The Impact of Macroeconomic Conditions on the Sharia Stock Index: Empirical Study in Asia Pacific Countries

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ABSTRACT

This research aims to analyze the impact of macroeconomic conditions on the sharia stock index carried out on the Sharia Capital Markets in Asia Pacific countries. The sampling technique was carried out using a purposive sampling method for a total of 10 countries. Hypothesis testing uses multiple linear regression. The research results found that inflation had a positive and insignificant effect on the sharia stock index. Meanwhile, the exchange rate has a negative and significant effect on the sharia stock index. Therefore, in this case, to increase the sharia stock index, the country must control the country's exchange rate. Meanwhile, although inflation has a positive influence, changes in the inflation rate, whether decreasing or increasing, are not able to change the sharia stock index.

Keywords: sharia stock index, macroeconomics, inflation, exchange rate

INTRODUCTION

The capital market is a forum used as a meeting place between companies that need capital and companies or individuals who have capital. In a country's economy, the capital market plays an important role as a link between issuers and investors. As a market that trades capital, if viewed from a time perspective, this capital is considered long-term capital. Therefore, it is important for the capital market to be fair, liquid, efficient and transparent.

In order to increase and develop the share of the sharia financial market, it is very important to study sharia investment. In the sharia capital market, sharia products such as sharia shares, sharia bonds and sharia mutual funds are developing. In Islam, there are several reasons why a person should invest, such as to have a more decent life in the future, to reduce inflationary pressures, and to encourage tax savings.

The development of the Islamic capital market has increased rapidly. This can be seen from capital market data that buys and sells sharia products in Asia Pacific countries. If you look at the price, investment data (2022) shows that Pakistan is the country with the highest sharia share price, namely 21,468.23, next is Taiwan and India. Meanwhile, countries such as China, Indonesia, Japan, Malaysia and Thailand are still at prices below 5,000.

The rise or fall in stock prices in a country occurs because it is influenced by many factors, including macroeconomic conditions such as inflation (Restiawan and Asyututi, 2020; Shadiqqy, 2019; Maharani et al. 2024) and exchange rates (Restiawan and Asyututi, 2020; Junaidi et al. al. 2021; Hidayat et al. 2021; Shadiqqy, 2019; Maharani et al. 2024). However, several researchers such as Hidayat et al. (2021) proves that inflation has no significant effect on the stock index. Apart from that, Sutandi (2021) found that the exchange rate did not have a significant effect on the stock price index.

The inconsistent empirical evidence above is interesting to study, especially in the case of Sharia Capital Markets in Asia Pacific countries.

LITERATURE REVIEW

Market Efficiency Theory

Fama (1970) stated that a market is said to be efficient if share prices fully reflect all available information or in other words share prices provide the best estimate of true value. By definition, an efficient market according to Beaver (1989) is the relationship between information and stock prices, which is measured by how far stock prices deviate from their intrinsic value.

An efficient capital market is needed with the aim of reducing speculation. This is because all information becomes the basis for investors in making investment decisions. In Islam, speculation is prohibited not because of uncertainty. However, what is prohibited are transactions that contain elements of riba and also prohibit speculative transactions that contain elements of gharar or ambiguity (Fazri et al. 2023).

Shariah Stock Index

Sharia stock indices are securities in the form of shares that do not conflict with sharia principles in the capital market. The following are the efforts expended in calculating the sharia stock index, including:
1. Gambling business and games that belong to gambling
2. Conventional financial institution business
3. Businesses that produce, distribute and trade haram food and drinks
4. Businesses that produce, distribute or provide goods or services that are harmful or damaging to morals

Inflation

Sukirno (2016) defines inflation as a process of increasing prices in an economy. Meanwhile, Natsir (2014) stated that inflation is a tendency to increase the prices of goods and services in general.

Keynes stated that inflation occurs because people want to live beyond the limits of their income. Inflation occurs due to the existence of a group of people who want to compete to win a national income that is greater than the ability of this group to earn national income. Even though inflation has a positive impact, it has a negative impact, including for the economy, for employees on fixed incomes, for creditors, for producers, and for the government.

Inflation has an influence on the sharia stock index. The inflation rate always experiences fluctuations which do not rule out the possibility of influencing investment levels in the capital market (Suciningtias and Khoiroh, 2015). Apart from that, Fuadi (2020) stated that an increase in the inflation rate will have a negative influence on the stock index. An increase in prices in general will have an impact on increasing public consumption due to an increase in real income of the public and an increase in company share prices. It has been empirically proven by Maulana and Maris (2021); Djazuli et al. (2021); and Astuti (2021) that inflation affects the sharia stock index.

Based on the description above, a hypothesis can be formulated as follows.

H_1 : Inflation affects the sharia stock price index.

Exchange Value

The exchange rate represents the price level of exchange from one currency to another country's currency. This exchange rate is used in various transactions. For example, international trade transactions, tourism, international investment, short-term money flows between countries, and so on.

The exchange rate influences the sharia stock index. Day et al. (2018) stated that exchange rate depreciation will increase stock prices in the economy. The exchange rate will affect the trade sector related to exports and imports. In a country's capital market, it cannot be separated from companies that carry out trade transactions using exchange rates. So changes in exchange rates are expected to influence stock index movements (Sucinigtias and Khoiro, 2015).

It has been empirically proven by Maulana and Maris (2021); Astuti (2021); Kamarl and Kasmawati (2021); Astuti and Valianti (2022) state that the exchange rate has a significant effect on the sharia stock index.

Based on the description above, a hypothesis can be formulated as follows.

H_2 : The exchange rate affects the sharia stock price index.

METHODOLOGY

This research is included in the associative type of research, where according to Asiati (2019) this type of research is research that is presented to understand the contribution made between variables. If the contribution only explains the relationship, then the research is correlational.

The population in this study is all sharia stock indices in Asia Pacific countries, totaling 244 sharia stocks. The sampling technique is using purposive sampling, with the criteria being to have complete financial reports from 2017 to 2021 and never leaving the sharia stock market. So the number of samples in this research is 10 sharia shares.

The data analysis used to test the hypothesis is multiple linear regression. Before analysis, the data was analyzed using normality, heteroscedasticity and multicollinearity.

RESULTS

Descriptive Analysis

The results of the descriptive analysis can be seen in the following table.

Table 1. Descriptive analysis results

		Inflation	Exchange Rate	ISS
N	Valid	50	50	46
	Missing	0	0	4
Mean		3.3620	.2150	3.2375
Median		2.7000	.0332	3.2950
Mode		.60	.01	3.09
Std. Deviation		3.26952	.32078	.79050
Variance		10.690	.103	.625
Skewness		1.165	1.420	-2.082
Std. Error of Skewness		.337	.337	.350
Kurtosis		1.167	.367	9.074
Std. Error of Kurtosis		.662	.662	.688
Minimum		-1.10	.00	-.40
Maximum		13.40	.97	4.34

Based on Table 1 it can be described as follows.

1. For the inflation variable in Asia Pacific countries, data was obtained that the average value*(mean)* = 3.3620; middle value (*median*) = 2.7000; The standard deviation obtained (*standart deviation*) = 3.269; the sum of the squares of all deviations of individual values from the group mean (*variance*) = 10.690; the most frequently occurring value*(mode)* = 0.6000; the highest score (*maximum*) = 13.40000 and the lowest value (*minimum*) = 1,1000.

2. For the exchange rate variable in Asia Pacific countries, data was obtained that the average value*(mean)* = 0.2150; middle value (*median*) = 0.332; standard deviation obtained (*standart deviation*) = 0.32078; the sum of the squares of all deviations of individual values from the group mean (*variance*) = 0.103; the most frequently occurring value*(mode)* = 0.01; the highest score (*maximum*) = 0.97 and the lowest value (*minimum*) = 0,000.

3. For the sharia stock index variable in Asia Pacific countries, the data obtained is the average value*(mean)* = 3.2375; middle value (*median*) = 3.2950; The standard deviation obtained (*standart deviation*) = 0.79050; the sum of the squares of all deviations of individual values from the group mean (*variance*) = 0.625; the most frequently occurring value*(mode)* = 3.09; the highest score (*maximum*) = 4.34 and the lowest value (*minimum*) = -0,40.

Normality

Normality testing is carried out using the QQ Plot graph. The test results can be seen in the following image.
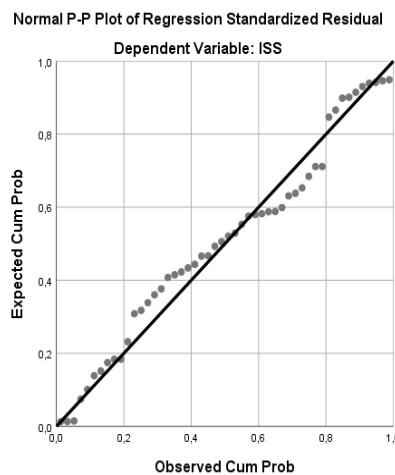

Figure 1. QQ Plot Analysis

Based on the image above, it can be seen that the items are located along the diagonal line. So it can be concluded that the data is normally distributed and can be used for data analysis.

Multicollinearity

Multicollinearity testing was carried out using Tolerance and VIF analysis. These results can be seen in the following table.

Table 2. Multicollinearity test results

Model	Collinearity Statistics	
	Tolerance	VIF
Inflation	0,778	1.285
Exchange Rate	0,778	1.285

Based on the table above, it can be seen that the Tolerance value for each variable is greater than the value of zero. The VIF value of each variable is smaller than the value 10. So it can be said that the data does not have multicollinearity and can be used for data analysis.

Heteroscedasticity

Heteroscedasticity testing was carried out using scatter plot graphs. The test results can be seen in the following image.
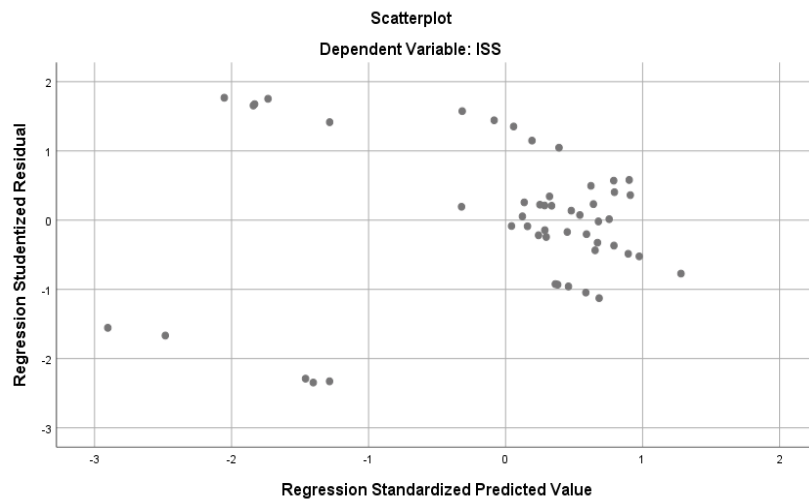

Figure 2. Scatterplot Analysis

Based on the image above, it can be seen that the data items are spread out and do not form a particular pattern. So it can be said that the data does not have heteroscedasticity and can be used for data analysis.

Multiple Linear Regression Analysis

The results of the regression analysis can be seen in the following table

Table 3. Results of multiple linear regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	.232	.078	
	Inflation	.023	.124	.029
	Exchange Rate	-.038	.018	-.333

Based on the analysis results in the table above, the following equation model is obtained.

The model can be explained as follows:

1) The constant value above is 0.232, this value provides an understanding that if the inflation and exchange rate variables are considered *equal to the table* then the Sharia Stock Index variable will only increase by 0.232.
2) The beta value of the inflation variable is 0.023, this value means that if the inflation variable increases by 1 percent while other factors are considered *equal to the table* then the sharia stock index will increase by 0.0.023.
3) The beta value of the exchange rate variable is 0.038, this value means that if the exchange rate increases by 1 percent while other factors are considered *equal to the table* then the sharia stock index will decrease by 0.038.

Meanwhile, the results of simultaneous testing can be seen in the following table.

Table 4. Hypothesis testing results

Model		Sum of Squares	df	Mean Square	F	Say.
1	Regression	.385	2	.192	3.219	.049[a]
	Residual	2.807	47	.060		
	Total	3.192	49			

Based on the table above, the significance value is 0.049 and is smaller than the alpha value of 0.05. So it can be said that inflation and the exchange rate simultaneously influence the Islamic stock index: empirical study in Asia Pacific countries.

Table 5. Partial hypothesis testing results

Model	t	Sig.
Inflation	.187	.853
Exchange Rate	-2.144	.037

Based on the table above, it can be described as follows.

a) The influence of inflation on sharia stock indices in Asia Pacific countries
   The calculated t value is 0.187 and the t table value is 2.011, while the significance value is 0.853 and the alpha value is 0.05. The calculated t value is smaller than the t table value, besides that the significance value is greater than the alpha value. So it can be concluded that H_0 accepted or there is a positive and insignificant influence of inflation on the sharia stock index in Asia Pacific countries.

b) The influence of exchange rates on sharia stock indices in Asia Pacific countries
   The calculated t value is -2.144 and the t table value is -2.011, while the significance value is 0.037 and the alpha value is 0.05. The calculated t value is greater than the t table value, besides that the significance value is smaller than the alpha value. So it can be concluded that H_0 rejected or there is a negative and significant influence of the exchange rate on the sharia stock index in Asia Pacific countries.

DISCUSSION

Inflation has a positive and insignificant effect on the sharia stock index in Asia Pacific countries. This means that if a country's inflation increases, the sharia stock index will increase.

However, inflation movements were unable to significantly increase or decrease the sharia stock index.

The results of this research are in line with research conducted by Kamal et al. (2021) who found that inflation did not significantly affect the sharia stock index in the case of Indonesia. Research by Saputra et al. (2021) also found that inflation had no impact on the Indonesian sharia stock index. Alivia et al. (2021) found that inflation did not have a significant effect on the sharia stock index. Melyani and Esra (2021) found that inflation did not have a significant effect on the stock price index. However, this research is not in line with research conducted by Maulana and Maris (2021) which found that inflation had a significant effect on the sharia stock index.

The exchange rate has a negative and significant effect on the sharia stock index in Asia Pacific countries. This means that if a country's exchange rate against the US dollar increases, the sharia stock index will decrease. Movements in a country's exchange rate can significantly increase or decrease the sharia stock index.

The results of this research are in line with the results of research conducted by Rahmawati and Baini (2019) that the exchange rate has a negative effect on the sharia stock index in the case of Indonesia. Kamal and Kasmawati (2021) also found that the exchange rate had an effect on the sharia stock index in the case of Indonesia. In addition, Alivia et al. (2021) also found that the exchange rate had a significant effect on the sharia stock index. Melyani and Esra (2021) in their research found that the exchange rate had a negative and significant effect on the stock index.

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