The Effect of Asian Stock Market Index, Macroeconomic Indicators, and Commodity Prices on the Composite Stock Price Index during the Covid-19 Pandemic

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Abstract: *The COVID-19 pandemic has affected many sectors, one of which is the capital market. The Coronavirus has claimed lives and can shake the life order of a country. From an economic perspective, almost all countries experienced a recession, decreased economic activity, increased unemployment, and decreased people's purchasing power. This research examines the effect of the Nikkei 225 index, Hang Seng index, Shanghai index, BI interest rate, inflation, USD exchange rate, world oil price and world gold price on the Composite Stock Price Index. The research population is monthly data during the COVID-19 pandemic in Indonesia from January 2020 to December 2022. The sampling technique used purposive sampling. The number of samples is 36 data. The data analysis method uses multiple linear regression with EViews 10 software. The results show that the BI interest rate and the USD exchange rate have a negative effect on the Composite Stock Price Index, while the Nikkei 225 index, Hang Seng index, Shanghai index, inflation, world oil price and world gold price have no effect on the Composite Stock Price Index. However, all independent variables simultaneously affect the Composite Stock Price Index.*

I. INTRODUCTION

On 31 December 2019, a type of pneumonia with an unknown cause was detected in Wuhan, China. Soon after, the Chinese government first reported to the WHO Country Office in China about the newly discovered infection. This lung-related problem was later identified as the cause of the new coronavirus. After a month of observation, uncertainty, and a rapid rate of escalation of infections the outbreak was declared a Public Health Emergency of International Impact on 30 January 2020. On 11 February 2020, WHO announced the name for the new coronavirus disease and named it COVID-19 and the world later began to refer to the disease by the same name (WHO, 2020).

Quoted from Kompas.com (2022), on 2 March 2020, President Joko Widodo officially announced that Indonesia had been affected by the coronavirus with the first patient infected, indicating that the coronavirus had entered Indonesian territory. On the same day, Jokowi Widodo announced two initial cases of COVID-19 involving a 64-year-old mother and her 31-year-old daughter. The increasing spread of COVID-19 in Indonesia forced the government to implement the Large-Scale Social Restrictions (PSBB) policy which began on 10 April 2020 in Jakarta.

On 3 July 2021, the government officially enacted a policy of Imposing Emergency Restrictions on Community Activities (PPKM) on the islands of Java and Bali (www.kompas.com, 2021). This Emergency PPKM will include more stringent restrictions on various community activities than previously imposed. Based on the Ministry of Health's website (2022), on 30 December 2022 in Jakarta, President Jokowi Widodo

officially revoked the implementation of Restrictions on Community Activities (PPKM) in all regions of Indonesia.
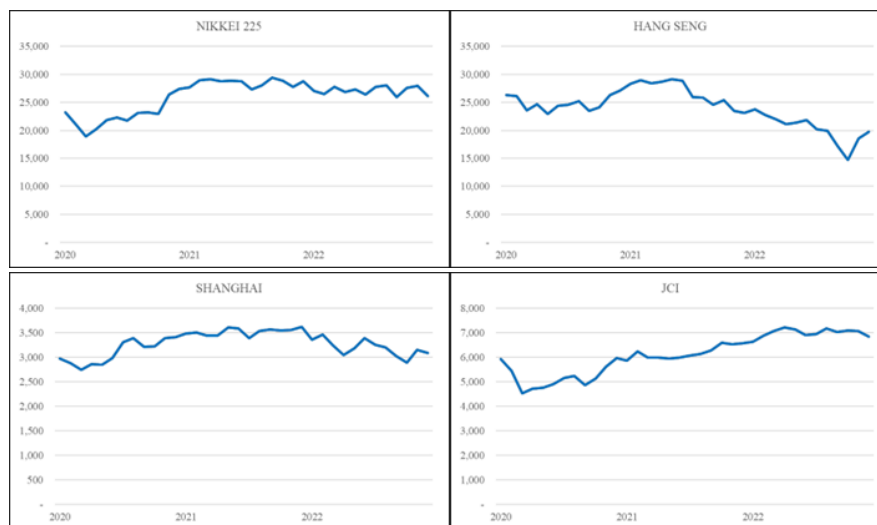

Source: www.finance.yahoo.com, processed by author
Figure 1. Comparison of Nikkei 225, Hang Seng, and Shanghai Indices with JCI in 2020-2022

Figure 1. illustrates a comparison of the JCI with several other indices in Asia during the COVID-19 pandemic based on data obtained from the Yahoo Finance website. In the era of globalization, especially in the economic field, no country can implement a closed economic system. International trade that occurs due to differences in the needs of each country involves business agreements between countries so that interdependence between countries cannot be avoided.

The Nikkei 225 index is an indicator of stock prices representing the financial markets in Japan. Quoted from Kompas.id (2021), on Monday (15/2/2021), the Nikkei 225 index experienced a surge of almost 2% and closed above the 30,000 level reaching an important psychological level for the first time in more than three decades. The prospect of business recovery ahead of the implementation of the COVID-19 vaccination in Japan is a positive factor that encourages investors to enter the market and look for their preferred stocks. Aditya *et al.* (2018) and Lesmana (2022) state that the Nikkei 225 index has a positive effect on the JCI. Meanwhile, Sari & Purwohandoko (2019) and Lusiana (2020) the Nikkei 225 index has no significant effect on the JCI.

The Hang Seng is an index that measures stock prices in Hong Kong. Based on the Hang Seng Indexes (2020), when the COVID-19 outbreak worsened in February 2020, the global market experienced a downturn due to increasing fears of a global economic recession and other uncertainties. The Hang Seng index slumped by 21.4% from 27,609 on 20 February 2020 to 21,696 on 23 March 2020, reaching its lowest point since 2016. Due to policy stimulus in various countries, the market recovered and the Hang Seng index increased by 10.5% to 23,970 on April 8. Hidayat *et al.* (2019) and Lusiana (2020) state that the Hang Seng index has a positive effect on the JCI. Meanwhile, Kusumawati & Asandimitra (2017) and Nellawati & Isbanah (2019) the Hang Seng index has no significant effect on the JCI.

The Shanghai is an index that represents the movement of the stock market in China. China is the first country to experience cases of COVID-19 and has good bilateral relations with Indonesia. Since the beginning of the pandemic, the two countries have worked together in handling COVID-19 cases by sending medical equipment (Artha & Paramita, 2020). Halisa & Annisa (2020) and Simanullang *et al*. (2023) stated that the Shanghai index had a positive effect on the JCI. Meanwhile, Artha & Paramita (2021) and Lesmana (2022) the Shanghai index has no significant effect on the JCI.
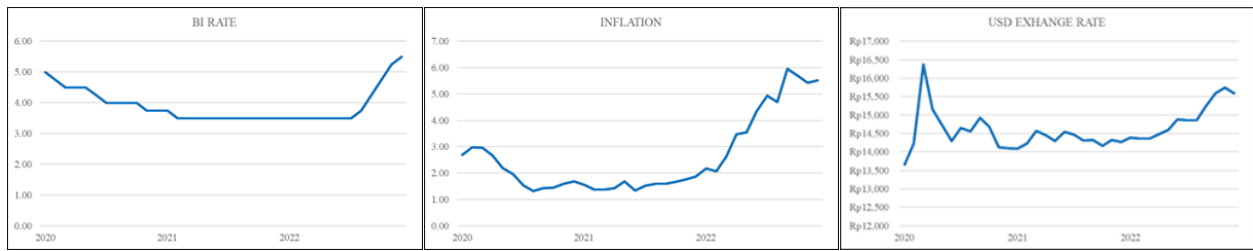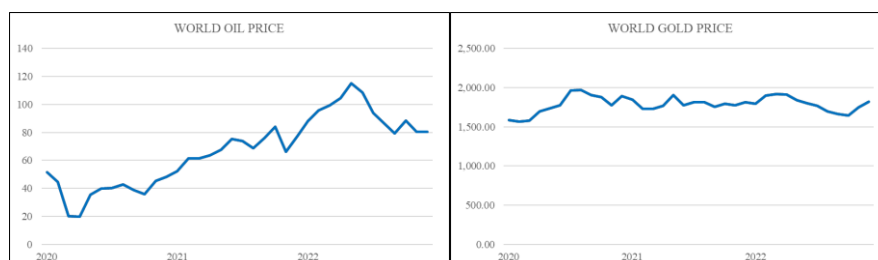
Source: www.bi.go.id, processed by author
Figure 2. Movement of BI Interest Rate, Inflation, and USD Exchange Rate in 2020-2022

Based on Figure 2, illustrates several movements of Indonesia's macroeconomic indicators, namely BI interest rates, inflation and the USD exchange rate during the COVID-19 pandemic. The macroeconomic situation of a country is one of the factors that can affect the performance of companies operating in that country so macroeconomic conditions have an influence on stock price fluctuations. The ability of investors to understand and predict future macroeconomic developments will be very useful in making profitable investment decisions, so investors need to pay attention to various macroeconomic indicators that can help them understand and predict macroeconomic conditions (Aditya *et al.*, 2018).

The BI interest rate is a policy interest rate that reflects the attitude or approach to monetary policy set by Bank Indonesia and announced to the general public. During the COVID-19 pandemic, Bank Indonesia gradually lowered the benchmark interest rate by 25 basis points (bps) four times from 4.75% to 3.75% (Artha & Paramita, 2021). A low-interest rate policy will encourage people to prefer investing rather than saving, and vice versa (Aditya *et al.,* 2018). Damayanti & Indah (2022) and Nurmasari & Nur'aidawati (2021) state that the BI interest rate has a negative effect on the JCI. Meanwhile, Palapa *et al.*, (2021) and Sugiyanto & Sarialam (2022) the BI interest rate has no significant effect on the JCI.

The increase in the price of goods and services is reflected in the Consumer Price Index (CPI), which is the overall movement of the inflation rate. The inflation rate decreased due to the spread of the COVID-19 case in Indonesia, decreased public purchasing power, and slowed economic activity during the month of Ramadan from April to May 2020 (Artha & Paramita, 2021). Researchers believe that inflation will have an impact on stock market fluctuations and instability (Miyanti & Wiagustini, 2018). Damayanti & Indah (2022) and Palapa *et al.* (2021) states that inflation has a positive effect on the JCI. Meanwhile, Artha & Paramita (2021) and Devi (2021) have no significant effect on the JCI.

Comparison of the value of the rupiah currency with other countries' currencies refers to the exchange rate. If the exchange rate weakens or depreciates, it will have an impact on decreasing company profits and increasing the cost of importing raw materials. With a decrease in company profits, the share price will decrease, so that it will have an impact on a decrease in the JCI (Lusiana, 2020). The exchange rate depreciated to Rp.16,367 in March 2020 and appreciated again by Rp.14,554 in August 2020. Meanwhile, the JCI value weakened to reach 4,538.93, but then the JCI value increased again to 5,238. 49 in August 2020 (Artha & Paramita, 2021). Damayanti & Indah (2022) and Halisa & Anisa (2020) state that the USD exchange rate has a negative effect on the JCI. Meanwhile, Indrisuari *et al*. (2021) and Hidayat *et al*. (2021) the USD exchange rate has no significant effect on the JCI.

Source: www.finance.yahoo.com, processed by author
Figure 3. Movement of World Oil and Gold Prices in 2020-2022

Figure 3. is the movement of world commodity prices, namely oil and gold commodities during the COVID-19 pandemic based on data obtained through the Yahoo Finance website. According to Yulianti & Purwohandoko (2019) stated that in addition to macroeconomic factors, movements in world commodity prices are also suspected of influencing fluctuations in the stock price index. Based on the BBC website (2020), world oil prices have experienced a drastic decline due to the COVID-19 pandemic which has resulted in a significant decrease in demand. The price of the European oil benchmark, Brent Crude, slumped to around $16 a barrel on Asian markets - its lowest level in more than 20 years. Indrisuari *et al*. (2021) and Hidayat *et al*. (2021) stated that world oil prices had a positive effect on the JCI. However, Yulianti & Purwohandoko (2019) and Kurniawan & Zuhri (2022) world oil prices have no significant effect on the JCI.

Apart from the influence of world oil prices, fluctuations in the price of gold also have the potential to affect the movement of the stock price index. Increases or decreases in world gold prices encourage people to consider investing in both stocks and gold. Based on Investing.com (2020), the price of gold strengthened on 14 April 2020 and reached its highest level in more than seven years. This occurred due to fears of the negative impact of the COVID-19 pandemic on the global economy which had suppressed corporate earnings, but on the contrary increased sentiment for buying safe haven assets. Rizkiana *et al.* (2022) stated that world gold prices had a negative effect on the JCI. However, Yulianti & Purwohandoko (2019) and Kurniawan & Zuhri (2022) world gold prices have no significant effect on the JCI.

II. LITERATURE AND HYPOTHESIS DEVELOPMENT

Random Walk Theory

Stock price movements fluctuate and are unpredictable. Stock price movements are random and unpredictable because stock price fluctuations depend on the latest information that will be received in the future at an unknown time, so changes in stock prices are considered unpredictable (Nellawati & Isbanah, 2019). Based on this, the random wall theory in this research aims to explain the variables, BI interest rate, inflation and USD exchange rate.

Contagion Effect Theory

The contagion effect is a phenomenon in which the occurrence of a financial crisis in one country will have an impact on the economy of other countries. This theory states that every country in a region cannot be separated from infectious effects (Yulianti & Purwohandoko, 2019). The theory in this research aims to identify the influence of the Nikkei 225 index, Hang Seng, Shanghai, world oil prices, and world gold prices on the JCI.

Composite Stock Price Index

The Composite Stock Price Index is the main stock index of the Indonesia Stock Exchange (IDX) which was launched on 1 April 1983. The JCI includes price fluctuations of common stock and preferred stock listed on the IDX (Yulianti & Purwohandoko, 2019). According to Kusumawati & Asandimitra (2017), the JCI measurement is based on monthly change data with formula.

$$JCI = \frac{JCI_t - JCI_{t-1}}{JCI_{t-1}} \times 100\%$$

Explanation:
JCI_t= JCI at period t
JCI_{t-1}= JCI at period t-1

Nikkei 225 Index

Nikkei 225 is a stock market index used on the Tokyo Stock Exchange (TSE). This index has been calculated daily by the Nihon Keizai Shimbun (NIKKEI) newspaper since September 7, 1950. The calculation is based on average prices and is reviewed every year (Nellawati & Isbanah, 2019). According to Kusumawati & Asandimitra (2017), measurement of the Nikkei 225 index is based on monthly change data with formula.

$$N225 = \frac{N225_t - N225_{t-1}}{N225_{t-1}} \times 100\%$$

Explanation:
$N225_t$ = Nikkei 225 Index at period t
$N225_{t-1}$ = Nikkei 225 Index at period t-1

Hang Seng Index

The Hang Seng is a stock market index based on the Hong Kong Stock Exchange (HKEX). The calculation of the Hang Seng index uses the value weighted method. The index serves as a marker of stock market performance and for observing and recording daily changes in the Hong Kong stock market (Nellawati & Isbanah, 2019). According to Kusumawati & Asandimitra (2017), the measurement of the Hang Seng index is based on monthly change data with formula.

$$HSI = \frac{HSI_t - HSI_{t-1}}{HSI_{t-1}} \times 100\%$$

Explanation:
HSI_t = Hang Seng Index at period t
HSI_{t-1} = Hang Seng Index at period t-1

Shanghai Index

The largest stock market index in the People's Republic of China (PRC) is the Shanghai index. This index is located in the city of Shanghai and was established on 26 November 1990 and began operating on 19 December 1990. This stock market index is often used as an indicator of market performance for the Shanghai Stock Exchange (SSE) (Yulianti & Purwohandoko, 2019). According to Kusumawati & Asandimitra (2017), the measurement of the Shanghai index is based on monthly change data with formula.

$$SSEC = \frac{SSEC_t - SSEC_{t-1}}{SSEC_{t-1}} \times 100\%$$

Explanation:
$SSEC_t$ = Shanghai Index at period t
$SSEC_{t-1}$ = Shanghai Index at period t-1

BI Interest Rate

The BI-7 Day Reverse Repo Rate (BI7DRR) is Bank Indonesia's reference rate which is used as a reference for interest rates in activities in the money market, banking sector, and real sector (Artha & Paramita, 2021). BI interest rate data includes BI interest rates every month from January 2020 to December 2022.

Inflation

Inflation is a phenomenon in which the prices of goods increase simultaneously or there is a decrease in currency values due to an increase in the amount of money in circulation without being offset by an adequate supply of goods. The inflation rate is the percentage increase in prices in one year compared to the previous year (Nellawati & Isbanah, 2019). Inflation data includes monthly inflation values from January 2020 to December 2022.

USD Exchange Rate

Comparison of currency values when converted to foreign currencies is known as exchange rates, fluctuations in a country's exchange rate are determined by the dynamics of demand and supply of that country's currency (Yulianti & Purwohandoko, 2019). According to Lusiana (2020), the calculation of the exchange rate or exchange rate uses data on the average change in the middle exchange rate each month with formula.

$$Exchange\ Rate = \frac{Exchange\ Rate_t - Exchange\ Rate_{t-1}}{Exchange\ Rate_{t-1}} \times 100\%$$

Explanation:
Exchange Rate$_t$ = Exchange Rate at period t
Exchange Rate$_{t-1}$ = Exchange Rate at period t-1

World Oil Price

West Texas Intermediate (WTI) is a price reference that is often used in world oil trade. The price of WTI oil shows the highest price because it is the type of oil with the best quality, has a low sulfur content, and is suitable as a fuel. Therefore, WTI oil is the benchmark for oil traders around the world (Nellawati & Isbanah, 2019). According to Yulianti & Purwohandoko (2019), the calculation of world oil prices is based on monthly change data with formula.

$$Oil\ Price = \frac{Oil\ Price_t - Oil\ Price_{t-1}}{Oil\ Price_{t-1}} \times 100\%$$

Explanation:
Oil Price$_t$ = World Oil Price at period t
Oil Price$_{t-1}$ = World Oil Price at period t-1

World Gold Price

Since 1968, the gold price used as a standard by all countries is the gold price based on the London Gold Fixing system which is the gold market standard in London. The world gold price is determined at 10.30 (Gold A.M) and 15.00 (Gold P.M) (Nellawati & Isbanah, 2019). According to Yulianti & Purwohandoko (2019), the calculation of world gold prices is based on monthly change data with formula.

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

Explanation:
Gold Price$_t$ = World Gold Price at period t
Gold Price$_{t-1}$ = World Gold Price at period t-1

Relationship Between Variables

A collection of large companies that have operated globally in Japan are represented by the Nikkei 225 index. An increase in the Nikkei 225 index means that there is Japanese economic growth which has a

positive impact on Indonesia's economic growth through direct and indirect capital investment flows (Nellawati & Isbanah, 2019).

H1: The Nikkei 225 index has an effect on the JCI.

The index with the largest capitalization on the Hong Kong Stock Exchange (HKEX) is the Hang Seng index. Hong Kong's economic growth encourages the Indonesian economy through capital investment flows or the export sector which is carried out directly or through the capital market. The movement of the Hang Seng index has a significant effect on the JCI quickly because stock exchanges with large capitalization such as Hong Kong will have an impact on stock exchanges with smaller capitalization such as Indonesia (Lusiana, 2020).

H2: The Hang Seng Index has an effect on the JCI.

In 2017, China became the country with the largest non-oil importer from Indonesia. The increasing trade relations between the two countries will result in greater stock exchange interactions in China. The influence of the Shanghai Stock Exchange (SSE) on the JCI can be seen because the capitalization size of the Shanghai Stock Exchange (SSE) is larger than the Indonesia Stock Exchange (IDX) (Tarigan *et al.,* 2015).

H3: The Shanghai Index has an effect on the JCI.

When the BI interest rate increases, investors will tend to consider investing in stocks or switching to the bond market, which has low risk and a definite return in the form of predetermined interest at auction. Another alternative is to invest in banking products through savings or time deposits and so on. If many investors choose bonds or banking products over stocks, interest in buying shares will decrease, so that the JCI has the potential to experience a decline (Sari & Purwohandoko, 2019).

H4: The BI interest rate has an effect on the JCI.

The increase in the inflation rate has a negative impact on investors in the capital market. An increase in the inflation rate causes an increase in the price of goods. When people get information about rising prices of goods, then the level of public consumption will decrease, causing a decrease in company sales. This resulted in a decrease in company profits. As a result, demand for shares from investors has decreased which resulted in a decline in the JCI (Nofiatin, 2013).

H5: The inflation has an effect on the JCI.

When there is an increase or depreciation of the rupiah exchange rate, this will have an impact on investor interest in investing. If the exchange rate increases, the capital of companies that use imported raw materials will also increase, thereby reducing company profits. A decrease in company profits will reduce investor interest in buying company shares, so the JCI will decrease (Sari & Purwohandoko, 2019).

H6: The USD exchange rate has an effect on the JCI.

Fluctuations in world oil prices have the potential to affect a country's capital market. For companies in the mining sector listed on the Indonesia Stock Exchange (IDX), an increase in world oil prices can have a positive effect because it will increase the company's net profit. This will trigger investor interest to invest funds in shares of mining companies, thereby contributing to an increase in the JCI (Handiani, 2014).

H7: The World Oil Price has an effect on the JCI.

Gold is considered a global currency that has a universally recognized value. Gold has a fixed, standardized intrinsic value, so it can be purchased and melted down anywhere. Gold has characteristics that are not affected by inflation (zero inflation), so that the price of gold always moves in line with inflation movements. The increase in gold prices will attract investors to invest in gold rather than stocks. As a result, the JCI will experience a decline because investors will sell their shares and switch to gold, and vice versa (Handiani, 2014).

H8: The World Gold Price has an effect on the JCI.

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III. METHODS

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This research uses a type of causality research. Causality research is a type of conclusive research that aims to obtain evidence of a causal relationship between independent variables on the dependent variable (Malhotra, 2010: 113). This research includes causality research because it aims to prove the effect of the independent variables on the dependent variable.

The data source in this research is secondary data which includes JCI, Nikkei 225, Hang Seng, Shanghai, BI interest rate, inflation, USD exchange rate, world oil prices and world gold prices. Publication data from JCI, Nikkei 225, Hang Seng, Shanghai, world oil prices, and world gold prices were obtained from the Yahoo Finance website, namely www.finance.yahoo.com, while BI interest rate, inflation and USD exchange rate were obtained from the official website of Bank Indonesia, namely www.bi.go.id.

In this research, the closing price of the JCI, Nikkei 225, Hang Seng, Shanghai, world oil prices, and world gold prices were used every month during the period January 2020 to December 2022, so that the sample data used was 36. The independent variables in this research were 8 variables which include Nikkei 225, Hang Seng, Shanghai, BI interest rate, inflation, USD exchange rate, world oil prices, and world gold prices. While the dependent variable in this research is the JCI.

Data analysis was performed using multiple regression analysis models (F statistics, t statistics, and coefficient of determination) which met the classical assumption test requirements (normality, multicollinearity, heteroscedasticity, and autocorrelation) which were previously tested using EViews 10 software.

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IV. ANALYSIS AND DISCUSSION

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Descriptive Statistics

Descriptive statistical tests were carried out to obtain detailed information about each sample variable in table 1, includingamount of data (N),average value (mean),maximum value,minimum value, andstandard deviation (standard deviation). JCI, Nikkei 225, Hang Seng, Shanghai, USD exchange rates, world oil prices, and world gold prices show a standard deviation value that exceeds the mean value, indicating data variation and a low level of data deviation. In contrast,BI interest rate and inflation variables have a standard deviation value that is smaller than the mean value, indicating that there is no variation indata and a high level of deviation.

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Table 1.Descriptive Statistical Test Results

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Variable	N	Mean	Maximum	Minimum	Std. Dev.
JCI	36	0,349167	9,440000	-16,76000	4,788412
Nikkei	36	0,407222	15,04000	-10,53000	5,288636
Hang Seng	36	-0,736944	26,62000	-14,72000	7,352180
Shanghai	36	0,139722	10,90000	-7,120000	4,444085
BI Rate	36	3,923611	5,500000	3,500000	0,569522
Inflation	36	2,600556	5,950000	1,320000	1,452690
Exchange Rate	36	0,369167	14,99000	-7,390000	3,280734
Oil	36	2,544722	79,17000	-54,62000	19,34615
Gold	36	0,591944	-6,670000	-6,670000	4,097306

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Source: EViews 10 Output (processed by author)

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Normality Test

The success of the regression model is considered good ifdata has a normal distribution level. In this research, normality was tested using the Jarque-Bera (J-B) test to evaluate data distribution. If the Jarque–Bera Probability exceeds the value of 0.05, it can be concluded that the data is normally distributed (Ghozali, 2016).
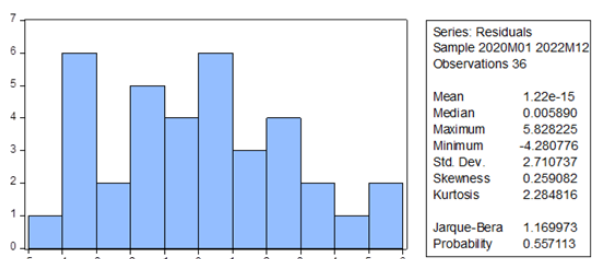
Source: EViews 10 Output (processed by author)
Figure 4. Normality Test Results

Based on figure 4 above, it shows the Jarque-Bera Probability value of 0.557113 which is greater than 0.05 so it can be concluded that the data has been normally distributed.

Multicollinearity Test

A good regression model does not experience multicollinearity. To test the correlation between independent variables in the regression model, a multicollinearity test was performed (Ajija *et al.,* 2011). Testing can be done by observing the Tolerance and Variance Inflation Factor (VIF) values in the regression model. If the VIF value < 10 or the Tolerance value > 0.01, it can be concluded that multicollinearity does not occur (Ghozali, 2016).

Table 2. Multicollinearity Test Results

Variable	Coefficient	VIF
C	17,92154	NA
Nikkei	0,020166	2,072540
Hang Seng	0,009338	1,854685
Shanghai	0,029046	2,107864
BI Rate	1,440416	1,716712
Inflation	0,193501	1,500440
Exchange Rate	0,050670	2,003931
Oil	0,001246	1,713930
Gold	0,025576	1,577675

Source: EViews 10 Output (processed by author)

Based on table 2, it shows that there are no independent variables that have a Variance Inflation Factor (VIF) value of greater than 10, so it can be concluded that there is no multicollinearity problem with the data being tested.

Heteroskedasticity Test

Heteroscedasticity testing in this research used the Glesjer test. If the calculation results show that the Obs*R-Squared Probability value exceeds α = 0.05, it can be concluded that the regression model is free from heteroscedasticity.

F-statistic	1.130190	Prob. F(8,27)	0.3754
Obs*R-squared	9.031101	Prob. Chi-Square(8)	0.3397
Scaled explained SS	6.169298	Prob. Chi-Square(8)	0.6283

Source: EViews 10 Output (processed by author)
Figure 5. Heteroscedasticity Test Results: Glesjer

Based on figure of the heteroscedasticity test result using the Glesjer test, we can see that there is no heteroscedasticity problem. This is because the Probability Obs*R-Squared value of 0.3397 is greater than 0.05.

Autocorrelation Test

Figure 6 shows the results of the autocorrelation test using the Breusch-Godfrey method which produces a Probability Obs*R-Squared of 0.9193. This figure exceeds the significance value of 0.05, so it can be concluded that the data does not experience autocorrelation problems.

F-statistic	1.770380	Prob. F(2,25)	0.1910
Obs*R-squared	4.466152	Prob. Chi-Square(2)	0.1072

Source: EViews 10 Output (processed by author)

Figure 6.Breusch-Godfrey Serial Correlation LM Test Results

Results of Multiple Linear Regression Analysis

The multiple linear regression equation obtained from table 4 can be written as follows:

JCI = 12,58083 + 0,187801 Nikkei + 0,102294 Hangseng + 0,016830 Shanghai –3,389441 BI Rate + 0,434753 Inflation – 0,617931 Exchange Rate + 0,038076 Oil + 0,108744 Gold + ε

Hypothesis Test Results

Table 3. Hypothesis Test Results

Variabel	Coefficient	t-Statistic	Prob.	Description
C	12,58083	2,971814	0,0062	
Nikkei	0,187801	1,322463	0,1971	Not Significant
Hang Seng	0,102294	1,058583	0,2992	Not Significant
Shanghai	0,016830	0,098748	0,9221	Not Significant
BI Rate	-3,389441	-2,824127	0,0088	Significant
Inflation	0,434753	0,988327	0,3318	Not Significant
Exchange Rate	-0,617931	-2,745136	0,0106	Significant
Oil	0,038076	1,078552	0,2903	Not Significant
Gold	0,108744	0,679969	0,5023	Not Significant
R-squared	0,679527			
Adjusted R-squared	0,584572			
F-statistic	7,156298			
Prob(F-statistic)	0,000046			

Source: EViews 10 Output (processed by author)

The F test was conducted to determine whether the independent variables jointly (simultaneous) have a significant effect on the dependent variable. Based on the test results in table 3, it shows a Prob(F-statistic) value of 0.000046. This shows that this value is less than the 5% significance level, so it can be concluded that the Nikkei 225, Hang Seng, Shanghai, BI interest rates, inflation, USD exchange rate, world oil prices, and world gold prices simultaneously influence on the JCI.

The t test was conducted to determine whether the independent variables individually (partial) have a significant effect on the dependent variable. Based on the results of the t test, there are six independent variables that have a probability of less than a significance level of 0.05, namely the variables Nikkei, Hang

Seng, Shanghai, inflation, world oil prices, and world gold prices. This shows that these variables do not have a significant influence on the JCI as shown in table 3.

Analysis of the coefficient of determination was carried out to measure the extent to which the independent variables can explain the influence and influence on the dependent variable. Based on the R-Squared value in table 3, it shows a value of 0.679527. This indicates that the Nikkei 225 Index, Hang Seng, Shanghai, BI interest rates, inflation, USD exchange rate, world oil prices, and world gold prices have the ability to explain 67% of the JCI variable. Meanwhile, the remaining 33% is influenced by other factors not examined in this research.

The influence of Nikkei 225 Index on the Composite Stock Price Index

Data analysis shows that changes in the Nikkei 225 index variable have no effect on changes in the JCI, this finding is inconsistent with the research hypothesis that the Nikkei 225 index has an effect on the JCI. This is also not in line with the contagion effect theory which describes the impact of a financial crisis in one country can spread to the economies of other countries. Based on the Ministry of Communication and Informatics website (2021), Japan is a very important trading partner for Indonesia. Even though, facing various global obstacles including the COVID-19 pandemic, bilateral relations between the two countries remain solid and still have the potential to be strengthened. In 2020 the value of bilateral trade between Indonesia and Japan is USD 24.3 billion. In the period 2018 to 2020 Japan has consistently ranked third as Indonesia's main export destination with an export value in 2020 of USD 13.6 billion. This trend continues because in the first half of 2021 the value of Indonesia's exports to Japan reached USD 7.9 billion. The results of this research indicate that fluctuations in the Nikkei 225 index did not have a significant impact on the JCI during the period January 2020 - December 2022, so investors do not need to pay close attention to it when making investment decisions in the stock market. This finding is consistent according to Lusiana (2020) that the Nikkei index has no influence on the JCI.

The influence of Hang Seng Index on the Composite Stock Price Index

Data analysis shows that changes in the Hang Seng index variable have no effect on changes in the JCI, this finding is inconsistent with the research hypothesis that the Hang Seng index has an influence on the JCI. This is also not in line with the contagion effect theory which describes the impact of a financial crisis in one country can spread to the economies of other countries. Quoted from Liputan 6 (2022), Hong Kong is facing a recession because GDP (*y-on-y*) has shown a decline for the second consecutive quarter as a result of rising interest rates, slowing global trade, and strict restrictions related to COVID-19. After experiencing a decrease of -3.9% in the first quarter of 2022 and the second quarter of 2022 there was a decrease but at a lower rate of -1.4%. Nonetheless, Indonesia managed to avoid a recession as evidenced by GDP growth (*y-on-y*) of 5.02% in the first quarter of 2022 and increased to 5.46% in the second quarter of 2022 (*Statistics Indonesia*, 2022). The results of this research indicate that fluctuations in the Hang Seng index did not have a significant impact on the JCI during the period January 2020 - December 2022, so investors do not need to pay close attention to it when making investment decisions on the stock market. This finding is consistent according to Nellawati & Isbanah (2019) that the Hang Seng index has no influence on the JCI.

The influence of Shanghai Index on the Composite Stock Price Index

Data analysis shows that changes in the Shanghai index variable have no effect on changes in the JCI, this finding is inconsistent with the research hypothesis that the Shanghai index has an influence on the JCI. This is also not in line with the contagion effect theory which describes the impact of a financial crisis in one country can spread to the economies of other countries. In the first quarter of 2020 there was a -9.8% decline in China's GDP (*q-to-q*) due to an increase in COVID-19 cases, but in the second quarter of 2020 the Chinese economy managed to recover with a growth of 11.5% in GDP. Nonetheless, Indonesia's GDP in the first quarter of 2020 decreased by -2.41% due to the increasing number of COVID-19 cases. This decline continued in the second quarter of 2020 with a decrease of -4.19% before GDP in the third quarter of 2020

finally started to grow by 5.05% (Artha & Paramita, 2021). The results of this research indicate that fluctuations in the Shanghai index did not have a significant impact on the JCI during the period January 2020 - December 2022, so investors do not need to pay close attention to it when making investment decisions on the stock market. This finding is consistent according to Lesmana (2022) that the Shanghai index has no influence on the JCI.

The influence of BI interest rates on the Composite Stock Price Index

Data analysis shows that changes in the BI interest rate variable have a negative impact on changes in the JCI, this finding is consistent with the research hypothesis that BI interest rates affect the JCI. This is in accordance with the random walk theory which states that stock prices move randomly and cannot be predicted, depending on the new information received. Bank Indonesia has reduced the BI 7-Day Reverse Repo Rate (BI7DRR) 5 times since 2020 to reach 3.50% in February 2021. Then, until the end of 2021 Bank Indonesia will continue to maintain BI7DRR to maintain exchange rate stability and the financial system as well as support economic growth even though inflation is expected to be low (Bank Indonesia, 2022). Bank Indonesia started increasing the BI7DRR by 25 bps in August 2022. Bank Indonesia again increased the BI7DRR in September, October and November 2022 by 50 bps each until December 2022 there was an increase of 25 bps to 5.50% (Bank Indonesia, 2023). A significant increase in interest rates can strengthen the rupiah exchange rate, however, the JCI will experience a decline because investors will divert their investments to bonds or banking products through savings or deposits (Damayanti & Indah, 2022). The results of this research indicate that increases and decreases in the BI interest rate have a significant influence on the JCI during the period January 2020 - December 2022, so investors need to pay close attention to this when making investment decisions on the stock market. This finding is in line with Nurmasari & Nur'aidawati (2021) that the BI interest rate has a negative influence on the JCI.

The influence of Inflation on the Composite Stock Price Index

Data analysis shows that changes in the inflation variable have no impact on changes in the JCI, this finding is inconsistent with the research hypothesis that inflation affects the JCI. This is also inconsistent with the random walk theory which states that stock prices move randomly and cannot be predicted, depending on the new information received. Inflation through the Consumer Price Index (CPI) in 2021 reached 1.87% (y-o-y), an increase compared to 2020 inflation of 1.68% (*y-on-y*), although it was still below the target range of 3.0 ± 1%. This development was influenced by core inflation which recorded a low rate of 1.56% (*y-on-y*), experiencing a slight decrease compared to the previous year. Low core inflation was mainly due to subdued domestic demand due to the COVID-19 pandemic (Bank Indonesia, 2022). The JCI value tends to increase gradually because many investors hold and buy on weakness of stocks in response to positive sentiment from the discovery of the COVID-19 vaccine (Artha & Paramita, 2021). The results of this research indicate that increases or decreases in inflation have no significant effect on the JCI during the period January 2020 - December 2022, so investors do not need to pay close attention to them when making investment decisions on the stock market. This finding is in line with Artha & Paramita (2021) that inflation has no effect on the JCI.

The influence of USD Exchange Rate on the Composite Stock Price Index

Data analysis shows that changes in the USD exchange rate variable have a negative impact on changes in the JCI, this finding is consistent with the research hypothesis that the USD exchange rate affects the JCI. This is in accordance with the random walk theory which states that stock prices move randomly and cannot be predicted, depending on the new information received. The COVID-19 pandemic affected the weakening of the Rupiah exchange rate/middle rate against the United States Dollar (US) which occurred in March with a decrease of 16,267.01 which then caused a decrease in the JCI of 4538.93. Uncertainty in exchange rates caused by COVID-19 has encouraged investors to tend to invest in safe haven assets such as gold, developed country bonds, and global currencies such as the United States dollar. However, in June 2020 the exchange rate strengthened by 1.7%, reaching 14,484, and until December the exchange rate

continued to strengthen even though it remained in the range of Rp. 14,000 which had an impact on the increase in the JCI (Devi, 2021). The results of this research indicate that fluctuations in the USD exchange rate have a significant influence on the JCI during the period January 2020 - December 2022, so investors need to pay close attention to this when making investment decisions in the stock market. This finding is consistent according to Halisa & Anisa (2020) that the USD exchange rate has a negative effect on the JCI.

The influence of World Oil Price on the Composite Stock Price Index

Data analysis shows that changes in world oil price variables have no impact on changes in the JCI, this finding is inconsistent with the research hypothesis that world oil prices affect the JCI. This is also inconsistent with the random walk theory which states that stock prices move randomly and cannot be predicted, depending on the new information received. Since the start of the COVID-19 pandemic, world oil prices have mostly declined. World oil prices decreased by around 70% in the first quarter of 2020, while global oil demand is expected to fall by around 10% in 2020 surpassing the next biggest decline in 1980 by more than doubling (Khalfaoui *et al*., 2022). Fluctuations in world oil prices can have a direct effect on a company's operational activities but may not necessarily have a direct impact on its share price. Even though world oil prices experienced a drastic decline at the start of the COVID-19 pandemic, it is not certain that oil investors will switch to stock investment. During the uncertain times of the COVID-19 pandemic, people tended to save their wealth or switch to investments that were considered safer (Kurniawan & Zuhri, 2022). The results of this research indicate that movements in world oil prices have no significant effect on the JCI during the period January 2020 - December 2022, so investors do not need to pay close attention to them when making investment decisions on the stock market. This finding is in line with Yulianti & Purwohandoko (2019) that world oil prices have no effect on the JCI.

The influence of World Gold Price on the Composite Stock Price Index

Data analysis shows that changes in the world gold price variable have no impact on changes in the JCI, this finding is inconsistent with the research hypothesis that world gold prices affect the JCI. This is also inconsistent with the random walk theory which states that stock prices move randomly and cannot be predicted, depending on the new information received. 19 On March 2020, the world gold price fell below $1,500 hitting its lowest level. However, the rapid spread of the coronavirus resulted in a very accommodative response from the Federal Reserve (including cutting interest rates to almost zero), as well as the implementation of economic restrictions which pushed world gold prices higher above $1,740 in mid-April 2020 (reaching that level for the first time since late 2012). Then, the gold market experienced a sideways trend with prices moving between $1,680 and $1,750 until the end of June 2020 (Yahoo Finance, 2020). The stability and trend of increasing gold prices can encourage investors to allocate their funds in investments that are considered safe. However, this is not necessarily attractive to stock investors because the rate of return on gold investment tends to be low and takes a long time. Conversely, during the COVID-19 pandemic, people tended to prefer saving money in cash rather than investing (Kurniawan & Zuhri, 2022). The results of this research indicate that world gold price movements have no significant effect on the JCI during the period January 2020 - December 2022, so investors do not need to pay close attention to them when making investment decisions on the stock market. This finding is in line with Kurniawan & Zuhri (2022) that world gold prices have no effect on the JCI.

<div align="center">

V. CONCLUSION

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Based on the research results, the variables that have a significant effect on the JCI are the BI interest rate and the USD exchange rate, while the Nikkei, Hang Seng, Shanghai, inflation, world oil prices and world gold prices have no effect on the JCI. The results of the F statistical test show that simultaneously the Nikkei, Hang Seng, Shanghai, BI interest rates, inflation, USD exchange rates, world oil prices, and world gold prices have an influence on the JCI. The coefficient of determination (R-Squared) is 0.679527 or 67%, while the remaining 33% is influenced by other factors. This indicates that information and changes that occur in stock market conditions in Japan, Hong Kong, China, macroeconomic indicators and commodity prices respond in line with movements on the Indonesia Stock Exchange (IDX).

This research canprovidesinformation for investors in the Indonesian capital market to pay more attention to fluctuations in the BI interest rate and the USD exchange rate which have an influence on the JCI before making investment decisions. It is important for companies to formulate financial policies that are responsive to the impact of changes in the BI interest rate and the USD exchange rate. This strategy aims to maintain the stability of demand for the company's shares and attract the attention of investors who plan to invest in the capital market.

For future researchers, it is suggested to expand the number of independent variables that affect the dependent variable that have not been included in this research. These variables can include other macroeconomic indicators such as Gross Domestic Product (GDP) and money supply, as well as other global market indices such as America (Dow Jones, S&P 500, Nasdaq) and Europe (FTSE 100, DAX, MOEX). Apart from that, it is also recommended to consider using other indices available in Indonesia such as LQ45 and IDX30.

REFERENCES

[1] Aditya, A., Sinaga, B. M., & Maulana, T. A. (2018). Pengaruh Indeks Bursa Luar Negeri, Indikator Makroekonomi Dan Krisis Ekonomi Global Terhadap Indeks Harga Saham Gabungan Di Indonesia. *Jurnal Aplikasi Bisnis dan Manajemen (JABM), 4(2),* 284-295.

[2] Ajija, S. R., Sari, D. W., Setianto, R. H., & Primanti, M. R. (2011). Cara Cerdas Menguasai Eviews. Jakarta: Salemba Empat.

[3] Amani, N. K. (2022). Hong Kong Resesi, Perdagangan Global Lemah dan Covid-19 Pemberi Andil. *Liputan 6.com.* https://www.liputan6.com/bisnis/read/5032206/hong-kong-resesi-perdagangan-global-lemah-dan-covid-19-pemberi-andil. Accessed on 10 June 2023.

[4] Artha, A., & Paramita, R. S. (2021). Pengaruh Makroekonomi dan Indeks Global terhadap Indeks Harga Saham Gabungan Selama Pandemi Covid-19 di Indonesia. *Jurnal Ilmu Manajemen, 9(2)*, 681-697.

[5] Damayanti, D., & Indah, N. P. (2022). Pengaruh Kurs, BI 7 Day (Reverse) Rapo Rate dan Inflasi terhadap Indeks Harga Saham Gabungan pada Masa Pandemi Covid-19. *J-MAS (Jurnal Manajemen dan Sains), 7(2),* 779-786.

[6] Devi, S. S. (2021). Pengaruh Inflasi Dan Nilai Tukar/Kurs Terhadap Indeks Harga Saham Gabungan (IHSG) Yang Terdaftar Di Bursa Efek Indonesia (Bei) Pada Masa Pandemi Covid-19 Bulan Januari-Desember Tahun 2020. *Jurnal Inovatif Mahasiswa Manajemen, 1(2),* 139-149.

[7] Farisa, F. C. (2021). PPKM Darurat Jawa-Bali Berlaku pada 3-20 Juli 2021. *Kompas.com.* https://nasional.kompas.com/read/2021/07/01/11141591/ppkm-darurat-jawa-bali-berlaku-pada-3-20-juli-2021. Accessed on 10 April 2023.

[8] Ghozali, I. (2016). Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23.

[9] Halisa, N. N., & Annisa, S. (2020). Pengaruh Covid-19, Nilai Tukar Rupiah dan Indeks Harga Saham Gabungan Asing Terhadap Indeks Harga Saham Gabungan Indonesia (IHSG*). Jurnal Manajemen Dan Organisasi, 11(3),* 170-178.

[10]   Handiani, S. (2014). Pengaruh Harga Emas Dunia, Harga Minyak Dunia Dan Nilai Tukar Dolar Amerika/Rupiah Terhadap Indeks Harga Saham Gabungan Pada Periode 2008-2013. *E-Journal Graduate Unpar, 1(1),* 85-93.

[11]   Hang Seng Indexes. (2020). Hang Seng Indexes 2020 Year-End Report. https://www.hsi.com.hk/static/uploads/contents/en/dl_centre/other_materials/20201231e.pdf. Accessed on 10 April 2023.

[12]   Hidayat, A. K., Firdaus, M., & Sanim, B. (2019). Pengaruh Kapitalisasi Pasar Saham Dan Variabel Makroekonomi Terhadap Indeks Harga Saham Gabungan Di Bursa Efek Indonesia. *Jurnal Aplikasi Bisnis Dan Manajemen (JABM), 5(2),* 332-345.

[13]   Hidayat, A., Liliana, L., & Andaiyani, S. (2021). Factors Affecting the Composite Stock Price Index during Covid-19 Pandemic Crisis. *JEJAK, 14(2),* 333-344.

[14]   Indrisuari, M., Lau, E. A., & Purwanti (2022). PENGARUH KURS, SUKU BUNGA, DAN HARGA MINYAK DUNIA TERHADAP INDEKS HARGA SAHAM GABUNGAN (IHSG) DI BURSA EFEK INDONESIA SELAMA PANDEMI COVID-19. *EKONOMIA, 11(3),* 181-196.

[15]   Investing.com. (2020). Tren Penguatan Emas Berlanjut, Target Selanjutnya $1800. https://id.investing.com/news/commodities-news/tren-penguatan-emas-berlanjut-target-selanjutnya-1800-1976133. Accessed on 2 July 2023.

[16]   Kementerian Kesehatan Republik Indonesia. (2022). PPKM di Indonesia Resmi Dicabut. www.kemkes.go.id/article/view/22123100001/ppkm-di-indonesia-resmi-dicabut.html.   Accessed on 10 April 2023.

[17]   Kementerian Komunikasi dan Informatika Republik Indonesia. (2021). Peningkatan Kerja Sama Indonesia - Jepang sebagai Mitra Strategis Terus Berlanjut. https://m.kominfo.go.id/content/detail/36295/peningkatan-kerja-sama-indonesia-jepang-sebagai-mitra-strategis-terus-berlanjut/0/berita. Accessed on 5 June 2023.

[18]   Khalfaoui, R., Solarin, S. A., Al-Qadasi, A., & Jabeur, S. B. (2022). Dynamic Causality Interplay From COVID-19 Pandemic To Oil Price, Stock Market, And Economic Policy Uncertainty: Evidence From Oil-Importing And Oil-Exporting Countries. *Annals of Operations Research, 313.* 105-143.

[19]   Koestanto, B. D. (2021). Indeks Nikkei Tembus Level Tertinggi dalam Tiga Dekade. *Kompas.id.* https://www.kompas.id/baca/internasional/2021/02/16/indeks-nikkei-tembus-level-tertinggi-dalam-tiga-dekade. Accessed on 2 June 2023.

[20]   Kompas.com. (2022). 2 Maret, Saat Indonesia Pertama Kali Dilanda Covid-19. https://nasional.kompas.com/read/2022/03/02/10573841/2-maret-2020-saat-indonesia-pertama-kali-dilanda-covid-19. Accessed on 10 April 2023.

[21]   Kurniawan, A., & Zuhri, M. (2022). Harga Minyak, Harga Emas, Nilai Tukar IDR/USD, dan Jumlah Positif Covid-19 Serta Implikasinya Terhadap Indeks Harga Saham Gabungan di Bursa Efek Indonesia. *Jurnal Manajemen dan Perbankan (JUMPA), 9(2),* 54-72.

[22]   Kusumawati, D. A., & Asandimitra, N. (2017). Impact of Global Index, Gold Price and Macro Economic Variable for Indonesia Composite Index. *Research Journal of Finance and Accounting, 8(2),* 53-62.

[23]   Lesmana, A. (2022). The Effect of the World Exchange Indexes (DJIA, SSEC and NIKKEI 225) on the Indonesia Stock Exchange Index (IDX). *Journal of Asian Multicultural Research for Economy and Management Study, 3(1),* 1-9.

[24]   Lusiana, O. A. (2020). Analisis Pengaruh Inflasi, SBI, Kurs Dan Indeks Global Terhadap Pergerakan Indeks Harga Saham Di BEI Pada Periode 2016-208. *Jurnal Ilmu Manajemen (JIM), 8,* 210-224.

[25]   Malhotra, N. K. (2010). Riset Pemasaran (Marketing Research) (Edisi 4 Jilid 1). New Jersey, Indonesia: PT. Indeks

[26]   Miyanti, G. A. D. A., & Wiagustini, L. P. (2018). Pengaruh suku bunga The Fed, harga minyak, dan inflasi terhadap Indeks Harga Saham Gabungan (IHSG) di Bursa Efek Indonesia. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana, 7(5),* 1261-1288.

[27]   Nellawati, S. O., & Isbanah, Y. (2019). Analisis Pengaruh Faktor Internal Dan Faktor Eksternal Terhadap Pergerakan Indeks Harga Saham Gabungan (I) Di Bursa Efek Indonesia Periode 2012–2016. *Jurnal Ilmu Manajemen, 7(1),* 113-123.

[28]   Nofiatin, I. (2013). Hubungan Inflasi, Suku Bunga, Produk Domestik Bruto, Nilai Tukar, Jumlah Uang Beredar, dan Indeks Harga Saham Gabungan (IHSG) Periode 2005–2011. *Jurnal Aplikasi Manajemen, 11(2),* 215-222.

[29]   Palapa, P., Kumaat, R. J., & Sumual, J. I. (2021). PENGARUH BI 7-DAY (REVERSE) REPO RATE DAN INFLASI PADA MASA PANDEMIC COVID 19 TERHADAP INDEKS HARGA SAHAM GABUNGAN DI PASAR MODAL INDONESIA. *Jurnal Berkala Ilmiah Efisiensi, 21(5).* 52-62.

[30]   Farisa, F. C. (2021). PPKM Darurat Jawa-Bali Berlaku pada 3-20 Juli 2021. *Kompas.com.* https://nasional.kompas.com/read/2021/07/01/11141591/ppkm-darurat-jawa-bali-berlaku-pada-3-20-juli-2021. Accessed on 10 April 2023.

[31]   Rizkiana, U., Ardiyani, K., & Adriyana, R. (2023, February). PENGARUH DOW JONES INDUSTRIAL AVERAGE, NILAI TUKAR, DAN HARGA EMAS TERHADAP IHSG DI BURSA EFEK INDONESIA SELAMA PANDEMI COVID-19 (Periode Maret 2020–Desember 2021). In *Unikal National Conference* (pp. 784-792).

[32]   Sari, D. N., & Purwohandoko. (2019). Dampak Pengaruh Bursa Saham Global, Harga Emas Dunia Dan Variabel Makroekonomi Terhadap Indeks Harga Saham Gabungan Periode 2009-2018. *Jurnal Ilmu Manajemen, 7(3),* 772-783.

[33]   Sieron, A. (2020). Gold During Covid-19 Pandemic and Beyond. *Yahoo Finance.* https://finance.yahoo.com/news/gold-during-covid-19-pandemic-112912020.html. Accessed on 11 June 2023.

[34]   Simanullang, R. M., Sembel, R., Kennedy, P. S. J., Lumbantoruan, R., & Tobing, S. J. (2023). Pengaruh Indeks Harga Saham Global terhadap Indeks Harga Saham Indonesia Studi Kasus Sebelum dan Selama Periode Covid-19. *IKRAITH-EKONOMIKA, 6(2),* 143-152.

[35]   Sugiyanto, E., & Sarialam, M. (2022, August). Pengaruh Variabel Makro Ekonomi, Indeks Dow Jones Industrial Average (DJIA), Kospi Dan Harga Minyak Dunia Terhadap Indeks Harga Saham Gabungan (IHSG) Di Bursa Efek Indonesia Tahun 2016-2020. In *UM Magelang Conference Series* (pp. 1007-1022).

[36]   Statistics Indonesia. (2022). Indonesia – Pertumbuhan PDB (*y-on-y*). *Trading Economics.* https://id.tradingeconomics.com/indonesia/gdp-growth-annual. Accessed on 10 June 2023.

[37]   Tambunan, L. (2020). Ekonomi Pandemi: Harga Minyak Dunia Anjlok, Harga BBM Dalam Negeri Belum Tentu Bisa Turun. *BBC News Indonesia*. https://www.bbc.com/indonesia/indonesia-52379031. Accessed on 2 June 2023.

[38]   Tarigan, R. D., Suhandak, & Topowijono. (2015). Pengaruh Indeks Harga Saham Global Terhadap Indeks Harga Saham Gabungan (IHSG) Studi Pada Bursa Efek Indonesia (BEI) Periode 2011-2014. *Jurnal Administrasi Bisnis, 24(1).* 1-8

[39]   World Health Organization. (2020). Pneumonia of unknown cause – China. https://www.who.int/emergencies/disease-outbreak-news/item/2020-DON229. Accessed on 10 April 2023.

[40]   www.bi.go.id

[41]   www.finance.yahoo.com

[42]   Yulianti, M. T., & Purwohandoko. (2019). Pengaruh Variabel Makroekonomi, Harga Komoditas Dunia, & Indeks Saham Global Terhadap IHSG Periode 2014-2018. *Jurnal Ilmu Manajemen, 7(3).* 629-641.