Determinants of Exchange and Inflation on the Share Price of Sharia Companies in the LQ45 Index In 2020

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Abstract

This study was conducted to examine the effects of exchange rate and inflation on the stock prices of companies listed on the LQ45 index in 2020. The research method uses a quantitative descriptive approach using the secondary data sources of the Stock Exchange of Indonesia and the Bank of Indonesia. Analyze the data using multiple linear regression tests. Hypothesis testing uses experimental and F-test and coefficient of determination test. The results show that the exchange rate affects the company's share price in the LQ45 index 2020. Inflation did not affect stock prices in Q45 of 2020. At the same time, exchange rates and inflation affected stock prices in Q45 of 2020.

Keywords: Exchange Rate, Inflation, Stock Price.

1. Introduction

Stock prices are widely used by investors as a measure of business performance. The stock price is the price of an action occurring in the stock market at a given time as determined by market participants and determined by the supply and demand of the relevant stocks in the market. capital (I. M. Lutfiana, 2017). Stock prices are determined by the supply and demand taking place in capital markets and are influenced by a country's macroeconomic factors. Inflation is one of the macroeconomic factors that can affect a company's stock price. According to Tandelilin, a high inflation rate is often accompanied by an overheated economic situation when the demand for the product exceeds the available supply. This will lead to a decrease in people's purchasing power (Herman, 2017). Tandelilin in (Sanjaya, 2018) states that inflation has a relatively negative effect on stock prices because inflation increases the costs of businesses. If the increase in costs is greater than the revenue, the company's profitability will decrease. Falling earnings will discourage investors from investing in the company. This will lead to lower stock prices and impact lower stock yields. Exchange rates are another macroeconomic indicator that can affect stock prices. The weakening of the rupiah against foreign currency (US dollar) will affect the stock price. The weakening of the exchange rate causes the prices of goods to rise, so businesses incur high costs and reduce their profits. The decrease in profits leads to a decrease in the value of dividends, in this condition investors are not interested in investing in the company's shares. As a result, demand for stocks decreases,
and stock prices fall (I. M. Lutfiana, 2017). The share price of the company in this study is the share price of the Muslim companies in the LQ45 index for the period August 2019 to July 2020, up to 12 companies. The reason why the researcher chose Shariah companies to be listed in the LQ45 index is that Shariah investment is subject to Islamic religious law referring to the Islamic religious law that is Quran and Hadith. The goods produced are halal and are not subject to wear and tear. And the companies in the LQ45 index are also those that are heavily traded every day, where demand for these stocks is high. And there is liquidity when a company's shares are easily traded for long periods.

2. Literature Review

Stock Price

The stock price can be defined as the market price. The market price is the easiest to determine because the market price is the price of the stock in the current market. If the exchange is closed, the market price is the closing price. Therefore, the market price is what indicates the ups and downs of a stock (Purba, 2011). Some events that affect stock prices (Fahmi, 2013) include: 1) announcement of a cash dividend, 2) announcement of a transfer, 3) announcement of the right to issue, and 4) announcement of a share price, free stock or dividend announcement, 5) warrant notice, 6) Merger and acquisition plan, 7) Conflict of interest trading plan, 8) Change in variables macroeconomic and microeconomic events, 9) International political events, 10) Stock index movements, 11) International political events, 12) January effects, 13) Information insider, 14) Changing economic attitudes through leading indicators.

The view of Islamic law on buying and selling shares Stocks are not discussed in detail in Islam, but stocks can be associated with Islamic views as shares are what is exchanged between companies nowadays and shares are a sign of stock participation. Apart from a company, currently, stocks are very popular investment tools for traders both short and long term. Muslim jurists have different views on buying and selling stocks, especially on the legal aspect. Some allow buying and selling of shares and some do not allow buying and selling of shares in the Islamic economic system. For those who allow the buying and selling of shares, they argue that shares are in terms of the term attached to them, then shares held by someone represent proof of ownership of a certain company. As assets so that shares reflect ownership of certain assets. This logic is used as the basis for thinking that shares can be traded like goods. Contemporary scholars who recommend this include Abu Zahrah, Abdurrahman Hasan, and Khalaf. In short, buying and selling shares is permissible according to sharia and applicable positive law (Manan, 2012). The existence of the fatwas of contemporary scholars regarding the sale and purchase of shares further strengthens the basis for the permissibility of buying and selling shares. In the fatwa collection of the Saudi Arabian National Sharia Council chaired by Sheikh Abdul Aziz Ibn Abdillah Ib Baz Volume 13 Chapter of Sale and Purchase ((JH9) pages 320-322) fatwa numbers 4016 and 5149 concerning the law of buying and selling shares are stated as follows: “if shares are traded not the same as money in its entirety as it is, but only a representation of an asset such as land, cars, factories, and the like and this is something that is already known by the seller and the buyer, then it is legally permissible to trade it at a cash or tough price, which is paid in cash or several payments, based on the generality of the arguments regarding the permissibility of buying and selling.” (Manan, 2012). The Word of
God in Surah albaqarah verse 275 which mean"... Even though Allah has permitted buying and selling and forbids usury. Those who have reached the prohibition from their Lord, then continue to stop (from taking usury), then for him what he had taken first (before the prohibition came); and its affairs (up to) to Allah. People who return (take usury), then that person is the inhabitants of hell; they abide in it."

Therefore, buy and sell stocks with the intent and purpose of obtaining additional capital, cash, and dividend expectations, holding them until maturity. It can be used at any time and can be exchanged for capital gains, the law allows as long as the business is legal, does not violate Sharia law, and is not used as a means of speculation.

**Exchange rate**

The exchange rate is the exchange between two different currencies, which is a comparison of value or price between two currencies. This comparison of values is often referred to as the exchange rate. Exchange rates are generally volatile, changes in exchange rates can take the form of depreciation and appreciation. A depreciation of the rupee against the US dollar means a decrease in the value of the US dollar against the rupee. While the appreciation of the rupee against the US dollar corresponds to the appreciation of the rupee against the US dollar (Muchlas, 2015). A depreciation of the national currency against a foreign currency can increase the volume of exports. This increases a company's profits, increases its share price if demand in international markets is elastic enough, and affects the return investors will receive. (Sanjaya, 2018).

**Exchange Rate Theory**

Several theories are the basis of the determinants of exchange rates (Rasbin, 2015), namely:

1) In the theory of purchasing, power parity Gustav Cassel said that the exchange rate of one country against another is determined by the price level in each country. Based on the theory of purchasing power parity (PPP), the domestic purchasing power of a country's currency is fully reflected in the prevailing price level in that country.

2) Theory of Monetary

3) The Exchange rate theory is divided into two. First, it relates the price levels in different countries to that country's money supply. And second, link the price to the exchange rate. A country's exchange rate is determined by the demand for money, the level of real GDP, and the difference in interest rates between the two countries.

4) Trade Theory

The theory states that a country's exchange rate is based on the exchange of goods and services between countries. 4) Property of property theory is the theory that the exchange rate is the relative price of two assets, namely the price of the domestic and foreign currency.

**Inflation**

According to Bank Indonesia, inflation is an economic situation of imbalance between supply and demand because the demand for products is greater than the supply, so prices tend to increase (www.bi.go.id, 2020).
Boediono in (I. M. Lutfiana, 2017) inflation is a general and continuous upward trend in prices. An increase in the price of only one or two goods is not called inflation unless the increase affects most of the prices of other goods or causes an increase.

**Types of inflation**

1. Interest-Based Inflation Based on the prevailing rate of price growth, this inflation can be divided into three groups (Dillak, 2017):
   a. Inflation increases. It was a slow process of price appreciation. What is called inflation is an increase in prices that do not exceed two or three percent per year.
   b. Simplicity Inflation is inflation classified as 5-10%. In developing countries, the rate of inflation is sometimes not easy to control. The country does not face the problem of hyperinflation, but it also cannot reduce inflation to very low levels.
   c. Hyperinflation is the process of increasing prices very quickly causing the price level to double in a short time. In 1965 the inflation rate in Indonesia was 500% and by 1966 it had reached 650%. This means that prices increased 5 times in 1965 and 6.5 times in 1966.

2. Caused Inflation (Sutawijaya, 2012):
   a. Demand-side inflation Demand inflation is inflation that occurs due to an increase in aggregate demand, while production is already at or near full employment.
   b. Cost inflation Cost-push Inflation is characterized by rising prices and falling output. This situation arises because the overall supply decreases after the cost of production increases.
   c. Mixed inflation Inflation is caused by a combination of demand-driven inflation and cost-generated inflation.

3. Inflation by origin (Sutawijaya, 2012):
   a. Domestic inflation (domestic inflation).
   b. Foreign-origin inflation (imported inflation) this inflation is inflation that occurs due to high prices (inflation) abroad or abroad. In this regard, the effect of inflation from abroad in the country can occur through an increase in the price of imported goods or an increase in the price of exported goods.

**Islamic Inflation Theory Islamic**

In economics, we don't talk about inflation, because the currency used is the dinar and the dirham which have a stable value and are justified by Islam, but the dinar and dirham here are literal, namely in gold or silver form, not dinars, dirhams. but just a name (H. Lutfiana, 2018). According to Islamic economists, inflation is very bad for the economy (Adiwarman, 2014), these effects include:

1. Disruption of the function of money, including the savings function (the value of the savings), the prepayment function, and the unit of account function.
2. The thrifty spirit and thrifty attitude of the community weakened. The tendency to buy goods increased, especially non-mainstream goods and luxury goods

**Hypothesis**

Hypotheses built by the researcher in this study are:
H₁: There is an effect of the exchange rate (exchange rate) on the stock price of Islamic companies in the LQ45 index
H₂: There is an effect of inflation on the stock price of Islamic companies in the LQ45 index
H₃: There is an effect of the exchange rate and inflation on the share prices of Islamic companies in the LQ45 index.

3. Research Method

This study is a causal association study that is a study that looks for a cause-and-effect relationship between the independent variable and the dependent variable by using quantitative approaches and quantitative research methods. The data source used in this study is secondary data. Data obtained from the official Indonesia Stock Exchange (BEI) is www.idx.co.id and the official website of Bank Indonesia is www.bi.go.id in 2020.

Table 1. Company Sample

<table>
<thead>
<tr>
<th>No</th>
<th>Code</th>
<th>Company Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ADRO</td>
<td>Adaro Energy Tbk</td>
</tr>
<tr>
<td>2</td>
<td>ANTM</td>
<td>Aneka Tambang (Persero) Tbk</td>
</tr>
<tr>
<td>3</td>
<td>BRPT</td>
<td>Barito Pacific Tbk</td>
</tr>
<tr>
<td>4</td>
<td>BSDE</td>
<td>Bumi Serpong Damai Tbk</td>
</tr>
<tr>
<td>5</td>
<td>JPFA</td>
<td>Japfa Comfeed Indonesia Tbk</td>
</tr>
<tr>
<td>6</td>
<td>KLBF</td>
<td>Kalbe Farma Tbk</td>
</tr>
<tr>
<td>7</td>
<td>MNCN</td>
<td>Media Nusantara Citra Tbk</td>
</tr>
<tr>
<td>8</td>
<td>PGAS</td>
<td>Perusahaan Gas Negara Tbk</td>
</tr>
<tr>
<td>9</td>
<td>PTPP</td>
<td>Pembangunan Perumahan (Persero) Tbk</td>
</tr>
<tr>
<td>10</td>
<td>SCMA</td>
<td>Surya Citra Media Tbk</td>
</tr>
<tr>
<td>11</td>
<td>WIKA</td>
<td>Wijaya Karya (Persero) Tbk</td>
</tr>
<tr>
<td>12</td>
<td>WSKT</td>
<td>Waskita Karya (Persero) Tbk</td>
</tr>
</tbody>
</table>

Source: www.idx.co.id

Test Data

Test the data using classical hypothesis testing, this is used to test whether the regression model shows a significant and representative relationship. Classical hypothesis testing is divided into four testing steps, namely, normality test, multicollinearity test, autocorrelation test, and variable variance test.

Data Analysis Techniques The data

The data analysis technique used in this study is a multiple regression analysis (linear) model with a technical analysis approach, using stock price data. The regression equation formulation used:

\[ Y = a + b_1X_1 + b_2X_2 + e \]

Information:
Y = Stock Price
A = Constant  
$X_1 = \text{Rupiah Exchange Rate (Exchange rate)}$  
$X_2 = \text{Inflation}$  
$b_{1,2} = \text{Regression Coefficient } X_1 \text{ and } X_2$  
e = Error Term

**Hypothesis Test**

Test Hypothesis testing is performed by partial test (T-test), concurrent test (F-test), and coefficient of determination ($R^2$) to see the contribution of the independent variable to the dependent variable.

**4. Research Results and Discussion**

**Data Analysis Descriptive Statistics**

The results of the descriptive analysis of all data used in this study are presented in the table below.

<table>
<thead>
<tr>
<th>Ket</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Price</td>
<td>36</td>
<td>450.00</td>
<td>1890.00</td>
<td>1108.7222</td>
<td>370.49069</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>36</td>
<td>13730.00</td>
<td>16449.00</td>
<td>14828.0000</td>
<td>1186.60726</td>
</tr>
<tr>
<td>Inflation</td>
<td>36</td>
<td>2.68</td>
<td>2.98</td>
<td>2.8733</td>
<td>0.13889</td>
</tr>
</tbody>
</table>

**Results of Normality and Classical Assumption**

A hypothesis test is used to check if the regression model shows a significant and representative relationship. Classical hypothesis testing is divided into four testing steps, namely, normality test, multicollinearity test, autocorrelation test, and variable variance test.

**Normality Test Normality**

Test using the Kolmogorov-Smirnov test. The results of the SPSS 22 test output can be seen in the table below.

**Table. 3. Normality Test Results**

<table>
<thead>
<tr>
<th>N</th>
<th>Significant Level ($\alpha$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>0.200</td>
</tr>
</tbody>
</table>

*Source: Processed Data SPSS Output 22*

Based on the results in the table above, the test *One-Sample Kolmogorov-Smirnov Test* shows that $\text{Asymp.Sig} = 0.200 > 0.05$, meaning that the data is normally distributed. So it can be concluded that the data in this study is feasible to use.

**Multicollinearity Test**
To determine the presence or absence of multicollinearity in a regression model, one must check the value of the variance and tolerance inflation coefficient (VIF). If the tolerance value > 0.10 and the VIF value is < 10, it can be concluded that there is no multicollinearity among the independent variables with the regression model. The results of the SPSS 20 test output can be viewed in this table.

**Table 4. Test Results Multicollinearity**

<table>
<thead>
<tr>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>.618</td>
<td>1.617</td>
</tr>
<tr>
<td>.618</td>
<td>1.617</td>
</tr>
</tbody>
</table>

Source: SPSS output processed data 22

Based on table 4.5, it is shown that each independent variable has a tolerance value > 0.10 and VIF < 10. The value tolerance of each independent variable the independent variable of exchange rate and inflation is 0.618, while the VIF value of each independent variable of exchange rate and inflation is 1.617. Therefore, we can conclude that there is no correlation between the independent variables.

**Heteroscedasticity Test**

The test in this study uses Gleyser's test by correlating the absolute residual value for each independent variable. If the probability result is significant > 0.05, then the model does not experience variable variance. The results of the SPSS 22 test output can be viewed in the table below.

**Table 5. Results of Heteroscedasticity Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>UC</th>
<th>SC</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constanta)</td>
<td>463 522</td>
<td>657 622</td>
<td>.705</td>
<td>.486</td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>-.018</td>
<td>.034</td>
<td>-.114</td>
<td>-.518</td>
</tr>
<tr>
<td>Inflation</td>
<td>-2 359</td>
<td>290 687</td>
<td>-.002</td>
<td>-.008</td>
</tr>
</tbody>
</table>

Source: SPSS output processed data 22

Based on the results of the above tests, knowing that the significant values of the sums of the variables of exchange rate and inflation are both greater than 0.05, it can be concluded that in the regression model there is inequality from one observation stay to observe.

**Autocorrelation Test**

The test is done by looking at the Durbin-Watson value, the results obtained from data analysis are shown in the table below.
Table. 6. Test Results autocorrelation

<table>
<thead>
<tr>
<th>Model</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.928</td>
</tr>
</tbody>
</table>

*Source: SPSS output processed data 22*

Based on the above autocorrelation, the Durbin-Watson value is known to be 0.928. Hence, we say that there is no autocorrelation because DW is between -2 and +2 (-2 < 0.928 < +2).

**Data Analysis**

**Multiple Linear Regression Analysis**

Based on multiple linear regression analyses performed on SPSS 22, regression results are shown in the table below.

Table. 7. Linear Regression Test Results

<table>
<thead>
<tr>
<th>Information</th>
<th>B</th>
<th>T</th>
<th>A</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4822.732</td>
<td>4948</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Exchange Rates</td>
<td>-0188</td>
<td>-3733</td>
<td>.001</td>
<td>.468</td>
</tr>
<tr>
<td>Inflation</td>
<td>-321 148</td>
<td>-0745</td>
<td>.461</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>14 496</td>
<td></td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

*Source: SPSS output processed data 22*

Based on the results of the linear regression test of many linear regression equations shown in the table above, we obtain the following multiple linear regression equations:

\[ Y = a + b_1 X_1 + b_2 X_2 + e \]

\[ Y = 4,822,732 + (-0,188) X_1 + (-321,148) X_2 + e \]

From the results of the multiple linear regression equation, each variable can be included concerning the stock price as follows:

1. The constant (Y) is 4822,732 which means that if the variable exchange rate (X1) and inflation (X2) are zero, the Shariah value of the company's share price in the LQ45 index is 4822, 732 per share.
2. The exchange factor (X1) is 0.188. If the exchange rate variable (X1) increases by Rp 1/USD while the inflation rate (X2) is assumed to be constant, the share price (Y) will decrease by 0.188 per share.
3. The inflation coefficient (X2) is 321,148. If the inflation variable (X2) increases by 1% while the exchange rate (X1) stays the same, the stock price (Y) will decrease by 321,188 per share.

**Hypothesis Test**

**Testing T-Test (Partial Test)**

Based on the table above, the significant value of the exchange rate variable on stock prices is less than the alpha value (0.001<0.05). It can be concluded that if \( H_1 \) is rejected, then inflation does not affect stock prices.
The significance of the inflation variable to the stock price shows a value greater than the value of alpha (0.461>0.05). It can be concluded that if H2 is rejected, then Inflation does not affect the Share Price.

**F-test (Silmuthane test)**

The data analysis performed on the variables of exchange rate and inflation showed a value significantly lower than a negligible value (0.000<0.05), so it can be concluded that H1 is the catch is acceptable. It can be concluded that exchange rates and inflation have a significant effect on the stock prices of the companies listed on the LQ45 index.

**Coefficient of Determination**

Based on the analysis results presented in the table above, the test results show that the R-squared value is 0.468, which means that the variables of exchange rate and inflation can affect the share price of the LQ45 index up to 46.8%. While 53.2% is influenced by other

5. **Conclusions**

Based on the results of the research conducted, it can be concluded that the exchange rate has a significant influence on the share prices of Muslim companies listed in the LQ45 index in 2020. Islamic companies are listed on the LQ45 Index. Exchange rates and inflation simultaneously have a significant effect on the share prices of Islamic companies in the LQ45 index.

**Reference**