IQTISHADIA 13,2

The Stability of the Indonesian Sharia Stock Index to Economic Shocks

138

Faizul Mubarok

Syarif Hidayatullah State Islamic University of Jakarta, Indonesia fayzmubarok@uinjkt.ac.id

Mohammad Nur Rianto Al Arif

Syarif Hidayatullah State Islamic University of Jakarta, Indonesia nur.rianto@uinjkt.ac.id

Muhammad Arief Mufraini

Syarif Hidayatullah State Islamic University of Jakarta, Indonesia arief.mufraini@uinjkt.ac.id

Abstract

The stock market has a strategic role in the development of a country's economy in the era of globalization, including the Islamic stock market. The rapid growth of the Islamic stock market, especially in developing countries, is a historical record in Indonesia's financial sector. This study aims to analyze the factors that influence the return of the Indonesian Sharia Stock Index (ISSI) in the short and long term, how long shocks occur, and how much the contribution of these factors. This study uses monthly time series data from January 2012 to December 2019 using the Vector Error Correction Model (VECM) method. VECM estimation results show the price of gold has a significant effect on the short and long term, while inflation has an impact on a long time. ISSI's return quickly reaches stability when it receives a shock from the exchange rate. The price of gold dominates the diversity of ISSI's performances. Stakeholders should consider several things that affect the ISSI return, pay attention to the economic climate, and anticipate quickly the shock that occurs.

Keywords: ISSI, Return, Gold price, Inflation, VECM.

INTRODUCTION

The stock market is one part of the existing capital market in the world economy (Coşkun, Seven, Ertuğrul, & Ulussever, 2017). The stock market has a strategic role in the country's economic progress in the era of globalization, including the Islamic stock market (Saiti, Bacha, & Masih, 2014; Zulkhibri, 2015). The sharia stock market is a stock market where every transaction carried out is following sharia principles (Abbes & Trichilli, 2015). Every country in the world has looked at the stock market to be developed to sustain a nation (Medvedev, 2015). The stock market is often used as a primary indicator of the progress of a country's economy (Bayraktar, 2014).



of the Indonesian

The stock market is one form of investment that can be done either individually or in groups (Statman, 2014). The structure of investment in the stock market is proof of participation or ownership that provides investment returns depending on the ability of investors to manage it (Huang, Kabir, & Zhang, 2018; Kim, Ma, & Wang, 2015; Li, Wang, & Dong, 2016). Finance focuses on spending to expand the business so that the capital stock will increase (Benczúr, Karagiannis, & Kvedaras, 2019). Every individual or company has a motive in investing. One motivation for investing is to obtain benefits for individuals and groups. This applies to share issuers who invest in the capital market. The existence of the stock market is one factor in the development of the national economy (Caporale, You, & Chen, 2019).

They are seen from the many industries and companies that have used the stock market to absorb investment and strengthen the financial position (Du, Li, Lin, & Wang, 2018; Sánchez-Sellero, Rosell-Martínez, & García-Vázquez, 2014). The stock market is one solution for developing countries to increase financing, given that domestic investment is still limited (Shen, Yang, & Zanna, 2018). After the open economic policy is implemented, the market becomes free and technological development becomes more rapid, so that investors more easily access the stock markets around the world (Litsareva, 2017).

In the development of the stock market, investors consisting of individuals, companies, and the public must have a definite step in determining their choices (Audrino, Sigrist, & Ballinari, 2020). An excellent choice will lead to profits in investing in the stock market (Antônio, Lima, & Junior, 2015). Some considerations for deciding opportunities in investing in the stock market are inseparable from the state of a country's economy (Rodriguez-fernandez, 2016). The stock market is part of economic activities that affect each other, among other economic variables that exist in the economy of a nation (Liu, 2020).

Stock price fluctuations can be seen from the movement of the stock price index (Atkins, Niranjan, & Gerding, 2018). The stock price index can be used as a benchmark for a country's economy and is used as the basis for an analysis of the latest market conditions (Azar & Chopurian, 2018). It is a summary of the simultaneous and complex influences of various variables that mainly influence economic events.

Research that raises case studies on the relationship of economic variables to sharia stock prices has been conducted by Abbes and Trichilli (2015) on the sharia stock market in Europe, Latin America and the Middle East, el Alaoui, Dewandaru, Rosly, and Masih (2015) on sharia stock markets in the United Arab Emirates, Merdad, Hassan, and Hippler (2015) on the stock market in Saudi Arabia, Naifar (2016) on the stock market in Malaysia, United Arab Emirates and Saudi Arabia, Nasr, Lux, Ajmi, and Gupta (2016) on the Global Dow Jones Islamic Market World Index, Chkili (2017) on the Dow Jones Islamic stock market, Salisu and Gupta (2019) Islamic stock behavior in a global perspective, Godil, Sarwat, Sharif, and Jermsittiparsert, 2020) on the Dow Jones Islamic Market and Dow Jones Conventional Market Indexes, Lin and Su (2020) on the Islamic Stock Market.

This study aims to analyze what factors influence the return of the Indonesian Sharia Stock Index (ISSI) in the short and long term, how long shocks occur in the performance of the Indonesian Sharia Stock Index, and how much these factors contribute to returns Indonesian Sharia Stock Index. This research helps, first, to provide knowledge about what factors influence the Indonesian Syariah Stock Index. Second, this research can be considered in deciding to invest in the Islamic capital market so that the development of the Islamic capital market will further develop. Third, this research can be used as a reference to add insight and become a reference for further investigation. Fourth, this research can be considered for making policies, especially the improvement of the Islamic capital market.

LITERATURE REVIEW

Indonesia, as one of the countries with the largest Muslim population in the world, when hearing the word sharia economy seems to have become an important issue for this country (Abdullah, 2017). With the largest Muslim community globally, it should have a sharia capital market that can flourish. Various sharia businesses were also promoted to develop the sharia economy in Indonesia, one of which is sharia stock investment.

Research related to stock returns has been conducted by Godil et al. (2020) conducted a study of the role of oil, gold prices, and the risk of uncertainty in explaining conventional and sharia shares on the Dow Jones Islamic Market and Dow Jones Conventional Market Indexes. The results show that Islamic stocks behave differently from common stocks only on the variable oil price. This study concludes that Islamic shares can be a good hedge option when current stocks are vulnerable due to changes in oil prices. Lin and Su (2020) examines the relationship between the uncertainty of crude oil prices and the Islamic stock market. The results show that the relationship

Sharia Stock

of the Indonesian

between crude oil prices and the Islamic stock market is heterogeneous and asymmetrical. The study concludes that there is no relationship between crude oil prices and Islamic stocks.

Salisu and Gupta (2019) examines the behavior of Islamic stocks from a global perspective. The results show that all regional stock markets are cointegrated and are affected by global economic conditions. This study concludes that the Islamic stock market offers better hedging from risk. Uddin, Hernandez, Labidi, Troster, and Yoon (2019) examined the effect of macroeconomic factors on the performance of Islamic mutual funds. The results show that the seasonal fact has a positive impact on return, where the beginning of the month in each year has the most significant influence value. This study concludes that sharia mutual fund investors need not be afraid of potential seasonal effects when Ramadan arrives. Balli, de Bruin, and Chowdhury (2019) examines the factors that influence the Islamic stock market. The test results show that increased interaction on returns and volatility when there is an asymmetric volatility effect. This study concludes that geographical conditions determine the direction of return and volatility movements.

Bahloul, Mroua, and Naifar (2017) examine the effect of expected stock returns and volatility and some macroeconomic variables such as inflation, interest rates, and the money supply to Islamic stock returns in developing and developed countries. The results show that Islamic stock market returns in both developing and developed countries are influenced by expected stock returns and the money supply, but not with other macroeconomic variables. This research can show the impact of several macroeconomic variables on Islamic stock returns. Investors use these results as material for making decisions to diversify their portfolios.

Akhtar, Akhtar, Jahromi, and John (2017) examine the surprise effect of changes in interest rates on conventional and sharia stocks and bonds. The test results show that changes in interest rates have a smaller impact on return and volatility in Sukuk than relationships. In contrast, conventional and Islamic stocks have the same effects of changes in interest rates. This study concludes that the impact of changes in interest rates is different in each country tested. However, changes in interest rates have a smaller effect on Sukuk compared to conventional bonds. Naifar (2016) examines the effect of global risk on the Dow Jones Islamic stock index return. The results show expected stock market returns, slope curves on volatility, external credit risk, and oil prices have a positive and significant effect. This study concludes that the survey results can be taken into consideration for investors who want to invest in the Dow Jones global Sharia stock index.

Abdullah, Saiti, and Masih (2016) examined the effect of crude oil prices on the Islamic stock market in the Southeast Asian country. The results show that Singapore's sharia stock index has superior performance compared to other sharia stock indices. This study concludes that sharia stock market investors in the Philippines must be careful of the effects of crude oil prices. In contrast, Malaysian sharia stock market investors can benefit from changes in crude oil prices. Karim, Lee, Karim, and Jais (2012) examines the effect of the subprime mortgage crisis on Islamic banking and the Islamic stock market. The results show that Islamic banking and Islamic stock markets are cointegrated with macroeconomic variables both moments, before and after a crisis, but not during an emergency. This study concludes that only the deposit of money with sharia principles in sharia banking is safe from the global economic crisis while sharia financing and stock markets are not. This is possible because the existing contract based on sharia-based storage protects deposits.

RESEARCH METHOD

This study uses time-series data in a monthly form from January 2012 to December 2019. This study uses Indonesian Sharia Stock Index (ISSI) data, inflation (CPI), exchange rate (EXC), world oil price (OIL), gold price (GOLD) and interest rates (RATE) all sourced from the International Financial Statistic, the United States Energy Information Administration, the Financial Services Authority, and Bank Indonesia.

This study uses a Vector Autoregressive (VAR)/Vector Error Correction Model (VECM) analysis method. Before entering into the VAR/VECM analysis, the first step that needs to be done is to test the stationarity of each of the variables' stationarity—testing the stationarity of data in this study using the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests. After checking the stationarity of data, determine the optimal lag used in cointegration testing. Then cointegration testing is performed with Johansen Cointegration test using the optimal lag that has been obtained. If all stationary variables at the level are continued with VAR use level data. If there is one or more that are not stationary at the level, but stationary at the difference and there is cointegration, then the settlement uses VECM. If there is no cointegration, the solution uses VAR in the form of difference. After conducting the test, it is continued with the VAR stability test of the determined optimum lag. The next step is to estimate the VAR model in the form of a difference, which is used to answer the first research goal.

of the Indonesian

$$ISSI_{t} = c + \alpha_{1}CPI_{t-n} + \alpha_{2}EXC_{t-n} + \alpha_{3}OIL_{t-n} + \alpha_{4}GOLD_{t-n} + \alpha_{5}RATE_{t-n} + \varepsilon_{t}$$

Where c is constant, α coefficient, t time, and n lag length. Next, to answer the second research objective by conducting an Impulse Response Function (IRF). This IRF is used to determine the response of an endogenous variable to a particular shock. This is because the shock of a variable affects the variable itself and is transmitted to all other endogenous variables through the dynamic structure of VAR. In other words, IRF measures a shock at a time and in the future.

Meanwhile, to answer the latest research objectives by conducting Forecast Error Variance Decomposition (FEVD). This FEVD is used to see changes in a variable shown by changes in error variance influenced by other variables. In this method, it can be seen the strengths and weaknesses of each variable affect the other variables in an extended period. FEDV details the variety of error forecasting into components that can be linked to each endogenous variable in the model. By calculating the percentage of future error predictions of a variable due to innovation in other variables, it can be seen how much the difference between the error variance before and after the shock originating from himself or from factors that affect the fluctuations of individual variables.

RESULTS

The first step to answer the research objectives is to test the stationarity of the data used to see the data's stationarity in the study. They were testing the stationarity of data in this study using the Augmented Dickey-Fuller (ADF) test and the Phillips-Perron (PP) test. The results of table 1 represent the value of the probability of less than 5% of each variable at both the level and the difference level. From the results obtained, it can be concluded that all variables are stationary at the difference, except for the stationary CPI and ISSI variables at the level.

Table 1. Results of data stationarity testing

Variable -	Augmented Dickey-Fuller Test		Phillips-Perron Test		
variable -	Level	Difference	Level	Difference	
CPI	0.0440	0.0000	0.0440	0.0001	
EXC	0.1960	0.0000	0.1817	0.0000	
GOLD	0.6608	0.0000	0.8570	0.0001	
ISSI	0.0000	0.0000	0.2916	0.0001	
OIL	0.3133	0.0000	0.4217	0.0000	
RATE	0.1136	0.0000	0.0856	0.0000	

The second step is to determine the optimum lag that serves to show the length of the reaction of a variable to other variables and can eliminate the problem of autocorrelation in the model. The optimum lag determination is based on the smallest Schwarz Criterion (SC) value. Thus, the lag that will be used in the model as the optimum lag is lag one.

Table 2. Optimum lag test results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	917.7108	NA	8.00e-17	-20.03760	-19.87205	-19.97081
1	1350.346	798.7103*	1.31e-20*	-28.75485*	-27.59599*	-28.28732*
2	1370.364	34.31752	1.88e-20	-28.40361	-26.25144	-27.53534
3	1388.342	28.44823	2.87e-20	-28.00751	-24.86204	-26.73851
4	1417.187	41.84073	3.53e-20	-27.85025	-23.71147	-26.18051
5	1436.811	25.87835	5.50e-20	-27.49035	-22.35826	-25.41987

^{*}indicates lag order selected by the criterion

The VAR model is declared stable if the root has a modulus value of less than one (Table 3). VAR stability test results in this study show that the modulus for all variables ranged from 0.087473 to 0.942834. Based on the results obtained, it can be concluded that the VAR system used in the study is stable so that it can be tested with IRF and FEVD.

Table 3. Results of optimum lag stability testing

Root	Modulus
0.942834	0.942834
0.905407 - 0.060459i	0.907423
0.905407 + 0.060459i	0.907423
0.826951	0.826951
0.615990	0.615990
0.087473	0.087473

No root lies outside the unit circle. VAR satisfies the stability condition.

After getting the optimum lag, the third step is to take the optimum lag into the cointegration test. Cointegration testing is done to find out which variables are not stationary individually, whether cointegrated or not. A cointegrated equation if the trace statistic value is higher than the critical importance in the crucial point (5%).

of the Indonesian

The Stability

Sharia Stock

Table 4. Results of cointegration testing

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.390366	135.9786	117.7082	0.0021
At most 1 *	0.284151	91.43782	88.80380	0.0318
At most 2	0.221394	61.35203	63.87610	0.0801
At most 3	0.187308	38.82955	42.91525	0.1208
At most 4	0.141584	20.16331	25.87211	0.2178
At most 5	0.068883	6.423373	12.51798	0.4085

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

Cointegration test results show that two variables have cointegration, so that it is continued with VECM (Table 3). This cointegration test results mean that the variables studied in this study have stability or balance in the long run. The integration of data processed in this study illustrates that the variables of inflation, exchange rates, gold prices, world oil prices, and interest rates have a balanced relationship in the short and long term. In other words, the economic implications between one variable and another affect each other for short-term or long-term balance or for a long time. The consequences of the short and long-standing relationships in the economic outlook are more referring to the movement of each variable itself. The actions that occur in these variables on a daily, weekly, or even weekly basis make it difficult to predict how much change will happen in other variables for the short term or long term.

The fourth step is the estimation of VECM to see the short-term and long-term relationship between the dependent variable and the independent variable. The variable determined as the dependent variable in this study is the return variable of the Indonesian Sharia Stock Index (ISSI), while the variable established as an independent variable is the inflation variable (CPI), the exchange rate (EXC), gold price (GOLD), world oil price (OIL) and interest rates (RATE). VECM estimation results show the relationship between independent variables' influence on the dependent variable in the long run and the short run. These results indicate that the Indonesian Sharia Stock Index return has a relationship in the short term and long term with other variables studied.

The VECM estimation (Table 5) show that the adjustment mechanism from the short run to the long run is shown by cointegration errors showing significant results. These conditions indicate that there is an adjustment from the short term to a long time (there is a speed of change), or in other words, the return of the Indonesian Islamic stock index quickly reaches stability.

Table 5. VECM Estimation Results

Sh	ort term				
Variable	Coefficient	[t-statistik]			
CointEq1	-0.761684	[-4.72341]*			
D(GOLD(-1))	0.197294	[2.08731]*			
D(EXC(-1))	-0.009588	[-0.04725]			
D(OIL(-1))	-0.006731	[-0.14686]			
D(RATE(-1))	0.040289	[0.05539]			
D(CPI(-1))	0.586445	[1.44287]			
C	-0.000353	[-0.09309]			
Long term					
GOLD(-1)	0.162607	[2.64106]*			
EXC(-1)	0.114676	[1.90170]			
OIL(-1)	0.002629	[0.21425]			
RATE(-1)	-0.277257	[-0.76296]			
CPI(-1)	0.640197	[2.24854]*			
C	-3.782285	-			

The gold price (GOLD) effect on the return of the Indonesian Sharia Stock Index (ISSI). The analysis results show that the gold price variable has a significant and positive impact on ISSI return in the short and long term. This means that if there is an increase of one percent in the price of gold, it will cause an increase in ISSI return of 0.197294 percent. Rising gold prices can cause many people to divert their investment into gold (Güler & Tepecik, 2019). As a commodity with a hedge function, the actual cost of gold should increase in proportion to the price of shares (Gangopadhyay, Jangir, & Sensarma, 2016). The stimulus and monetary easing, which are simultaneously carried out by the government and the global central bank, should make the gold price shot up (Essers, 2013).

The effect of the exchange rate (EXC) on the return of the Indonesian Sharia Stock Index (ISSI). The results of the analysis show that the gold price variable does not affect the ISSI return in the short term or long term. The exchange rate means the value at the rate of two different currencies traded with each other. For information, the strengthening and weakening of the exchange rate follow the principles of demand and supply (Rajan, 2012). The more market for the rupiah, the exchange rate will strengthen. Conversely, if there is more demand for the US dollar, the rupiah exchange rate will weaken. The triggers for these supply requests vary from the need to pay dividends and foreign debt interest, export and import of goods and services, foreign exchange transfers, investment activities from foreign investors to

of the Indonesian

The Stability

the real sector and capital market instruments, such as stocks and bonds, interest rate policies, confidence in economic conditions, to intervention from the central bank (Machokoto, Areneke, & Ibrahim, 2020; Muûls, 2015). Generally, exchange rate fluctuations are a combination of these factors, but sometimes there is also a particular issue whose role is more dominant.

The effect of world oil prices (OIL) on the return of the Indonesian Sharia Stock Index (ISSI). The analysis results show that the world oil price variable does not affect the ISSI return in the short or long term. A significant decline in oil prices also impacted other commodities, such as coal and crude palm oil (Popp, Lakner, Harangi-Rákos, & Fári, 2014). Companies engaged in the consumer goods and transportation sectors will be positively affected by the decline in world oil prices (Idrisov, Kazakova, & Polbin, 2015). Falling oil prices will increase people's purchasing power because of the oil-importing country (Gershon, Ezenwa, & Osabohien, 2019). Besides, community income is still very dependent on commodity prices.

Effect of interest rates (RATE) on the return of the Indonesian Sharia Stock Index (ISSI). The analysis shows that the interest rate variable does not affect the ISSI return in the short term or long term. The Capital Asset Pricing Model (CAPM) theory also explains that an increase in the risk-free interest rate will reduce the level of expected returns on stock investments (Çelik, 2012). An increase in interest rates will only reduce interest in investing in the capital market. If interest rates increase, it will directly increase interest costs. Companies that have high leverage will get a weighty impact on rising interest rates (Matemilola, Bany-Ariffin, & Azman-Saini, 2013). Investors tend to prefer investment instruments with fixed returns and low risks such as deposits compared to the stock market (Aren & Aydemir, 2015). This also indicates that rational investors dominate investors in Islamic stocks.

Effect of inflation (CPI) on the return of the Indonesian Sharia Stock Index (ISSI). The analysis shows that the inflation variable has no effect in the short run, but has a significant impact on the long term. Inflation is a process of increasing prices generally accepted in the economy. This means that if there is an increase of one percent in inflation, it will cause an increase in ISSI return of 0.640197 percent. An increase in inflation can increase production costs higher than an increase in prices set by the company. This can reduce the company's profitability by assuming that sales will continue to decline and increase the risk of investment. The results of this study indicate that in the period of observation, inflation affects investors' decision to invest in the long term in the form of shares directly (Driver, Grosman, & Scaramozzino, 2020).

For investors, the rise is an early indication of an increase in interest rates as the central bank's monetary policy controls inflation (Edmans, Jayaraman, & Schneemeier, 2017). Besides, inflation also disrupts the function of the value of money. It decreases the purchasing power (demand) of the community for goods and services, thereby reducing domestic products, resulting in a decrease in corporate profits.

DISCUSSION

Impulse Response Function

The Impulse Response Function (IRF) analysis in this study is intended to observe the return of the Indonesian Sharia Stock Index (ISSI) in the present and future periods if there is a shock from any other variables for 30 months of observation. The blow was given every variable to ISSI in the first month. All have not seen any changes. This is because ISSI needs time to respond. Only then will the second month of ISSI start responding to each variable with a different percentage of response rates.

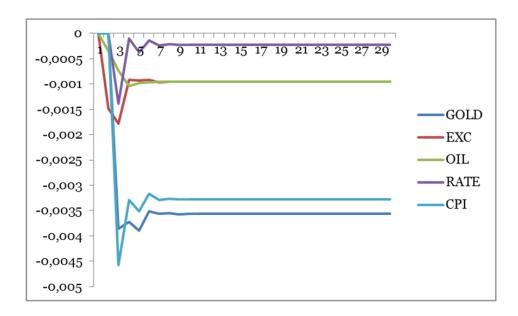


Figure 1. Impulse Response Function test results

Gold price shock (GOLD) responded positively by ISSI in the second month by 0.0025%, entering the third month responded by negative by -0.0039%, the fourth month by -0.0037%, and began to stabilize when entering the ninth month. Exchange rate shock (EXC) was responded negatively by ISSI in the second month by -0.0015%. Entering the third month was still responded negatively by -0.0018%, the fourth month by -0.0009%, and began to stabilize when entering the seventh month.

Sharia Stock

The Stability

of the Indonesian

Global oil price shock (GOLD) was responded negatively by ISSI in the second month by -0,0003%, entering the third month responded by negative by -0,0007%, the fourth month by -0.001%, and began to stabilize when entering the eighth month. Interest rate shock (RATE) responded positively by ISSI in the second month by 0.002%, entering the third month was answered negatively by -0.0014%, the fourth month by -0.0001%, and began to stabilize when entering the tenth month. Inflation shock (CPI) responded positively by ISSI in the second month of 0.0009%. Entering the third month responded negatively by -0.005%, the fourth month by -0.0033%, and began to stabilize when entering the eleventh month.

If sorted out, the ISSI return response is quickly stable when responding to exchange rate variables, followed by the variable world oil prices, gold prices, interest rates, and, finally, inflation. The right monetary policy certainly has an impact on positive capital market activities, such as the establishment of comprehensive strategies that push stock prices to move in a positive direction. Inflation reflects economic stability. If inflation rises, people tend to reduce investment. This condition will impact the decline in assets in real terms because the funds raised have decreased so that it will affect the ability of capital market operations. The increase in interest rates was responded negatively by investors because they were concerned about the liquidity of the company's finances. However, public concerns related to inflation reacted positively, as indicated by the growing ISSI share price. This condition shows the return and profit obtained is far higher than the increase that occurred.

The weakening of the exchange rate can cause investors to turn to the money market because the return on profits obtained on the money market is more significant than on the capital market, which lowers the stock price index. Fluctuations in world oil prices have a considerable impact on the economy and capital markets. When there is an increase in oil prices, the economy is always in a recession and a collapse of the capital market. This happens because oil prices are the leading indicator in determining the world economy and changes in the capital market. The mechanism of the relationship between the price of gold and stock returns is a substitute item in investing. When the price of gold rises, investors turn to gold to spend, and vice versa, if the price of gold goes down, investors turn to stocks to invest. The use of gold in the monetary and financial fields is based on the absolute monetary value of gold itself against various currencies around the world, and gold is included in the world commodity exchanges.

Forecast Error Variance Decomposition

Forecast Error Variance Decomposition (FEVD) analysis in this study aims to explain each variable's contribution in explaining the diversity of returns on the Indonesian Sharia Stock Index (ISSI). The FEVD results show that in the first month, the variety of ISSI 100% is only influenced by ISSI's return itself. ISSI return is affected by the shock of other variables which are only responded in the second month and so on. Until the end of the observation, the most significant contribution was still influenced by ISSI's return of 82.9%, followed by the price of gold (GOLD) of 8.32%, inflation (CPI) of 7.13%, the exchange rate (EXC) of 0.77%, world oil prices (OIL) amounting to 0.56%, and finally the interest rate (RATE) of 0.32%.

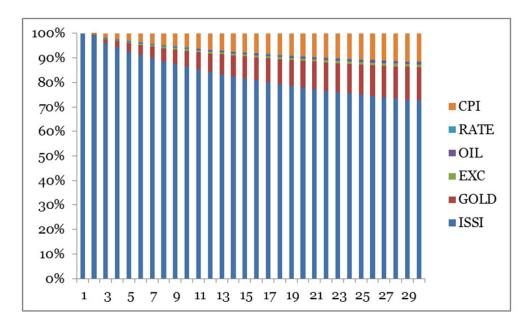


Figure 2. Forecast Error Variance Decomposition test results

The improvement in the indicators of the variables studied can signify that the investment climate will also be more conducive. Changes in stock prices always occur before changes in economic indicator variables. This is based on two main reasons. Namely, the amount of shares formed reflects investor expectations of earnings, dividends, and interest rates that occur, and the performance of the capital market will react to changes in these variables.

CONCLUSION

VECM estimation results show that only the price of gold (GOLD) affects the return of the Indonesian Syariah Stock Index (ISSI) in the short and long

term. While other variables do not change, except the inflation variable (CPI) in the long run. The results of the Impulse Response Function (IRF) show that the development of the ISSI return responds positively and negatively to the shock of each variable studied. ISSI's return response quickly stabilizes when responding to exchange rate variables, followed by variable world oil prices, gold prices, interest rates, and, finally, inflation. Based on the results of Forecast Error Variance Decomposition (FEVD) analysts, the ISSI return variable itself most influences the development of ISSI returns, followed by gold prices (GOLD), inflation (CPI), exchange rates (EXC), world oil prices (OIL), and finally the interest rate (RATE).

Based on the results of this study, investors should consider several things that affect the return of ISSI, such as the gold price variable (GOLD), which has an influence on the short and long term and the inflation variable (CPI) which has an impact on a long time. Besides, it is necessary to pay attention to the existing economic climate in a country to consider the decisions that will be made in investing. For the government, it is essential to strengthening the real sector of the economy, because based on the results obtained, inflation (CPI) influences in the long run. Besides, it is necessary to pay further attention to the stability of economic policies that have been made and countermeasures to anticipate the shock that occurs in the economic climate quickly.

References

- Abbes, M. B., & Trichilli, Y. (2015). Islamic Stock Markets and Potential Diversification Benefits. *Borsa Istanbul Review*, *15*(2), 93–105. https://doi.org/10.1016/j.bir.2015.03.001.
- Abdullah, A. (2017). A Comparison between Malaysia and Indonesia in Islamic banking Industry. *Pressacademia*, *4*(3), 276–286. https://doi.org/10.17261/pressacademia.2017.705.
- 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.
- Akhtar, S., Akhtar, F., Jahromi, M., & John, K. (2017). *Impact of Interest Rate Surprises on Islamic and Conventional Stocks and Bonds. Journal of International Money and Finance* (Vol. 79). https://doi. org/10.1016/j.jimonfin.2017.09.003.

- Antônio, R. M., Lima, F. G., & Junior, T. P. (2015). Stock Recommendations and Investment Portfolio Formation: A Study in the Brazilian Market. *Contaduria y Administracion*, 60(4), 874–892. https://doi.org/10.1016/j.cya.2015.07.010.
- Aren, S., & Aydemir, S. D. (2015). The Factors Influencing Given Investment Choices of Individuals. *Procedia Social and Behavioral Sciences*, 210, 126–135. https://doi.org/10.1016/j.sbspro.2015.11.351.
- Atkins, A., Niranjan, M., & Gerding, E. (2018). Financial News Predicts Stock Market Volatility Better than Close Price. *The Journal of Finance and Data Science*, *4*(2), 120–137.
- Audrino, F., Sigrist, F., & Ballinari, D. (2020). The Impact of Sentiment and Attention Measures on Stock Market Volatility. *International Journal of Forecasting*, *36*(2), 334–357. https://doi.org/10.1016/j.ijforecast.2019.05.010.
- Azar, S. A., & Chopurian, N. A. (2018). Commodity Indexes and the Stock Markets of the GCC Countries. *Arab Economic and Business Journal*, 13(2), 134–142. https://doi.org/10.1016/j.aebj.2018.08.001.
- Bahloul, S., Mroua, M., & Naifar, N. (2017). The Impact of Macroeconomic and Conventional Stock Market Variables on Islamic Index Returns under Regime Switching. *Borsa Istanbul Review*, *17*(1), 62–74. https://doi.org/10.1016/j.bir.2016.09.003.
- Balli, F., de Bruin, A., & Chowdhury, M. I. H. (2019). Spillovers and The Determinants in Islamic Equity Markets. *North American Journal of Economics and Finance*, *50*, 1–18. https://doi.org/10.1016/j.najef.2019.101040.
- Bayraktar, N. (2014). Measuring Relative Development Level of Stock Markets: Capacity and Effort of Countries. *Borsa Istanbul Review*, 14(2), 74–95. https://doi.org/10.1016/j.bir.2014.02.001.
- Benczúr, P., Karagiannis, S., & Kvedaras, V. (2019). Finance and Economic Growth: Financing Structure and Non-Linear Impact. *Journal of Macroeconomics*, *62*, 1–49. https://doi.org/10.1016/j.jmacro.2018.08.001.
- Caporale, G. M., You, K., & Chen, L. (2019). Global and Regional Stock Market Integration in Asia: A Panel Convergence Approach. *International Review of Financial Analysis*, *65*, 1–21. https://doi.org/10.1016/j.irfa.2019.101381.

Sharia Stock

of the Indonesian

- Chkili, W. (2017). Is Gold a Hedge or Safe Haven for Islamic Stock Market Movements? A Markov Switching Approach. *Journal of Multinational Financial Management*, 42(43), 152–163. https://doi.org/10.1016/j.mulfin.2017.10.001.
- Coşkun, Y., Seven, Ü., Ertuğrul, M., & Ulussever, T. (2017). Capital Market and Economic Growth Nexus: Evidence from Turkey. *Central Bank Review*, 17(1), 19–29. https://doi.org/10.1016/j.cbrev.2017.02.003.
- Driver, C., Grosman, A., & Scaramozzino, P. (2020). Dividend Policy and Investor Pressure. *Economic Modelling*, 89, 559–576. https://doi.org/10.1016/j.econmod.2019.11.016.
- Du, J., Li, W., Lin, B., & Wang, Y. (2018). Government Integrity and Corporate Investment Efficiency. *China Journal of Accounting Research*, 11(3), 213–232. https://doi.org/10.1016/j.cjar.2017.03.002.
- Edmans, A., Jayaraman, S., & Schneemeier, J. (2017). The Source of Information in Prices and Investment-price Sensitivity. *Journal of Financial Economics*, 126(1), 74–96.
- el Alaoui, A. O., Dewandaru, G., Rosly, S. A., & Masih, M. (2015). Linkages and Co-movement Between International Stock Market Returns: Case of Dow Jones Islamic Dubai Financial Market Index. Journal of International Financial Markets, Institutions and Money (Vol. 36). Elsevier B.V. https://doi.org/10.1016/j.intfin.2014.12.004.
- Essers, D. (2013). Developing Country Vulnerability in Light of the Global Financial Crisis: Shock therapy? *Review of Development Finance*, 3(2), 61–83. https://doi.org/10.1016/j.rdf.2013.02.001.
- Gangopadhyay, K., Jangir, A., & Sensarma, R. (2016). Forecasting the Price of gold: An Error Correction Approach. *IIMB Management Review*, 28(1), 6–12. https://doi.org/10.1016/j.iimb.2015.11.001.
- Gershon, O., Ezenwa, N. E., & Osabohien, R. (2019). Implications of Oil Price Shocks on Net oil-importing African Countries. *Heliyon*, *5*(8), 1–12. https://doi.org/10.1016/j.heliyon.2019.e02208.
- Godil, D. I., Sarwat, S., Sharif, A., & Jermsittiparsert, K. (2020). How Oil Prices, Gold Prices, Uncertainty and Risk Impact Islamic and Conventional

- Stocks? Empirical Evidence from QARDL Technique. *Resources Policy*, 66, 1–9. https://doi.org/10.1016/j.resourpol.2020.101638.
- Güler, K., & Tepecik, A. (2019). Exchange Rates' Change by Using Economic Data with Artificial Intelligence and Forecasting the Crisis. *Procedia Computer Science*, 158, 316–326. https://doi.org/10.1016/j.procs.2019.09.057.
- Huang, X., Kabir, R., & Zhang, L. (2018). Government Ownership and The Capital Structure of Firms: Analysis of an Institutional Context from China. *China Journal of Accounting Research*, 11(3), 171–185. https://doi.org/10.1016/j.cjar.2018.07.001.
- Idrisov, G., Kazakova, M., & Polbin, A. (2015). Oil Prices Impact on Economic Growth in Contemporary Russia: A theoretical Interpretation. *Russian Journal of Economics*, 1(3), 257–272. https://doi.org/10.1016/j.ruje.2015.12.004.
- Karim, B. A., Lee, W. S., Karim, Z. A., & Jais, M. (2012). The Impact of Subprime Mortgage Crisis on Islamic Banking and Islamic Stock Market. *Procedia Social and Behavioral Sciences*, *65*, 668–673. https://doi.org/10.1016/j.sbspro.2012.11.182.
- Kim, J. B., Ma, M., & Wang, H. (2015). Financial Development and The Cost of Equity Capital: Evidence from China. *China Journal of Accounting Research*, 8(4), 243–277. https://doi.org/10.1016/j.cjar.2015.04.001.
- Li, Z., Wang, F., & Dong, X. (2016). Are all Investment Decisions to Subscribe to New Stocks Mindless? *China Journal of Accounting Research*, *9*(4), 283–304. https://doi.org/10.1016/j.cjar.2016.09.002.
- Lin, B., & Su, T. (2020). The Linkages Between Oil Market Uncertainty and Islamic Stock Markets: Evidence from Quantile-on-quantile approach. *Energy Economics*, 88, 1–42. https://doi.org/10.1016/j.eneco.2020.104759.
- Litsareva, E. (2017). Success Factors of Asia-Pacific Fast-Developing Regions' Technological Innovation Development and Economic Growth. *International Journal of Innovation Studies*, 1(1), 72–88. https://doi.org/10.3724/sp.j.1440.101006.
- Liu, Y. (2020). The Importance of Trust Distance on Stock Market Correlation: Evidence from Emerging Economics. *Borsa Istanbul Review*, *20*(1), 37–47. https://doi.org/10.1016/j.bir.2019.08.002.

Sharia Stock

of the Indonesian

Machokoto, M., Areneke, G., & Ibrahim, B. M. (2020). Rising Corporate Debt and Value Relevance of Supply-side Factors in South Africa. *Journal of Business Research*, 109, 26–37. https://doi.org/10.1016/j.jbusres.2019.11.039.

- Matemilola, B. T., Bany-Ariffin, A. N., & Azman-Saini, W. N. W. (2013). Impact of Leverage and Managerial Skills on Shareholders' Return. *Procedia Economics and Finance*, 7, 103–115. https://doi.org/10.1016/s2212-5671(13)00224-4.
- Medvedev, D. (2015). A New Reality: Russia and Global Challenges. *Russian Journal of Economics*, 1(2), 109–129. https://doi.org/10.1016/j.ruje.2015.11.004.
- Merdad, H. J., Hassan, K., & Hippler, W. (2015). The Islamic Risk Factor in Expected Stock Returns: An Empirical Study in Saudi Arabia. *Pacific Basin Finance Journal*, *34*, 293–314. https://doi.org/10.1016/j.pacfin.2015.04.001.
- Muûls, M. (2015). Exporters, Importers and Credit Constraints. *Journal of International Economics*, 95(2), 333–343. https://doi.org/10.1016/j.jinteco.2014.12.003.
- Naifar, N. (2016). Do Global Risk Factors and Macroeconomic Conditions Affect Global Islamic Index Dynamics? A Quantile Regression Approach. *Quarterly Review of Economics and Finance*, *61*, 29–39. https://doi.org/10.1016/j.qref.2015.10.004.
- Nasr, A. Ben, Lux, T., Ajmi, A. N., & Gupta, R. (2016). Forecasting the Volatility of the Dow Jones Islamic Stock Market Index: Long memory vs. Regime Switching. *International Review of Economics and Finance*, 45, 559–571. https://doi.org/10.1016/j.iref.2016.07.014.
- Popp, J., Lakner, Z., Harangi-Rákos, M., & Fári, M. (2014). The Effect of Bioenergy Expansion: Food, Energy, and Environment. *Renewable and Sustainable Energy Reviews*, 32, 559–578. https://doi.org/10.1016/j.rser.2014.01.056.
- Rajan, R. S. (2012). Management of Exchange Rate Regimes in Emerging Asia. *Review of Development Finance*, 2(2), 53–68. https://doi.org/10.1016/j.rdf.2012.05.001.
- Rodriguez-fernandez, M. (2016). Social Responsibility and Financial Performance: The Role of Good Corporate Governance. *Cuadernos*

- de Economía y Dirección de La Empresa, 19(2), 137–151. https://doi. org/10.1016/j.brq.2015.08.001.
- Saiti, B., Bacha, O., & Masih, M. (2014). The Diversification Benefits from Islamic Investment During the Financial Turmoil: The Case for the US-based Equity Investors. *Borsa Istanbul Review*, *14*(4), 196–211. https://doi.org/10.1016/j.bir.2014.08.002.
- Salisu, A., & Gupta, R. (2019). Dynamic Effects of Monetary Policy Shocks on Macroeconomic Volatility. Journal of Monetary Economics. https://doi.org/10.1016/j.jmoneco.2019.03.011.
- Sánchez-Sellero, P., Rosell-Martínez, J., & García-Vázquez, J. M. (2014). Absorptive Capacity from Foreign Direct Investment in Spanish Manufacturing Firms. *International Business Review*, *23*(2), 429–439. https://doi.org/10.1016/j.ibusrev.2013.06.006.
- Shen, W., Yang, S. C. S., & Zanna, L. F. (2018). Government Spending Effects in Low-income Countries. *Journal of Development Economics*, *133*, 201–219. https://doi.org/10.1016/j.jdeveco.2018.02.005.
- Statman, M. (2014). Behavioral Finance: Finance with Normal People. *Borsa Istanbul Review*, 14(2), 65–73. https://doi.org/10.1016/j. bir.2014.03.001.
- Uddin, G. S., Hernandez, J. A., Labidi, C., Troster, V., & Yoon, S. M. (2019). The Impact of Financial and Economic Factors on Islamic Mutual Fund Performance: Evidence from Multiple Fund Categories. *Journal of Multinational Financial Management*, *52–53*, 1–26. https://doi.org/10.1016/j.mulfin.2019.100607.
- Zulkhibri, M. (2015). A Synthesis of Theoretical and Empirical Research on Sukuk. *Borsa Istanbul Review*, *15*(4), 237–248. https://doi.org/10.1016/j.bir.2015.10.001.