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ANALYSIS OF THE INFLUENCE OF ASIAN STOCK EXCHANGES ON THE COMPOSITE STOCK PRICE INDEX DURING THE COVID-19 PANDEMIC IN 2021 IN THE INDONESIAN CAPITAL MARKET

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ABSTRACT

This study aims to determine the influence of the Asian Stock Price Index consisting of the Shenzhen Index (China), KOSPI Index (South Korea), Hang Seng Index (Hong Kong), and Nikkei 225 Index (Japan) on the Composite Stock Price Index in Capital Markets 2021 with Metode This research uses the ARCH (Autoregressive Conditional Heteroskedasticity) / GARCH analysis method (Generalized Autoregressive Conditional Heteroskedasticity). In December 2019, China announced the first case of the Covid-19 virus which could potentially be a pandemic in a country. This is because the spread of this virus very quickly through the air and then into human breathing. So that causes many sectors in countries that experience declines such as economic sectors, especially capital markets in Indonesia. The data in the study was analyzed using the Eviews version 9 computer program. The results of this study showed that the Shenzhen Index had a significant negative effect on JCI, the KOSPI Index had an insignificant positive effect on JCI, the Hang Seng Index had an insignificant positive effect on JCI, and the Nikkei 225 Index had a significant negative effect on JCI.

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1. INTRODUCTION

At the end of 2019, the Covid-19 virus was first detected in Wuhan, China. The virus is transmitted rapidly because it passes through the air which can cause human respiratory tract infections and has spread throughout the world. According to WHO, this disease was declared a pandemic and began to be recorded in Indonesia on March 2, 2020. This outbreak caused a negative impact on the health and economy of the world.

In Indonesia itself, to avoid the impact of this pandemic, the Government is working hard to close all outdoor activities by implementing large-scale social restrictions (PSBB), and those who will travel must comply with health programs including 3 M, namely wearing masks, washing hands, and maintaining distance, so that the spread of this outbreak can be minimized. However, in terms of economics, this causes the economy to decline. This economic downturn has a major impact on all sectors, including the industrial sector, trade, investment, transportation, and tourism.

The Covid-19 outbreak has caused economic losses in various countries. The World Bank (World Bank) estimates that global economic growth will contract by about 5.2% in global GDP in 2020, and also affects the

value of capital markets which can be seen the impact on the value of JCI which has decreased (Primary, 2020). It is also considered to be the cause of economic depression around the world (Barro et al., 2020).

Capital Markets is a financial industry that makes a big impact on economic globalization. The globalization of the financial business includes the business of forex (foreign exchange) and direct investment and indirect investment. Of the various investments available, stock investment is a type of investment that is in demand by many investors. High risk high return is a term usually used by investors, because fluctuations in stock prices that can change are influenced by internal and external factors of a company.

According to Alwi (2003: 87) internal factors that affect stock prices include the withdrawal of new products, price changes, change of managers, funding, mergers, labor strikes, factory expansion, and announcements of company financial statements, while external factors are domestic political turmoil, economic conditions, foreign exchange rates, inflation, changes in interest rates, inflation, and some government economic regulations.

After knowing the influence of external and internal factors of the price of a stock in the company, investors can use stock analysis with technical analysis methods and fundamental analysis. Simply put, investors can find out the price prediction of a stock that has increased or decreased from the movement of JCI. Because JCI is a combination of the performance of all stocks listed on the Capital Market.

The movement of JCI can be seen on every weekday, which is Monday to Friday. Because of the large number of shares listed, then in one day each stock has a variety of performance. Some are increasing, and some are decreasing, as well as stagnant. So, if JCI is experiencing an increase, it can be said that the average stock increases, and vice versa.

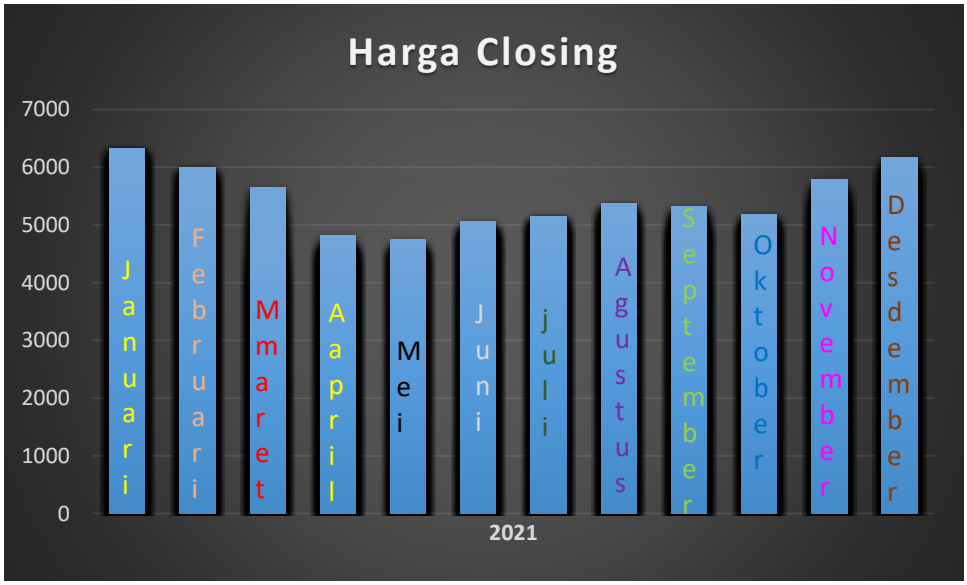

Figure 1. JCI Movements during 2021

Source: Yahoo Finance (data processed)

In figure 1, the movement of JCI during 2021 decreased when the first case of Covid-19 was reported to the public in early March 2020. In February 2020, the Covid-19 virus outbreak has begun to spread to nearby countries, such as Singapore, Thailand, and the Philippines. Which eventually leads to economic instability of one country, and has an impact on other countries as well. Especially in a country where the geographical location is close to Indonesia. This event can also be called the domino effect or contagion effect.

The economies of developed countries such as China, the United States have a significant influence on the Global economy and even Indonesia (Nurwulandari et al., 2020). Indonesia is a member of ASEAN, where ASEAN itself is a regional region with almost all members are developing countries, and in terms of ability and readiness to deal with the pandemic tends to experience a greater crisis threat from developed countries (Nurwulandari & Melati, 2021).

On the Asian continent, researchers chose to conduct research on the China Stock Exchange (Shenzhen), the South Korean Stock Exchange (KOSPI), the Hong Kong Stock Exchange (Hang Seng), and the Tokyo Stock Exchange, Japan (Nikkei 225). The exchange that researchers choose is a stock exchange that can affect JCI, besides being the most popular in Asia, it is used as a standard benchmark for trading prices by fund managers and is most in demand in Indonesia. The influence of Covid-19 in the stock market needs to be studied further in order to make what steps can be taken by investors and regulators in the face of the pandemic, in this case it is also necessary to review whether the Covid-19 pandemic can affect the integration between exchanges in Asia (Nurwulandari & Melati, 2020).

The Shenzhen Index is one of the two major indices on the China Stock Exchange, the other being the Shanghai Stock Exchange. The index is the second index in China with a 2019 capitalization of the shenzhen index-listed company market of around US$ 2.504 trillion. With the occurrence of export cooperation between Indonesia and China and the number of investors coming from China, researchers included this index as a study to find out whether the Shenzhen Index has a significant positive or negative influence on JCI. In the research of P. Sihombing & Rizal (2014) stated that the Shenzhen index has a negative influence on JCI.

KOSPI Index or stands for Korea Composite Stock Price Index. The base value was set at 100 points as of January 3, 1990. In the research that has been done by Budidarma (2012) gave results that the KOSPI index has a significant positive influence on JCI.

The Hang Seng Index is a stock market by capitalization on the Hong Kong Stock Exchange. This index is a leading indicator of the market performance in Hong Kong which consists of the largest companies in the Hong Kong stock market. This index is most popular in Indonesia because of its dynamic and fastest moving futures. This is also supported by the statement that the Hang Seng Index is one of the most well-known Asian stodex indices in all of Asia. In a study conducted by Mutakif & Nurwulandari (2014) stated that the Hang Seng index has a significant positive influence on JCI. This means that when the Hang Seng Index increases, the Composite Stock Price Index increases as well.

The Nikkei 225 index is a stock market index of the Tokyo Stock Exchange or known as the Tokyo Stock Exchange – TSE. There are 225 listed shares of the company and the most actively traded shares on the stock exchange. In 1975-1986, the Nikkei 225 Index or also known as the "Dow Jones Nikkei Stock Average" because every movement of the index was rated on par with the industrial sector and there was no more difference between certain industrial sectors. Research conducted by Gom (2013) gave the result that the Nikkei 225 Index has a positive and insignificant influence on JCI.

2. METHOD

The study used the ARCH (Autoregressive Conditional Heteroskedasticity) / GARCH (Generalized Autoregressive Conditional Heteroskedasticity) analysis method. In this study, the data obtained is then processed and analyzed further in order to produce the information needed by the author and is also useful for future research. Using the ARCH-GARCH method in modeling stock volatility.

The data used in this study has a volatility nature so that it will not be stationary at the level level and must be continued with the first difference level so that the distribution data is constant or there is no trend element. The stasionarity test serves to determine the time series data stations that are often used. This test can be done in several ways, namely by looking at the distribution data graph, Correlogram Method and Dicky Fuller Augmented Test (ADF Test) or Unit Root Test.

In this study, the first step in looking at research data has been constant, namely by looking at the distribution data graph. If in the graph data there is high volatility then it can be concluded that the data is constant. Vice versa, if on the chart there is low volatility then it can be concluded that the distribution data is not constant. Then the next step that can be done is with the Unit Root Test (Unit Root Test). At the level of research data level if it is not stationary then continued at the first difference level.

When the research data is stationary at the first difference level, correlogram testing (ACF and PACF) can be carried out. By looking at the results of the Auto Corelation Function (ACF) and Partial Auto Correlation Function (PACF) plots.

Based on the results of this study, the equation model used in this study is obtained.

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + e$$

In this case:

x_1 = Shenzhen Index
x_2 = KOSPI Index
x_3 = Hang Seng Index
x_4 = Nikkei 225 Index
e = Equivalent
$\beta_1 > 0$; $\beta_2 > 0$; $\beta_3 > 0$; $\beta_4 > 0$; It means having a positive influence.

Based on these equations, the formulation of hypotheses that will be used in this study are:

1. H1: Shenzhen Index has a Negative and significant effect on the Composite Stock Price Index in the Capital Market.
2. H2: The KOSPI Index has a positive and significant effect on the Composite Stock Price Index in the Capital Market.
3. H3: The Hang Seng Index has a positive and significant effect on the Composite Stock Price Index in the Capital Market.
4. H4: The Nikkei 225 index has a negative and significant effect on the Composite Stock Price Index in the Capital Market.

3. RESULTS AND DISCUSSIONS

3.1 Research Results

The data used in this study is secondary data taken based on the closing prices of the Shenzhen Index, KOSPI Index, Hang Seng Index, and Nikkei 225 Index from the www.finance.yahoo.com Website Various data used is cross section because it consists of variables collected at one particular point in time, namely data in 2021. . This research population is a composite stock price index of China, South Korea, Hong Kong, and Japan listed on the Capital Market.

Variables used in this study include closing prices from the Composite Stock Price Index. Independent variables are the Shenzen Index, KOSPI Index, Hang Seng Index, and Nikkei 225 Index. Data management and analysis of data results is carried out with the Eviews 9 data processing application program.

a. Data Behavior Test (Data Stationarity Test)

The first stage of the study is to conduct a stationarity test on each of the research variables. This is done because the variable data used for this study is time series data and avoids the emergence of false regression (spurious regression). The test can be done through three ways, namely the graph method, the unit root test method (unit root test), and the colleogram method. In the graph method test produces the following image:

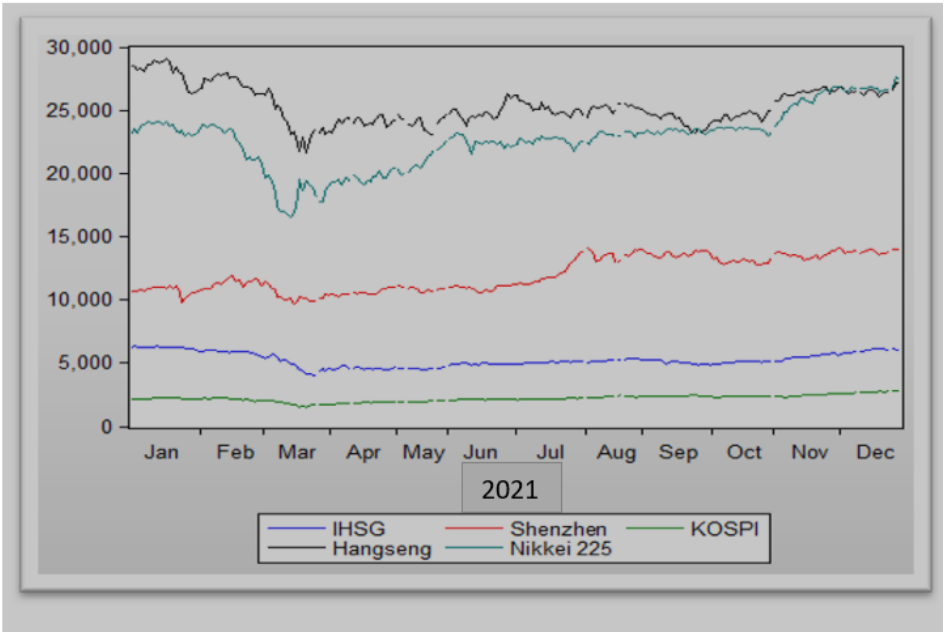

Figure 2 Data Stationarity Test Graph

Based on figure 2, in order to get whether a series of data is stationary or not visually can be seen from the plot / graph of research data about time. The data series in the study was not stationary. The graph method has a disadvantage that is, the observation of graph observation depends on the objectivity of the observation. So that it is continued with formal testing using the Unit Root Test method. The results of five variable research data in the Root Test at the level level illustrate that the statistical value of the Dickey-Fuller Augmented test (ADF) is still greater negative than the MacKinnon table or the probability value is still greater than 0.05. Therefore, it is necessary to do a differentiator (1st Difference). The 1st Difference showed that five variable data had a smaller Dickey-Fuller Augmented test value (ADF) than a MacKinnon table or a probability value of smaller than 0.05. So that all the variable data of this study can be said to be stationary. In order to strengthen the results of the Unit Root Test, the next step is used Colleogram where the test results show that the Correlogram graph (ACF and PACF) of five variable data in the first lag has been on the Barlett line, it can be concluded that all variable data of this study is stationary.

b. ARCH/GARCH

In this study, in order to understand whether or not a data contains heteroskedasticity elements, heteroskedasticity tests need to be performed heteroskedasticity tests or Autoregresive Conditional Heteroscedasticity (ARCH Tests). The order used only up to order 2, because if more than 2 orders are estimated to have less significant results. For the study, the arch (1), GARCH (1.1), GARCH (1.2), GARCH (2.1), and GARCH (2.2) models used models. The alleged model is then estimated its parameters and significant so that the best ARCH or GARCH model is obtained. From the processing results of Eviews 9 produces the following equation:

Table 1. Best Model Selection Results

No	Model	Persamaan
1	ARCH (1)	Mean equation: IHSG = -3058,740 - 0,070812 Indeks Shenzhen + 1,546251 Indeks KOSPI + 0,285120 Indeks Hang Seng – 0,066215 Indeks Nikkei225 GARCH = C(6) + C(7)*RESID(-1)^2 $\sigma^2 = 10033,99 + 0,797568\ \varepsilon_{t-1}^2$

2	GARCH (1,1)	Mean equation: IHSG = -3276,230 - 0,059246 Indeks Shenzhen + 1,381928 Indeks KOSPI + 0,283968 Indeks Hang Seng – 0,045872 Indeks Nikkei225 GARCH = C(6) + C(7)*RESID(-1)^2 + C(8) *GARCH(-1) σ^2 = 6931,269 + 0,675886 ε^2_{t-1} + 0,180781 σ^2_{t-1}
3	GARCH (1,2)	Mean equation: IHSG = -3276,674 - 0,064754 Indeks Shenzhen + 1,432560 Indeks KOSPI + 0,282814 Indeks Hang Seng – 0,047779 Indeks Nikkei225 GARCH = C(6) + C(7)*RESID(-1)^2 + C(8)*GARCH(-1) + C(9)*GARCH(-2) σ^2 = 7826,870 + 0,744251 ε^2_{t-1} - 0,012926 σ^2_{t-1} + 0,101036 σ^2_{t-1}
4	GARCH (2,1)	Mean equation: IHSG = -3213,171 - 0,064350 Indeks Shenzhen + 1,421979 Indeks KOSPI + 0,282714 Indeks Hang Seng – 0,048331 Indeks Nikkei225 GARCH = C(6) + C(7)*RESID(-1)^2 + C(8)*RESID(-2)^2 + C(9)*GARCH(-1) σ^2 = 3183,689 + 0,697827 ε^2_{t-1} – 0,356517 σ^2_{t-1} + 0,590730 σ^2_{t-1}
5	GARCH (2,2)	Mean equation: IHSG = -3192,348 - 0,068566 Indeks Shenzhen + 1,439833 Indeks KOSPI + 0,281532 Indeks Hang Seng – 0,047440 Indeks Nikkei225 GARCH = C(6) + C(7)*RESID(-1)^2 + C(8)*RESID(-2)^2 + C(9)*GARCH(-1) + C(10)*GARCH(-2) σ^2 = 5295,942 + 0,741334 ε^2_{t-1} – 0,215374 σ^2_{t-1} + 0,266272 σ^2_{t-1} + 0,093204 σ^2_{t-1}

Source: Author's Processed Data

c. Best Model Selection

In order to know which model to use to explain the influence of independent and dependent variables, the selection of the main model is carried out. The technique is used through the coefficient values R^2, Adjusted R2, Log Likelihood, Akaike Information Criterion (AIC) and Schwarz Criterion (SC). The assessment on the selection of the best model can be seen from the coefficient values of R^2, Adjusted R^2, Log Likelihood, Akaike Information Criterion (AIC) and schwarz criterion (SC) smallest. Based on the processing table using Eviews 9 obtained the following results:

Table 2. Best Model Selection Results

Model	R2 (R-Squared)	Adjusted R2 (Adjusted R-Squared)	Log-Likelihood	AIC (Akaike Info Criterion)	SC Schwarz Info Criterion
ARCH (1)	**0,849232**	**0,846688**	**-1569,33**	**13,02752**	**13,12844**
GARCH (1,1)	0,844685	0,842064	-1568,778	13,03123	13,14656
GARCH (1,2)	0,844165	0,841534	-1567,539	13,02925	13,15900
GARCH (2,1)	0,845597	0,842991	-1567,875	13,03202	13,16177
GARCH (2,2)	0,845064	0,842449	-1567,429	13,03660	13,18077

Source: Author's Processed Data

The source in Table 2 obtained the results that the ARCH Model (1) is the best model because it has the largest R^2 coefficient value of 0.849232, the largest Adjusted R2 which is 0.8446688, and the largest Log-Likelihood is -1569,330 and has the second smallest AIC value of 13.02752 and the smallest SC which is 13.12844

d. Model Accuracy Testing

The results of the data on generating the accuracy of models that use Mean Absolute Error (MAE), Mean Absolute Percentage Error (MAPE), and Root Mean Square Error (RMSE). Models with high accuracy have the smallest MAE, MAPE, and RMSE values. From data processing using Eviews 9 of the Table obtained mae, mape, and RMSE values as follows:

Table 3. Model Accuracy Testing Results

No	Model	MAE (Mean Absolute Error)	MAPE (Mean Absolute Percentage Error)	RMSE (Root Mean Squared Error)
1	**ARCH (1)**	**149,0108**	**2,902656**	**213,361**
2	GARCH (1,1)	150,4353	2,920745	216,5548
3	GARCH (1,2)	150,378	2,922765	216,9173
4	GARCH (2,1)	150,0126	2,915124	215,9178
5	GARCH (2,2)	150,1638	2,919542	216,2907

Source: Author's Processed Data

Sourced from Table 3, it was obtained that the ARCH model (1) is a very accurate model because it has the smallest MAE value of 149.0108, the smallest MAPE value is 2.902656 and the smallest RMSE value is 213.361.

e. Co-integration testing

The data of this research variable that is not stationary at the level level and must use diference one, is likely to be co-integration, which means that there is a long-term relationship between all variable data. To find out if it is true that all variable data integrates, Eviews has its facilities. Revelation (2017)

Johansen's method is a technique needed to test the co-integration of variable data for this study. By comparing trace statistic values with critical values. From the results of data processing with Eviews 9 obtained a Trace Statistic value of 126.7926 greater than critical value 69.81889 and so did the Max-Eigen Statistic value of 64.04210 greater than critical value of 33.87687. Therefore, for the long term lies in the co-integration in the equation of the model.

f. Hypothesis Testing

Based on the selection of the best model obtained ARCH model (1) as the best model. From the processing of Eviews 9 against the ARCH / GARCH model obtained data for hypothesis testing, namely:

Table 4 . Hypothesis Processing Data

Independent Variables affect Dependent Variables	z-statistics	Probabilitas	Description	Result	Relationship Direction
Indeks Shenzhen – IHSG	-4,962812	0,0000	0,0000 < α (0,05), H_0 diterima	Not Affect	Negative
Indeks KOSPI – IHSG	13,83884	0,0000	0,0000 < α (0,05), H_0 diterima	Affect	Positife
Indeks Hangseng – IHSG	32,86650	0,000	0,0000 < α (0,05), H_0 diterima	Affect	Positife
Indeks Nikkei 225 – IHSG	-8,920688	0,000	0,0000 < α (0,05), H_0 diterima	Not Affect	Negative

Source: Author's Processed Data

Note:

H_0 = independent variable does not affect dependent variables

$_{H1}$ = independent variable affects dependent variable
Probability of > α (0.05), then H0 is accepted
Probability of < (0.05), then reject α_{H0}

Table 4. Summary of All Hypothesis Testing

No	Hypothesis	Hypothesis Content	Result
1	H1	Shenzhen Index negatively affects JCI in Capital Market in 2021	Contacted
2	H2	KOSPI Index has a positive effect on JCI in the Capital Market in 2021	Accepted
3	H3	Hang Seng Index has a positive effect on JCI in the Capital Market in 2021	Accepted
4	H4	Nikkei 225 Index negatively affects JCI in capital markets in 2021	Contacted

3.2 Discussion

a. Effect of Shenzhen Index on JCI in Capital Market in 2021

Based on the Summary table of All Hypothesis Testing obtained the results of the first hypothesis in this study is to find out the influence of the Shenzhen Index variable on the Composite Stock Price Index in the Capital Market in 2021. Researchers chose this variable because the Shenzhen Index is a picture of the Chinese economy. Where the Chinese state is a reference for investors because it has a strong economy and China's relationship with Indonesia that has been well established in terms of economy through the ASEAN - Free Trade Agreement, this is also supported by an increase in international trade activity that increases every year.

Based on data from Eviews 9 and analysis conducted that the Shenzhen Index has no influence on JCI in the Capital Market in 2021. From the results of the analysis shows that the influence of the Shenzhen Index does not fit the hypothesis. This illustrates that during the observation period, investors do not need to pay attention to the Shenzhen Index as a variable for their investment evaluation before and during the spread of the Covid 19 virus in Indonesia. The results of this study illustrate that fluctuations in the Shenzhen Index have no impact on investors' decisions to invest in the Capital Market. The increase in the Shenzhen Index did not have a downward effect on JCI in the Capital Market. This illustrates that not only global economic factors have an influence on index fluctuations in capital markets, but there are several non-economic factors that can have an impact on index fluctuations in capital markets such as domestic and foreign political conditions, political relations between other countries, security, policies implemented by countries, natural disasters, and so on. In the research data processed, namely in 2021, the Covid-19 virus outbreak began to occur. Starting from the confirmation of cases in China in December 2019 until finally spread throughout the world. The impact of the spread of the Covid-19 virus caused the China Stock Exchange to decline dramatically from December 2019 to the end of January 2020. In handling the Covid-19 virus outbreak, the Chinese government has successfully handled the outbreak through a vaccine that has been made so that it provides stimulus to investors to be able to reinvest in the Shenzhen Stock Exchange. But the success in the improvement of the Shenzhen Stock Exchange index, has no influence on JCI in the Capital Market.

The results of this analysis are supported by research conducted by Hartanto (2013) which states that SSE has an influence on the Composite Stock Price Index. According to BI data, China was one of Indonesia's main trading partners during 2010-2015. The value of Indonesia's FOB exports to China is estimated at $114.234 billion, the second highest below Japan. China has also become the country of origin of the first imports for Indonesia during 2010-2015, the amount of imports is estimated at $ 164.124 billion. Therefore, the Chinese economy can also have an effect on the Indonesian economy, including the development of the Chinese capital market also has an influence on the Indonesian capital market. However, research conducted by P. Sihombing & Rizal (2014) stated that based on the results of the analysis as well as the discussions described, in the short term, global stock index variables and macro variables that have a significant influence on the Composite Stock Price Index, namely the Dow Jones Industrial Average, Exchange Rate, and BI Rate. The Dow Jones Industrial Average, Nikkei 225, Shenzhen Stock Exchange, Hang Seng, Exchange Rate, and BI Rate had a significant effect on the Composite Stock Price Index with a research period from January 2008 to December 2012. Based on the results of the t-test calculation, it shows that SSE has a significant influence

negatively on the Composite Stock Price Index in the long term, but has no short-term effect. According to data from the Indonesian Securities Center Custodian, the Indonesian capital market is dominated by foreign investors. The foreign investors are from China. They want to choose to be able to invest in the Chinese capital market if the Chinese capital market is more developed than the Indonesian capital market. Thus SSE in the long term has a negative effect on the Composite Stock Price Index.

Pada penelitian ini terdapat perbedaan dengan teori, hipotesis, dengan beberapa penelitian sebelumnya yang dilakukan dikarenakan adanya perbedaan periode penelitian, subjek, dan peristiwa-peristiwa yang melatarbelakangi penelitian ini seperti stabilitas politik di dalam negeri dan juga wabah virus Covid 19 yang melanda dunia.

b. Effect of KOSPI Index on JCI in Capital Market in 2021

Based on the Summary table of All Hypothesis Testing obtained the results of the first hypothesis in this study is to find out the influence of the VARIABLE KOSPI Index on the Composite Stock Price Index in the Capital Market in 2021. Researchers chose this variable because the KOSPI Index is a picture of the South Korean economy. Researchers chose this variable because the KOSPI Index is a picture of the South Korean economy and is included in the Stock Exchange in Asia and has an influence on stock exchanges in surrounding countries.

c. Effect of Hang Seng Index on JCI in Capital Market in 2021

Based on the Summary table of All Hypothesis Testing, the first hypothesis result in this study is to find out the influence of the Hang Seng Index variable on the Composite Stock Price Index in the Capital Market in 2021. Researchers chose this variable because the Hang Seng Index is a picture of Hong Kong's economy and is included in the Stock Exchange in Asia and has an influence on stock exchanges in surrounding countries. The attachment between Indonesia and Hong Kong which has bilateral relations makes the country of Indonesia the 22nd largest export market for Hong Kong by having an export nilsi toll of USD 2.9 billion (Merdeka, 2018).

Based on Eviews 9 data and analysis conducted that the Hang Seng Index has a positive influence on the Composite Stock Price Index in the Capital Market in 2021. From the results of the analysis showed the influence of the Hang Seng Index in accordance with the hypothesis but the influence given was not significant. This illustrates that during the observation period, investors will pay attention to the Hang Seng Index as a variable for their investment evaluation before and during the spread of the Covid 19 virus in Indonesia. The results of this study illustrate that fluctuations in the Hang Seng Index have little impact on investors' decisions to invest in the Capital Market. The increase in the Hang Seng Index also shows an increase in JCI in the Capital Market although it is not significant, and similarly, if the Hang Seng Index declines, it can also have an impact on the Composite Stock Price Index. This is because a strong capital market can affect weak capital markets. Therefore, the change in the Hang Seng Index will be in line with the change in the Composite Stock Price Index.

The results of this analysis are supported by research conducted by Muhaimin et al. (2020) which states that the Hang Seng Index has a positive effect but partially does not have a significant influence on the Composite Stock Price Index. The proximity factor of the Hong Kong exchange to the Indonesian Capital Market regionally has not had a significant impact on the movement of JCI in the Capital Market in the last 5 years. In a study conducted by Venska et al. (2014) states "The results showed that only Dow Jones Industrial Average, Nikkei225, and the Straits Times Index partially have significant effect on Jakarta Composite Index (JCI) at Indonesian Stock Exchange (IDX). While, Hang Seng Index partially has no significant effect on the Jakarta Composite Index (JCI) at the Indonesian Stock Exchange (IDX). If using a signaling theory, the results of this research indicate that the information and unstable condition that occur in the Hong Kong stock exchange not responded well by investors and market participants in the Indonesian Stock Exchange. The condition appears because the factors of stock price index is not only influenced by economic factors. Non economic factors also have potential to affect the stock market in a country. In fact, the change of Indonesian stock market index or the Jakarta Composite Index (JCI) beside influenced by foreign stock exchanges are also influenced by non-economic conditions, such as security, political, and trading time itself that different from the condition of stock market in Hong Kong." (The results of the study illustrate that the Dow Jones Industrial Average, Nikkei 225 and Straits Times Index partially have a significant effect on JCI in capital markets. Meanwhile, the Hang Seng partially has no significant effect on JCI in the Capital Market. If using existing theories, the results of this study indicate that information and instability on the Hong Kong Stock Exchange are not responded to by both investors and market participants in the Indonesian Capital Market. This condition can occur not only due to economic factors. But non-economic factors also have the potential to affect a stock exchange in a country. In

fact, changes in the value of JCI or Capital Market are also influenced by non-economic factors, such as security, politics, and the timing of different buying and selling transactions between the Indonesian Capital Market and the Hong Kong Stock Exchange. Based on research conducted by Mutakif & Nurwulandari, (2014) which stated that the results of estimates using TARCH (2.2) showed that hang seng has a positive and significant influence on the Composite Stock Price Index. This means that if the Hang Seng increases, it will be followed by an increase in JCI. Vice versa, therefore the change in the Hang Seng will be in line with the change in the Composite Stock Price Index.

In this study there are differences with theories, hypotheses, with some previous studies conducted due to differences in research periods, subjects, and events behind this research such as political stability in the country and also the Covid 19 virus outbreak that hit the world.

d. Effect of Nikkei 225 Index on JCI in Capital Markets in 2021

Based on the Summary of All Hypothesis Testing tables, the first hypothesis results in this study are to find out the influence of the Nikkei 225 Index variable on the Composite Stock Price Index in the Capital Market in 2021. Researchers chose this variable because the Nikkei 225 Index is a picture of the Japanese economy and is included in large stock exchanges in Asia and has an influence on stock exchanges in surrounding countries. Components of the Nikkei 225 Index are reviewed annually using the weighted average price (yen). The economic situation in Japan is very influential on Indonesia because the investment, export, and import activities that occur in both countries have an impact on the Indonesian economy which can be seen from the upward trend in trade value.

Based on data from Eviews 9 and analysis conducted that the Nikkei 225 Index has a negative effect on the Composite Stock Price Index in the Capital Market in 2021. From the results of this analysis, it can be seen that the influence of the Nikkei 225 Index is in accordance with the hypothesis that the influence given is significant. This illustrates that during the observation period, investors will pay attention to the Nikkei 225 Index as a variable for their investment evaluation before and during the spread of the Covid 19 virus in Indonesia. The results of this study showed that fluctuations in the Nikkei 225 Index have an effect on investor decisions when investing in the capital market. When the Nikkei 225 Index rises, there will be a decline in the Composite Stock Price Index, and vice versa. When the Nikkei 225 Index falls, there will be an increase in the value of the Composite Stock Price Index in the Capital Market. This is due to a significant contraction caused by the Covid 19 virus pandemic, but performance improvements made by the Japanese Government made a stimulus that supports the business and consumer sectors significantly. In addition, the Central Bank of Japan also conducts stimulus while still conducting a program of purchasing assets including stocks. So that in handling during the Covid 19 virus pandemic in Japan, it is faster to respond than in Indonesia. Therefore, investors prefer to invest in the Tokyo Stock Exchange because of Japan's rapid handling.

The results of this analysis are supported by research conducted by Nuraini & Panjawa (2021), stating that the Dow Jones Industrial Average variable has a positive influence on JCI, while the STI and Hang Seng variables have no influence on JCI, and the Nikkei 225 variable has a negative influence on JCI. This is because during the crisis experienced by several countries in Asia, including Indonesia, but it turns out that Japan's economic growth is going well. Therefore, the increase in the Nikkei 225 index can result in a decline in JCI, and vice versa, when the Nikkei 225 Index declines, JCI increases. The research is also in line with the results of research conducted by Herlianto & Hafizh (2020) which stated that the Dow Jones Industrial Average and Straits Time Singapore variables have a positive effect on the Composite Stock Price Index, while the Nikkei 225 variable has a negative effect on JCI, and the Shanghai Stock Exchange Composite variable does not have a significant influence on the Composite Stock Price Index with the research period. in 2015-2019. Research conducted by Suprihati (2015) showed the results that the Nikkei 225 variable also had a negative effect on JCI due to the unstable Indonesian economy which made investors not invest their shares in Indonesia, therefore the rise of the Nikkei 225 Index was not able to affect JCI.

In this study there are differences with theories, hypotheses, with some previous studies conducted due to differences in research periods, subjects, and events behind this research such as political stability in the country and also the Covid 19 virus outbreak that hit the world.

4. CONCLUSION

Based on the results of research and discussions related to the Analysis of the Influence of Asian Stock Exchanges on the Composite Stock Price Index in the Capital Market in 2021 consisting of independent variables shenzhen index, KOSPI Index, Hang Seng Index, and Nikkei 225 Index as well as dependent variables, namely the Composite Stock Price Index. The results of the following conclusions are obtained

1. From the results of the previous analysis, it can be concluded that the volatility of the Composite Stock Price Index is influential by the Shenzhen Index originating from China with negative and significant effect results. In the 2020 research year, China has confirmed the spread of the Covid-19 virus, but in January 2021 the condition of the Indonesian Capital Market is still in a stable state. The condition of a country's stock exchange is not only influenced by the economy of a developed country but can be caused by political turmoil, pandemics, security, and others that have occurred in the integral of the country. Thus investors who want to invest in the Indonesian Capital Market need to pay attention to the Shenzhen Index because the condition of the country can affect the country's economy.
2. From the results of previous analysis, it can be concluded that the volatility of the Composite Stock Price Index is influenced by the KOSPI Index originating from South Korea with positive and insignificant effect results. In the 2020 research year, KOSPI has confirmed the spread of the Covid-19 virus, in January 2021 the condition of the Indonesian Capital Market is still in a stable state. The condition of a country's stock exchange is not only influenced by the economy of a developed country but can be caused by political turmoil, pandemics, security, and others that have occurred in the integral of the country. Thus investors who want to invest in the Indonesian Capital Market need to pay attention to the KOSPI Index because the condition of the country can affect the country's economy.
3. From the results of previous analysis, it can be concluded that the volatility of the Composite Stock Price Index is influenced by the Hang Seng Index originating from Hong Kong with positive and insignificant influences. But the positive influence of the Hang Seng Index is because the Hong Kong Stock Exchange is also included in the large exchanges that develop on the Asian continent. The trade agreement between Indonesia and Hong Kong is also an important factor that has an impact on the Indonesian capital market. If the Hang Seng Index decreases, then JCI also decreases. This can be an observation of investors in order to invest in Indonesia.
4. From the results of previous analysis, it can be known that the volatility of the Composite Stock Price Index is influenced by the Nikkei 225 Index originating from Japan with a negative and significant influence. The negative influence of the Nikkei 225 Index is that if the Nikkei 225 Index increases, it will be inversely proportional to the Composite Stock Price Index where JCI will decline and vice versa. Investors will pay attention to the Nikkei 225 Index as an evaluation variable when investing in capital markets. This is because in the 2020 research year there has been a Covid-19 virus pandemic. Thus there are differences in economic policies made by the Japanese government in overcoming the outbreak of the Covid-19 virus pandemic in Japan. The performance improvements implemented by the Japanese government provide stimulus that supports the business sector and consumers significantly. And also the growing news that some biotech companies began to distribute vaccines. Stimulus efforts are also carried out by the Central Bank of Japan to continue to carry out asset purchase programs including stocks. Thus making investors prefer to invest in the Tokyo Stock Exchange because of Japan's handling is faster and responsive.

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