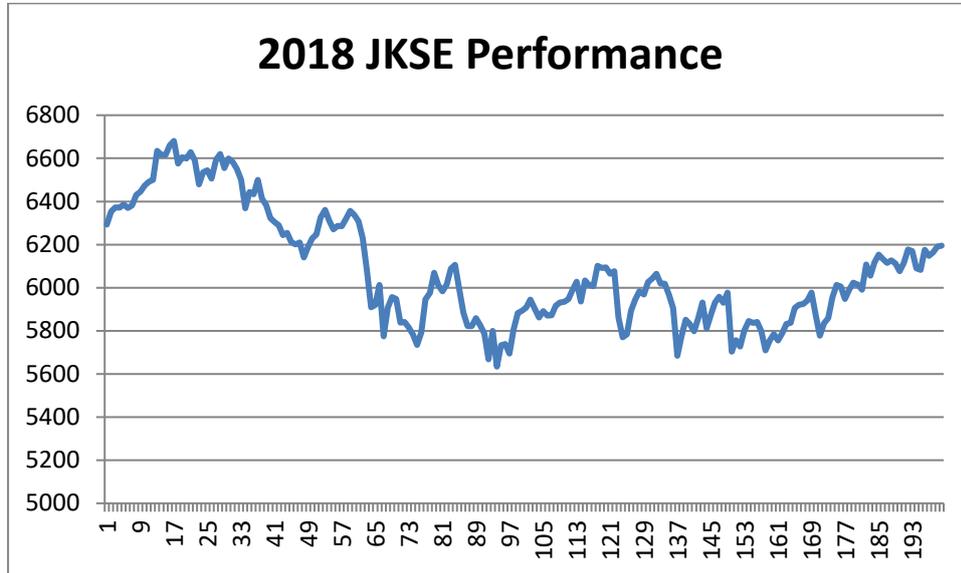
From the table above, we can see the highest JKSE index is in on January 29 where JKSE performance reached 6680 points. The lowest JKSE index is on July 3 where the JKSE performance reach 5633 points.

The performance of the Indonesia / Jakarta Composite Index in 2018 was worse than the performance in 2016 and 2017. This is because in 2018 the return from the JKSE reached minus 2.54%. Whereas the JKSE return in 2017 was positive at 19.99% and in 2016 it was positive at 15.32%. The cause of the decline in this index could be due to domestic conditions and foreign conditions. The domestic cause is Indonesia's economic growth which is stagnant at 5%, the weakening of the rupiah exchange rate against foreign currencies, and the trade balance deficit. While the foreign causes are the occurrence of a trade war between the United States and China and a decision to increase the Fed Funds Rate (FFR) by the American central bank. These issues, both domestic and foreign, have caused foreign investors to sell their shares throughout 2018.

Today the composition of local ownership has exceeded foreign ownership, but local investors have the habit of following foreign investors in both their strategies and behaviour. So, if foreign investors sell their shares, this decision will be followed by local investors, which causes the stock price index to decline.

Based on the information above, the researcher will conduct research with the aim to assess whether the Asia Composite Index, represented by the N225, the HIS, the Shanghai

Composite Index, the Korea Composite Stock Price Index and the Taiwan Capitalization Weighted Stock Index, has simultaneously or partial effect on the Jakarta Composite Index, for the period of 2018.

Literature Review

Shares are a form of equity participation or funds made by individuals and business entities in a company. This form is made of paper which includes nominal value, company name, rights and obligations of the holder and supplies that can be sold. The party that has the equity participation has the right to obtain company income, claims on company assets and attend the General Meeting of Shareholders. The stock price is the price of a stock on an ongoing market where the nominal price is determined based on the demand and supply of shares in the capital market.

The Composite Stock Price Index is a stock performance measurement value of both ordinary shares and preferred shares on the stock exchange which aims to determine the general development and situation of the capital market rather than certain company developments and situations. The Composite Stock Price Index will change every day, this is due to changes in market prices and an increase in the number of outstanding shares. The cause of the increase in the number of outstanding shares is due to the issuers that have just been listed on the stock exchange and/or the existence of corporate actions, such as stock split, right, warrant, stock dividend, stock bonus and stock conversion (Abdul Hadi, Zainudin, Hussain & Rehan, 2019).

The Nikkei 225 (N225) is a stock market index that reflects stock market conditions in Tokyo, Japan. Shares listed on the N225 are stocks that are actively traded on the Tokyo Stock Exchange, Japan. Companies listed on the N225 are companies that are traded globally, so their share prices can reflect economic conditions in Japan.

The Hang Seng Index (HIS) is a Hong Kong stock market index based on a capitalization that is the most dynamic and fastest moving investment in long-term trading. HIS is one of the most famous indexes in Asia and is used as a trading standard by most investors, prospective investors and fund managers.

The Shanghai Composite Index is regulated directly by the China Securities Regulatory Commission (CSRC). Securities traded by the stock exchange consist of three categories of financial instruments, namely bonds, shares and funds. Types of bonds traded are bonds (T-Bond), corporate bonds and convertible corporate bonds. The types of shares sold are stock A

which is the stock price in the local currency and stock B which is the stock price in US Dollars. The last traded securities are funds consisting of closed-end funds, innovative-type closed-end funds, open-ended funds, and exchange traded money market funds.

The Korean Composite Stock Price Index (KS11) is an index in South Korean that consists of 200 of the best stocks calculated using the market capitalization method. As a result of using this calculation, changes in a stock price can have an impact on changes in the overall index value. Korea Exchange Inc. itself is a merger of the Korea Stock Exchange (KSE), Korea Futures Exchanges (KOFEX), the KOSDAQ market and the KOSDAQ committee.

Taiwan Capitalization Weighted Stock Index (TAIEX) is a joint stock price index for money companies traded on the Taiwan Stock Exchange. Sales of securities in TAIEX consist of all shares, consisting of listed shares, preferred shares, shares with full inventory and newly registered shares.

The Indonesia Stock Exchange (JKSE) is a stock exchange from a merger of the Jakarta Stock Exchange, which acts as the stock market, and the Surabaya Stock Exchange, which acts as a bond and derivatives market. The decision to merge this stock exchange was driven by the need for Indonesia to increase capitalization on the stock exchange market and increase the number of issuers. Securities traded on the Indonesia Stock Exchange are stocks, bonds, participation units, certificates of safekeeping of Indonesian securities, Stock Option Contracts (KOS), EFT and index futures.

Theoretical Framework and Hypothesis Development

Based on the background of the research on the condition of the Composite Index in several countries in Asia and the theories regarding the Composite Index described above, the researchers have made the following hypothesis:

H1: Nikkei 225 (N225), Hang Seng Index (HIS), Shanghai Composite Index (SSE), Korea Composite Stock Price Index (KS11) and Taiwan Capitalization Weighted Stock Index (TAIEX) affect Indonesia Composite Index (JKSE) for the period of 2018
H2: Nikkei 225 (N225) affects Indonesia Composite Index (JKSE) for the period of 2018
H3: Hang Seng Index (HIS) affects Indonesia Composite Index (JKSE) for the period of 2018
H4: Shanghai Composite Index (SSE) affects Indonesia Composite Index (JKSE) for the period of 2018
H5: Korea Composite Stock Price Index (KS11) affects Indonesia Composite Index (JKSE) for the period of 2018

H6: Taiwan Capitalization Weighted Stock Index (TAIEX) affects Indonesia Composite Index (JKSE) for the period of 2018

Figure 4. Hypothesis Development
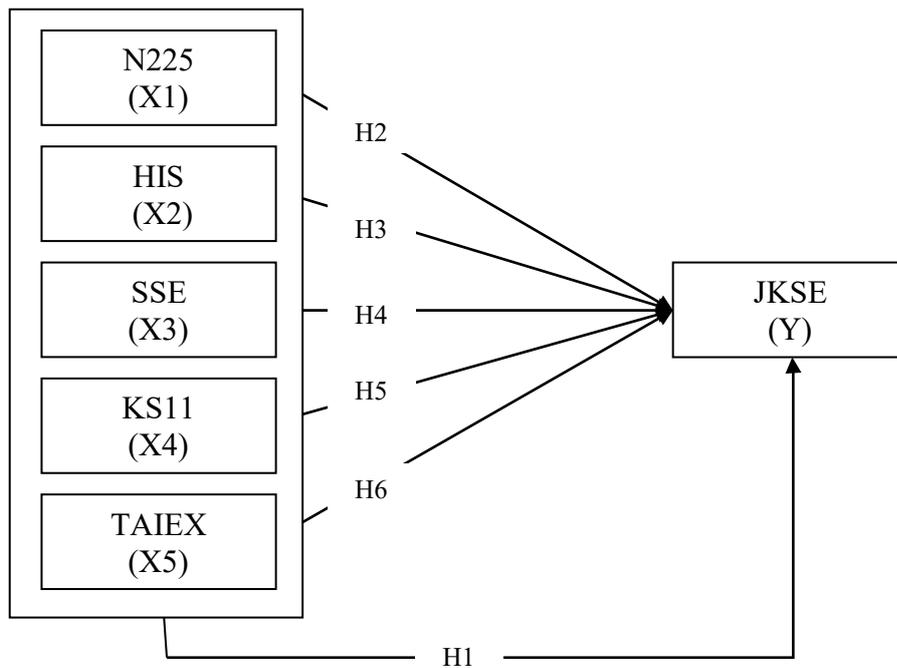
Method

The type of research in this study is *explanatory research* which aims to analyze the relationship or influence between one variable and other variables. The research method in this research is a *descriptive method* which aims to test the truth of the hypothesis and theory which also means testing the truth of the theory. This study uses *purposive sampling* which is a sampling technique with specific objectives. This study sample uses closing data at the end of the days trade during 2018. The reason for choosing a daily period is to get more accurate results and to avoid bias. The number of samples of this study is 200 working days where all stock exchanges are always opened at the same time. To further clarify the above description, the main problem in this study is variable X1, which is the Nikkei 225 (N225), variable X2 is the Hang Seng Index (HIS), variable X3 is the Shanghai Composite Index (SSE), variable X4 is the Korean Composite Stock Price Index (KS11), variable X5 is the Taiwan Capitalization Weighted Stock Index (TAIEX) and the Y variable is the Indonesia / Jakarta Composite Index (JKSE).

Result and Discussion
Test Result using Eviews 10

Figure 5. Test Result

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Dependent Variable: JCI
Method: Least Squares
Date: 05/05/19   Time: 23:24
Sample: 2018D01 2018D200
Included observations: 200
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Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	33143.68	46643.01	0.710582	0.5040
Nikkei 225	-2620.365	2199.502	-1.191345	0.0285
Hang Seng	-3301.557	4247.016	-0.777383	0.4665
SSEC	2.198886	0.890372	2.469626	0.0485
KOSPI	-2.033539	1.841534	-1.104264	0.3118
TWII	3379.043	3569.764	0.946573	0.0034

R-squared	0.801732	Mean dependent var	6085.600
Adjusted R-squared	0.636508	S.D. dependent var	264.7101
S.E. of regression	159.5945	Akaike info criterion	13.29000
Sum squared resid	152822.5	Schwarz criterion	13.53246
Log likelihood	-73.74002	Hannan-Quinn criter.	13.20024
F-statistic	4.852400	Durbin-Watson stat	2.551513
Prob(F-statistic)	0.000205		

Y = 33143.68 -2620.365X1 -3301.557X2 +2.198886X3 -2.033539X4 +3379.043X5

From the table above using the least square method; the researcher can make formulation as follows. The data can be interpreted with a constant value of 33143.68, this means that if N225 (X1), HIS (X2), SSE (X3), KS11 (X4), TAIEX (X5) is equal to zero and assuming there is no change, the JKSE value is 33143.68 points. The N225 regression coefficient value is -2620.365, this means that the increasing of 1 point on the N225, will decrease the JKSE value by 2620.365 points. The HIS coefficient value is -3301.557, this means that the increasing of 1 point on the HIS, will decrease the JKSE value by 3301.557 points. The SSE coefficient value is +2.198886, this means that the increase of 1 point on the SSE, will also increase the JKSE value by 2.198886 points. The KS11 coefficient value is -2.033539, this means that the increase of 1 point on the KS11, will decrease the JKSE value by 2.033539 points. The TAIEX coefficient value is +3379.043, this means that the increasing of 1 point on the TAIEX, will also increase the JKSE value by 3379.043 points.

From the table above, the probability (F-statistic) is 0.00025, which is less than the alpha value of 0.05, so hypothesis 1 is rejected. From the table above, it is known that F-statistic is 4.852400 greater than the F_{table} value, with a significance level of 5%, of 2.48, so hypothesis 1 is rejected. From these two results, the researcher can make sumaise that simultaneously the

N225, HIS, SSE, KS11 and TAIEX effects the JKSE for the period of 2018. N225 (X1), HIS (X2), SSE (X3), KS11 (X4), TAIEX (X5) can explain the variation of the JKSE (Y) in the amount of 80.17%, while 19.83% is determined by other variable that we are not research. This result implies that the variables in this study which are the N225, HIS, SSE, KS11 and the TAIEX are able to explain the variation of the JKSE very well.

From the partial testing (T-test), it is found that N225 (X1) had a significant effect on the JKSE (Y), where the direction of the effect is negative because the significance value of N225 (X1) is 0.0285, smaller than significance level of 0.05, where the direction of a negative effect is known from the negative t-statistical value. Also, from the T-test it is found that the SSE (X3) and the TAIEX (X5) had a significant effect on the JKSE (Y) where the direction of relation is positive, because the significance value of SSE (X3) is 0.0485, smaller than the significance level of 5%, and the significance value of the TAIEX (X5) is 0.0034, smaller than significance level of 5%, where the direction of a positive relation is known from the positive t-statistical value. From the partial testing, it is known that the HIS (X2) and the KS11 (X4) had no effect on the JKSE (Y) because the significance value of the HIS (X2) is 0.4665 and the KS11 (X4) is 0.3118.

Discussion

Based on the results of the above research, it is found that the N225 (X1), HIS (X2), SSE (X3), KS11 (X4) and the TAIEX (X5) simultaneously affect the JKSE (Y). It is known from the significance value produced, smaller than 0.05, which is 0.000205. While the significance of the influence of the N225 (X1), HIS (X2), SSE (X3), KS11 (X4) and the TAIEX (X5) on the JKSE (Y) is 80.17% while 19.83% is influenced by other variables not examined in this study.

The results of this study indicate that the independent variables examined in this study have been able to explain the Indonesia / Jakarta Stock Index very well. Therefore, investors must always pay attention to economic conditions globally; especially stocks in Asian countries because the indexes in Asian countries strongly influence the stock index in Indonesia. This influence can be due to Asian countries that are demographically close to Indonesia, so that if there is an economic movement in Asian countries, it will directly have an impact on the stock index in Indonesia. Especially with the Indonesian economy as a developing economy, every movement of global Asian stocks will directly have an impact on the Indonesian economy; the main impact will be felt mainly by Asian countries whose economies are more developed than Indonesia. But even though the Asia Global Index affects the JKSE significantly, investors also still have to pay attention to the economic conditions in the

country. This is because the domestic economic conditions, such as inflation, exchange rates and the BI rate affecting the Indonesia / Jakarta Composite Index.

Based on the results of the study, it was found that the Nikkei 225 (N225) had a negative effect on the Indonesia / Jakarta Composite Index (JKSE). This is because based on the results of data processing using Eviews 10; the results obtained are a probability of 0.0285 and a negative coefficient value. The results of this study indicate that the greater the strengthening of the composite index in Japan, which is the Nikkei 225, it will cause a decrease in the composite index in Indonesia. The Nikkei 225 stock index throughout 2018 has strengthened, which is one of the causes of the decline in the performance of the Indonesian composite index. This is because Japan is Indonesia's strategic partner in cooperation in various fields. Increased cooperation in the economic field with Japan will be carried out with plans to develop Patimban port, development of the Masela Block, construction of the Jakarta-Surabaya Railroad Line, and the construction of integrated marine and fishery centers on the leading islands in Indonesia. Japanese investment in Indonesia has now reached more than US $ 4,498 billion, which means that Japanese investment in Indonesia is very large, so changes in the composite index in Japan, which is a developed country, will cause changes with the composite index in Indonesia but in the opposite direction to other indexes. This research is in line with the results of research conducted by Ruth Christa (2012), Pardomuan Sihombing (2014), Moh Mansur (2005), Widodo (2018) and Argamaya (2014)

Based on data processing, the results of the study show that the Hang Seng Index (HIS) has no effect on the Indonesia / Jakarta Composite Index. This can be seen from the results of data processing using Eviews 10, showing a probability of 0.4665 greater than the significant level of 0.05. This means that the strengthening or weakening of the composite index in Hong Kong will not affect the composite index in Indonesia. Although Indonesia and Hong Kong have bilateral cooperation in the infrastructure development support services investment such as human resources, this does not affect the Indonesian composite index. This research is in line with the results of research conducted by Moh Mansur (2005) and Widodo (2018). However, the results of this study are not in line with the results of research by Ruth Christa (2012) and Pardomuan Sihombing (2014).

Based on the results of data processing, this study shows that the Shanghai Composite Index (SSE) has a positive influence on the Indonesia / Jakarta Composite Index. This can be seen from the results of data processing using Eviews 10 which shows the probability value of 0.0485 with a positive coefficient value. This means that the strengthening of the composite index in China, which in this case is represented by the Shanghai Composite Index, will

cause a stronger composite index in Indonesia. This is because in this past 7 years, China has been Indonesia's largest trading partner. The total trade between Indonesia and China reached USD$63.3 billion. This is due to various collaborations such as the construction of parks, the construction of Jakarta-Bandung fast railroad, income from the number of foreign tourists from China, the establishment of joint industrial operations of Wuling Motors in Indonesia, the addition of 500,000 tons of palm oil exports to China, orange imports Mandarin from China, Jenelata Reservoir development project and regional economic development cooperation in Kalimantan, Bali, North Sumatra and North Sulawesi. As a result of this collaboration, Chinese entrepreneurs will invest in the infrastructure sector including airports, ports and power plants. Investment and cooperation between Indonesia and China will affect the movement of the stock index in Indonesia. If the stock index in China increases, it will result in an increase in the stock index in Indonesia. The results of this study are in line with the results of research conducted by Pardomuan Sihombing (2014), Razaq Dastanta Tarigan (2015) and Argamaya (2014). But the results of this study are not in line with the results of the study of Ruth Christa (2012).

Based on the data processing results using Eviews 10, the results show that the Korea Composite Stock Price Index (KS11) has no effect on the Indonesia/ Jakarta Composite Index. This is because based on the results of data processing; the probability value for KS11 is 0.3118, greater than the significant level of 5%. This means that cooperation and investment between Indonesia and South Korea does not affect the composite index in Indonesia. So, the increase or decrease in the composite index in South Korea does not affect the composite index in Indonesia. The results of this study are not in line with the results of research by Moh Mansur (2005), Widodo (2018) and Argamaya (2014), where the results of previous studies stated that the KS11 had an effect on the JKSE.

Based on the results of data processing using Eviews 10, the results of the study show that the Taiwan Capitalization Weighted Stock Index (TAIEX) has an influence on the Indonesia / Jakarta Composite Index in a positive direction. This can be shown from the results of data processing which shows a probability value of 0.0034 with a positive coefficient value. This shows that the greater the composite index value in Taiwan, the greater the value of the composite index in Indonesia will be. Economic cooperation between Indonesia and Taiwan is very close; this can be seen from the total trade between the two countries reaching US $ 8.12 Billion. The amount of Indonesia's foreign direct investment reached US $ 32.2 billion and Taiwan's total direct investment in Indonesia was US $ 397 million. Items exported from Indonesia to Taiwan include petroleum gas, coal, crude oil, nickel and tin. While goods imported by Indonesia from Taiwan include machine tools, plastic materials, electronic products, electrical equipment and steel products. Indonesia and Taiwan are collaborating in

the fields of shipping, metal processing, food technology, smart city concepts and employment. The employment sector is one of the important concerns because employment improves the bilateral economy and becomes the destination country for Indonesian workers to work in the domestic sector, manufacturing and fisheries. The results of this study are in line with the results of research conducted by Moh Mansur (2005), where based on the results of research Moh Mansur (2005) states that TAIEX has an effect on JKSE.

Conclusion and Suggestion

Based on the results of the above research, the researcher can conclude that simultaneously the N225, HIS, SSE, KS11, and the TAIEX have an effect on the JKSE, where the significance of the influence is 80.17%. Partially, the N225 has a negative influence on the JKSE while the SSE and the TAIEX have a positive influence on the JKSE. However, the HIS and the KS11 have no influence on the JKSE.

Based on the conclusions above, the researcher suggests that future research should be conducted to examine the composite index of other countries and their influence on the JKSE or the macroeconomic influence of Indonesia on the JKSE. This study suggests that stakeholders should always pay attention to the composite index in various countries, especially countries in Asia, with indexes such as the N225, the SSE and the TAIEX.

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