

## FOREIGN EXCHANGE INDEX AND MACROECONOMIC: PANDEMIC COVID-19 IN INDONESIA

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### ABSTRACTION

This research aims to analyse the influence of foreign exchange index and macroeconomic globalization which includes SSEC, S&P BSE Sensex, exchange rate, world gold price, and inflation on the CSPI before and during the government decided to lockdown due to the spread of Covid-19 virus. Sampling-based on time series data with observation periods from 8 January 2019 to 9 June 2020, data analysis techniques used regression SPSS. The results concluded that the Shanghai Stock Exchange Composite has a significant effect on the CSPI, the S&P BSE Sensex significantly influential to the CSPI, the exchange rate has a significant effect on the CSPI, the world gold price significantly negative to the CSPI, inflation has a significant negative effect on the CSPI before and during the Pandemic Covid-19 in Indonesia

**Keyword: CSPI, Exchange Rate, Inflation, S&P BSE Sensex, World Gold Price**

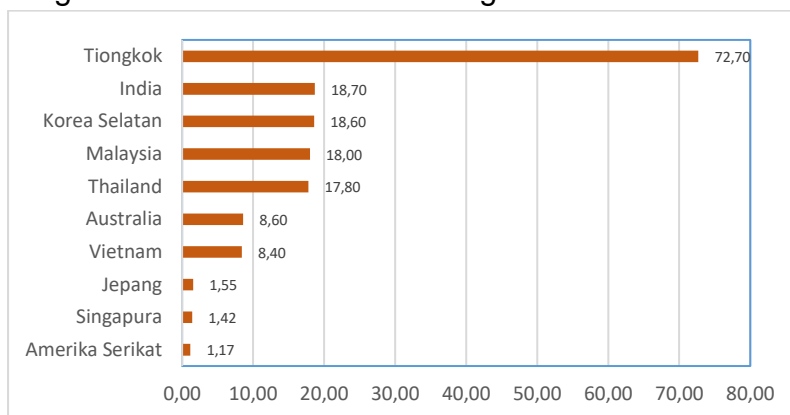
JEL Classification: C22, G01, G14, G15

### INTRODUCTION

The coronavirus outbreak or Covid-19 initially invaded Wuhan City, Hubei Province, China, then spread and infected thousands of people around the world. The Covid-19 Virus has killed India's population as much as 20.653 ranked first in Asia based on data world meters, July 8, 2020. The entire state is vigilant and begins to tighten the entry, issuing travel warnings, the spreading of food imports from the country curtain bamboo, and other measures as the anticipation of the spread of Coronaviruses. China has formally reported the Coronavirus to the World Health Organization (WHO) on December 31, 2019. Wuhan and other cities in China underwent a territorial quarantine on January 23, 2020. WHO declared Covid-19 as a Global health emergency on January 30, 2020. The global market development cannot maintain its position after the Corona Covid-19 virus stops China's economy. Indonesia as a trading partner of China will certainly be impacted by the expansion of the bamboo curtain state economy. China is the largest number one trading

partner in Indonesia, the second is India and then followed by South Korea as shown in figure 1 below:

Figure 1. Indonesia Main Trading Partners Year 2018



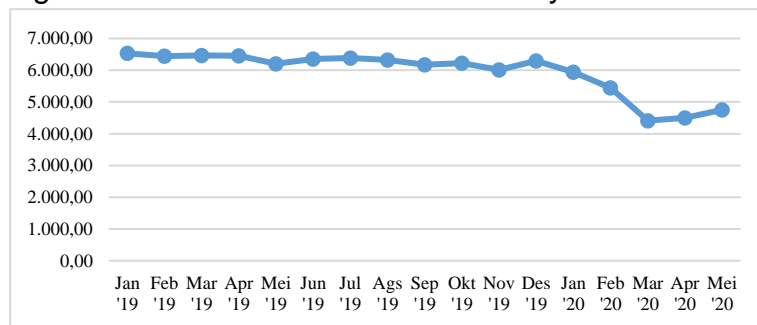
Source: BPS, May 2019

Corona Virus has a considerable influence on the global economy, especially the bamboo curtain country, China as the main player on international trade that has a big influence on Indonesia. China has reported a decrease in export performance by 17.2% since February 2019 and the largest during the trade war with the United States. Moreover, imports also slumped 4% compared to the previous year plus the presence of the Coronavirus outbreak is making the plant activity slowed and even the slowdown was worse than the conditions during the global financial crisis.

Since the Coronavirus (Covid-19) was first discovered in China in December 2019, torn made panic worldwide, as it not only caused casualties but also had a significant impact on global financial markets. Many investors reveal viruses will impair economic growth, resulting in mass sales of its shares resulting in reduced stock prices. The Shanghai Stock Exchange Composite index, S&P BSE Sensex and Composite Stock Price Index decreased in value due to the uncertainty of Corona-virus pandemic. According to (Tandelilin & Eduardus, 2010), the definition of CSPI or Composite Stock Price Index is an index that uses all shares recorded as a component of price index calculation. The indicator used to see the development of the Indonesian capital market is the Composite Stock Price Index (CSPI) which is the stock market index used by CSPI and this index reflects Indonesia's economic condition. The value of shares decreased can be due to changes in the policy during a pandemic such as changes in working hours, trading

halt, changes in auto rejection nevertheless there are still companies that do IPO or the emergence of the go public companies that have been on the exchanges in this pandemic. The overall decline in the CSPI value during the pandemic under 5% (Selasi, 2020). This pandemic has a significant impact on the trading on the exchanges as indicated by the decline in the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange as shown in figure 2.

Figure 2. CSPI Performance in January 2019 S/d in May 2020

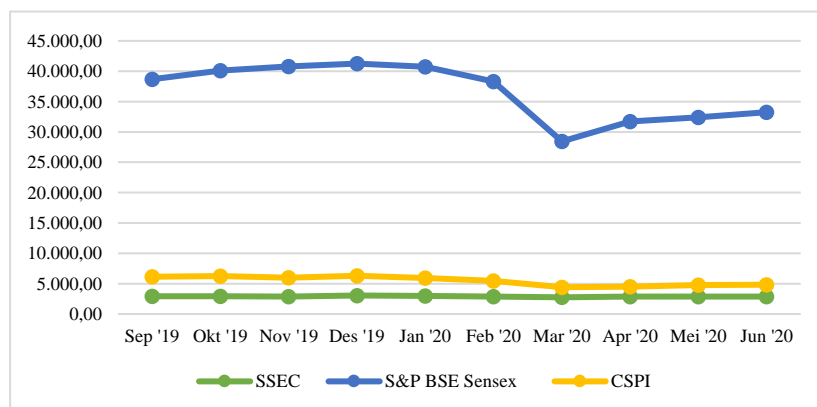


Source:

[www.idx.co.id](http://www.idx.co.id)

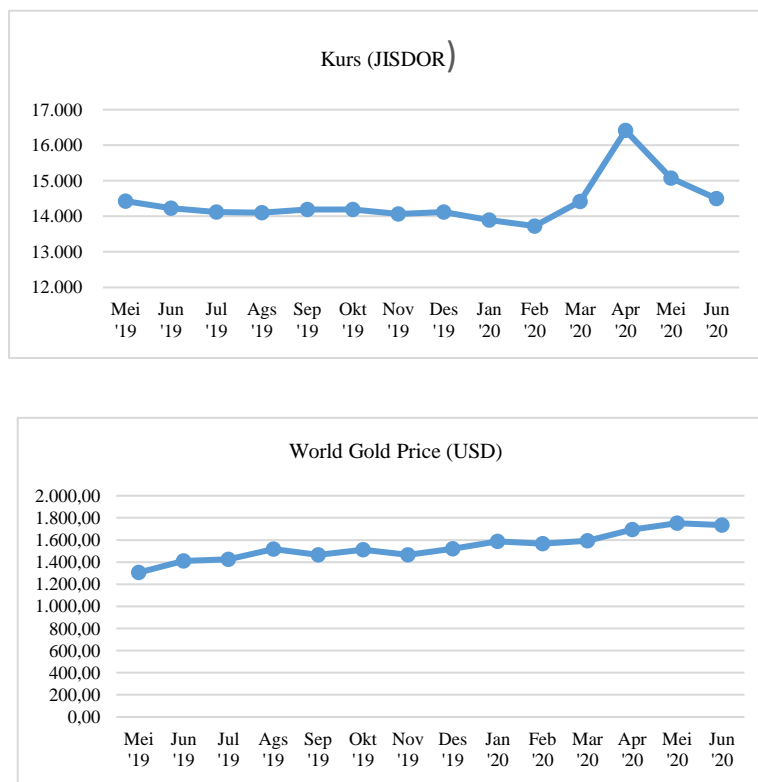
The development of the CSPI from January 2019 before the occurrence of Covid-19 had a downward trend despite the rise in December 2019 then sharply dropped in March 2020 when the entry of the Covid-19 outbreak to Indonesia, on 20 March 2020 the Indonesian Government took the policy to do physical distancing, using masks, snaking the school, doing work from home, and so on. Indonesia has now ranked 6th total deaths in Asia after China with a death total of 3.309.

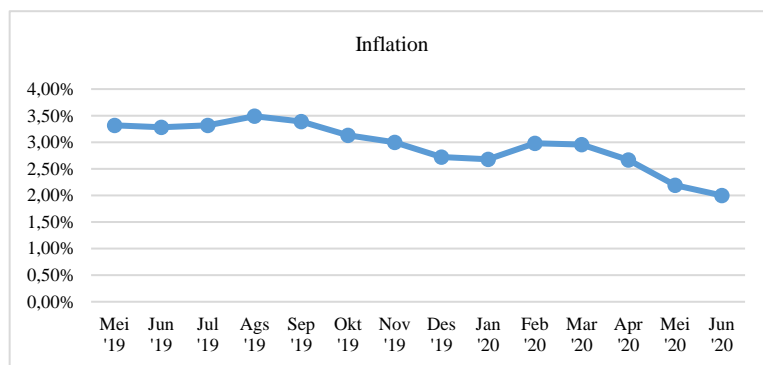
Figure 3. Development of SSEC, S&P BSE Sensex, CSPI May 2019 until June 2020



On figure 3 shows the development of the SSEC (China), S&P BSE Sensex (India) which is the most major trading partner in Indonesia in 2018. The development of SSEC, S&P BSE Sensex, CSPI for a period before the time of the Covid-19 was a sharp decline in March 2020. (Dewi & Masithoh, 2020) in her research found that the CSPI before and after the Covid-19 occurred a significant difference where the results of the CSPI after the Covid-19 were smaller (sharply dropped) compared to the CSPI before the Covid-19 happened. Based on the research results of (Ichsani, Mariana, & Andari, 2019) that the Shanghai Composite Index Composite (SSEC) has a positive effect on the Jakarta Composite Index (JKSE). (Anggraini & Nurhadi, 2019) show Shanghai Composite Index Composite has a negatif significant on CSPI

Figure 4. Exchange Rate, World Gold Prices, And Inflation May 2019 to June 2020





Source: [www.bi.go.id](http://www.bi.go.id)

Based on figure 4 shows that in the period of Covid-19 The magnitude of the rupiah exchange rate against the Amerika dollar is weakening the largest in April 2020, while the price of gold is always experienced a very significant increase. For the inflation rate was fluctuating and sharply decreased in March 2020. (Smith, 2001) concludes that world gold prices negatively affect the movement of the stock price index in the Americas. Unlike the (Twite, 2002) found that gold is one of the factors that positively affect the movement of the stock indices in Australia. (Hooker, 2004) said the inflation rate influenced the price of the stock, (Prasetyanto, 2017) that inflation has a significant negative impact on the CSPI. (Fahmi, 2013) said if the rupiah is weakening, foreign investors will likely ask for a return from its large shares so that it can cause the CSPI to decline. (Oktavia & Handayani, 2018) that the exchange rate did not have a significant effect on the CSPI, while (Jayanti, Darminto, & Sudjana, 2013) found that the exchange rate was significantly negative against the CSPI

That examines (Ato Forson & Janrattanagul, 2014) the relationship of Thai Stock Exchange Index (SETI) and macroeconomic variables. (Narayan & Narayan, 2012) the impact of macro economy of the United States on stock markets Asian countries (China, India, Philippines, Malaysia, Singapore, Thailand, South Korea). The focus of the research is on analyzing the foreign exchange index and macroeconomic, which is measured from the global stock price index of the 2 most prominent Indonesian trading partners of 2018 (Shanghai Composite in China, BSE

Sensex 30 in India) and exchange rate, world gold price, inflation to the CSPI movement at the time before and during the Pandemic Covid-19.

## **LITERATUR REVIEW**

Macro Globalization Economics of this research using the global stock price index of 2 Indonesia's leading trading partners in 2018, the first, the Shanghai Stock Exchange Composite (SSEC) was also called China founded Stock Exchange on 26 November 1990 and started operating on 19 December 1990 using the base value of 100 (Bloomberg). SSE is directly regulated by the China Securities Regulatory Commission (CSRC). Second, BSE Sensex 30 was a capital market index of the modernisenous financing for 30 large and well-established companies on the Mumbai Stock Exchange, India. The 30 companies of this component are part of the largest and most traded stocks, representing various industrial sectors in the Indian economy. SENSEX was opened since 1 Januari1986

Macroeconomic indicators that are often associated with capital markets are fluctuations in interest rates, inflation, rupiah exchange rates, oil prices, and world gold prices (Surbakti, Achسانی, & Maulana, 2016). The change in interest rate will affect the price of the stock upside down in the caterpillar state where if the interest rate increases, then the share price will decrease, otherwise if the interest rate falls, the share price rises (Tandelilin & Eduardus, 2010). Inflated inflation will reduce the strength of the purchasing power of rupiah that has been invested (Tandelilin & Eduardus, 2010). Therefore, the risk of inflation can also be called the risk of purchasing power. If inflation increases, investors usually demand a premium inflation supplement to compensate for a decrease in the buying power it has suffered. The exchange rate is one indicator that affects the activity in the stock market as well as in the money market because investors tend to be cautious about investing in a portfolio. Gold prices are determined by supply levels and gold demand from around the world. Demand for gold by investors as a tool to diversify assets to reduce investment risk because gold is an alternative investment in addition to stocks that have a return above the inflation rate. Therefore, the demand for gold increased and caused a rising gold price (Sunariyah, 2006).

Previous research that has been conducted is according to (Utama & Artini, 2015) shows that the Dow Jones Index (DJ) and the Straits Times Index (STI) were partially positively influential on the CSPI, while the FTSE100 and Nikkei 225 indices did not affect the CSPI. (Nugraha & Dewi, 2015) show that the SBI rate and the exchange rate partially negatively affect the CSPI. Meanwhile, the Dow Jones index and the Nikkei 225 index partially positively influence the CSPI during the year 2009-2013. (Surbakti et al., 2016) Show DJIA and the exchange rate affect the CSPI while the price of gold, interest rates and inflation does not affect the CSPI. (Sartika, 2017) show has no significant influence between interest rates, rates, world oil prices and world gold prices on the CSPI and the Jakarta Islamic Index (JII). (Kusumawati & Asandimitra, 2017) the results of this study showed that DJIA, FTSE100, Hang Seng, money supply and exports do not affect the CSPI. NIKKEI 225, KOSPI and gold prices have a positive relationship with the CSPI. (Aditya, Sinaga, & Maulana, 2018) results of his research concluded that DJIA and Nikkei 225 have a significant positive influence on the CSPI. BI rate, Rupiah exchange rate against the USD and dummy crisis significantly negative influence on the CSPI. While the DAX variables, inflation and world gold prices have no significant effect on the CSPI. (Anggraini & Nurhadi, 2019) The aim analysis of the Dow Jones Industrial Average (DJIA) index, the Shanghai Stock Exchange (SSE) index, the USD/IDR rate and the BI Rate were significant in response to the consolidated stock price Index period 2015-2018. DJIA partial influence is positive and significant to the CSPI. The SSE index and the USD/IDR exchange rate negatively and significantly affect the CSPI. BI Rate is negative but not significant to the CSPI.

## **RESEARCH HYPOTHESIS**

- H1: Shanghai Stock Exchange Composite has a significant effect on the CSPI before and during Covid-19 in Indonesia
- H2: S&P BSE Sensex has a significant effect on the CSPI before and during Covid-19 in Indonesia
- H3: The exchange rate has a significant effect on the CSPI before and during Covid-19 in Indonesia

H4: The world gold price has a significant effect on the CSPI before and during Covid-19 in Indonesia

H5: The inflation has a significant effect on the CSPI before and during Covid-19 in Indonesia

## METHODOLOGY

This study took secondary data before and during Indonesia set lockdown decision up to announce new normal and opened large-scale social restriction on 8 June 2020, data retrieval time-series observations from January 8, 2019, to June 9, 2020, with a sample amount of 70 in the form of secondary data that can be accessed from multiple pages that provide online data from [www.investing.com](http://www.investing.com) and [www.idx.co.id](http://www.idx.co.id) The analytical techniques used are multiple linear regression. With a variable Shanghai Stock Exchange Composite (X1), S&P BSE Sensex (X2), Exchange rate (X3), World Gold Price ( X4), Inflation (X5) and Composite Stock Price Index (Y).

## RESULT AND DISCUSSION

The regression test results are as follows:

Table 1 Regression Analysis Results

Model	Coefficients <sup>a</sup>						Collinearity Statistics	
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF	
	B	Std. Error	Beta					
(Constant)	646,242	1121,874		-,576	,567			
SSEC	,617	,236	,096	2,615	,011	,300	3,328	
BSE	,143	,009	1,009	16,459	,000	,109	9,204	
KURS	,127	,038	,170	3,373	,001	,160	6,258	
GOLD	-1,268	,252	-,136	-5,028	,000	,561	1,784	
INFLATION	277,013	90,695	-,080	-3,054	,003	,598	1,671	

a. Dependent Variable: CSPI

Source: Data processed using SPSS version 20.0 (2020)



The results of the above statistical data processing are obtained multiple linear regression equations as follows:

$$Y = -646,242 + 0,617 (X_1) + 0,143 (X_2) + 0,127 (X_3) - 1,268 (X_4) - 277,013 (X_5).$$

Based on the results of multiple regression analyses showed that all independent variables have a significant effect on the dependent variables of the CSPI. Variable X1, X2, X3 has a significant positive influence on Y while for the variable X4 and X5 has a negative influence on Y

### **Hypothesis 1 (Shanghai Stock Exchange Composite/SSEC)**

Based on table 1 known coefficient  $\beta$ , Shanghai Stock Exchange Composite/SSEC is worth a positive value of 0.617, this means that every SSEC increase will increase CSPI The value of Sig < Alpha (5%) i.e. 0.011 < 0.05 and thus the H1 is accepted, the SSEC has a significant effect on the CSPI The relationship between the countries is very strong, China is the most prominent partner with Indonesia until now there are several cooperation agreements conducted by Indonesia and China. The signing of a memorandum of understanding or Memorandum of Understanding (MoU) in the field of Economic with the increasing value of exports of Oil Palm, the transportation sector is through the construction of rapid rail Jakarta-Bandung, Maritime and SAR, the prevention of double taxation in the field of exports and imports, 2015-2020 space cooperation, bilateral relations in enhancing the performance of state-owned enterprises to BUMN, The building of infrastructure between the Ministry of BUMN, Reform Commission, and national development of the PRC. The cooperation that has been formed by the two countries in this field that can affect the performance of the Shanghai Stock Exchange Composite/SSEC and the CSPI. The research is in line with the research of (Ichsani et al., 2019), (Sihombing & Rizal, 2014), (Anggraini & Nurhadi, 2019) that SSEC has a significant negative impact on the CSPI

### **Hypothesis 2 (S&P BSE Sensex)**

The value of Sig < Alpha (5%) i.e. 0.000 < 0.05, therefore, the H2 hypothesis was accepted, so S&P BSE Sensex has a significant effect on the CSPI India has a second-order after China as a trading partner with Indonesia. Cooperation that has

been conducted both countries also many of them in the field of economics, defence, cooperation and use of space, technical cooperation in the railway sector between the Ministry of Transportation and the Ministry of Railways Republic of India, cooperation in science and technology, tourism field, cooperation techniques in the field of development of civil apparatus capacity of the State, and the field of health. Thereby affecting the performance of S&P BSE Sensex and CSPI.

### **Hypothesis 3 (Exchange Rate)**

The value of Sig < Alpha (5%) i.e.  $0.001 < 0.05$  and thus the hypothesis 3 is acceptable, the exchange rate (Rupiah currency exchange rate against the US dollar) has a significant effect on the CSPI Weakening Rupiah exchange rate or a strong dollar exchange rate can increase the cost of import of raw materials and increase interest rates (Sunariah, 2011). So if the import value is high then the cost is reduced to get the raw material so it increases and will be on the return of the trade that is decreasing and ultimately affect the price of the stock. If the Dollar rate rises then the trend of the investors will be more interested to raise the capital in the form of Vallas Dollar, this will certainly result in a decrease in the purchasing power of stocks that eventually the CSPI will weaken.

Supporting research (Surbakti et al., 2016), (Sartika, 2017) contrary to (Jayanti et al., 2013) that the exchange rate negatively and significantly affects the CSPI, (Oktavia & Handayani, 2018) found that the exchange rate did not affect the CSPI

### **Hypothesis 4 (World Gold Price)**

The value of Sig < alpha (5%) i.e.  $0.000 < 0.05$  and thus the H4 is acceptable, the world gold the has a significant effect on the CSPI, with a coefficient  $\beta$  negative value of 1.268 indicates that the world gold prices are negatively significant to the CSPI. The world gold price based on the chart above shows an increase despite the Covid-19 pandemic, this situation caused the CSPI to decline because the investor will sell its shares and switch investments to gold. Gold it self has a fixed and standard instrinsik value, so it is easy to buy and melt at any time and is not affected by the inflation movement so that investors will be more interested in investing in gold than in the stock. In line with research (Twite, 2002), (Kusumawati &

Asandimitra, 2017) contrary to the research results of (Rusbariand, 2012), (Lawrence, 2013), that world gold prices do not affect the CSPI

### **Hypothesis 5 (Inflation)**

The value of Sig < Alpha (5%) i.e.  $0.003 < 0.05$  as H5 hypotheses are accepted, inflation has a significant effect on the CSPI with a negative coefficient of  $\beta$  indicating that inflation has a significant negative impact on the CSPI. The demand for goods and services in the Indonesian community during the Covid-19 was reduced drastically due to the implementation of large-scale social restriction in various regions to reduce the spread of viruses, resulting in decreased inflation. Investors tend to hold their shares for sale due to declining market demand causing the CSPI to be stagnant movements.

The results of this study were not in line with the research conducted by (Kaisoji, 2014), (Jayanti et al., 2013), (Wahyudi, 2016), inflation does not affect the CSPI

### **CONCLUSION**

Based on the results of the analysis and the discussion can be concluded that the Shanghai Stock Exchange composite influential to the CSPI, the S&P BSE Sensex significant effect on the CSPI, significant impact on the CSPI, gold price significantly negative impact of the CSPI, inflation is significantly negative against 2020 the CSPI before and during the government decided to lockdown due to the spread of the Covid-19 virus on March 20, 2020.

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