JEBIS: Journal of Islamic Economics and Busines Volume 10, No.2, July – December 2024
p-ISSN: 2442-6563 e-ISSN: 2525-3027 Page 245 – 264
Available online at https://e-journal.unair.ac.id/JEBIS doi: 10.20473/jebis.v10i2.58362

THE INFLUENCE OF MACROECONOMIC VARIABLES ON THE JAKARTA ISLAMIC INDEX (JII): AN ANALYSIS FROM 2010 TO 2023

Dian Prehatin[a]
Slamet Haryono[b]

[a,b] Islamic Accounting Department, Sunan Kalijaga Islamic State University, Indonesia
Email: dianprehatin334@gmail.com[a] ; slamet.haryono@uin-suka.ac.id[b];

Article History

Received:
2 june 2024
Revised
5 November 2024
Accepted:
6 November 2024
Online Available:
30 November 2024

Keywords:
Jakarta Islamic Index, Macroeconomic Variables, Vector Error Correction Model.

*Correspondence:
Name: Dian Prehatin
E-mail: dianprehatin334@gmail.com

Abstract

Introduction: Sharia investment activities become one of the most promising economic activities. This is proven from the resilience of sharia capital market activities, which have remained strong despite the challenges of the Covid-19 pandemic. This research examine the influence of macroeconomic variables on the Jakarta Islamic Index (JII).
Method: This research used a quantitative approach with time series data for the period of January 2010 to December 2023. Specifically, the Vector Error Correction Model (VECM) method was employed to examine both the long-term and short-term effects, as well as the shocks in macroeconomic variables on Jakarta Islamic Index (JII).
Results: This study indicate that in the long term, the exchange rate, IHSG and WGP variables have a significant positive impact on JII, while the inflation variable has a significant negative impact. Conversely, the WGP variable shows an insignificant negative impact on stock movements rates within JII. In the short term, however, the variables of inflation, exchange rate, IHSG, COP (Crude Oil Prices) and WGP do not have any impact on the movement of shares listed on JII.
Conclusions and Suggestions: The findings of this research encourage investors to pay more attention to the movement of macroeconomic rate variables and information from companies related to financial reports before making a decision to invest their capital. The inflation, exchange rate, and IHSG variables can be utilized as references in decision making because better movement of the IHSG and exchange rate and stable inflation are able to provide optimal returns for investors.

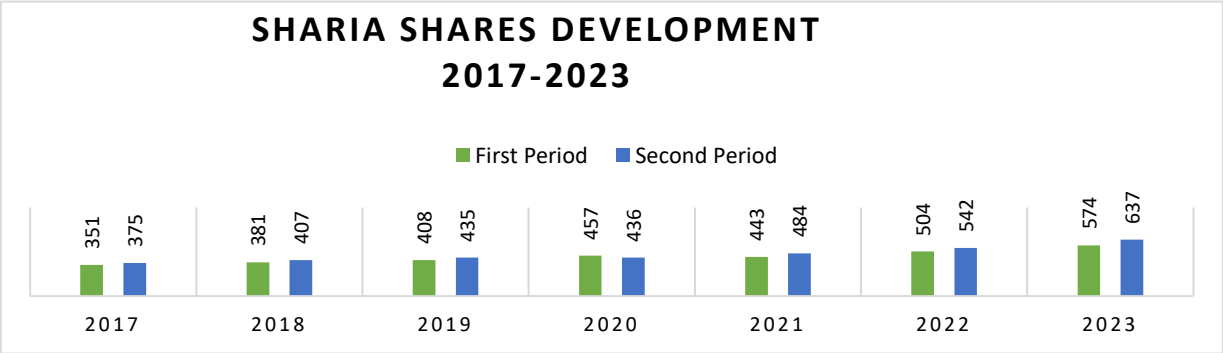
INTRODUCTION

In line with the developments of globalization era and increasingly sophisticated information, investment activities are one of the most promising activities in the future. The existence of capital market is currently one of the institutions that plays an important role in

economic growth in a country. Hashmi, Gilal & Wang (2021) emphasize that a country's economic growth has an impact on increasing company liquidity, controlling companies, and mobilizing a company's investment capital. In this current condition, the stock market becomes one of the institutions as a benchmark used to assess the success of a country's financial stability. This is reinforced by Saragih (2022) that a full requirement for economic development is the accumulation of capital (investment). Capital market activities in Indonesia are regulated in Law No. 8 of 1995 concerning Capital Markets. Besides the conventional capital market, the sharia-compliant capital market is also emerging and expanding in Indonesia.

The sharia capital market in Indonesia has been one of the fastest-growing market developments, demonstrating resilience during the initial phase of the COVID-19 pandemic at the beginning of 2020 to 2021. The COVID-19 pandemic, first identified in Wuhan, China, in December 2019, was declared by the World Health Organization (WHO) and led to a sharp decline in global stock prices as of March 11, 2020, marking the most significant decline in international stock prices since 1987 (Wang et al., 2020). According to Igwe, (2020), the pandemic induced a severe global economic recession, which increased market volatility, led to large-scale funds withdrawals by investors, and caused a steep drop in world oil prices. In Indonesia, the Jakarta Composite Stock Index Price (IHSG) also declined in the first quarter of 2020 as COVID-19 cases increased (OJK Publication, 2020). Despite these challenges, in the midst of an increasingly severe pandemic, the sharia capital market continues to show increasingly improved and stable performance, attracting more investors and showing improved performance in sharia capital market products.

In a press release, the Financial Services Authority (2021) noted that the number of sharia share ownership reached 45.95% as of September 2021, sharia mutual funds grew by 66.69% and the number of Sukuk Holdings Corporate also increased by 26.68%. Until now, the number of sharia shares registered on the IDX continues to increase over a certain period of time. This increase in sharia shares will certainly have a very positive impact on the development of the sharia capital market in Indonesia. Data on the development of sharia shares in Indonesia started from 2017 to 2023 can be seen in the following graph:



Source: www.ojk.go.id

Figure 1. Sharia Shares Development from 2017 to 2023

Based on Figure 1, it can be seen that there is an increase in the number of Sharia shares from 2017 to 2019 both in the first and second periods. In 2020, there is an increase shares in the first period, but a decrease in the second period. Then, in 2021-2023, the number of Sharia shares continued to experience a significant increase in both the first period and second period. This indicates that performance from the Jakarta Islamic Index (JII) has experiencing a pretty good increase. The Jakarta Islamic Index (JII) is an index as a reference for measuring investment performance in sharia shares. This index is the oldest sharia stock index published in July 2000, consisting of 30 constituent shares registered on the Sharia Securities list, which limits investment with elements of gambling, usury, *gharar*, speculative actions, the sale of alcoholic drinks, as well as other prohibited activities (www.idx.go.id).

The movement of the sharia stock index, which continues to fluctuate, is usually influenced by several factors, such as macroeconomic shocks and the global economic situation which continues to change over time (Royhana & Warninda, 2021). Macroeconomic shocks commonly originate from changes in broader macroeconomic conditions that influence conditions in asset markets (Xu et al., 2024). This risk can be in the form of monetary policy, interest rate risk, inflation, exchange rates, economic policy uncertainty, and geopolitical risk (Gu et al., 2021). Macroeconomic changes can also influence stock prices because investors will consider the positive and negative effects on a company's performance in the next following years (Amaliawiati et al., 2021).

The influence of uncertainty caused by policies on commodities, currencies, and crude oil has become common and clear (Antonakakis et al., 2014). Since the global health crisis and geopolitical tensions, investors' interest in assessing the impact of uncertainty in world crude oil prices has also increased (Mei et al., 2020). Recently, investors have utilized crude oil market volatility as one of the factors influencing the rate of stock price movements (Xiao & Wang, 2021). For oil exporting countries, increasing global oil prices offers economic benefits, as they can attract investors to invest their capital (Wei et al., 2023). In 2018, Indonesia was recorded as the third largest importer of crude oil in ASEAN (CNBC Indonesia, 2018). Data from wordtopexport.com shows that Indonesia’s crude oil imports reached a value of US$ 8.2 billion or the equivalent of IDR 117.2 trillion (at an exchange rate of IDR 14,300) in 2017. Indonesia continues to hold the position as the third-largest oil importer in ASEAN.

As one of the most important commodities, crude oil is not only an energy product but also a financial asset that plays an important role in economic development (Ma et al., 2019).

The influence of crude oil prices on the stock price index was proven by Setiawan dan Satrianto, (2021) that world crude oil prices had a negative impact on sharia stocks in Indonesia. Abdullah et al., (2016) also found that world crude oil prices had a significant negative influence on sharia stocks in Indonesia. Nevertheless, (Defliyanti, 2023) mentioned that crude oil prices had a positive influence on sharia stocks in Indonesia.

The rapid growth of the sharia capital market in recent years has made investors interested in investing their capital in several instruments in the sharia capital market. Several previous studies have examined the impact of different macroeconomic variable shocks on the Jakarta Islamic Index (JII). Furthermore, several studies also stated that macroeconomic variables had an impact on stock prices at JII before Covid-19, but after that period, several studies have not found the impact of macroeconomic variables on the stock price index at JII. Due to the many differences in research results, this research attempts to answer and develop the findings of previous research by employing different variables and approaches.

This research aims to examine and determine the performance of sharia shares listed on the Jakarta Islamic Index (JII) both in the short-term and long-term periods. This research also provides a comprehensive understanding of how JII performs and evaluate the correlation between macroeconomic variables, regarding whether macroeconomic variables have an impact on the Jakarta Islamic Index (JII) or not. Apart from that, this research also presents an overview of what steps the government needs to take after observing shocks that occurred due to the correlation between macroeconomic variables and JII and the conditions of the fluctuating world economy.

This research analysis contributes several things, including first, providing additional guidance for the regulatory framework in evaluating the performance of Sharia shares listed on the Jakarta Islamic Index (JII), which will have an impact on economic growth in Indonesia; giving additional guidance for the government in taking steps to minimize the crisis that is occurring and will occur, that will have an impact on the economy; as well as creating effective policies and maximizing sharia capital market instruments in realizing a stable economy. Second, the results of this research can be utilized as a benchmark for investors when investing their capital and designing the best investment strategy to obtain maximum returns or results.

LITERATURE REVIEW

THEORETICAL BACKGROUND

The increasing share price of a company will attract the interest of investors to invest their capital in the company. This is because the maximum company value will have a good impact and maximum dividends for shareholders (Bintara, 2018). In making investment

decisions, investors will generally find out the companies they will invest in, by looking through the media for information on a company's financial reports or through other people's intermediaries. This research employed two theories, namely agency theory and signaling theory. These two theories were used by the researchers to develop previous research that has not included theory in its research.

Agency theory is a theory introduced by Jensen and Meckling. This theory states that there is an agency relationship or a contract used to adjust the interests of the principal (investor) and the agent in the event that there will be a difference in interests. In other words, agency theory refers to a theory used by investors (principals) in authorizing agents (company managers) to make decisions, impacting the company finances. In this case, an investor will give or delegate authority to the company manager to make decisions in investment activities in one of the Islamic capital market instruments. In making decisions, an agent must consider to global economic conditions and many macroeconomic factors that may affect the rate of movement of Islamic stocks listed on the JII.

Besides concerning to global economic conditions and macroeconomic factors, an agent also needs to consider the information related to the company that will be given capital (investment). In this occasion, signaling theory is a theory that requires a company to provide information related to important information, such as financial reports to the public or external parties. Where information provided to external parties (investors) must be complete, relevant, accurate, and timely as this information will be one of the tools or references for investors in making decisions to invest their capital (Bakti & Triyono, 2022). Therefore, an agent (company manager) is required to concern with the important information on the company that will receive investment.

Based on the research results, signaling theory is considered to be the theory that best aligns and supports this research, where an investor must pay attention to the rate of movement of economic variables and the frequently fluctuating global economic conditions. In addition, investors also must concern and understand information related to a company's financial reports in order to get maximum dividends before making a decision to invest.

JAKARTA ISLAMIC INDEX

Jakarta Islamic Index (JII) was initially launched on July 3, 2000, and is divided into two forms, namely JII30, which includes the 30 most liquid sharia-compliant shares listed on the IDX, and JII70, which features the 70 most-liquid sharia shares and was introduced on May 17, 2018. of the sharia stock in the JII is reviews biannually, in May and November, following the DES schedule set by the Financial Services Authority (OJK). JII was used as a guideline for investors who wanted to invest in the Islamic capital market (www.idx.co.id)

INFLATION

Inflation can be interpreted as an increase in the prices of goods/ services that occur continuously within a certain period. Inflation means an increase in the price of goods and services that occurs regularly caused by increasing market demand rather than the offer of an item in the market (Sartika, 2017). At the time of a price increase, inventory of goods and services will be increasingly rare and consumers will spend more money to get the item or service. However, the increase in the goods has not been said inflation if the item experience increased only one type of goods (Sia et al., 2023). The periodic increase in inflation has an impact on the company high operational cost, resulting in a decrease in the company profitability (Masrizal et al., 2021). Research conducted by Amaliawiati et al., (2021) that in the short term both before and when Covid-19, inflation does not affect JII. However, research by Safitri et al., (2023) found that inflation has an effect on stock price movements. It can be said that if inflation increases, interest rates will tend to increase, causing stock price movements to decrease.

H1: inflation has no significant effect on JII in the short-term and long-term periods.

EXCHANGE RATE

Currency exchange rates will have an impact on the stock prices movement. This is because, if the exchange rate of a country has increased, investor income or return will also increase. The strengthening of this exchange rate causes foreign investors (investors) of a country. Changes that occur in the currency exchange rate will have an impact on the value of domestic and international shares that affect the growth of the capital market (Ratnaningrum et al., 2023). Then, the study conducted by Prakoso, (2022) and Ratnaningrum et al., (2023) stated that there was a positive influence between the exchange rate variable (exchange rate) on the IHSG. However, research by Defliyanti, (2023) found that currency exchange rates did not have any impact on JII.

H2: The exchange rate has a significant positive effect on JII both in the short-term and long-term periods.

IDX COMPOSITE

The Composite Stock Price Index is a statistical measure that describes the overall price of a set of stocks selected with certain criteria and continuously evaluated (www.idx.co.id). In short, the IHSG is a stock price index that describes the performance of shares incorporated in

it and used to determine the development and situation of the capital market in common. IHSG includes both ordinary shares and shares preferred recorded on the BEI (Prakoso, 2022). In several studies, IHSG is often treated as the dependent variable. However, in this paper, IHSG is considered one of the macroeconomic variables that influences stock movements within the Jakarta Islamic Index (JII).

H3: The Composite Stock Price Index (IDX Composite) has an insignificant negative effect on JII in the long-term and short-term periods.

CRUDE OIL PRICE

Crude oil has a crucial role in the modern economy. In Indonesia, oil is a commodity that is quite influential on the economy. The instability of world oil prices has strongly affected the capital market. For state exporters of oil, the increase in world oil prices provides an advantage as it can attract investors to invest (Wei et al., 2023). Currently, crude oil is one of the commodities that influence the growth of the capital market in the world, one of which is Indonesia, as a standard reference in the market of world crude oil prices (*Crude oil Price*) *West Texas Intermediate* (WTI). This WTI is crude oil with high quality produced in Texas (Prakoso, 2022). Olayungbo et al., (2024); Prakoso, (2022) and Sjam et al., (2023) stated that there was a positive and significant influence between the world oil price variables and stock returns on the IHSG and ISSI.

H4: Crude oil prices have a positive effect on JII in the long-term and short-term periods.

WORLD GOLD PRICE

Besides several factors above, it has been found that gold also plays a significant role in influencing the growth of the capital market. Gold is widely recognized as an asset in the safest communities, especially in inflation, when people prefer to invest in gold to avoid the high rate (Zeinedini et al., 2022). The global gold price is typically referenced through the London gold market, which follows a system known as *London Gold Fixing,* (Hasibuan, et al., 2023). Research by Zeinedini et al., (2022) stated that there was no significant relationship between the global gold price and the stock price index on the Iran Stock Exchange. Similarly, Defliyanti (2023) found that the price of gold does not have a positive impact on the sharia stock price index (JII) However, research by Sjam et al., (2023) and Hasibuan et al., (2023) mentioned that there was a significant influence on the global gold price variables on the ISSI and JII indices.

H5: Gold prices have no influence on JII in the long-term and short-term periods.

RESEARCH METHODS

This study used quantitative research approach with time series data from the January 2010 period until December 2023 through monthly data. The dependent variable in this study included the Jakarta Islamic Index (Y). The data were obtained from https://finance.yahoo.com, while independent variables included the following: exchange rate (X1) were obtained through www.bi.go.id; IHSG (X2), from https://finance.yahoo.com; world crude oil prices (X3), retrieved from https://fred.stlouisfed.org; and world gold prices (X4), which were accessed through https://lbma.org.uk.

The model used in this study is the Vector Error Correction Model (VECM). This model is a derivative model of VAR (Vector Autoregression), which was finished (where the data is stationary in the first and cointegration degree). The selection of this research model was based on the presence of stationary variable data in the first difference, which was then accommodated by VECM. By selecting the VECM model, it is possible for researchers to test the long-term and short-term impacts of a variable and examine the response of a variable to shocks as a result of the correlation between these variables. Thus, the researchers obtained a thorough and clear understanding of how the impact and response to shocks due to the relationship among one variable contributes to changes in certain variables. The stages in the estimated VECM model include data stationary test, optimal lag determination, cointegration test, VECM models, Impulse Response Function (IRF), and test Variance Decomposition (VD). VECM itself was first introduced by Engle and Granger (Widarjono, 2018). VECM models are commonly formulated as follows:

$$\Delta JIIi_t = \propto_1 + \sum_{\rho}^{i=1} \beta_{1t}\, \Delta INF_{t-1} + \sum_{\rho}^{i=1} \beta_{1t}\, \Delta KURS_{t-1} + \sum_{\rho}^{i=1} \beta_{1t}\, \Delta IHSG_{t-1}$$

$$+ \sum_{\rho}^{i=1} \beta_{1t}\, \Delta COP_{t-1} + \sum_{\rho}^{i=1} \beta_{1t}\, \Delta WGP_{t-1} + \varphi_1\, ECT_{t-1} + \mu_{1i} \qquad (1)$$

Description:

JII : Jakarta Islamic Index (as a variable analyzed (Y))
INF : Inflation (x1)
KURS : Currency exchange rates in US dollars (X2)
IHSG : Composite Stock Price Index (X3)
COP : World Crude Oil Prices (X4)
WGP : World Gold Price (X5)
β : Individual variables coefficient

i=1 : Data Time Series
t-1 : Lag value in each variable
ECT_{t-1} : Integrating Vectors
ϕ : Adjustment coefficient
$\propto$: Speed Adjustment coefficient regarding the long-run correction term
μ_{1i} : Random Errors

RESULT AND ANALYSIS

DESCRIPTIVE STATISTICS

Table 1. Descriptive Statistic Test Result (in Rupiah)

Variable	Mean	Max	Min	Standard Deviation
JII	612.660	787.120	413.730	78.824
Inflation	4.242	8.790	1.320	1.818
Exchange Rate	12.712	16.495	8.523	2.274
IHSG	5.308	7.272	2.549	1.154
COP	159.961	720.195	16.975	686.504
WGP	1.569	15.191	1.068	1.104

Source: E-views 10 "Data have been reprocessed"

Based on Table 1 above, it can be seen that all variables used domestic currency measurement to make it in a same level of comparison. The next step is to transform all the variables into difference value. At the end, all variables express as ratio of growth as mention in the equation (1) as delta (Δ).

DATA STATIONARITY

Data stationary test in this study used *Root Test Unit,* which was done using the ADF test (*Augmented Dickey-Fuller*) at a significant level of 5% (0.05). If the probability value is less than 0.05.

Table 2. Stationarity Test

Variable	Augmented dicky-fuller probability	
	At level	First Difference
JII	0.0532	0.0000
Inflation	0.1831	0.0000
Exchange rate	0.7298	0.0000
IHSG	0,3125	0.0000
COP	0.0296	0.0000
WGP	0.0000	0.0000

Source: E-views 10 "Data have been reprocessed"

In table 2, it can be seen that the entire variables of JII, Inflation, Exchange rate, IHSG, and COP are not stationary at the level, but WGP is stationary at the level. Then, all variables

are stationary at the first level of differentiation and have a cointegrated relationship. This indicates that data among variables can be used to examine the long-term and short-term influence of a variable on other variables.

OPTIMAL LAG DETERMINATION

For optimal Lag determination, this study utilized the provisions of the Akaike Information Criterion (AIC), Schwarz Criterion (SC), Final Prediction Error (FPE), and Hannan-Quinn Information Criterion (HQ) criteria.

Table 3. Lag Test Result

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-5155.501	NA	35.16473	86.74791	86.88803*	86.80481
1	-5091.575	120.3312	33.23475	86.27856	87.25943	86.67686*
2	-5047.551	78.42916	32.85419	86.14371	87.96532	86.88341
3	-5010.730	61.88364*	32.82701*	86.12991*	88.79227	87.21101
4	-4985.861	39.28919	33.47940	86.31699	89.82008	87.73948
5	-4962.324	34.81069	34.45798	86.52645	90.87029	88.29035
6	-4942.485	27.34167	36.17049	86.79806	91.98264	88.90336

Source: E-views 10 "Data have been reprocessed"

Based on Table 3, it can be seen that lag 3 is the lag with the most value. Lag 3 has conformity with three criteria, namely, criteria based on LR, FPE, and AIC. Therefore, in this study, the optimal lag lies in lag 3.

MODEL STABILITY

Model stability is used to ensure that the estimated VAR model with the selected lag will get valid results. In Table 4 below, it can be explained that the selected lag is stable with the modulus value of less than 1.

Table 4. Stability Test Result

Roots	Modulus
-0.330078 - 0.482425	0.584539
-0.330078 + 0.482425	0.584539
-0.552725 - 0.071676	0.557353
-0.552725 + 0.071676	0.557353
-0.276920 - 0.452391	0.530418

Source: E-Views 10 "Data have been processed"

COINTEGRATION TEST

The cointegration test is a test used to examine whether the long-term influence on the variables studied or not. This study used the cointegration test *Johansen* with criteria if *Trace Statistics* and *Maximum Eigenvalue* values are greater than *Critical value*, then the variables studied are declared

Table 5. Cointegrations Variables Test

Hypothesized No. Of CE (s)	Eigenvalue	Trace statistics	0,05 Critical value	Max-Eigen Statistical	0,05 Critical value	Prob. **
None *	0.440937	256.0134	95.75366	40.07757	40.95680	0.0000
At Most 1 *	0.372484	175.1859	69.81889	33.87687	34.80587	0.0000
At Most 2 *	0.267342	110.4139	47.85613	27.58434	28.58808	0.0000
At Most 3 *	0.296110	67.17438	29.79707	21.13162	22.29962	0.0000
At Most 4 *	0.163207	36.83161	15.49471	14.36460	15.89210	0.0000
At Most 5 *	0.083137	12.06482	3.841465	3.841465	9.164546	0.0005

Source: E-Views 10 "Data have been reprocessed"

Based on Table 5, it can be seen that the movement of all variables studied has a correlation in the long-term between the variable and another. This indicates that the entire research variable is integrated and can be analyzed for the next stage.

VECM MODEL

VECM modeling test is used to determine the short-term and long-term relationship between the fifth (5) macroeconomic variables on JII in the period of January 2010 to December 2023. The significant level used in this study was at a rate of 5% (0,05) and at a level of 10% (0,10) with *df* (*Degree of Freedom*) amounting to 164, where N-1 = 165-1 = 164. With the provisions, if the value-*statistic* is greater than the value table at a significant level that has been determined, the independent variable effects the dependent variable. In this case, the value table at the 5% level is 1.65420, and at the 10% level is 1.28673.

Table 6. Long-Term VECM Model Result

Variable	Coefficient	*Stand. error*	*t-statistics*	Prob.
Inflation	-41.42653	92.8629	-2.9959**	0.0000
Exchange rate	182.5418	0.26467	2.74527***	0.0000
IHSG	960.7934	0.29450	3.27488***	0.0000
COP	11.90788	0.00022	-0.69053	0.0601
WGP	-83.36742	0.07975	-9.26214**	0.0000
*Note: *** significant at 5%, **Significant at 10%*				

Source: E-Views 10 "Data have been processed"

In Table 6, it can be seen that long-term relationships at a significant level of 5% and 10% of inflation variables have a significant negative effect on JII. Then, the exchange rate and the IHSG have a significant positive influence on the JII variable at both the 5% and 10% levels. The COP does not affect at level 5% and 10% on JII. Meanwhile, the WGP variable have a significant negative effect on JII at both the 5% and 10% levels.

Table 7. Short-Term VECM Model Result

Variable	Coefficient	Standard-error	t-statistics	Prob.
Inflation	-2.812249	0.14856	-0.87620	0.0600
Exchange rate	-0.007789	0.00955	0.81589	0.0789
IHSG	-0.034253	0.02228	-1.53723**	0,0201
COP	-1.188641	10.0378	0.56576	0,5600
WGP	-0.002898	0.00631	-0.24066	0,6410

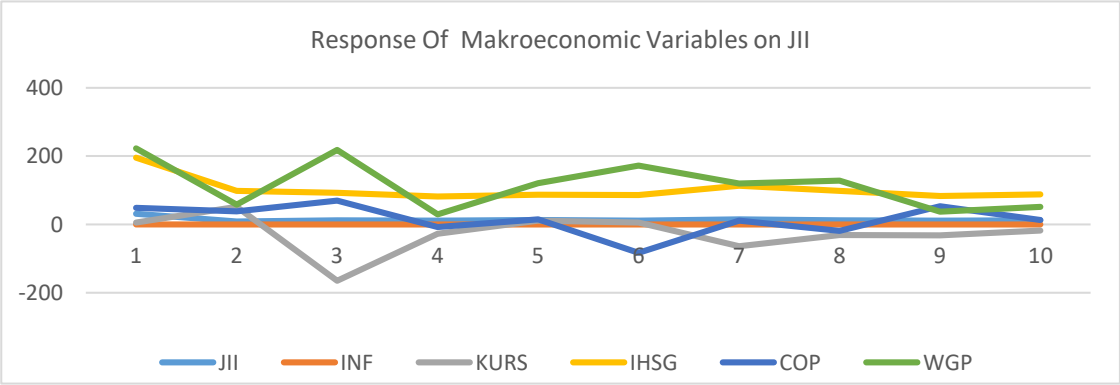
*Note: *** significant at 5%, ** significant at 10%.*

Source: E-Views 10 "Data have been processed"

Based on Table 7 above, it can be seen that short-term relationships in the entire variables namely inflation, exchange rates, COP, and WGP do not affect JII both at a 5% level and a rate of 10%. While the IHSG Variable has a significant negative effect at 10% level.

IMPULSE RESPONSE FUNCTION (IRF) TEST

Analysis of Impulse Response Function aims to measure or track the response of a variable bound to shocks in the present variables in the present and future (Widarjono, 2018).



Source: E-views 10 "Data have been reprocessed"

Figure 2: Impulse Response Function (IRF) Result

Based on Figure 2, it can be explained that shocks in the JII variable are relatively positive because they only affect themselves. While shocks that occur in the inflation variable are relatively decreased (negative) from the beginning of the period to the end of the period. The exchange rate variables show an increase in shocks in the middle of the period and then a decrease at the end of the period. In the IHSG variable, the given response tends to be positive and stable. Then on the COP variable, there was an increase at the beginning of the period and

decreased in the middle of the period to the end of the period. Furthermore, the WGP variable experienced quite significant shock but remained at a positive point.

VARIANCE DECOMPOSITION (VD)

Variance Decomposition (VD) also known as Forecast Error Variance Decomposition *(FEVD)* is a method used to describe the strengths and weaknesses of each variable in influencing other variables at certain times.

Table 8. Variance Decomposition (VD) Result

Variance Decomposition of JII							
Period	S.E	JII	Inflation	Exchange rate	IHSG	C0P	WGP
1	313,3361	100,0000	0,000000	0,000000	0,000000	0,000000	0,000000
2	336,2743	98,97311	0,207506	0,346494	0,346494	0,177889	0,097969
3	367,0040	98,29079	0,217813	0,501509	0,501509	0,708156	0,105592
4	406,6442	98,58186	0,180848	0,408721	0,408721	0,579220	0,094510
5	435,8982	98,44959	0,191900	0,482654	0,482654	0,589799	0,106387
6	464,6960	98,41518	0,170496	0,482483	0,482483	0,666840	0,096526
7	491,2363	98,49719	0,156137	0,466018	0,466018	0,634621	0,091712
8	516,7777	98,49966	0,147324	0,477676	0,477676	0,641067	0,089567
9	541,2034	98,52541	0,134858	0,470306	0,470306	0,648550	0,081679
10	564,2000	98,54896	0,125806	0,469362	0,469362	0,642773	0,079208

Source: E-views 10 "Data have been reprocessed"

In Table 8, it can be seen that the effect of the biggest shock occurs in the JII variable itself which is 100% at the beginning of the period, while in the 10^{th} period decreased to 98%. The influence of inflation variable shocks did not affect the JII variable in the first period but began to impact the second period with a magnitude of less than 1% (insignificant) until the 10^{th} period continued to decline. Then, on the exchange rate variables, the IHSG, COP, and WGP of the shock also did not directly affect the JII variable in the first period, but began to affect the second to the 10^{th} period with a magnitude of less than 1% (not significant).

CLASSICAL ASSUMPTION TEST

Table 9. Classical Assumption Test Result

Variable	Multicollinearity	Autocorrelation	Normality	Heteroscedasticity
	VIF	Durbin-Watson	Jarque-Bera	Glejser
INF	1,298			0,357
KURS	1,318			0,112
IHSG	1,015	1,834	0,065	0,169
COP	1,010			0,060
WGP	1,006			0,459

Source: E-views 10 "data have been reprocessed"

From the table above, it can be seen that the results of the multicollinearity test using the VIF (*Variance Inflation Factor*) method on the inflation variable are 1.298, the exchange rate is 1.218, IHSG is 1.015, COP is 1.010, and WGP is 1.006. These mean that this value is smaller than 10.00. It can be concluded that there are no symptoms of multicollinearity in the data. The results of the autocorrelation test show that the Durbin-Watson value is 1.8342, with a DL value = 1.6834, DU = 1.8082, so the 4-DU value is 4-1.8082 = 2.1918. So, the Durbin-Watson value lies between the DU and 4-DU values (1.8082 < 1.8342 < 2.1918). It can be concluded that there is no autocorrelation in the model. The results of the normality test indicate that the *Jarque-Bera* probability value for all variables is 0.065, which is greater than 0.05 (0.065 > 0.05). It means that all variables in this study are normally distributed. Then, the results of the heteroscedasticity test with the *Glejser* test on the inflation variable were 0.357, the exchange rate was 0.112, the IHSG was 0.169, the COP was 0.060, and the WGP was 0.459, which means it was greater than 0.05. So, it can be concluded that there are no symptoms of heteroscedasticity in the model and it is suitable for use.

DISCUSSION

Based on the results of the VECM modeling data analysis, it can be seen that the long-term inflation variable has significant negative effect on JII variables, both at 5% and 10% levels. With a coefficient value of -41.4265, if inflation has increased by 1%, it will result in a decline in the share price of joined in JII of 41.4265. Where's the short-term inflation variable does not affect JII variables, both at 5% and level of 10%.

The results of the VECM mode estimation are not in line with the research conducted by Amaliawiati et al., (2021) and Safitri et al., (2023) which stated that the inflation variable had an impact on the IHSG. However, the results of this study are in line with the research conducted by Ratnaningrum et al., (2023) and Nugroho et al., (2021) that the inflation variable does not affect the IHSG variable. This was due to the research period (January 2010 – December 2023) that there was an economic shock, such as the occurrence of COVID-19 in early 2020 to 2021 and the war between Russia-Ukraine in 2022 as a factor that influenced inflation in Indonesia.

Based on the results of the VECM model done by the researchers the variable exchange rate has a significant positive effect on the JII variable in the long term both at 5% and 10% with a coefficient value of 183.5418. Strengthening the rupiah exchange rate against the US dollar has an impact on economic activities, such as exports, and has a positive influence on investment activities in Indonesia. But in the short-term variable exchange rate, it does not affect the JII variable at both the level of 5% and at the level of 10%. This is because many economic shocks are affected the exchange rate which continued to weaken. The economic

shocks that have strongly affected the weakening of the rupiah exchange rate against the US dollar was the COVID-19 outbreak that occurred in 2020 to 2021. At that time. many economic activities were not running well. Besides, the Russia-Ukraine war in 2022 also had quite an impact on the Rupiah exchange rate on the economic condition in Indonesian.

The results of this study are in line with the research conducted by Defliyanti, (2023) and Prakoso, (2022), which states that the exchange rate variables have a significant impact on the IHSG variable. The research conducted by Nugroho et al., (2021) also mentioned that simultaneously the variable exchange rate affected the return on investment, and partially the variable exchange rate had a significant negative effect on the return on investment on the IDX. As well as research by Pratama & Azzis, (2018) the variable exchange rate has a significant negative effect on the Volatility of Return JII.

Based on the results of the VECM modeling research that has been carried out by researchers, it can be seen that the IHSG variable has a significant positive impact on both 5% and 10%, with a coefficient value of 960.793. In the short-term period, the IHSG variable has a significant negative impact on JII variables at the 10% level. This indicates that the IHSG variable is quite influencing the movement of stock prices and the JII movement itself. The composite stock price index that continues to experience fluctuations is very influential on investors' decision to carry out investment activities in the Islamic capital market.

Then, the results of the VECM modeling stated that the COP variables (world crude oil prices) had no effect on the JII variable in the long-term or short-term periods, either at the 5% or 10% levels. The results of this study not in line with the research conducted by Prakoso, (2022), and Olayungbo et al., (2024) which stated that the COP variable had a positive effect on the stock market. Research conducted by Zeinedini et al., (2022) and Wei et al., (2023), which stated that there was a significant negative influence between the COP variable on the stock market. This is due to the existence of economic shock which is quite surprising to the world like the outbreak COVID-19 and the occurrence of Russian-Ukrainian wars influenced the movement of world crude oil prices. The shock on the movement of world crude oil prices also has an impact on the movement of stock prices.

Furthermore, the results of VECM modeling stated that the WGP variable (world gold price) had a significant negative effect on JII at the 5% or 10% level in the long-term period. Whereas in the short term, WGP variables do not affect JII variables. This research is not in line with the research conducted by Zeinedini et al., (2022) that there is no significant influence between world gold prices on stock prices on the Iran Stock Exchange. However, this research also in line with the result by Setiawan & Satrianto, (2021), which found that there is a significant positive influence between gold and stock Islamic market in Indonesia. The outbreak of COVID-19 also affected the increase in gold prices, which decreased during the pandemic period. This indirectly also influences the movement of stock prices in Indonesia.

However, the results of this research are in line with research conducted by Supriani et al., (2022) that the world gold price is a quite crucial factor in influencing the JII movement rate.

The results of this study have been adjusted to the two theories used, namely agency theory and signaling theory. An agent (company manager) must pay attention to the rate of movement of macroeconomic variables (inflation, exchange rate, IHSG, COP, and WGP) before deciding to invest. In addition, an agent (company manager) must also concern to information related to the company that will be given capital or invested. Because monitoring the fluctuations in macroeconomic variables and company-related information, agents (company managers) will be better equipped to make the best possible decision to invest in companies listed on the JII.

In line with the development of the times in the present, Islamic investment becomes one of the economic activities that are of great interest to the community, especially in Indonesia, where the majority of the population is Muslim, which is also one of the factors for the interest in Islamic stocks and other Islamic capital market instruments. Furthermore, there is a need for an agent or intermediary to provide information about companies that have issued their shares on the Islamic stock index to the public or external investors, while also considering to the conditions and situation of the global economy, which can change unpredictably. It is crucial to monitor the movement of macroeconomic variables that may have a considerable impact on Islamic stock prices. Currently, the rapid development of the Islamic capital market has a fairly close relationship with GDP (interpretation of Indonesia's economic growth), where an increase in the Islamic capital market tends to lead to increase in GDP. Conversely, a decline in share price in the Islamic capital market is likely to result in a decrease in GDP.

CONCLUSION

Based on the results of the research conducted, it can be seen that macroeconomic variables have a correlation with the Jakarta Islamic Index (JII). The results reveal that the exchange rate and IHSG variables have a significant positive impact on the Jakarta Islamic Index (JII) in the long-term period. Meanwhile, the inflation and WGP shows the opposite impact on the Jakarta Islamic Index (JII). This means that investors must concern to the rate of movement of macroeconomic variables before deciding to invest their capital. The inflation, exchange rate, and IHSG variables can be used as a reference in decision-making as the better movement of the IHSG and exchange rate and stable inflation can provide optimal returns for investors. Meanwhile, the global oil and gold variables are not good enough to be used as a reference.

This is because the frequent fluctuations in the prices of these both factors can influence the volatility of Sharia shares.

There are also several limitations in this research. First, this research only focused on the prices of Sharia shares listed on JII. Therefore, future researchers are expected to adopt and utilize cross-country data in presenting their research. Second, this research only employed five macroeconomic variables, including inflation, exchange rate, IHSG, COP, and WGP. Furthermore, this research only used two economic theories, namely agency theory and signaling theory. Both these theories can be used as a reference for investors to observe the rate of movement of macroeconomic variables and information from companies related to the company performance.

AUTHOR CONTRIBUTIONS

The first author contributed the majority of the manuscript's content, ideas, and writing. Co-author contributed to support the manuscript content. We declare no conflict of interest among the authors.

FUNDING

This article has not received any funding or grants.

REFERENCES

Abdullah, A. M., Saiti, B., & Masih, M. (2016). The Impact of Crude Oil Price on Islamic Stock Indices of South East Asian Countries: Evidence from MGARCH-DCC and Wavelet Approaches. *Borsa Istanbul Review*, *16*(4), 219–232. https://doi.org/10.1016/j.bir.2015.12.002

Amaliawiati, L., Minda Utami, E., Komariah, S., & Mawarnie Puspitasari, D. (2021). Effect of Macroeconomic Variables on Jakarta Composite Index before and the Time of Covid-19. *Turkish Journal of Computer and Mathematics Education*, *12*(8), 1420–1430.

Antonakakis, N., Chatziantoniou, I., & Filis, G. (2014). Dynamic Spillovers of Oil Price Shocks and Economic Policy Uncertainty. *Energy Economics*, *44*, 433–447. https://doi.org/10.1016/j.eneco.2014.05.007

Bakti, B. E. M., & Triyono. (2022). Studi Pada Perusahaan Sub Sektor Property dan Real Estate yang Terdaftar di Bursa Efek Indonesia. *Jurnal Ekonomi Dan Bisnis*, *9*(1), 104–111.

Bintara, R. (2018). Pengaruh Profitabilitas, Growth opportunity, dan Struktur Modal Terhadap Nilai Perusahaan (Studi Empiris Pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Tahun 2012-2015). *Jurnal Profita*, *11*(2), 306.

CNBC Indonesia. (2018). *Wah, RI Ternyata Importir Minyak Terbesar Ketiga di ASEAN*.

https://www.cnbcindonesia.com

Defliyanti, P. (2023). Pengaruh Ketidakpastia Kebijakan Ekonomi Amerika Serikat, Ketidakpastian Kebijakan Ekonomi Eropa Dan Makroekonomi Terhadao Harga Saham Syariah Di Negara Asean.

Gu, X., Zhu, Z., & Yu, M. (2021). The Macro Effects of GPR and EPU Indexes over the Global Oil Market—are the Two Types of Uncertainty Shock Alike? *Energy Economics*, *100*(24), 105394. https://doi.org/10.1016/j.eneco.2021.105394

Hashmi, S. M., Gilal, M. A., & Wong, W. K. (2021). Sustainability of Global Economic Policy and Stock Market Returns in Indonesia. *Sustainability (Switzerland)*, *13*(10). https://doi.org/10.3390/su13105422

Hasibuan, et al. (2023). Pengaruh Inflasi, Nilai Tukar, Harga Minyak Dunia dan Harga Emas Dunia Terhadap Indeks Saham Syariah Indonesia. *Jurnal Manajamen Akutansi (JUMSI)*, *3*(1), 211–221.

Igwe, P. A. (2020). Coronavirus with Looming Global Health and Economic Doom. *African Development Institute of Research Methodology*, *1*(March), 1–6.

Ma, R., Zhou, C., Cai, H., & Deng, C. (2019). The Forecasting Power of EPU for Crude Oil Return Volatility. *Energy Reports*, *5*, 866–873. https://doi.org/10.1016/j.egyr.2019.07.002

Masrizal, Sukmana, R., Al Mustofa, M. U., & Herianingrum, S. (2021). Can Country Risks Predict Islamic Stock Index? Evidence from Indonesia. *Journal of Islamic Accounting and Business Research*, *12*(7), 1000–1014. https://doi.org/10.1108/JIABR-04-2020-0127

Mei, D., Ma, F., Liao, Y., & Wang, L. (2020). Geopolitical Risk Uncertainty and Oil Future Volatility: Evidence from MIDAS Models. *Energy Economics*, *86*, 104624. https://doi.org/10.1016/j.eneco.2019.104624

Nugroho, A. P., Sulistyawati, A. I., Wahdi, N., Himmawan, A., Nugroho, D., & Kurniawati, E. (2021). The Influence of the Rupiah Exchange Rate, Inflation, and Interest Rates on Investment Returns on Islamic Life Insurance Companies in Indonesia Stock Exchange for the 2018-2020 Period. *International Journal of Economics Development Research*, *4*(2), 2023–2533.

Olayungbo, D. O., Zhuparova, A., Al-Faryan, M. A. S., & Ojo, M. S. (2024). Global Oil Price and Stock Markets in Oil Exporting and European Countries: Evidence during the Covid-19 and the Russia-Ukraine War. *Research in Globalization*, *8*(July 2023), 100199. https://doi.org/10.1016/j.resglo.2024.100199

Otoritas Jasa Keuangan (2021). *Pasar Modal Syariah Bertumbuh di Tengah Pandemi*. https://www.ojk.go.id

Prakoso, D. (2022). The Impact of Macroeconomic Variables on IHSG and JII. *Ekonomi Islam Indonesia*, *4*(2). https://doi.org/10.58968/eii.v4i2.119

Pratama, Y. C., & Azzis, A. (2018). Macroeconomic Variables, International Islamic Indices, and The Return Volatility in Jakarta Islamic Index. *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah*, *10*(1), 171–188. https://doi.org/10.15408/aiq.v10i1.5550

Publikasi OJK. (2020). *Roadmap Pasar Modal Indonesia 2023-2027*. https://www.ojk.go.id

Ratnaningrum, R., Putri, B. K., Wulandari, R., & Purnama, K. D. (2023). The Influence of BI Rate, Inflation, and Exchange Rate on The IDX Composite Stock Index (IHSG). *International Journal of Science, Technology & Management*, *4*(2), 428–433. https://doi.org/10.46729/ijstm.v4i2.779

Royhana, M., & Warninda, T. D. (2021). Pengaruh Ketidakpastian Kebijakan Ekonomi Amerika Serikat, Tiongkok, Dan Jepang Terhadap Jakarta Islamic Index. *Jurnal Fokus Manajemen Bisnis*, *11*(1), 95. https://doi.org/10.12928/fokus.v11i1.3735

Safitri, J., Rahayu, H. C., Jayadi, J., Triastuti, Y., Gunawan, Y. I., & Ariyanti, A. (2023). Effect of Macroeconomic Indicators on Stock Price Indices With the Vector Error Correction Model Approach. *Corporate and Business Strategy Review*, *4*(4 Special Issue), 288–294. https://doi.org/10.22495/cbsrv4i4siart10

Saragih, F. (2022). Analisis Pertumbuhan Ekonomi Indonesia pada Masa Covid-19 : Adam Smith. *Journal Economic Education, Business and Accounting*, *1*(1), 24–31. https://doi.org/10.35508/jeeba.v1i1.6609

Sartika, U. (2017). Pengaruh Inflasi, Tingkat Suku Bunga, Kurs, Harga Minyak Dunia dan Harga Emas Dunia Terhadap Ihsg Dan Jii Di Bursa Efek Indonesia. *BALANCE Jurnal Akuntansi Dan Bisnis*, *2*(2), 285. https://doi.org/10.32502/jab.v2i2.1180

Setiawan, J., & Satrianto, A. (2021). Analisis Harga Saham Syariah di Indonesia: Ketidakpastian Kebijakan, Harga Minyak Dunia, dan Harga Emas. *Ecosains: Jurnal Ilmiah Ekonomi Dan Pembangunan*, *10*(1), 24. https://doi.org/10.24036/ecosains.11563357.00

Sia, P. C., Leong, C. M., & Puah, C. H. (2023). Asymmetric Effects of Inflation Rate Changes on the Stock Market Index: The Case of Indonesia. *Journal of International Studies*, *16*(1), 128–141. https://doi.org/10.14254/2071-8330.2023/16-1/9

Sjam, D. A. S., Chrisananda, R. A., & Rusgianto, S. (2023). Pengaruh Inflasi , Kurs , BI Rate , dan Harga Emas Dunia Terhadap Jakarta Islamic Index (JII) Periode 2020-2022. *Jurnal Ekonomika Dan Bisnis Islam*, *6*(2), 57–66.

Supriani, I., Herianingrum, S., Ninglasari, S. Y., & Budi, R. S. (2022). Islamic Stock Market Performance Pre-COVID-19: Empirical Evidence from Jakarta Islamic Index. *Jurnal Ekonomi Dan Bisnis Islam (Journal of Islamic Economics and Business)*, *8*(2), 267–287. https://doi.org/10.20473/jebis.v8i2.37789

Wang, J., Lu, X., He, F., & Ma, F. (2020). Which Popular Predictor is More Useful to Forecast International Stock Markets during the Coronavirus Pandemic: VIX vs EPU? *International Review of Financial Analysis*, *72*(July), 101596. https://doi.org/10.1016/j.irfa.2020.101596

Wei, Y., Yu, B., Guo, X., & Zhang, C. (2023). The Impact of Oil Price Shocks on the U.S. and Chinese Stock Markets: A Quantitative Structural Analysis. *Energy Reports*, *10*, 15–28. https://doi.org/10.1016/j.egyr.2023.05.268

Widarjono, A. (2018). *Ekonometrika Pengantar dan Aplikasinya Disertai Panduan Eviews.*Yogyakarta: UPP STIM YKPN.

Xiao, J., & Wang, Y. (2021). Investor Attention and Oil Market Volatility: Does Economic Policy Uncertainty Matter? *Energy Economics*, *97*, 105180. https://doi.org/10.1016/j.eneco.2021.105180

Xu, Y., Guan, B., Lu, W., & Heravi, S. (2024). Macroeconomic Shocks and Volatility Spillovers Between Stock, Bond, Gold, and Crude Oil Markets. *Energy Economics*, *136*(December 2023), 107750. https://doi.org/10.1016/j.eneco.2024.107750

Zeinedini, S., Karimi, M. S., & Khanzadi, A. (2022). Impact of Global Oil and Gold Prices on the Iran Stock Market Returns during the Covid-19 Pandemic using the Quantile Regression Approach. *Resources Policy*, *76*(February), 102602. https://doi.org/10.1016/j.resourpol.2022.102602