

## **The Effect of Dow Jones Industrial Average (DJIA) and Macroeconomic Variables on Indonesia's Sharia Stock Index (ISSI) over the Period 2012-2021**

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### **ABSTRACT**

This research aims to test and analyze the influence of foreign indices in the form of DJIA and macroeconomic variables in the form of inflation, BI-Rate, exchange rate, and world gold prices on ISSI over the period from 2012 to 2021. This research uses quantitative methods with secondary data in the form of time-series. The analytical techniques used are the VAR and VECM. The research used data processing in the form of e-views 12 software. The results of this study show that in the long-term DJIA, BI-Rate, and exchange rate have a significant positive effect on the ISSI. Meanwhile, inflation variables and gold prices in the long term have a significant negative effect on ISSI. In the short-term, only inflation variable has a significant negative effect on ISSI. Meanwhile, other variables in the form of DJIA, BI-Rate, exchange rate, and world gold price did not have a significant effect on the ISSI. The results of this research can be used as additional information and considerations for companies in carrying out policies related to investment and can be used in anticipating the effects of macroeconomic changes for the stability of company value. In such a way, companies are able to consider them when choosing which investments and businesses need to be aware of the macroeconomic factors in a nation that can affect stock performance.

**Keywords:** DJIA; Macroeconomic Variable; Indonesia Sharia Stock Index (ISSI)

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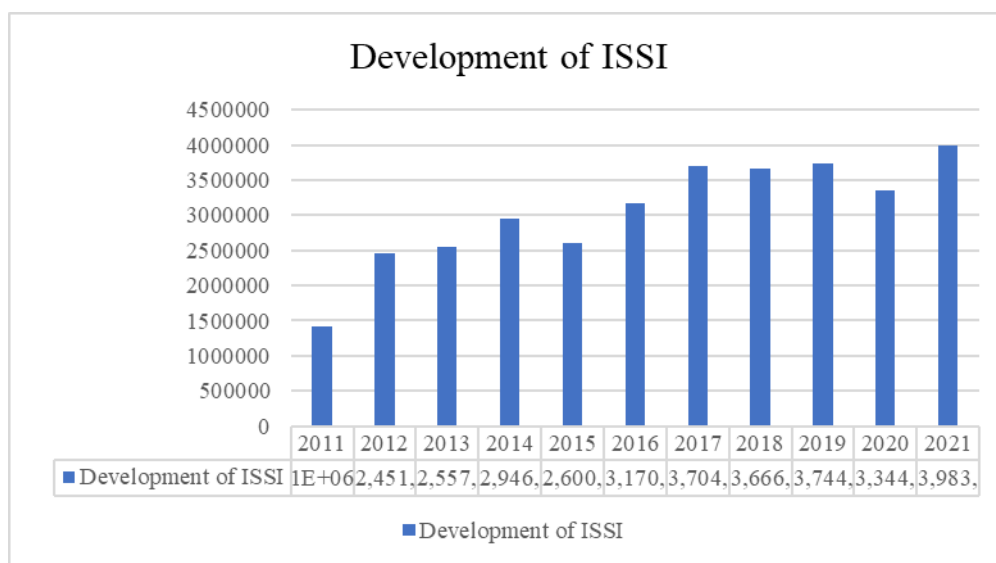
### **INTRODUCTION**

Indonesia has the world's largest Muslim population, so it has a great opportunity to develop the Islamic financial industry. Sharia investment in the capital market helps to grow the Islamic financial industry's market share in Indonesia. The people of Indonesia, where Muslims constitute the majority of the population, are increasingly aware of the need for

sharia-based investments with a profit-sharing system adjusted by mutual agreement rather than usury or interest (Fathoni & Sakinah, 2021).

The Indonesia Sharia Stock Index (ISSI) is one of the instruments used in Indonesia to measure the performance of the Islamic capital market. The Indonesia's Sharia Stock Index (ISSI) is a Sharia Stock Index that includes all shares listed on the Indonesian Stock Exchange (IDX) that have joined the Sharia Stock List (DES). On May 12, 2011, Bapepam-LK and the National Sharia Council of the *Indonesian Ulema Council* (DSN-MUI) released the Indonesia Sharia Stock Index (ISSI) (Suciningtias & Khoiroh, 2015).

According to data from the Financial Services Authority (OJK), companies listed as shares in the Indonesia Sharia Stock Index (ISSI) experienced growth from the index's launch in 2011 to the start of the Covid-19 outbreak in 2020-2021. The graph below illustrates the increase in the number of Indonesia's Sharia Stock Index (ISSI):



Source: Otoritas Jasa Keuangan, 2012-2021

**Figure 1: Development of ISSI 2012-2021**

The movement of the Indonesia Sharia Stock Index (ISSI) fluctuates between 2015 and 2021, according to the graph above, but the overall trend is generally rising. Although the market capitalization of the Indonesia Sharia Stock Index (ISSI) decreased from 2015 to 2020, its rising index reflects investor confidence in Indonesia's improving economic conditions. According to the Central Statistics Agency's (BPS) data, economic growth tumbled by 4.79 percent in 2015. The decline in economic growth at this period was caused by a decrease in household consumption due to rising food prices, which caused people to reduce their consumption expenditure (Suryowati, 2016).

On a year-over-year (YoY) basis, market capitalization increased by 18.1% in 2016, following a 13.3% decrease in 2015. This demonstrates that Islamic stocks can quickly restore market capitalization stability and increase in the following year, which is quite significant in covering the decrease in the previous year. The Covid-19 pandemic occurred in 2020, causing the Indonesian Sharia Stock Index (ISSI) to drop substantially. However, in 2021 the Islamic stock market had started to recover and the index rose significantly until. The increasing amount of investors in Islamic stocks is inextricably linked to the role of

regulators and educators in providing literacy and education to the public even in the midst of the covid-19 pandemic (Rofiqo et al., 2022).

Another indicator that the Indonesia Sharia Stock Index (ISSI) has market capitalization is that strict criteria being are implemented against the in the selection group of stocks that are included in the list of sharia stocks as compared to Composite Stock Price Index (IHSG). For example, companies with, interest-based debt should not exceed 45% of its total assets, so that during uncertain economic conditions, such as the Covid-19 pandemic, stock issuers are expected to survive, maintain their stability, and have a solid fundamental foundation.

On the other hand, despite the existence of many weak economic variables, Islamic stocks were able to maintain transaction strength, allowing them to remain stable and less volatile. Indirectly, Islamic stocks perform significantly better in dealing with economic crises and recessions than other companies that comply to conventional principles (Lathifah et al., 2021).

There are numerous macroeconomic variables that influence the development and movement of Islamic stocks, which in turn influences the level of return on investment. However among the many indicators that are widely used to predict the stock fluctuations are variables that are directly controlled by the financial market transmission mechanism. Foreign factors also can influence the Indonesian Sharia Stock Index in addition to macroeconomic factors (ISSI) (Prasetyo et al., 2019). There are several global indices that influence the movement of Indonesian stock prices, one of which is the American Dow Jones Industrial Average (DJIA) index. Inflation is the next macroeconomic factor that influence the movement of the Indonesia Sharia Stock Index (ISSI). A high inflation rate is thought to cause currency depreciation and can have an impact on investors, making it difficult to meet their investment objectives.

A weakening rupiah exchange rate can also threaten the rise in standard prices caused by rising inflation. As a result, a company's costs rise and it incurs additional expenses. This is what causes the company's revenue to decline, causing stock prices to decrease (Razieh et al., 2021). The global gold price is another macroeconomic factor that influences Indonesia's sharia stock index (ISSI). The rise in the price of gold can have an impact on the movement of stocks because gold is a safe and risk-free investment option for investors (Edgina, 2020).

The aim of this research is to determine, test, and analyze the impact of the Dow Jones Industrial Average (DJIA), Inflation, BI-Rate, Exchange Rate, and World Gold Price on the Indonesia Sharia Stock Index (ISSI) from 2012 to 2021. This paper examines why conventional macroeconomic factors can affect the Indonesian Sharia stock index (ISSI) over a 10-year period. Thus further discussions are provided in the form of a study entitled "The Effect of the Dow Jones Industrial Average (DJIA), Inflation, BI-Rate, Exchange Rate, and World Gold Price on the Indonesian Sharia Stock Index over the Period 2012-2021.

## **LITERATURE REVIEW**

### **Dow Jones Industrial Average (DJIA)**

The DJIA has developed into one of the world's most important benchmark indices. The DJIA represents the issuers of 30 large companies (in terms of sales and return on total assets) chosen by The Wall Street editors (Ghiffari et al., 2017). Because these two indices are in the global market and influence each other, every movement of the DJIA will have an

impact on the Indonesian stock market, both positively and negatively. The Indonesian capital market, as represented by the Indonesia Stock Exchange (IDX), is inextricably linked to global stock exchange activities.

Furthermore, stock exchanges with adjacent locations frequently have the same investors. This phenomenon occurs because Indonesia, as a member of the World Trade Organization (WTO), has globalized its stock exchange by opening it to foreign investors who invest in companies all over the world. Thus, changes in one exchange will be transmitted to other countries' exchanges. Larger exchanges will have an impact on smaller exchanges.

### **Inflation, BI-Rate, Exchange Rate and World Gold Price**

Inflation is characterized by a continuous increase in the price of goods. One of the effects of inflation is a decrease in people's purchasing power because real income also decreases. High inflation will also have an effect on the cost of capital. The company will face investment competition, which means that investors are more likely to invest in the money market, causing the stock price in the capital market to fall (Salim & Purnamasari, 2021).

The BI-Rate is a one-month benchmark interest rate announced in phases by Bank Indonesia over a set period of time that serves as a signal to investors to invest in the capital market. The BI-Rate has several advantages for the national economy, one of which is that it helps to determine which types of investments will provide profits to entrepreneurs if the return on capital exceeds the interest rate (Abdurohman, 2020). Furthermore, the BI interest rate is a reference rate set by Bank Indonesia for loan interest rates and deposit rates for every bank and financial institution in Indonesia. Changes in interest rates will affect investors' willingness to invest because they will affect interest rates on deposits and credit interest rates. If deposit rates rise, investors will prefer to invest in deposits that offer high returns while posing little risk (Fathurrahman & Widiastuti, 2021).

The exchange rate is the price of a country's currency measured or expressed in another currency. A comparison of values or prices between two currencies occurs during the exchange of two different currencies (Dewi, 2020). Exchange rates have a strong relationship with stocks that are based on a portfolio balance approach. Investors' wealth is allocated to alternative assets such as domestic money, domestic securities, and foreign securities. The exchange rate acts as a counterweight between existing asset supply and demand. As a result, any change in the asset's needs and fulfillment will affect the exchange rate's balance. For example, an increase in domestic stock prices will increase wealth and the demand for money, which will result in higher interest rates (Kewal, 2012).

The London gold standard has served as the global gold price benchmark since 1968. The system employed is known as London Gold Fixing. The pricing process is repeated twice in a single day, at 10.30 (Gold A.M.) and 15.00. (Gold P.M.) (Ali et al., 2019). Gold is a type of investment that investors are interested in because it has a low level of risk and serves as a wealth protector. The increase in the global gold price will entice investors to invest in gold rather than stock. This situation will cause stock prices to fall as investors sell their stocks in order to invest in gold. Similarly, if the global gold price falls, many investors will sell their gold and switch to stocks, causing the stock price index to rise for both conventional and sharia companies ((Ningsih & Kristiyanti, 2018).

## **PROBLEM STATEMENT**

This study aims to investigate the influence of Dow Jones Industrial Average (DJIA) and macroeconomic variables on Indonesia's Sharia Stock Index (ISSI) throughout the period from 2012 to 2021. The motivation for this study arises from identified issues within the scope of the study. *First*, this study investigates the influence of DJIA on the ISSI from 2012 to 2021, and every movement of the DJIA will have an impact on the Indonesian stock market, both positively and negatively. The Indonesian capital market, as represented by the Indonesia Stock Exchange (IDX) is inextricably linked to global stock exchange activities. *Second*, concerning the influence of inflation on the ISSI from 2012 to 2021. Changes in interest rates will affect investors' willingness to invest because they will affect interest rates on deposits and credit interest rates. If deposit rates rise, investors will prefer to invest in deposits that offer high returns while posing little risk. *Third*, concerning the influence of BI-rate and exchange rate on the Indonesia Sharia Stock Index (ISSI) from 2012 to 2021. Change in the asset's needs and fulfillment will affect the exchange rate's balance. An increase in domestic stock prices will increase wealth and the demand for money, which will result in higher interest rates. *Fourth*, concerning the influence of world gold price on the ISSI from 2012 to 2021. The increase in the global gold price will entice investors to invest in gold. This situation will cause stock prices to fall as investors sell their stocks in order to invest in gold. Similarly, if the global gold price falls, many investors will sell their gold and switch to stocks, causing the stock price index to rise.

## **DATA AND METHODOLOGY**

This research used quantitative data taken from official websites owned by the government and private institutions totaling 10 years or 120 months. Data processing using e-views 12 (Suminto & Maharani, 2020). The sources of data are as follows; the Indonesia Sharia Stock Index (ISSI) data are collected from the official website of the Financial Services Authority (OJK), Dow Jones Industrial Average (DJIA) data from the investing website, inflation data and exchange rate data taken from the Bank Indonesia website, BI-Rate data taken from the official website of the Central Statistics Agency (BPS), and World Gold Price data obtained from the official kitco website. The number of years used in this study was 10 years. The VAR / VECM method was chosen because it is an analysis method that can be used to estimate the long-term and short-term relationships of two or more variables.

The following shows the research flow and framework:

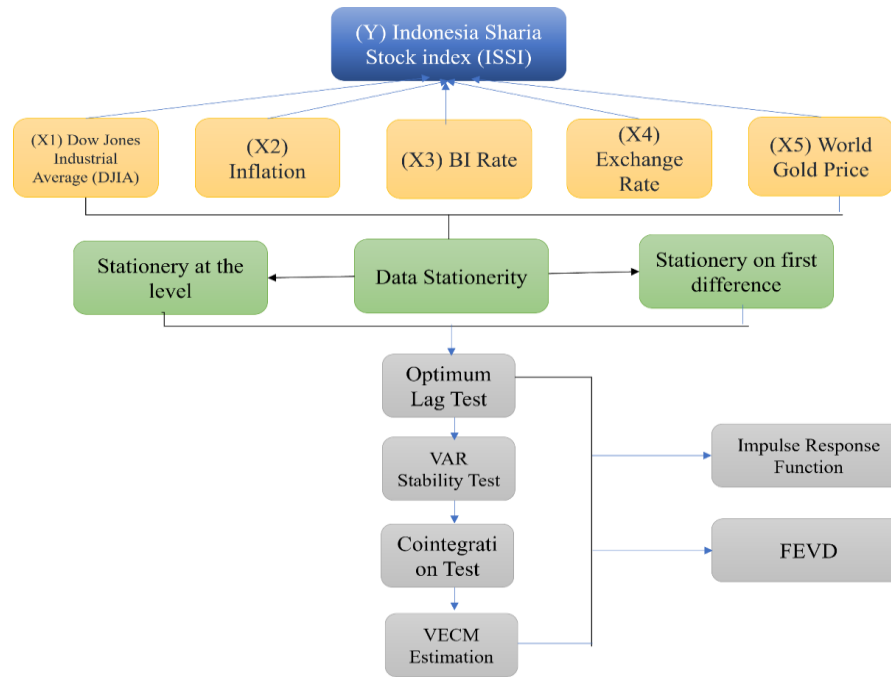


Figure 2: Research flow and framework

## FIDINGS AND DISCUSSIONS

### Data Stationarity Test

Table 1: Stationarity Test at Level

Variable	ADF Test	ADF McKinnon Critical Value 5%	Prob	Information
DJIA	0.028079	-2.580046	0.9586	Non-Stationary
Inflation	-1.316234	-2.886290	0.6204	Non-Stationary
BI-Rate	-0.592539	-2.886074	0.8670	Non-Stationary
Exchange Rate	-2.565348	-2.886290	0.1031	Non-Stationary
World Gold Price	-1.409260	-2.579931	0.5756	Non-Stationary

Based on the stationarity test using the *Augmented Dickey-Fuller* method that has been carried out, it can be concluded that the data at the level is declared not stationary because the Prob Data > 0.05. So to obtain stationary data on the entire study, it is necessary to conduct an Augmented Dickey-Fuller test at the *first difference* level with the prob formula. < 5%.

Table 2: Stationarity Test at First Difference

Variable	ADF Test	ADF McKinnon Critical Value 5%	Prob	Information
ISSI	-10.59816	-2.886509	0.0000	Stationary
DJIA	-9.191367	-2.886290	0.0000	Stationary
Inflation	-8.375024	-2.886290	0.0000	Stationary
BI-Rate	-7.182033	-2.886074	0.0000	Stationary
Exchange Rate	-9.267274	-2.886290	0.0000	Stationary
World Gold Price	-8.351778	-2.886074	0.0000	Stationary

Table 2 produces stationary testing of *first difference* data on all research variables. What this means is that the entire data is detected stationary because of the value of Prob. < 5%.

**Optimum Lag Test**

**Table 3: Optimal Lag Determination**

Lag	Log L	LR	FPE	AIC	SC	HQ
0	466.1478	ON	1.01E-11	-8.290951	-8.14449*	-8.231536*
1	529.0302	117.8337	6.23E-12	-8.775319	-7.750091	-8.359414
2	573.1945	77.9838	5.41E-12*	-8.922423*	-7.018429	-8.150029
3	585.5199	20.43128	8.4E-12	-8.495854	-5.713093	-7.36697
4	605.9923	31.72305	1.14E-11	-8.216078	-4.55455	-6.730704
5	652.284	66.72676*	9.91E-12	-8.401513	-3.86122	-6.55965
6	671.9774	26.25786	1.42E-11	-8.107701	-2.68864	-5.909348
7	694.3232	27.37864	2E-11	-7.861679	-1.563852	-5.306837
8	721.9381	30.84909	2.67E-11	-7.710596	-0.534003	-4.799265

\* indicates lag order selected by the criterion

LR : sequential modified LR test statistic (each test at 5% level)

FPE : Final prediction error

AIC : Akaike information criterion

SC : Schwarz Information Criterion

HQ : Hannan-Quinn Information Criterion

The asteric sign (\*) appears in several columns, including the first, in lag 0 in the Schwarz Information Criterion (SC) column of -8.14449 and in the Hannan-Quinn Information Criterion (HQ) column of -8.231536. Second, in lag 2, the Final Prediction Error (FPE) column has a value of 5.41e-12 and the Akaike Information Criterion (AIC) column has a value of -8.922423. Third, there is a lag 5 of 66.72676 in the LR column. The optimal lag used in the study, however, was a lag of 2 (two) because it demonstrated the best data conditions at the time and was smaller after a lag of 0 (zero) with many asteric signs (\*).

**VAR Stability Test**

**Table 4: VAR Stability Determination**

Lag Interval 1 13	
Root	Modulus
-0.032231 + 0.98720i	0.988346
-253660 - 0.951363i	0.984599
0.361686 - 0.913406i	0.982409
0.150159 + 0.970065i	0.981618
-0.064507 - 0.977968i	0.980093
-0.960352 + 0.187792i	0.978541
0.276108 - 0.934694i	0.974622
0.515376 - 0.826643i	0.972686
0.918271 - 0.316332i	0.971230
0.466937 + 0.849927i	0.969745
-0.752857 - 0.605012i	0.965833
-0.549400 - 0.794194i	0.965704
-0.818840 - 0.508040i	0.963641

-0.879360 + 0.393310i	0.963311
0.863619 - 0.423595i	0.961910
0.781650 - 0.559623i	0.961329
0.95910	0.95910
0.949299 + 0.123545i	0.957304
-0.910639 - 0.291721i	0.956224
-0.653292 - 0.697754i	0.955851
0.704678 + 0.645622i	0.955719
-0.161437 - 0.938691i	0.952472
0.912093 + 0.268694i	0.950847
0.643377 + 0.697033i	0.948572
-0.484889 - 0.803363i	0.938354
-0.410307 - 0.842725i	0.937303
0.144407 - 0.922292i	0.933529
-0.313105 + 0.877176i	0.931382
0.915302 - 0.171157i	0.931167
-0.905720 - 0.010511i	0.905781
0.559465 + 0.700522i	0.896511
-0.590270 - 0.674376i	0.896216
0.604599 + 0.660466i	0.895408
-0.756371 - 0.478514i	0.895027
-0.849137 + 0.188924i	0.869900
0.298323 - 0.789705i	0.844175
-0.713375	0.713375
-0.367809 + 0.442144i	0.575131
-0.066432 + 0.539715i	0.543788
No root lies outside the unit circle	
VAR satisfies the stability condition	

Based on table 4, the data collected by researchers from 2012-2021 is still as influential as the 13 periods before it. This is indicated by an interval lag of 13. Meanwhile, the estimation of VAR stability used to analyze all variables has stabilized with a range of < 1.

### Cointegration Test

**Table 5: Cointegration Test Results**

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE (s)	Eigen value	Trace Statistic	0.05 Critical value	Prob.**
None*	0.431522	151.9838	117.7082	0.0001
At most 1	0.205541	85.33823	88.8038	0.0866
At most 2	0.191548	58.1872	63.8761	0.1372
At most 3	0.148652	33.09636	42.91525	0.3316
At most 4	0.082302	14.10606	25.87211	0.6489
At most 5	0.033096	3.971384	12.51798	0.7463

Trace test indicates 1 cointegrating eqn (s0 at the 0.05 level

\* denotes rejection of the hypothesized at the 0.05 level

\*\* MacKinnon-Haug-Michelis (1999) p-values

According to table 5, the above data can indicate 1 cointegration equation at the 5% level, as evidenced by an asteric sign (\*) on none with a probability of 0.0001. This means that even though the information on the long-term outcomes of the variables in the study has been manipulated in the presence of differencing, it can still be read. As a result, the cointegration test can provide the missing long term information. Because missing information is referred to as an error, VECM must be estimated rather than VAR difference.

**VECM Estimation**

**Table 6: Long Term VECM Estimation Results**

LONG-TERM				
Variable	Coefficient	T-Table	T-Statistic	Result
DJIA	5.459615		2.25200	Significant
Inflation	-0.323676		-2.58205	Significant
BI-Rate	0.353582	1.96	1.96093	Significant
Kurs	10.43433		2.40977	Significant
World Gold Price	4.050795		-2.72178	Significant

Based on the results from table 6, the long-term VECM estimation results compare the results between t-statistics and t-tables. The result obtained from the t-table is 1.96 because when observation of data is more than 30 data, then the t-table is 1.96.

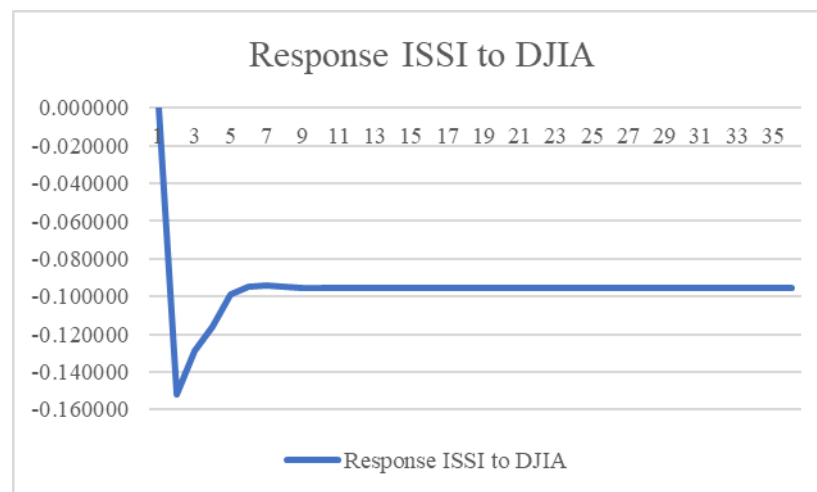
In the long term, the DJIA, Exchange Rate, and BI-Rate variables have a significant positive effect on the ISSI variables. Meanwhile, the variables of inflation and world gold price have a significant negative effect on ISSI. This can be proven by the results of estimating the calculated t value > t table. The DJIA variable is worth  $2.25200 > 1.96$ , the inflation value is  $-2.58205 > 1.96$ , the BI-Rate is  $1.96093 > 1.96$ , the exchange rate is  $2.40977 > 1.96$  and the value of World Gold Price is  $-2.72178 > 1.96$ .

**Table 7: Short Term Estimation Results**

SHORT-TERM				
Variable	Coefficient	T-Table	T-Statistic	Result
DJIA	-2.584942		-1.07468	Insignificant
Inflation	-1.059874		-4.08967	Significant
BI-Rate	-0.480849	1.96	-0.71370	Insignificant
Exchange Rate	1.194729		0.17955	Insignificant
World Gold Price	4.513902		1.12363	Insignificant

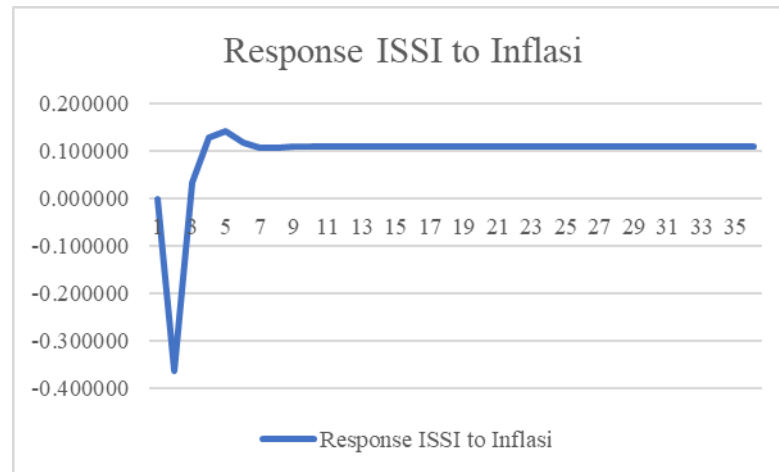
Based on the test results of the VECM estimation test in the table, it is known that in the short term only inflation variables have a significant influence on ISSI as evidenced by the inflation value of  $-4.08967 > 1.96$ . Meanwhile, other variables have no influence on ISSI. This can be seen in table 10 which shows that the DJIA value is  $-1.07468 < 1.96$ , the BI-Rate is  $-0.71370 < 1.96$ , the exchange rate is  $0.17955 < 1.96$ , and the gold price world of  $1.12363 < 1.96$ .

**Impulse Response Function (IRF)**



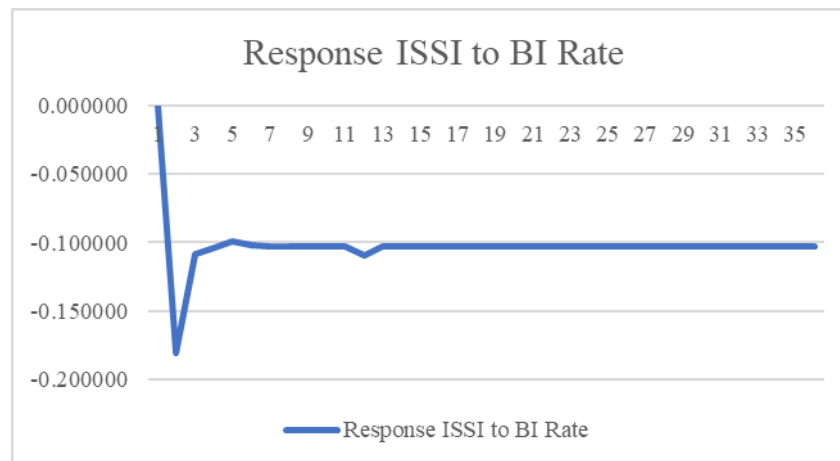
**Figure 3: Response of ISSI to DJIA**

According to the table above, when the Dow Jones Industrial Average (DJIA) experiences a shock, the Indonesia Sharia Stock Index (ISSI) will also fluctuate. This study's data collection period lasted 36 months after 2021. The Dow Jones Industrial Average (DJIA) had no effect on the Indonesia Sharia Stock Index during the first period (ISSI). From the second to the sixth period, the DJIA delivered a sharp enough shock to the Indonesian Sharia Stock Index (ISSI) to cause a negative reaction. Meanwhile, the Dow Jones Industrial Average (DJIA) had a consistent and negative impact on the Indonesian Sharia Stock Index after the seventh period Indonesia Sharia Stock Index.



**Figure 4: Response of ISSI to Inflasi**

In the first period, inflation has not had a shock impact on the Indonesian Sharia Stock Index (ISSI). However, in the second period, inflation gave a negative response of -0.363715.



**Figure 5: Response of ISSI to BI-Rate**

In the first period, the BI-Rate has not had an impact on the Indonesian Sharia Stock Index (ISSI). However, in the second period, the BI-Rate negative impact of -0.103159. In the third period, the impact of the shock provided by the BI-Rate on the Indonesia Sharia Stock Index (ISSI) increased slightly although it was still in a negative form. What this means is that when the BI-Rate decreases, it will increase the stock price because investors will flock to invest in the Islamic fashion market.

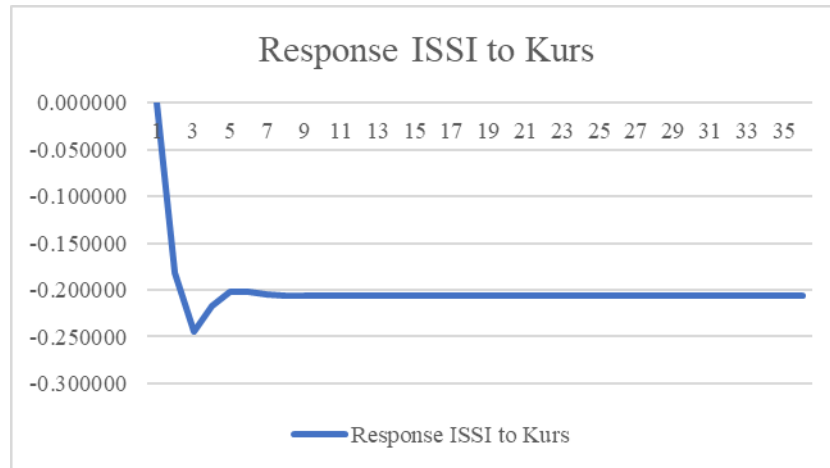


Figure 6: Response of ISSI to Kurs

The exchange rate had no effect on ISSI during the first period. However, the exchange rate had a negative impact on the Indonesian Sharia Stock Index (ISSI) of -0.181275 in the second period. The impact of the shock provided by the Exchange Rate on the Indonesian Sharia Stock Index (ISSI) of -2.44588 was sharply reduced in the third period.

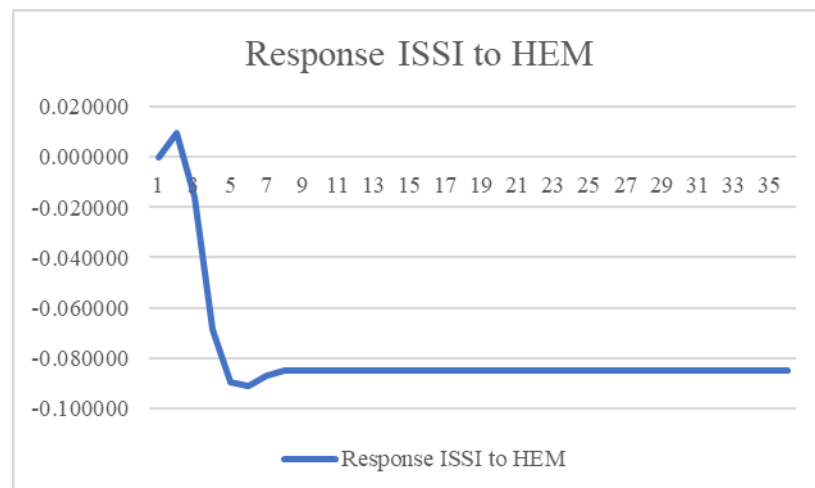
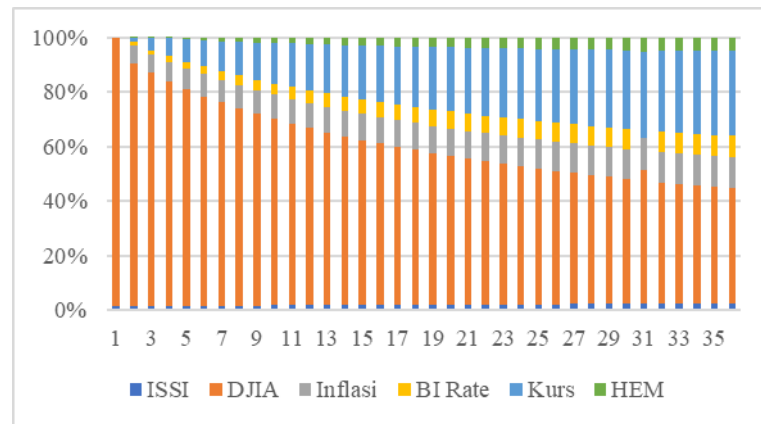


Figure 7: Response of ISSI to World Gold Price

The World Gold Price had a positive impact on the Indonesia Sharia Stock Index during the first period (ISSI). This means that as the global gold price rises, so will the stock price, making investors more interested in investing in the capital market. In the third period, the global gold price delivered a -0.016156 negative shock to the Indonesia Sharia Stock Index (ISSI).

## Forecasting Error Variance Decomposition



**Figure 8: FEVD Results**

The FEVD test results demonstrate the relationship between the X variables and the ISSI. For the DJIA versus ISSI test, it was stated that the DJIA increased by 89.17856 in the second period and fluctuated until the end of the period with a period value of 40.32119. Variable inflation increased by 6.767027 in the second period and fluctuated until the end of the period of 10.78531. The variable BI-Rate increased by 1.184674 in the second period, with ups and downs until the end of the period of 7.643711.

After three years, it was discovered that the Dow Jones Industrial Average (DJIA) variable contributed the most to the Indonesia Sharia Stock Index (ISSI) of 40.32119. The exchange rate of 29.66999 is the second variable that influences the Indonesia Sharia Stock Index (ISSI). The third factor influencing the Indonesia Sharia Stock Index is the inflation rate of 10.78531. The next variable that affects the Indonesia Sharia Stock Index (ISSI) is the BI-Rate variable of 7.643711. The World Gold Price variable of 4.75831 is the fifth variable that influences the Indonesia Sharia Stock Index (ISSI). Finally, it has discussed the impact of the variables on the Indonesia Sharia Stock Index (ISSI). Refer to figure 6 for a graphical representation of the evolution of all endogenous and exogenous variables three years after the study.

## DISCUSSION OF RESULT

### The Effect of DJIA on ISSI

The Dow Jones Industrial Average variable has a significant positive effect on the Indonesia Sharia Stock Index over the long term (ISSI). The results of estimating statistical t values greater than table t values of  $2.2520 > 1.96$  demonstrate the existence of this influence. The Dow Jones Industrial Average variable has no effect and is insignificant to the Islamic Stock Index in the short term. This is demonstrated by the outcome of estimating statistical values smaller than the t-table values. The provable result estimation is a statistical t value less than the t table, which is  $-1.07468 < 1.96$ .

As previously stated, it is possible to conclude that, in the long run, the Dow Jones Industrial Average (DJIA) has a positive effect on the Indonesia Sharia Stock Index (ISSI), which means that when the Dow Jones Industrial Average (DJIA) rises, so does the Indonesian economy. The Dow Jones Index is the average of the world's largest stock price indices on the American Capital Market. America is still a superpower with the ability to influence the Indonesian economy. Indonesian bank's interest rate is still based on the movement of the

Fed. Since Indonesia still uses dollars for exports and imports, movements in the Dow Jones index can affect almost all global stock price indices, including the Indonesia Sharia Stock Index (ISSI) and the Composite Stock Price Index (IHSG).

The Dow Jones Industrial Average (DJIA) has no effect on the Indonesia Sharia Stock Index in the short term (ISSI). This means that the Dow Jones Industrial Average (DJIA) index cannot have an impact on the Indonesia Sharia Stock Index (ISSI) in the short term over a monthly basis. When the Dow Jones Industrial Average (DJIA) falls, the movement of stock prices in the Indonesia Sharia Stock Index is unaffected (ISSI).

### **The Effect of Inflation on ISSI**

Inflation has both positive and negative effects, depending on how severe it is. If inflation is moderate, it will have a positive impact on the economy, potentially increasing national income, and foster people's enthusiasm for working, saving, and investing. On the other hand, if inflation is severe, it can cause the economy to become chaotic and sluggish (Ash-Shiddiqy, 2019).

In long-term, the inflation variable has a significant negative effect on the Indonesian Sharia Stock Index, whose VECM estimation results can be shown with a larger t-statistical value from the t-table, i.e.  $-2.58205 > 1.96$ . Inflationary variables have a significant negative impact on the Islamic Stock Index in the short term (ISSI). This is demonstrated by the outcome of estimating the statistical t value greater than t table, which is  $-4.08967 > 1.96$ . The inflation variable has a significant negative relationship in the long-term and short-term with the Indonesian Sharia Stock Index, indicating that any increase in inflation will cause the Sharia Stock Index to fall. Inflationary pressures will cause the Indonesia Sharia Stock Index (ISSI) to rise. This is due to the fact that inflation has a significant impact on the economy, including a company's profitability, and will influence investors' investment decisions.

There is a relationship with a positive correlation between inflation variables and stock prices caused by the occurrence of demand pull inflation, which is inflation that occurs due to excess demand for available goods. In this case, the company will raise the price of the product, which means it will raise the costs charged to consumers, causing the company to grow. Meanwhile, in the long term an increase in inflation will cause consumers to be unable to purchase the goods or services offered, reducing the company's profitability and, as a result, weakening the company's stock price and, in general, encouraging the Indonesian Sharia Stock Index to move negatively.

### **The Effect of BI-Rate on ISSI**

The BI-Rate is an interest rate created at the discretion of Bank Indonesia to achieve the operational target of monetary policy. In general, the increase in the BI-Rate was responded quickly by the banking industry with a gradual increase in lending rates. The increase in lending rates has a negative impact on corporate issuers because it will increase credit interest expense and reduce the company's profitability in the capital market. In addition, the increase in the BI-Rate was also responded to by an increase in returns from capital market investments such as deposits. A decrease in the company's net profit will reduce the dividends earned by the company so that the return on investment in the money market with less risk than the capital market will encourage investors to switch from the capital market to the money market. As a result, the demand for stocks decreases and stock indices will decline (Triuspitorini, 2021).

Based on the results of VECM estimates, it is known that in the nature of long-term relationships, the BI-Rate has a significant positive effect on the Sharia Stock Index with evidence that  $t$  statistics are greater than  $t$  tables, namely  $1.96093 > 1.96$ . Meanwhile, in the short term, the BI-Rate variable does not have a significant effect on the Indonesia Sharia Stock Index (ISSI) with evidence that  $t$ -statistics are smaller than  $t$  tabel, namely  $-0.017955 < 1.96$ .

The results of the study are different to the research conducted by Noviyani & Nugroho, (2022) who reported that the BI-Rate has a significant negative effect on the Indonesian Sharia Stock Index (ISSI). When the BI-Rate decreases, investors will invest their funds into the capital market rather than into the money market which ensues lesser profit, thereby increasing the demand for shares in Sharia stocks.

### **The Effect of Exchange Rate on ISSI**

The exchange rate variable has a positive and significant effect on the Indonesia Sharia Stock Index (ISSI) in the long term, as evidenced by the results of the estimated statistical  $t$  value greater than  $t$  table by  $2.40979 > 1.96$ . In the short term, the exchange rate variable has no effect on the Indonesia Sharia Stock Index (ISSI), as evidenced by the results of the estimated value of statistical  $t$  less than  $t$  Table  $0.48098 < 1.96$ .

A rate that has a significant long-term positive influence indicates that any increase in the exchange rate will be followed by an increase in the Indonesian Sharia Stock Index (ISSI). The results of this study are in line with research conducted by Wahyudi & Nabella, (2020) entitled "Impact of Macroeconomic Variables on the Volatility of the Indonesian Sharia Capital Market: Model Error Correction Approach". The exchange rate has the ability to influence the Indonesia Sharia Stock Index (ISSI) because it has a direct relationship with the Indonesian stock market in terms of capital and cash flow to companies that have their shares listed on the Indonesia Stock Exchange (Wahyudi & Nabella, 2020)

When the exchange rate rises, it has an impact on price increases for companies in the export sector or minimal currency exposure to company debt, allowing the rupiah currency to strengthen and improve business performance. Business growth influences the value of the company, so the stock price rises as well. This is also consistent with the Arbitrage Pricing Theory (APT), which states that the exchange rate is one of the factors that can affect the stock price and the company's position in its operations (Setyoko & Purwantini, 2017)

Meanwhile, there is no relationship between the exchange rate and the Indonesian Sharia Stock Index in the short term (ISSI). This means that the short-term movement of value has no direct impact on investors' decision to invest in Islamic stocks in Indonesia. Investors do not use the exchange rate as a benchmark in their investments. This is due to the fact that the exchange rate is still under control.

### **The Effect of World Gold Price on ISSI**

In the long-term relationship, the world gold price has a significant positive effect on the Indonesia Sharia Stock Index (ISSI). This is evidenced by the results of  $t$ -statistical estimates that are greater than  $t$ -table of  $-2.72178 > 1.96$ . However, similar does not occur in short-term relationships where the  $t$ -statistical value is smaller than the  $t$ -table which is  $1.12363$

< 1.96 which means the world gold price does not have a positive and significant effect on the Indonesia Sharia Stock Index (ISSI).

In the long term, this research can explain why investing in gold and Islamic stocks is a bad idea. When the price of gold fell as a result of the sluggish economy, the Indonesia Sharia Stock Index (ISSI) also fell. As a result of the decline in the price of gold at the time, investors will choose to invest outside of gold investment and the capital market.

In the short term, the world gold price has no significant effect on the Indonesia Sharia Stock Index (ISSI), which means that if the price of gold changes in the short term, the return on the Indonesia Sharia Stock Index will not change. This is because gold is more in demand and seen as more promising by investors. When a country's situation is not improving or when times are difficult. Furthermore, if gold prices rise, it will only encourage investors to invest in gold rather than the stock market. According to (Jannah & Nurfauziah, 2017), at the time gold is not used by society as a substitute for shares in investments. Some use gold as a hedge against stocks, that is, they combine the two in a single investing portfolio in an attempt to lower the risks.

## **CONCLUSION**

Based on the findings from the VAR/VECM method with research on the influence of the Dow Jones Industrial Average, Inflation, BI-Rate, Exchange Rate, and World Gold Price against the Indonesia Sharia Stock Index (ISSI) for the 2012-2021 period, it can be concluded as follows: The Dow Jones Industrial Average (DJIA) variable has a significant positive long-term effect on the Indonesia Sharia Stock Index (ISSI). Meanwhile, the Dow Jones Industrial Average has no effect on the Indonesia Sharia Stock Index in the short term (ISSI). Variable inflation has a significant negative effect on the long-term and short-term relationship with the Indonesia Sharia Stock Index (ISSI). Meanwhile, The BI-Rate variable has a significant positive effect on the Indonesia Sharia Stock Index (ISSI) in the long-term relationship. Meanwhile, in the short term, the BI-Rate variable has no effect on the Indonesia Sharia Stock Index (ISSI). The result of exchange rate variable has a significant positive influence on the Indonesia Sharia Stock Index (ISSI) in the long-term relationship. Meanwhile, in the short term, the exchange rate variable has no effect on the Indonesian Sharia Stock Index (ISSI). Even Gold price variables have a positive influence on the Indonesia Sharia Stock Index (ISSI) both in the long term. Meanwhile, in the short term, the world gold price does not have a significant effect on the Indonesia Sharia Stock Index (ISSI).

The results of this study can be used as additional information and considerations for companies in carrying out policies related to investment and can be used as companies in anticipating the effects of macroeconomic changes for the stability of company value. In general, DJIA, inflation, exchange rates, BI-Rates and world gold prices influence stock indexes including companies in the Indonesian Sharia stock index. This means that if the DJIA, inflation, exchange rate, BI-Rates and world gold prices increase or decrease, this will encourage movements in the value of the Company Index. In such a way, companies are able to consider them when choosing which investments to make. In addition, businesses need to be aware of the macroeconomic factors in a nation that can affect stock performance. This allows them to choose investments with lower risk and it is expected to increase their focus on the regular influence of macroeconomic variables.

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