



**THE EFFECT OF COVID-19, RUPIAH EXCHANGE RATE
AND INFLATION ON THE INDONESIA SHARIA STOCK INDEX
DURING THE COVID-19 PANDEMIC**

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Abstract

Purpose of this study is to clarify the effect of the number of daily cases reported to have contracted the Covid-19 virus, the exchange rate of the rupiah against the US dollar and inflation on the movement of the Indonesian Sharia stock index (ISSI) during the Pandemic Covid 19 in the short term and long term. Data analysis methods that used is analysis *Error Correction Mechanism* (ECM) using *Eviews software* 10. The data collected is daily time series data starting from March 2, 2020 to May 31, 2021 so that the number of samples collected obtained as many as 283 samples . The results of the study stated that the addition of the daily number of reported cases of contracting the Covid-19 virus has a negative impact on The Indonesian Sharia Stock Market Index (ISSI) during the Covid-19 pandemic, so that encourage the weakening of the Stock Index both in the long and long term short. Likewise, the weakening of the rupiah against the US dollar will caused the fall of the sharia index during the Covid 19 pandemic, both in the long term and long and short term. However, the study found no effect inflation on the Indonesian Sharia Stock Index (ISSI) during the Covid-19 pandemic, good long term and short term.

Keywords: Covid 19, Rupiah Exchange Rate, Inflation, ISSI, ECM

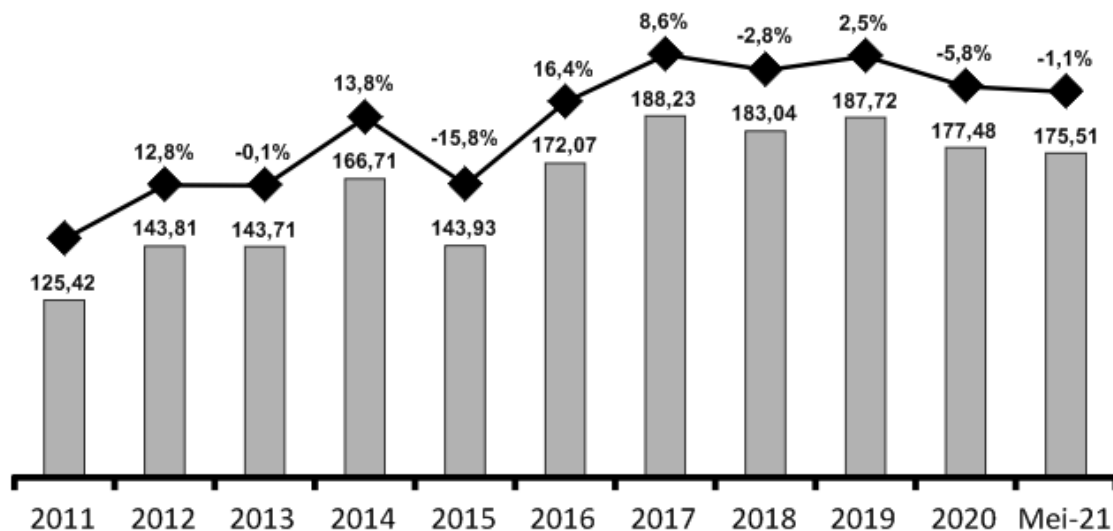
INTRODUCTION

Sharia shares are securities that are traded in the Capital Market with principles that do not conflict with the sharia concept . "There are 2 (two) types of Islamic stocks are traded on the Indonesia Stock Exchange, namely: First, the shares otherwise have met the criteria the results of the selection of Islamic stocks which is based on regulation FSA No. 35 / POJK.04 / 2017 on Criteria and Issuance of Sharia Securities List , and the second is a stock which is accounted for by the issuer or public company sharia are in is based on the rule FSA n o. 17/POJK.04/2015 ” (PT Indonesia Stock Exchange 2021) .

One of the indexes that measures the movement of Islamic stock prices traded at PT. The Indonesia Stock Exchange is the Indonesian Sharia Stock Index (ISSI). ISSI is a composite index of Islamic stocks listed on the IDX based on the announcement of the Indonesia Stock Exchange No. Peng-00 139 / BELPOP / 05-2021 ter dated May 24th, 2021 is about 463 shares (the Indonesia Stock Exchange in 2021).

The performance of Islamic stocks incorporated in ISSI is reflected in the following diagram:

Figure 1
ISSI Movement 2011–May 2021



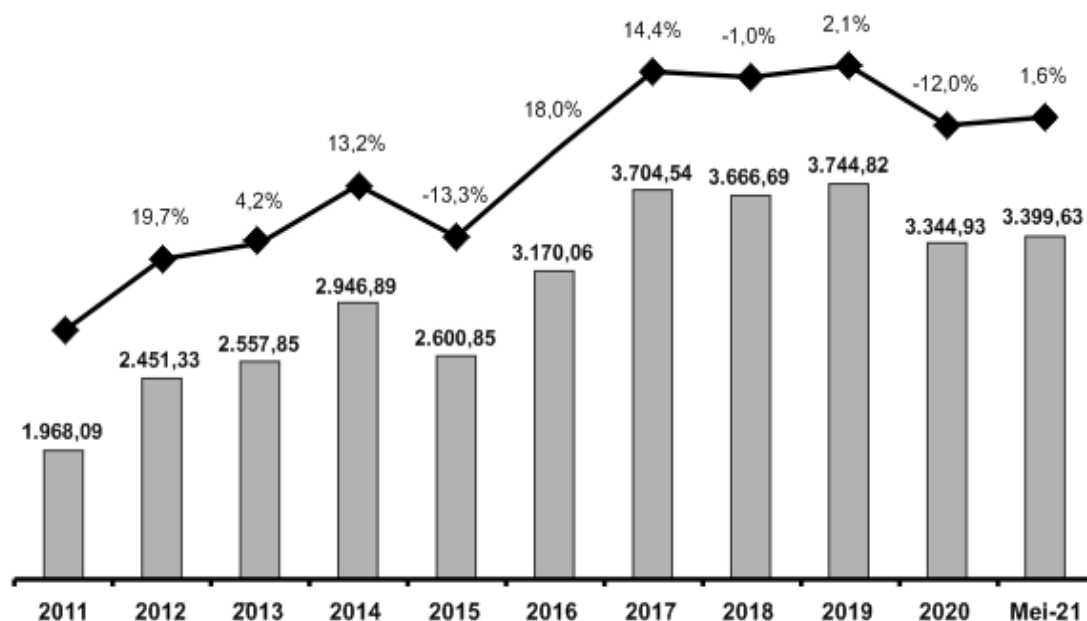
Source: <https://www.idx.co.id> (data processed)

Based on the diagram, the development of sharia stock index continued to increase from year to year, although there are some periods experiencing a decline. In 2020, the world was shaken by the Covid-19 outbreak, ISSI closed with a value of 177.48, down by 5.81%. This decrease does not seem to be comparable to the decline in

2015. Where in 2015 ISSI closed at 143.93, down by 15.8%. The decline in the ISSI value at the beginning of the Covid-19 pandemic, according to some researches, was more due to investor panic over their investment in Islamic stocks and was influenced by the fall in the Composite Stock Price Index (JCI) (Pratitis and Setiyono, 2021; Siregar, 2020).

In addition to the sharia stock price index which can be said to be very stable and tends to have an increasing trend, the market capitalization of sharia composite shares is also in a very stable condition and tends to have an increasing trend.

Figure 2
ISSI Market Capitalization 2011 – May 2021



Source : <https://www.ojk.go.id> (data processed)

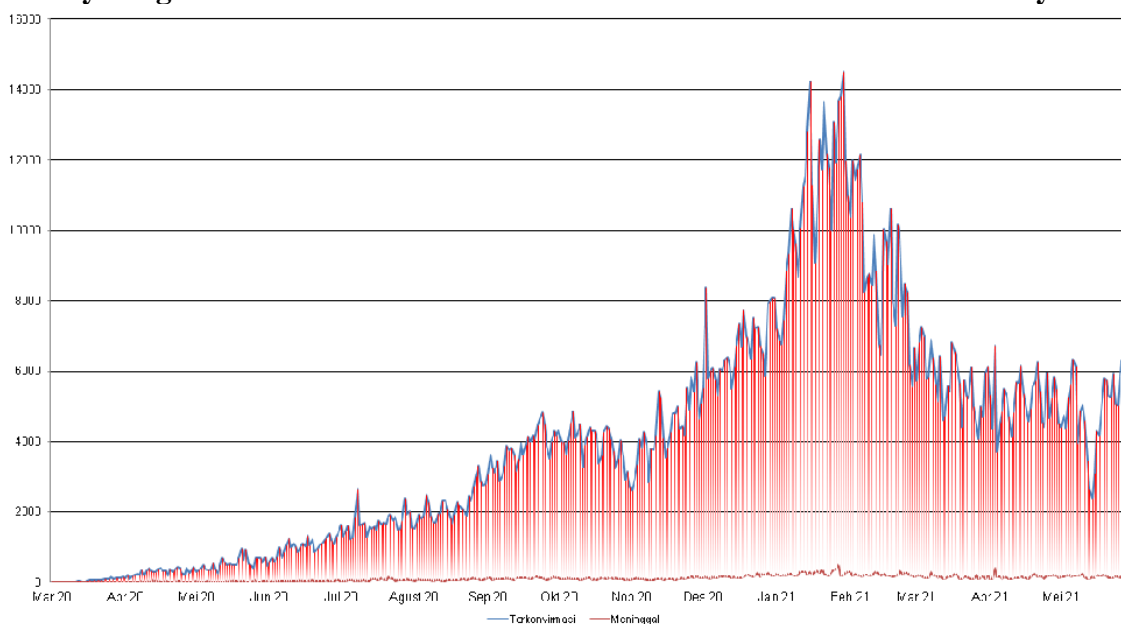
Market capitalization growth from year to year or on a Year on Year (YoY) basis shows a significant increase in growth as shown in 2016 at 18.0%, the largest decline occurred in the previous year, namely in 2015 by 13.3%. This condition indicates that Islamic stocks are able to recover "itself" in restoring the stability of its market capitalization in a very fast tempo. A similar thing happened in 2020 where the Covid-19 pandemic that had not subsided even got worse, Islamic stocks were able to make a recovery, where in 2020 there was a decline of 12% and in May 2021 there was an increase of 1.6%.

It seems that the Covid-19 outbreak has hit the world, not giving too much negative sentiment to ISSI. The Indonesian Sharia Stock Index seems to be more resilient and stable when compared to the JCI, this is possible because of the very strict

criteria for stocks that are included in the list of Islamic stocks. The criteria for the shares included in the requirements ISSI is a comparison of debt comes from interest/usury against the assets is less than 45 percent and operational areas of the company did not violate Islamic principles, as well as the revenue is not permitted on total income of less than 10 %. It is hoped that the issuer will be able to survive in various economic uncertainties, such as the Covid-19 pandemic (Okayzone, 2021) .

It makes world inversely proportional to panic in the face of the epidemic. In responding such outbreaks each country to apply various kinds of policies that aim to eradicate the plague Covid-19. The policies are likes enacting Lockdown, Large-Scale Social Restrictions (PSBB), Enforcement of Restrictions on Community Activities (PPKM) Micro, Work form Home (WFH), 3M (washing hands, keeping your distance and staying away the crowd), as well as policies that restrict and regulate the activities of social to society's. However, this policy has not been able to stem the ferocity of the Corona-19 virus outbreak. This is illustrated in the following diagram:

Figure 3
Daily Progress of Positive Confirmed Cases of Covid-19 March 2020 – May 2021

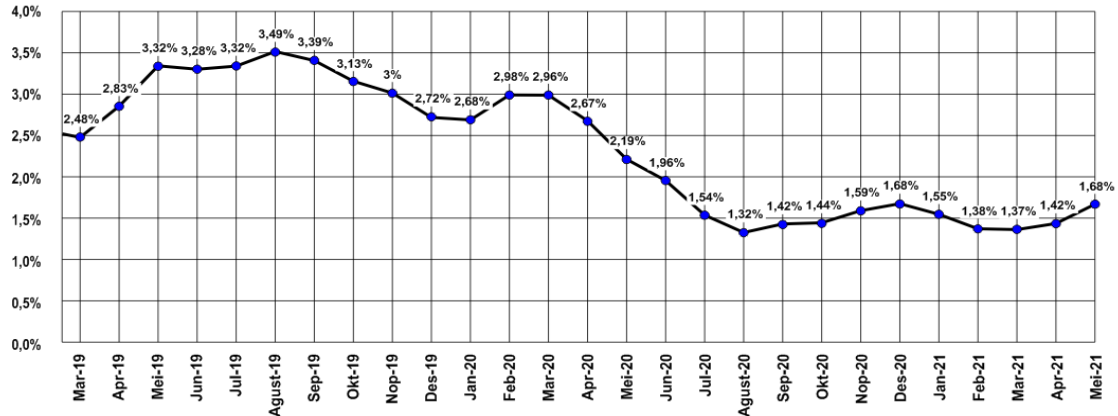


Source: <https://id.wikipedia.org> (data processed)

Restrictions on community activities in order to eradicate the spread of the Covid-19 outbreak , both on a large and micro scale, have an impact on economic activity. The rate of inflation that occurs shows the economic sluggishness that occurred during the pandemic. The lowest inflation recorded by the Central Statistics Agency at 1.32% occurred in August 2020. This inflation rate is Indonesia's lowest inflation for the

last seven years (Media, 2021) . The rate of inflation during the pandemic (March 2020 to May 2021) is illustrated in the following diagram:

Figure 4
Inflation Movement March 2019 – May 2021

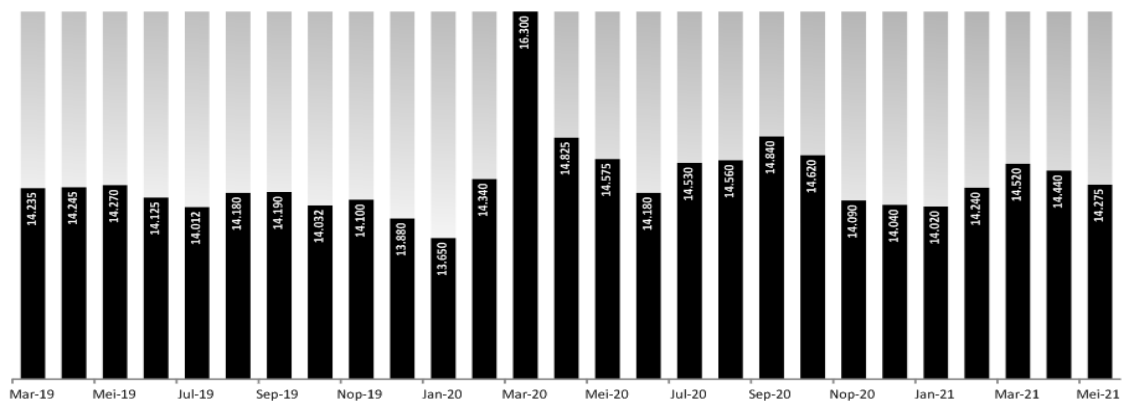


Source: <https://www.bi.go.id> (data processed)

Although the inflation rate has reached a point of anti climax s throughout the last 7 years, but in 2021 the government attempted to realize the value of 3 percent inflation in the corridor of plus or minus 1 per cent as at targeting Bank Indonesia (Target Inflation pandemics in 2021). The achievement of poor inflation values throughout 2020 greatly affected the performance of Islamic stocks (Karni and Adhli 2018; Rachmawati and Laila 2015).

The decline in the inflation rate was also marked by the decline in the rupiah exchange rate against the US dollar during the pandemic , as illustrated in the following diagram:

Figure 5
Movement of the USD/IDR Exchange Rate (March 2019 - May 2021)



Source: <https://id.investing.com> (data processed)

Throughout 2020, along with the Covid-19 outbreak, the exchange rate of the rupiah against the US dollar tends to fluctuate and depreciate. On 2nd March 2020 President Joko Widodo inform their two first cases Covid-19 in Indonesia, the rupiah against the US dollar was still perched on the USD. 14,265.00 (Media 2020) . This triggered public and business fears about economic conditions, so that the exchange rate of the rupiah against the US dollar fluctuated so violently. Moreover, when there are restrictions on community social activities and the Covid-19 outbreak continues, the rupiah depreciated to Rp. 16,575.00 as of March 23rd, 2020.

Entering 2021, with the more incessant attacks and the spread of the Covid-19 outbreak in Indonesia and even throughout the world, the value of the rupiah rose and strengthened by 0.4%. The strengthening of the value of the rupiah against the US dollar as a result of the clarity of the development of the corona virus vaccine in the world and the government's intervention in controlling the inflation rate (Media, 2020) . This is in line with research (Sebo and Nafi 2021; Syahri and Robiyanto 2020; Triuspitorini and Setiawan 2021), "stating that the rupiah exchange rate against the US dollar has no effect on the Indonesian Sharia Stock Index".

REVIEW OF LITERATURE

“Capital Market is a place or means of meeting demand and supply for long-term financial instruments, generally more than 1 (one) year. The objectives and benefits of the capital market can be seen from 3 (three) points of view, namely: (1) State point of view, (2) Issuer's point of view, (3) Community point of view” (Samsul, 2015).

Intermediation Function is a concept that is executed in the Sharia Stock Index. Where the function of the connecting parties who provide products investment sharia (those who require funds) with the owner of the funds. Those who need funds to issue shares are then offered to owners of funds through an offering mechanism in the Islamic capital market. Furthermore, the owner of the funds as the purchaser of shares and the Stock Exchange is the organizer of the intermediation function in the Islamic capital market (Abdalloh, 2018).

"There are several factors that affect the performance of the stock and performance perusa pany of the terms of macro-economics, namely: a. General interest rate ; b. Inflation rate i; c. Tax regulations; d. Government specific policies; e. Foreign

exchange rates; f. Foreign loan interest rates; g. international economy ; h. Economic cycle; i. understanding of economics; j. Circulation of money ” (Samsul, 2015).

Economic macro situation in a country will give a signal of positive or negative. Investors will take into account the impact of these on the company's performance in the era coming. Further they will perform making the decision to buy or even sell their shares. Such conditions will have a direct impact on fluctuations in the joint stock index.

Indonesian Sharia Stock Index (ISSI)

"Index Price Composite (Composite Stock Price Index-CSPI) is a composite index of all stocks listed on the stock exchange, issued by the Stock Exchange" (Samson, 2015). Meanwhile" Sharia Stock Index Indonesia (ISSI) is a composite index of stock sharia listing in Indonesia Stock Exchange (BEI). ISSI serves as an indicator of the performance of the Indonesian Islamic stock market. The shares listed in ISSI are all sharia shares listed on the IDX and have been included in the Sharia Securities List (DES) issued by the OJK periodically. Stocks listed in ISSI will be selected again twice in every year, i.e every month of May and the month of November. So that every period of selection results there are always sharia shares that leave or enter into ISSI members” (PT Indonesia Stock Exchange 2021).

Composite Stock Price Index in each day is always changing, due to: "1) changes in market prices every day, 2) the presence of additional shares. The additional shares come from new issuers on the stock exchange, as well as due to *corporate actions* in the form of *splits*, *rights*, warrants, dividend shares, bonus shares and convertible shares. Meanwhile, individual stock prices fluctuate due to supply and demand factors. Where the variables influencing the demand and supply of a stock is very diverse, including the influence of the rational nature that is the macroeconomic environment " (Samsul, 2015).

Number of Daily Cases reported to be infected with the Covid-19 Virus

Covid-19 is the virus that causes pneumonia occurring in Wuhan, China in the month of December 2019 and has been endemic to the whole world since January 2020. The virus has spread to Indonesia on March 2, 2020, with attention to the announcement of President Joko Widodo that there are two people infected with the virus the. (Media, 2020).

Covid-19 outbreaks were so devastating and widespread throughout Indonesia and even around the world have given the impact that a very large economy of

Indonesia. The jump in the number of reported cases Covid-19 infected with a fatality rate that is very large in the past, causing panic on all elements of society. Various government and community actions aimed at breaking the chain of Covid-19 spread have a negative impact on people's income, increasing unemployment, and increasing poverty rates. (Ministry of National Development Planning/Bappenas: Macro Economic Development (Monthly, 2021).

Rupiah Exchange Rate against US Dollar

"The exchange rate is defined as the value of a country's currency compared to the value of other countries' currencies " (Fahmi, 2014). "There are two kinds of exchange rate is the exchange rate of nominal and real exchange rates. The nominal exchange rate is the relative price of the currencies of two countries, while the real exchange rate is the relative price of goods between the two countries" (Mankiw, 2003).

In many cases, a decrease in the exchange rate in a country will affect the decrease in demand for exchange rate of the country. On the other hand, if the exchange rate of a country strengthens, it indicates that there is an improvement in the performance of the money market. Thus, the currency exchange rate in a country has a negative effect on the capital market.

"The strengthening of the rupiah exchange rate against foreign currencies is a positive signal for the economy of Indonesia. Where the strengthening of the rupiah exchange rate against foreign currencies will reduce the cost of importing raw materials for production, and will reduce the prevailing interest rate so that the strengthening of the rupiah exchange rate will increase stock prices" (Samsul, 2015; Tandelilin, 2010).

Inflation

"Inflation is the tendency of an increase in the price of products as a whole so that there is a decrease in the purchasing power of money" (Tandelilin, 2010). "The relative increase in inflation is a negative signal for investors. From the consumer's perspective, high inflation will have an impact on the declining purchasing power of consumers (the public). However, when considered from the company's perspective, inflation can increase the company's revenue and costs. When the increase in the cost of factors of production becomes higher than the increase in prices that can be enjoyed by the company, the company's profitability will decline so that stock prices will fall" (Sunariyah, 2011).

The inflation rate can have positive or negative effects, it depends on the degree of inflation. Where excessive inflation will cause losses to the global economy,

so that many companies will experience bankruptcy. Thus, high inflation results in a decline in the value of stock prices, while very low inflation has an impact on weakening economic growth in a country (Samsul, 2015) .

The Influence of the Daily Number of Cases Reported by the Covid-19 Virus on the Indonesian Sharia Stock Index during the Covid-19 pandemic

Since the beginning of the spread of the Covid-19 virus in Indonesia and even in the world, it has raised anxiety and worry about various kinds of public activities. Various public activity many stopped and in the air to stop, either voluntarily or by force . The economic sector is one of the sectors that are affected, where the impact is felt directly by the community in their daily lives.

The impact of the restrictions on these activities is also felt by the economic sector (both private and state- owned enterprises). Therefore b ifferent kind of stimulus or relaxation as well as aid which is socio cash has disalukan to the people affected . Such assistance d iantaranya Card program Pre-employment, subsidized wages to those who have wages below (BSU) , aid to capital for SMEs , granting discounts and exemptions cost of electricity (PLN), and dried in banking and various kinds of other stimuli intended in order to maintain and increase people's purchasing power. This encourages economic recovery and increases community productivity.

This policy is quite effective in recovering the economic sector, so it can be identified that " there is no significant difference between the average ISSI share price before and during the Covid- 19 pandemic" (Pratitis and Setiyono 2021). Siregar (2020) in his research found that "on average there was a decline in conventional stock prices while on average Islamic stocks experienced an increase". These conditions suggests that Indonesia's economy was experiencing pe descending early since their future pandemic Covid-19 not provide significant effect on stock transactions of sharia are traded on the stock exchange.

Joseph and Anthony (2020) , in a study it showed that " there is a significant difference between the JCI movement to the movement of ISSI, either before or during a pandemic covid ISSI 19. Trend movement of the index is higher than the JCI, either before or during a pandemic covid- 19, and the COVID-19 pandemic caused stock price movements, both on the IHSG and ISSI indexed stocks to drop drastically, but on the last observation date, the decline had been sloping or stable, this could be because the price had reached the lower limit ".

H₁ : It is suspected that there is a significant negative effect between the increase in the number of daily cases reported contracting the Covid-19 virus to the Indonesian Sharia Stock Index (ISSI) during the Covid-19 Pandemic.

The Effect of the Rupiah Exchange Rate on the Indonesian Sharia Stock Index during the Covid-19 Pandemic

The Indonesian government has made various efforts to respond to the devaluation of the rupiah against the US dollar during the Covid-19 pandemic . However, these efforts are still very difficult compared to responding to the economic crisis itself. The situation is the impact of the pandemic Covid-19 which led to the source of the crisis, and so far it is still no uncertainty when the situation is going to end.

Sebo and Nafi, (2021) in their research from March to September 2020 using a sample of companies in the food and beverage sub-sector found that the exchange rate had no significant effect on stock prices during the Covid-19 pandemic. The absence of this influence is due to the fact that the sample companies used for their transactions use the rupiah currency in their transactions more than foreign currencies , as well as the products produced for domestic purposes.

Syahri and Robiyanto (2020) , in their research using data from January 1 to June 30th, 2020 provide "references for investors regarding their investment decisions by looking at the relationship between JCI, gold and exchange rates".

H₂ : It is suspected that there is a significant negative effect between the Rupiah Exchange Rate on the Indonesian Sharia Stock Index (ISSI) during the Covid-19 Pandemic.

The Effect of Inflation on the Indonesian Sharia Stock Index during the Covid-19 Pandemic

"The Central Statistics Agency (BPS) recorded that inflation throughout 2020 reached 1.68 percent. This figure is the lowest inflation since 2014 or for the past six years ” (Media 2020). The weakening value of inflation is caused due to the decline in purchasing power pressure during the pandemic Covid-19.

However, in the development of the increasingly outbreak of Covid-19 marked by an increase in the number of cases reported to have contracted the Covid-19 virus , the government was able to contain the rate of inflation. CPI inflation in April 2021 was

recorded at 1.42% (yoy), higher than March 2021 inflation of 1.37% (yoy). In May 2021 CPI inflation was recorded at 1.68% (yoy), higher than April 2021. This condition indicates that there is an improvement in people's purchasing power.

Sebo and Nafi, (2021) in their research found that " during the Covid-19 pandemic there was no influence between the inflation rate on the stock prices of companies in the food and beverage sub-sector". The same research results were also obtained by Pasaribu and Firdaus (2003); Rachmawati and Laila (2015) which states that" there is no influence between the inflation rate on the Indonesian Sharia Stock Index (ISSI) " .

H₃ : It is suspected that there is no significant effect between Inflation on the Indonesian Sharia Stock Index (ISSI) during the Covid-19 Pandemic.

RESEARCH METHOD

Data Types and Sources

Data used in this research is quantitative data, the data in the form of nominal figures obtained from from the Website Bank Indonesia through <https://www.bi.go.id>, Website Indonesia Stock Exchange through [https://www.idx.co .id](https://www.idx.co.id), Wikipedia website via <https://id.wikipedia.org> and Trade Statistics Portal via <https://statistik.kemendag.go.id>.

Population and Sample

The study used secondary data that shaped time series recorded in a daily period. The data consists of March 2nd, 2020 to May 31st, 2021, so that a sample of 283 is obtained.

Model Error Correction Model (ECM)

Analysis of the data in this study used the Error Correction Model (ECM) approach model, which is used to test the model specifications of the approach and the theory can be seen in accordance with the reality. The specifications of the relationship in the model are as follows:

Long time equation

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + u_t$$

Information :

Y_t = Indonesian Sharia Stock Index (ISSI) per day period t

X_{1t} = Number of daily cases reported to have contracted the Covid-19 virus in period t

X_{2t} = Rupiah exchange rate against US Dollar for period t

X_{3t} = CPI Inflation Value for period t

u_t : Error term

β_0 : Intercep

$\beta_1, \beta_2, \beta_3$: Coefficient Directions

Short time equation

$$\Delta Y_t = \beta_0 + \beta_1 \Delta X_{1t} + \beta_2 \Delta X_{2t} + \beta_3 \Delta X_{3t} + \beta_4 \text{Ect}(-1) + u_t$$

Information :

Y_t = Indonesian Sharia Stock Index (ISSI) per day period t

X_{1t} = Number of daily cases reported to have contracted the Covid-19 virus in period t

X_{2t} = Rupiah exchange rate against US Dollar for period t

X_{3t} = CPI Inflation Value for period t

β_0 : Intercep

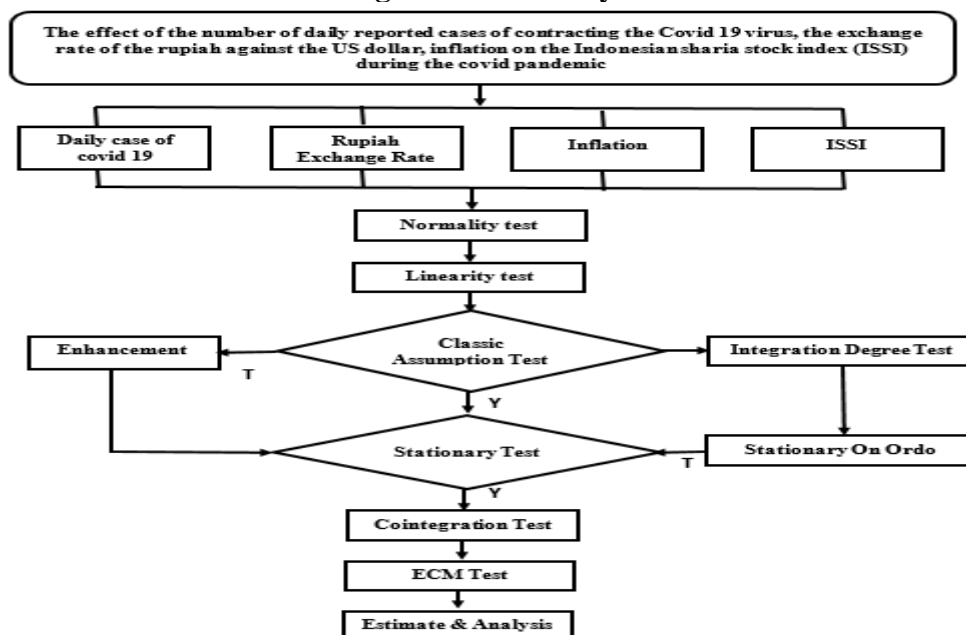
$\beta_1, \beta_2, \beta_3, \beta_4$: Coefficient Directions

Ect(-1) : residual value (previous period)

Data Analysis

To see the relationship between the variables of the daily number of Covid-19 cases, the Rupiah Exchange Rate, and Inflation on the Indonesian Sharia Stock Index (ISSI) in this study, the following steps were carried out.

Figure 6
Stages of Data Analysis



RESULTS AND DISCUSSION
Analysis of Statistics Descriptive

Table 1
Descriptive Statistics

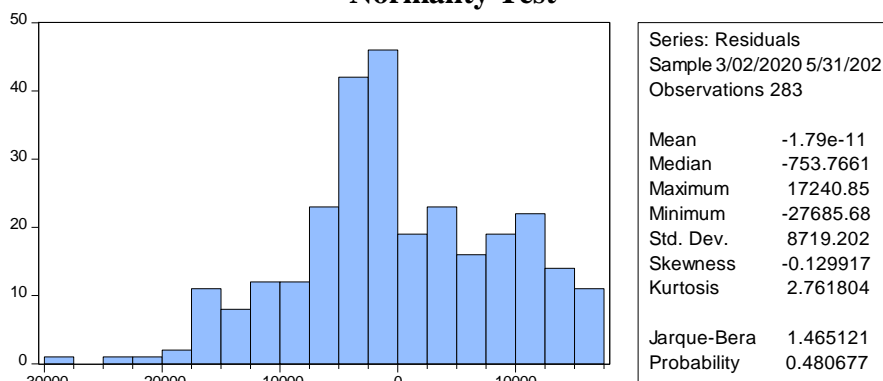
	Y	X ₁	X ₂	X ₃
Mean	160078.9	4049,640	14546.87	0.017573
Median	152239.0	3778,000	14440.00	0.015500
Maximum	190390.0	13802.00	16575.00	0.029600
Minimum	115946.0	0.000000	13870.00	0.013200
Std. Dev.	18033.19	3353,637	549.5623	0.004972
Skewness	0.023234	0.778134	1.720843	1.376713
Kurtosis	1.738600	3.018880	6.230337	3.574877
Jarque-Bera	18.78752	28.56325	262.7216	93.29370
Probability	0.000083	0.00001	0.000000	0.000000
Sum	45302315	1146048.	4116764.	4.973300
SumSq.Dev.	9.17E+10	3.17E+09	85169282	0.006972
Observations	283	283	283	283

Data source : Eviews (Data Processed)

Normality Test

To detect the data used to have a normal distribution, the research used the *Jarque- Berra* method . If the *Jarque-Berra Probability* value is smaller than the 0.05 probability value, then the data used is not normally distributed. Vice versa, if the *Jarque-Berra Probability* value is greater than 0.05, it can be concluded that the data used is normally distributed (Winarno 2015) .

Figure 7
Normality Test



Data source : Eviews (Data Processed)

Based on the results of the normality test, it shows that all the variables in the test of this model have normal distribution of data, or in other words, the normality requirements have been met. This can be seen from the Jarque-Berra value of 1.465121 with a probability value of 0.480677. Then the probability value is greater than = 0.05 (0.480677 > 0.05).

Generalized Least Square (GLS)

Generalized least squares (GLS) is one of the parameter estimation methods used to overcome autocorrelation when the autocorrelation coefficient value is known. The GLS method is expected to overcome the time series autocorrelation and the correlation (cross section) between the observed values. The GLS method produces a best linear unbiased estimation (BLUE) response, a processing method to overcome violations of the covariance and autocorrelation assumptions (Winarno 2015).

Based on the results of multiple linear regression analysis obtained by value of Durbin Watson stat amounted to 0.200592 and the value of p value in peng test an Breusch-Godfrey Serial Correlation LM, amounting to 0.0000. The value of p is smaller than 0.05 to reject H_0 or meaningful contained serial autocorrelation problems. Similarly, heteroscedasticity testing using the Breusch-Pagan-Godfrey method obtained the value of Prob. chi square (4) on the Obs*R-Squared coefficient obtained a value of 0.000. Because value p obtained was $0.0000 < 0.05$ then the conclusions are reject H_0 , which means that the regression model is not homoskedastisitas or in other words there is a problem of non heteroscedasticity assumption. To correct the violation of the two classical assumptions in this study, the Generalized Least Square (GLS) method was used.

Autocorrelation Test

One of the requirements in multiple linear regression is in the linear regression is not the correlation in the errors pengganggu period now (t) with an error bully on the pe r iode ago (t-1) (Winarno 2015). H acyl testing on whether there is a problem of autocorrelation by using methods Breusch-Godfrey Serial Correlation LM - Test obtained the results as follows:

Table 2
Autocorrelation Test

F-statistics	2,253,259	Prob. F(2,222)	0.1075
Obs*R-squared	4,536,231	Prob. Chi-Square(2)	0.1035

Data source : Eviews (Data Processed)

Based on the test results, the coefficient of Prob Chi Square (2) is 0.1035. The coefficient value is more than 0.05 so that the hypothesis H_0 is accepted or which means that there is no serial autocorrelation problem.

Heteroscedasticity Test

Heteroscedasticity test is a test used to assess whether there is an inequality of variance from the residuals for all observations (Winarno, 2015). This test absolutely

must be done in linear regression analysis. In this study used heteroscedasticity test, with results as follows:

Table 3
Heteroscedasticity Test

F-statistics	0.528533	Prob. F(3,224)	0.6631
Obs*R-squared	1,602,569	Prob. Chi-Square(3)	0.6588
Scaled explained SS	2,696,678	Prob. Chi-Square(3)	0.4408

Data source : Eviews (Data Processed)

Based on the results of the analysis, obtained by value p value (Prob. Chi square (3)) in line Obs * R-Squared is at 0.6588. Therefore the value of p value 0.6588 is greater than 0.05 then the null hypothesis (H_0) is received, which means regression model is homoskedastisitas or in other words there is no problem assuming non heteroscedasticity.

Multicollinearity Test

To ensure whether or not there is a high correlation between the independent variables in a linear regression model, the Multicollinearity Test is carried out. If in a regression model there is a high correlation between the independent/independent variables, then the relationship between the independent variables on the dependent variable is disturbed (Winarno 2015) . The results of testing the multicollinearity assumption are as follows:

Table 4
Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
X ₁	0.009762	1.001.617	1.001.122
X ₂	2,018,727	7,309,813	1,000.255
X ₃	1.16E+11	1,427,953	1.001.234
C	144691.9	7,783,562	NA

Data source : Eviews (Data Processed)

Based on the results of the analysis obtained by value Variance Inflation Factor (VIF) on each variable independent of less than 10 so that it can be concluded that there is no correlation high between variables free.

Stationarity Test

Stationarity test is s ne of the most vital steps in the data analysis that is both time series. A stationarity test is required to trace the contained unit root. It is intended that the output generated in the analysis of regression is not a regression false (spurious

regression). What is meant by false regression is a regression that describes the pattern of relationship between variables that look statistically significant, but in reality are not significant (Winarno 2015).

To see whether there is a false regression at this study, use method SSR assessment Augmented Dickey-Fuller (ADF). If in the test the ADF coefficient is smaller than the Mc Kinnon Critical Value Coefficient, the conclusion drawn is that the data is stationary (Winarno 2015). The following are the results of the stationarity test .

Table 5
Stationarity Test – ADF Test on 1st Difference

Variable	Augmented Dickey-Fuller test statistics	Mc Kinnon's Critical Value			Information
		1% level	5% level	10% level	
Y	-14.07388	-3.471454	-2.879494	-2.576422	Stationary
X ₁	-4.920550	-3.489659	-2.887425	-2.580651	Stationary
X ₂	-35.09370	-3.462574	-2.875608	-2.574346	Stationary
X ₃	-16.61022	-3.465202	-2.876759	-2.574962	Stationary

Data source : Eviews (Data Processed)

Based on the results of the stationarity test, it can be concluded that the data of each variable is stationary on the 1st Difference test. This can be seen from the value of the Augmented Dickey-Fuller test statistic which is smaller than the Mc Kinnon Critical Value.

Cointegration Test

Cointegration test is intended to detect whether the cointegrated regression residual is stationary or not in which there is a cointegrated variables, then the variabel have a stable relationship in the long run, and vice versa. In this test, the researcher uses the Johansen cointegration test, while the cointegration test is as follows:

Table 6
Cointegration Test

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistics	0.05 Critical Value	Prob.**
None *	0.505026	328,8950	47.85613	0.0001
At most 1 *	0.390887	186.1353	29.79707	0.0001
At most 2 *	0.305718	85.49774	15.49471	0.0000
At most 3 *	0.054739	11.42769	3.841466	0.0007

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistics	0.05 Critical Value	Prob.**
None *	0.505026	142.7596	27.58434	0.0000
At most 1 *	0.390887	100.6376	21.13162	0.0001
At most 2 *	0.305718	74.07005	14.26460	0.0000
At most 3 *	0.054739	11.42769	3.841466	0.0007

Data source : Eviews (Data Processed)

Based on the analysis of the, obtained values of trace statistic is greater than the value of critical value (328.8950 > 47.85613), as well as the value of max eige stat> critical value (142.7596 > 27.58434). Thus, it can be concluded that in the long run there is a cointegration in the equation model.

Error Correction Model (ECM) Method Regression Results

Winarno (2015) states Erros Correction Model (ECM) or Model correction of errors is one approach in per use to analyze data from the model time series yanag used to look at the consistency of relationships between data in the short and long term of the variables that will be tested.

Long-Term Equation Test Results

Following the results of the testing of data processing equation for the long term (ECM) independent variable to variable dependent:

Table 7
Error Correction Model Test Results-Long-Term Equation

Variable	Coefficient	Std. Error	t-Statistics	Prob.
X ₁	-0.296223	0.153490	-1.929916	0.0547
X ₂	-10.52324	1.362575	-7.723052	0.0000
X ₃	-415556.8	336225.4	-1.235947	0.2176
C	7084,886	474.3262	14,93674	0.0000
R-squared	0.205375	Mean dependent var		3507,413
Adjusted R-squared	0.195878	SD dependent var		2298,193
SE of regression	2060.856	Akaike info criterion		18.11519
Sum squared resid	1.07E+09	Schwarz criterion		18.17074
Likelihood logs	-2305.687	Hannan Quinn Criter.		18.13754
:s	21.62409	Durbin-Watson stat		1.902550
Prob (F-statistic)	0.000000			

Data source : Eviews (Data Processed)

Based on Table 7, it can be seen the value of the coefficient of determination (R²) has a value of 0.205375 or 20.5 4 %. This means that all independent variables, namely X₁ (number of daily cases reported to be infected with the Covid-19 virus), X₂

(Rupiah Exchange Rate against the US Dollar) and X_3 (Inflation) have an influence of 20.54 % on the Indonesian Sharia Stock Index (ISSI). for the long term. As for the rest, which amounted to 79.46 %, an effect that is caused by other variables that are not on per use in this study.

Based on the results pengujian to the F statistic can be concluded that the regression model were generated feasible for on per use to explain the influence of X_1 (the number of cases daily are reported to have contracted the virus Covid-19) , X_2 (Exchange Rate against the US dollar) and inflation (X_3) to Y (Indonesian Sharia Stock Index) during the long-term Covid-19 pandemic. We can see this from the probability value (F - Statistic) of $0.0000 <$ from the 0.05 significance level .

Short-term Equation Test Results

The following are the test results for the short-term equation data processing (ECM) of the independent variable on the dependent variable :

Table 8
Error Correction Model Test Results - Short-Term Equations

Variable	Coefficient	Std. Error	t-Statistics	Prob.
X_1	-0.315737	0.098746	-3.197450	0.0016
X_2	-11.17116	1.097057	-10.18284	0.0000
X_3	-47504.16	242169.6	-0.196161	0.8447
ECT(-1)	-0.921918	0.064734	-14.24163	0.0000
C	-120.8193	135.8641	-0.889266	0.3748
R-squared	0.589018	Mean dependent var		-121.0038
Adjusted R-squared	0.581646	SD dependent var		3170.078
SE of regression	2050,414	Akaike info criterion		18.11116
Sum squared resid	9.38E+08	Schwarz criterion		18.18636
Likelihood logs	-2059,672	Hannan Quinn Criter.		18.14150
F-statistics	79.90080	Durbin-Watson stat		2.096389
Prob(F-statistic)	0.000000			

Data source : Eviews (Data Processed)

Based on Table 8, the value of the coefficient of determination (R^2) equal to 0,589018 or a total of 58.9018 %. This means that all independent variables , namely X_1 (the number of daily cases reported to be infected with the Covid-19 virus), X_2 (Exchange Rate of Rupiah to the US Dollar) and X_3 (Inflation), in the short term have an effect of 58.9018 % on the value of Y (Indonesian Sharia Stock Index (ISSI). As for the rest, which is equal to 41.0982 %, an effect arising from other variables that are not on per use in this study.

Furthermore, the F statistical value obtained is 79.90080 with a probability of 0.000, this indicates that the resulting regression model is feasible to be used to explain

the effect of X_1 (the number of daily cases reported to be infected with the Covid-19 virus), X_2 (Exchange Rate of the Rupiah to the US Dollar) and Inflation (X_3) against Y (Indonesian Sharia Stock Index) during the Covid-19 pandemic in the short term.

Discussion

Based on the estimation results, it can be concluded that the overall relationship is X_1 (number of daily cases reported to be infected with the Covid-19), X_2 (Rupiah Exchange Rate against the US Dollar) and X_3 (Inflation) against Y (Indonesian Sharia Stock Index) during the Covid-19 pandemic can be summarized in the results of the analysis as follows:

Table 9
Long-Term and Short-Term Estimates

Variable	Long-term		Short-term	
	Coefficient	Prob.	Coefficient	Prob.
X_1	-0.296223	0.0547	-0.315737	0.0016
X_2	-10.52324	0.0000	-11.17116	0.0000
X_3	-415556.8	0.2176	-47504.16	0.8447
ECT(-1)			-0.921918	0.0000
C	7084,886	0.0000	-120.8193	0.3748

Data source : Eviews (Data Processed)

Based on the estimation results in the table, it can be seen that there is a long-term balance in the relationship between X_1 (the number of daily cases reported to be infected with the Covid-19 virus), X_2 (Exchange Rate of the Rupiah against the US Dollar) and Inflation (X_3). All research variables used are cointegrated in the research model. ECT coefficient (an Error Correction Term) obtained at -0.921918 or -92.1918 % indicates that quickly the time it takes to reach the equilibrium value of the short-term to long-term.

Variable X_1 (the number of daily cases were reported to have contracted the virus Covid-19)

The coefficient value of the variable X_1 (the number of daily cases reported to be infected with the Covid-19 virus) in the long-term estimate is obtained by a value of -0.296223, this shows that if there is an increase in the variable X_1 (the number of daily cases reported to be infected with the Covid-19 virus) by 1% then the variable Y (Indonesian Sharia Stock Index) will decrease by 29.6223%. Where the probability coefficient obtained is 0.0547, which is smaller than the real level, which is 10%. Estimates obtained in the short term value of coefficient of -0.315737 it shows when there is an increase in the variable X_1 (the number of daily cases were reported to have

contracted the virus Covid-19) by 1% then the variable Y (Indonesia Sharia Stock Index) t urun of 31.5737 %, with a coefficient of probability of 0.0016 is smaller than the value of the real level of 10%.

Variable X_1 (the number of daily cases were reported to have contracted the virus Covid-19) in the long term or in the short term have a correlation with the same probability value, which has a correlation is negative and significant. This shows that the hypothesis in this study is accepted, which means that the increase in the number of cases reported to be infected with the Covid-19 virus has implications for the decline in the value of the Indonesian Sharia Stock Index (ISSI) during the Covid-19 pandemic.

The results of this study support the research that has been carried out by Yusuf and Anthoni, (2020). The research shows that there is a significant difference between the JCI movement and the ISSI movement, both before and during the covid-19 pandemic. However, this contradicts research conducted by Siregar (2020) and Pratitis and Setiyono (2021), which states that the condition of the Indonesian economy decreased during the pandemic covid-19 not to affect the transactions of islamic stocks on the stock exchange.

Variable X_2 (Exchange Rate of Rupiah to US Dollar)

The value of the coefficient on the variable X_2 (Exchange Rate of Rupiah to the US Dollar) for the long-term estimation is obtained by a value of -10 , 52324 , this shows that if there is an increase in the variable X_2 (Exchange Rate of Rupiah to the US Dollar) by 1 %, it will have an impact on the decrease in the value of the Y variable (Indonesian Sharia Stock Index) was 1.052 %. A probability value obtained 0,000 less than on a real level that is equal to 10%. Estimates in the short term obtained a coefficient of -11, 17116 this shows that if there is an increase in the X_2 variable (Rupiah Exchange Rate against the US Dollar) by 1 %, it will have an impact on a decrease in the Y variable (Indonesian Sharia Stock Index) of 1.117 %, with n probability value of 0.000 less than the value of the significance level of 10%.

Variable X_2 (Rupiah Exchange Rate Against US Dollar) in the long term or in the short term has the same correlation and probability coefficient which is a significant negative correlation. This shows that the hypothesis in this study is accepted, which means that the increase in the rupiah exchange rate against the US dollar has implications for the decline in the value of the Indonesian Sharia Stock Index (ISSI) during the Covid-19 pandemic.

The results of this study reinforce the research that has been conducted by Syahri and Robiyanto (2020), but contrary to the research that has been conducted by Sebo and Nafi (2021), which states that changes in the exchange rate of the rupiah against the US dollar does not impact significantly on changes in the price of shares on the conditions Covid-19 pandemic.

Variable X₃ (Inflation)

The coefficient value of the X₃ (Inflation) variable in the long-term estimate is -415556,8, it shows that if there is an increase in the X₃ (Inflation) variable by 1%, it will have an impact on the decrease in the Y variable (Indonesian Sharia Stock Index) by 41.555.680 %. The probability value obtained is 0,2176 which is greater than the real level, which is 10%. Estimates in the short term obtained a coefficient of -47504,16 this shows that if there is an increase in the X₃ variable (Inflation) by 1%, the Y variable (Indonesian Sharia Stock Index) will cause a decrease of 4.750.416 %, with a probability value of 0.000 above the real level value of 10%.

Variable X₃ (Inflation) in its influence long-term and in the short term have a correlation with the same probability, that air negative relationship and do not impact significantly on Sharia Stock Index Indonesia (ISSI) . This is in accordance with the hypothesis that the research proposes , which states that there is no influence between the inflation value on the Indonesian Sharia Stock Index (ISSI) during the Covid-19 pandemic.

The results of this study reinforce the research that has been conducted by Sebo and Nafi, (2021) , which states that there is no influence significant between the inflation rate with Indonesian Sharia Stock Index (ISSI) in past pandemics. However, this study contradicts research from Karni and Adhli (2018); Anwar and A (2020); and Yusuf and Anthoni (2020) who examined the impact of inflation on the Indonesian Sharia Stock Index (ISSI) in different time periods than the researchers did.

The inflation rate has no effect on the Indonesian Sharia Stock Index (ISSI), this is because the ISSI constituents listed in the Sharia Securities List (DES) issued by the OJK have an interest/riba-based debt ratio to assets that cannot exceed 45%.

CONCLUSION

Based on the results of research and discussion of the effect of the number of daily cases reported to be infected with the Covid-19 virus, the Rupiah Exchange Rate

against the US Dollar and the Inflation Value of the Indonesian Sharia Stock Index (ISSI) during the Covid-19 pandemic, the following conclusions can be drawn :

An increase in the number of daily cases reported to have contracted the Covid-19 virus will reduce the Indonesian Sharia Stock Index (ISSI) during the Covid-19 pandemic, both in the long and short term.

The increase in the rupiah exchange rate against the US Dollar led to a decline in the Indonesian Sharia Stock Index (ISSI) during the Covid-19 pandemic, both in the long and short term.

There is no influence between the inflation rate against Sharia Stock Index Indonesia (ISSI) Pandemic future Covid-19, both in the long term and short term.

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