

Analysis of the Effect of Inflation and World Oil Prices on Stock Prices of the Energy (Oil) Sector Listed on ISSI in 2018-2021

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Abstract

In investing, every investor needs information to determine investment decisions, including macroeconomic factors that can affect the performance of stocks, especially those engaged in oil energy. One of the macroeconomic information such as inflation and world oil prices. For investors, it is very important to know whether the movement of inflation and world oil prices will have a positive or negative impact on the performance of a company's shares. This study aims to determine the effect of inflation rate and world oil prices partially or simultaneously on Islamic stock indices listed on the Indonesia Stock Exchange. The type of research used in this study is quantitative research. The sampling technique uses purposive sampling or judgmental sampling. All data used starts from January 2018 to December 2021. The analysis technique in this study uses multiple linear analysis methods using SPSS 16 software. The results of hypothesis testing show that inflation partially has no effect on the stock price of the energy sector (oil) and world oil prices have no effect on the stock price of the energy sector (oil). While the results of simultaneous hypothesis testing inflation and world oil prices have no effect on the stock price of the energy sector (oil).

Keywords: *Inflation, World Oil Price, ISSI, Stock Price and Energy Sector (Oil).*

I. INTRODUCTION

The capital market is a market that trades various long-term financial instruments or securities (Ernawati, 2018). The capital market has a crucial role for a country's economy because the capital market performs two functions, namely being a means for business funding or a means for companies to get funds from the investor community for business development, expansion, additional working capital and the capital market as a means for the people to invest in financial instruments such as stocks, bonds, mutual funds, and others (Farid Ardyansyah, 2022).

In Indonesia not only has a conventional capital market but there is also a sharia capital market. Sharia capital market is all activities in the capital market that do not contradict Islamic principles. Based on this definition, there are two main factors that make up the Islamic capital market, namely the capital market and Islamic principles in the capital market. That is, to understand the Islamic capital market, learning the concept of the capital market and its underlying Islamic principles is a must (Hery, 2021). Indonesia is one of the most populous Muslim countries in the world that has the largest share of the Islamic capital market in the world, but the ratio of market capitalization value to GDP (*Gross Domestic Products*) Indonesia is still below 50% so that the potential for the development of the Islamic capital market in Indonesia is still very large. Sharia investment in the capital market has a role to develop the share of the Islamic financial market in Indonesia.

The development of the sharia capital market in Indonesia has increased by looking at the number of sharia stocks. This was also confirmed by the Chairman of the Board of Commissioners of the Financial Services Authority (OJK) Wimboh Santoso said that there were 494 sharia stocks included in the Sharia Securities List as of December 30, 2021, compared to December 30, 2020, which only had 441 sharia shares (OJK, 2022). In the Indonesia Sharia Stock Index (ISSI) there are several stock sectors based on the industry run by the company, one of which is the energy sector.

In the energy sector includes companies that sell products and services related to energy extraction that include non-renewable energy (*fossil fuels*) so that its income is directly affected by world energy commodity prices, such as petroleum, coal mining companies and companies that provide services that support the industry (IDX, 2022). This energy sector is one of the alternative choices for investors to invest their funds, because the dominant stock price does not always change, mining stock prices can only change if due to macroeconomic turmoil that occurs in a country (Sholihah, 2018).

The movement of the Indonesian Sharia Stock Index (ISSI) which continues to grow is influenced by various factors and cannot be separated from the role of investors in investing their shares on the stock exchange, especially Islamic stocks. In Indonesia, the inflation rate always fluctuates which will have an impact on investment, especially the stock price of the energy sector in the Indonesian Sharia Stock Index. Then another macro factor is the world oil price. World oil prices are currently often highlighted because of the increase after being attacked by the Covid-19 outbreak in various countries (Pransuamitra, 2021).

Table 1: Development of Inflation, World Oil Prices and ISSI in 2018-2021

Year	Inflation (%)	World Oil Price (US\$ DOLLAR / BARREL)	ISSI (MILIAR)
2018	3.19	65.54	3.666.688,31
2019	3.02	57.09	3.744.816,32
2020	2.03	38.59	3.344.926,49
2021	1.56	68.22	3.983.652,80

Source: Bank Indonesia, Financial Services Authority and Investing.com

Judging from table 1 above, inflation fluctuates every year. The highest inflation occurred in 2018 at 3.19% while the lowest inflation occurred in 2021 at 1.56%. The uncontrolled inflation rate causes prices to continue to increase in general. While its effect on stocks in the capital market is the lack of demand for stocks due to people's real income (Ardyansyah, 2021). Inflation can have both positive and negative impacts on the economy depending on the high and low inflation. The inflation rate in Indonesia, which always fluctuates, is likely to affect the level of investment in the Indonesian capital market, including the Indonesian Sharia Stock Index (ISSI).

World Oil Prices fluctuate every year from 2018 to 2021. World Oil Prices were highest in 2021 and lowest in 2020. The fluctuating movement of world oil prices is an indication that affects a country's capital market which can have a major impact on an economy. For exporting companies engaged in the oil commodity sector or sector, if world oil prices increase revenue or company profitability, it is able to attract investors to increase their investment. With the increase in the company's stock price, which directly affects the movement of the Sharia Stock Index (Istiqamah, 2016).

Because of the explanation that the author has described above, the author titled "The Effect of Inflation and World Oil Prices on Stock Prices of the Energy (Oil) Sector Listed on the Indonesian Sharia Stock Index for 2018-2021".

II. LITERATURE REVIEW

1. Shariah Capital Market

Sharia capital market is all activities in the capital market that do not contradict Islamic principles (Thian, 2021). There are two main factors that make up the Islamic capital market, namely the capital market and Islamic principles in the capital market. That is, to understand the Islamic capital market, learning the concept of the capital market and the underlying Islamic principles becomes a must, it cannot be separated between the two (Abdalloh, 2018).

2. Indonesia Sharia Stock Index (ISSI)

The Indonesia Sharia Stock Index was launched on May 12, 2011 is a composite index of sharia stocks listed on the Indonesia Stock Exchange. The Indonesia Sharia Stock Index (ISSI) is one of the indicators of the performance of the Indonesian sharia capital market.

3. Stock Price

Stock price is the value of a share letter that reflects the wealth of the company that issued the shares, where changes and fluctuations are largely determined by the forces of demand and supply that occur in the stock exchange market (secondary market) (Rahmadewi & Abundanti, 2018).

4. Inflation

Inflation is a consistent and continuous increase in prices compared to the average price level in the economy (Asnah and Dyanasari, 2021). Inflation that always fluctuates causes uncertainty for people's welfare and reduces people's purchasing power for goods and services.

5. World Oil Prices

World oil prices are one of the important variables that can affect various real and fiscal sectors (Siti Aisyah Suciningtyas and Rizki Khoiroh, 2015). The influence given can be positive or negative, besides that the impact given to shares can be direct or indirect on activities in the company.

6. Energy Sector Companies

Energy sector companies include companies that sell products and services related to energy extraction that include non-renewable energy so that their revenues are directly affected by world energy commodity prices such as petroleum, natural gas, coal mining companies and companies that provide services that support these industries (Kayo, 2021).

III. METHODOLOGY

1. Types of Research

The type of research used in this study is quantitative research with a descriptive approach. Quantitative research is a type of research that emphasizes its analysis on data in the form of numbers and analysis using statistics while the descriptive approach is one type of research that aims to describe systematically, factually and accurately about the facts and nature of certain populations or try to describe phenomena in detail (Joseph, 2014).

2. Data and Data Sources

The type of data used in this study is secondary data in the form of Time Series data.

3. Population and Sample

According to Sugiyono, population is a generalized area consisting of objects / subjects that have certain quantities and characteristics determined by researchers to be studied and then drawn conclusions (Sugiyono, 2022). The population in this study is all energy sector companies listed in the Indonesian Sharia Stock Index (ISSI) for the 2018-2021 period, which is 74 companies.

According to Sugiyono, the sample is part of the number and characteristics possessed by the population (Sugiyono, 2022). The sampling techniques in this study are: *nonprobability* sampling i.e. by using *sampling purposive*. The number of research samples was 12 companies. The observation period in the study was 4 periods (2018-2021). So that the total data to be analyzed in this study is 48 data.

4. Data Collection Techniques

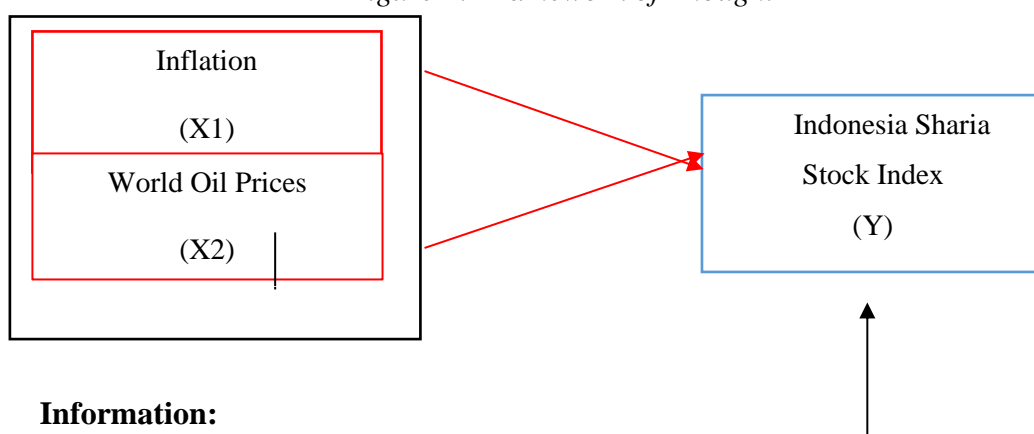
The data collection technique used in this study is a documentation technique. The documentation technique used in this study is to collect data and information available on the Indonesia Stock Exchange (IDX), OJK, and investing.com.

5. Data Analysis Techniques

The data analysis used in this study used Classical Assumption Tester, Multiple Linear Regression Test, Determination Coefficient Test, F Test (Simultaneous Test) and T Test (Partial Test).

Frame of Thought

Figure 1: Framework of Thought



Information:

- ▼ = Partial Influence
- ▼ = Simultaneous Influence

Hypothesis

In this study, the following hypothesis was put forward:

- H1 : The inflation variable has a partial significant effect on the share price of the energy (oil) sector listed on ISSI.
- H2 : The variable world oil price has a significant partial effect on the share price of the energy sector (oil) listed by ISSI.
- H3 : Inflation variables and world oil prices have a significant effect simultaneously on the share price of the energy (oil) sector listed by ISSI.

IV. RESULT AND DISCUSSION

1. Classical Assumption Test

1) Normality Test

Table 2 : Normality Test Results

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		48
Normal Parameters ^a	Mean	.0000000
	Std. Deviation	.48861740
Most Extreme Differences	Absolute	.182
	Positive	.182
	Negative	-.111
Kolmogorov-Smirnov Z		1.261
Asymp. Sig. (2-tailed)		.083

a. Test distribution is Normal.

Source: Processed data

Based on the results of the Kolmogorov-Smirnov test, from 48 research data showed the value of sig. of 0.083 which means > 0.05 . So that all data in the variable is normally distributed. This shows that the data used in this study have met the normality test because the data is normally distributed.

2) Multicollinearity Test

Table 3 : Multicollinearity Test Results
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1118.396	1992.598		.561	.577		
	INFLASI	-141.824	504.891	-.042	-.281	.780	.983	1.017
	HMD	6.962	29.556	.035	.236	.815	.983	1.017

a. Dependent Variable: HARGA SAHAM

Source: processed data

The table above shows that the variable:

- i. Inflation has a tolerance value of 0.983 and a VIF of 1.017.
- ii. The World Oil Price has a tolerance value of 0.983 and a VIF of 1.017.

From these data, it can be seen that the tolerance value of each independent variable is above 0.1 and the VIF value is below 10, so there is no relationship between independent variables in the regression model.

3) Heteroscedacity Test

Table 4 : Heteroscedacity Test Results

Coefficient ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1287.825	1607.897		.801	.427
	INFLATION	-221.972	407.415	-.082	-.545	.589
	HMD	10.276	23.850	.064	.431	.669

a. Dependent Variable: Abs_RES

Source: Processed data

Based on the table above shows that the value of sig. Of all the independent variables in this study, inflation and world oil prices are greater than 0.05 or 5%.

Thus it can be concluded that there is a similarity of variance of residuals for all observations in regression models.

4) Autocorrelation Test

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.612a	.375	.331	1905.47832	2.050
a. Predictors: (Constant), LAG_Y, HMD, INFLATION					
b. Dependent Variable: STOCK PRICE					

Table 5 : Autocorrelation Test Results

Source: processed data

Based on the table above, it is known that Durbin Watson's value is 2,050. By using a significance value of 5% and the number of data as many as 48 and the number of independent variables as much as 2. So in the Durbin Watson table will get a DU value of 1.6231 and 4-DU of 2.3769. Because the value of Du (1.6231) < Durbin Watson (2.050) < 4-DU (2.3769). So it can be concluded that the data has no correlation of variables in the regression model with time changes.

Double Linear Regression Analysis

Table 6: Multiple Linear Regression Results

Coefficient ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1118.396	1992.598		.561	.577
	INFLATION	-141.824	504.891	-.042	-.281	.780
	HMD	6.962	29.556	.035	.236	.815
a. Dependent Variable: STOCK PRICE						

Source: processed data

From the table above, the following results can be obtained:

$$Y = 1118,396 - 141,824 + 6,962 + e$$

From the regression equation above can be explained:

- a. The constant has a value of 1118.396. This means that if the inflation variable and the world oil price are assumed to be zero, then the stock price has 1118.396.
- b. The inflation variable has a value of -141.829. This means that if inflation increases by 1 unit, it will cause the stock price to increase by 141,829 units assuming that all other independent variables are fixed.
- c. The variable world oil price has a value of 6.962. This means that if the world oil price increases by 1 unit, it will cause the stock price to increase by 6,962 units assuming that all other independent variables are fixed.

Coefficient of Determination Test

Table 7: Results of the Coefficient of Simultaneous Determination

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.051a	.003	-.042	2352.672
a. Predictors: (Constant), HMD, INFLASI				

Source: processed data

From the table above, it can be seen that the R square value of 0.003 which shows that inflation variables and world oil prices can affect stock prices by the remaining 3%, which is 97% (100%-3%) influenced by other variables outside the study such as exchange rates, interest rates, Bank Indonesia Sharia Certificates, World Gold Price, Money Supply, BI Rate, and Gross Domestic Product (GDP).

Uji F (Uji Simultan)

Table 8 : F Test Results (Simultaneous Significant Test)

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	659272.158	2	329636.079	.060	.942 ^a
	Residual	2.491E8	45	5535065.896		
	Total	2.497E8	47			
a. Predictors: (Constant), HMD, INFLASI						
b. Dependent Variable: STOCK PRICE						

Source: processed data

From the table above, a significant value of $0.942 > 0.05$ was obtained. This means that simultaneously the variables of inflation and world oil prices have no effect on stock prices.

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Table 9 : Results of the T Test (Partial Significant Test)

Coefficient						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1118.396	1992.598		.561	.577
	INFLATION	-141.824	504.891	-.042	-.281	.780
	HMD	6.962	29.556	.035	.236	.815
a. Dependent Variable: STOCK PRICE						

Source: processed data

From the table above it can be explained that:

a. Variable inflation

Based on the table above, it is known that the significance value of the inflation variable is $0.780 > 0.05$. This shows that variable inflation has no partial effect on stock prices.

b. Variable world oil prices

Based on the table above, it is known that the significant value of the inflation variable is $0.815 > 0.05$. This shows that the variable world oil price has no partial effect on stock prices.

V. CONCLUSION

Based on the results of this study, related to the influence of inflation and world oil prices on stock prices listed on the Indonesian Sharia Stock Index (ISSI) in the energy (oil) sector for the 2018-2021 period. From the two hypotheses proposed, the following are the conclusions that can be drawn from this study:

- 1) Based on the results of the study, simultaneously the variables of inflation and world oil prices have no effect on stock prices.
- 2) The inflation variable has no partial effect on stock prices.
The variable world oil price has no partial effect on stock prices.

ACKNOWLEDGEMENT

The motivation for this research is to understand investment. The roles of other parties are still needed to increase the strengthening of the national economy. Research findings: This research aims to determine the influence of the inflation rate and world oil prices. Important additional steps are taken to ensure that the public can find out the price of energy (oil) sector shares listed on ISSI for 2018-2021. The high opportunities for increased investment will result in many job opportunities for the revitalization of the national economy in 2045.

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