



Effects of Inflation, Exchange Rate, BI Rate, and GDP on Islamic Bank Stock Prices

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ABSTRACT

The state of a country's economy will affect the investment climate, as evidenced by macroeconomic factors such as inflation, exchange rates, the BI rate, and economic growth measured by GDP. This study aims to examine the impact of inflation, exchange rates, the BI rate, and GDP on Islamic banking stock prices, both individually and collectively. The descriptive quantitative research method was used in this study. The following data analysis techniques were used in this study: 1. Classical Assumption Test, 2. Hypothesis Test (t-test and F-test), and 3. Correlation and Determination Coefficient Test. The research's findings are as follows: 1. The stock price of an Islamic bank is significantly impacted negatively by partial inflation, 2. Partially, the BI Rate has a considerable beneficial impact on the share price of Islamic banks while having a favorable and negligible effect on the exchange rate. 4. The share price of Islamic banks is not affected by GDP in total, but it is affected simultaneously by inflation, exchange rates, the BI Rate, and GDP. Sharia shares are important and have a significant association with a percentage of 39.8%.

Keywords: *Inflation, Exchange Rate, BI Rate, GDP.*

Introduction

Investment is a *flow concept* whose amount is calculated in a certain period (Rahardja & Mandala Manurung, 2017). Stocks are one form of the investment section. From the point of view of producers or companies, a company sells shares because the company needs capital or funds for the company's operations (Fahmi, 2012). Purchasing shares in the Islamic banking industry is a good investment option, but a number of macroeconomic concerns, such as inflation, changing rupiah currency rates, and interest rates, might be discussed here. In addition, changes in stock prices are influenced by government regulations. Changes affect the capital market in a nation's macroeconomic indicators, and if one of these indicators encounters issues, it may have an impact on the capital market since general macroeconomic conditions can influence stock prices in the capital market. (Listriono & Nuraina, 2015).

There is limited research on the effect of inflation, exchange rate, BI rate, and GDP on stock prices in previous years, therefore, this research was conducted to find out whether the effect would be the same as in previous studies. This study aims to analyze whether inflation, exchange rate, BI rate, and GDP can affect Islamic bank stock prices individually or simultaneously.

Literature Review

Economists use the term "inflation" to indicate an ongoing increase in prices quoted in units of money (Priono & Zainuddin Ismail, 2016). Inflation is also a phenomenon in which the general price level increases continuously. Meanwhile, general price increases that occur occasionally cannot be said to be inflation (Kewal, 2012).

Exchange Rates (exchange rates) or more popularly known as currency exchange rates, are records (quotations) of market prices of foreign currencies (foreign currency) in domestic currency prices (domestic currency) or reciprocally, namely the price of domestic currency in foreign currency (Karim, 2014). Two hypotheses explain why exchange rates move. The first is the Purchasing Power Parity (PPP) theory, which contends that consumers' purchasing power when purchasing domestic goods is equal to that when purchasing goods from abroad or imported (Kartikaningtyas, 2014). Then the theory of Interest Rate Parity (IRP) states that the value of a currency is determined by the difference in interest rates between two countries (Adhawiyah et al., 2018).

The BI Rate or Bank Indonesia interest rate, is the reference interest rate set by Bank Indonesia to overcome state inflation (Listriono & Nuraina, 2015).

Gross Domestic Product (Gross Domestic Product) is the value of goods and services produced in the country concerned for a certain period (Meyliana & Mulazid, 2017).

Shares are certificates showing proof of company ownership, and shareholders claim rights to the income of company assets (Rusdin, 2008). Share prices are determined according to the law of supply and demand or bargaining power. The more people who want to buy shares, the cost of these shares will increase, and vice versa (Rusdin, 2008). According to the law of demand, there is a relationship between an item's price and its level of demand. Conversely, the higher the price of an item, the

less demand for the item (Sukirno, 2013). The law of supply states that sellers will provide a larger quantity for sale as an item's price rises. Conversely, the lower the cost of an item, the less amount of the item provided (Sukirno, 2013).

Overall, demand theory from a conventional microeconomic perspective is almost the same as demand theory from an Islamic microeconomic perspective, but there are sharia limitations that every Muslim must consider in requesting or buying a number of commodities (Elvira, 2015). According to Ibn Taimiyyah, the request for an item is a desire for something, which is described by the term *raghbah fil al-syai* is also interpreted as the number of goods requested (Yuniarti, 2016).

In the realm of classical Islamic economic thought, supply has been recognized as an important force in the market (Yuniarti, 2016). The law of demand is elementary; that is, if the price rises, the quantity supplied will also increase, conversely, if the price falls, the quantity supplied will also decrease (Yuniarti, 2016). In Islamic economics, every economic decision of a human being cannot be separated from moral and religious values because every activity is always linked to sharia. A Muslim is asked to take a moderate attitude in obtaining and using resources, which may not be *israf* (royal, excessive) but also prohibited from being stingy (*bukhl*) (Nasution, 2017).

According to Brigham and Huston, the signal theory is a shareholder's point of view about a company's opportunities to increase company value in the future, where the information is conveyed by company management to shareholders (Mayangsari, 2018). According to Fauziah, in general, signals can be said to be signals made by a company aimed at investors; these signals can take any form and can be positive signals and negative signals, for example, information about company performance (Fauziah, 2017).

Method

This study uses a descriptive method, which describes the phenomenon in more detail or compares it with other phenomena in solving actual problems when the research is conducted (Sandu & M. Ali Sodik, 2015). In this study, the population in question is Islamic Banking which is listed on the Indonesian Stock Exchange. This study's sampling technique was purposive sampling, according to the researcher's criteria. In this study, the sample used was 36 data from each variable, namely time series data from 2017-2019. The banks used in this research are Bank Panin Dubai Syariah Tbk., Bank Danamon Tbk., and Bank Bukopin Tbk. because these three banks have data that fits the researcher's criteria, namely *time series* from 2017-2019. In addition, the three banks also experienced significant profitability during 2017-2019.

Data collection techniques in this study were carried out using documentation studies and literature studies. Documentation is usually done to collect secondary data from various personal and institutional sources (Sanusi, 2014). Researchers will use *Time Series*/periodicals. In addition to using documentation studies, researchers also use library techniques. Literature study is all information or data sourced from libraries such as books, magazines, articles and so on, and equipped with scientific journals related to research titles.

Data analysis techniques in this study used classical assumption tests, including the Normality Test, Multicollinearity Test, Heteroscedasticity Test, and Autocorrelation Test. In addition to proving the hypothesis, researchers use the individual regression coefficient test or the t-test to determine the effect of the variable x on y, the joint regression coefficient test, or the F test to determine the impact of the variable x on y simultaneously. The researcher also used Multiple Correlation Coefficient Analysis (R) to find out how strong the effect of all x variables is on y and also Determination Coefficient Analysis (R²) to find out how much influence the percentage of x variable has on y variable.

Results and Discussion

Normality Test

Table 1.
Normality Test
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		36
Normal Parameters ^b	Mean	.0000000
	Std. Deviation	.77578753
Most Extreme Differences	Absolute	.087
	Positive	.055
	Negative	-.087
Test Statistic		.087
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Based on the table above, the results of the Normality Test using the Kolmogorov Smirnov show a significance value of 0.200, which means that the value is more than 0.05. Therefore, the data used in this study is stated to be normally distributed.

Multicollinearity Test

Test states that each variable does not find a multicollinearity problem with each Tolerance value > 0.10 and each VIF value < 10, as shown in the following table

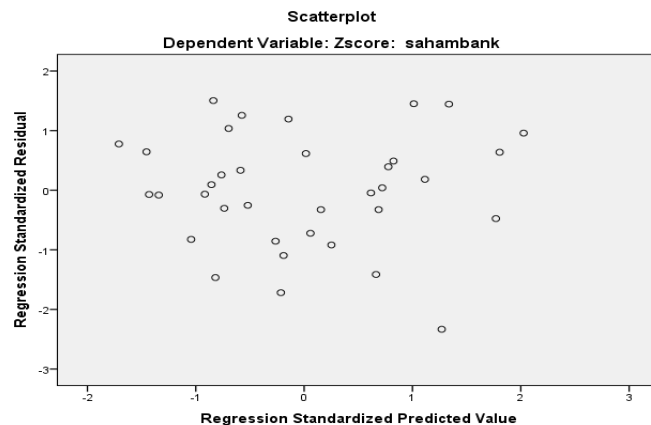
Table 2.
Multicollinearity Test

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.090E-15	.137		.000	1.000		
Zscore: inflasi	-.700	.207	-.700	-3.376	.002	.451	2.215
Zscore: kurs	.163	.253	.163	.645	.524	.304	3.290
Zscore: biRate	.319	.220	.319	1.449	.157	.402	2.491
Zscore: pdb	-.755	.239	-.755	-3.162	.003	.341	2.935

a. Dependent Variable: Zscore: sahangbank

Heteroscedasticity Test

Image 1.
Heteroscedastisity Test



Based on the image above, the researcher employs a Scatterplot, which demonstrates that the Scatterplot does not form a specific pattern, spreads, and does not converge at specific points; thus, it can be concluded that the data does not exhibit heteroscedasticity problems or that the data is homogeneous.

Autocorrelation Test

The autocorrelation test shows that the DW test results are between the dU value and the 4-dU value, so it can be concluded that the data used does not have autocorrelation problems. This can be seen in the table below.

Table 3.
Autocorrelation Test

Auto +	No Conclution	Tidak Ada Korelasi	No Conclution	Auto-
dL	dU		4-dU	4-dL
1,2358	1,7245	1,811	2,2755	2,7642

Hypothesis Testing

Individual Regression Coefficient Test (t-test)

The t-test of inflation on Islamic bank stock prices shows a t-value of -2.785 and a significance level of 0.009. Then the t table value obtained from the t distribution is searched for a significance of 5% or 0.05 and degrees of freedom (df) $n_k - 1$ or $36 - 4 - 1 = 31$, obtained a t table of 1.69552 so it can be concluded that the inflation variable (X1) individually has a significant negative effect on Islamic bank stock prices. Relevant results also occur in research in the journal *Economia* entitled *Effects of Inflation, Interest Rates, Exchange Rates and GDP Growth on the Composite Stock Price Index*.

This can be caused by when there is inflation, purchasing power decreases due to the rising prices of basic commodities; therefore, people prioritize fulfilling their living needs rather than investing. In other words, when inflation increases, stock prices will decrease because people's purchasing power is low.

The results of the t exchange rate test on Islamic bank stock prices show a t value of 1.827 and a significance level of 0.077. It can be concluded that the exchange rate variable (X2) individually has no significant effect on Islamic bank stock prices. Relevant results are also found in research conducted by Marfudin in 2020 in his thesis entitled *Effects of Inflation and Rupiah Exchange Rates on the Indonesian Sharia Stock Index (ISSI) on the Indonesia Stock Exchange (IDX) in 2015-2019*. This can be caused by developments in the dollar value, which tend to be stable and have a great opportunity to continue to appreciate, this is a special attraction for investors to choose to invest in money compared to investing in the real sector.

The BI rate t-test results on Islamic bank stock prices obtained a t-value of 2.063 and a significance level of 0.047. It can be concluded that the BI Rate variable (X3) individually has a significant positive effect on Islamic bank stock prices. Relevant results are also found in research conducted by Nur Fadila and Lilis Ardini in 2019 in the Accounting journal entitled, *Effects of Macroeconomic and Fundamental Variables on Sharia Stock Returns*. This means that in that period, even though the BI Rate increased, investors were still interested in investing in the capital market. Vice versa, even though the share price has increased, people are still interested in investing in banks.

The results of the GDP t-test on Islamic bank stock prices show that the t-value is 0.455 and the significance level is 0.652. It can be concluded that the GDP variable (X4) individually does not significantly influence Islamic bank stock prices. Relevant results are also found in research conducted by Sugiyanto Ikhsan in 2020 in the Accounting Journal, *Effects of Exchange Rates and Economic Growth on Stock Returns in the Financial Sector of the Indonesian Stock Exchange*. This can happen because even though the data shows that the national economy is growing, it is not certain that the per capita income of the people will also increase, especially if what is seen is growth based on expenditure. Even though there is an increase in people's per capita income, with an increase in the inflation rate, people's purchasing power will be the same because the excess income received will be used to meet basic needs.

Simultaneous Regression Coefficient Test (F Test)

Tabel 4.
F Test
ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regressi on	13.935	4	3.484	5.127	.003 ^b
	Residual	21.065	31	.680		
	Total	35.000	35			

a. Dependent Variable: Zscore: sahambank

b. Predictors: (Constant), Zscore: pdb, Zscore: biRate, Zscore: inflasi, Zscore: kurs

Based on the results of the F test above, it shows that simultaneously the inflation, exchange rate, BI Rate and GDP variables have a significant effect on Islamic bank stock prices with the results of F count being 5.127 and a significant level of 0.003, then F count with a significance of 5% or 0.05, degrees of freedom 1 (df1) $n-k-1$ or $36-4-1 = 31$ and degrees of freedom 2 (df2) = 4 obtained F table of 2.679. Based on these results, it can be seen that F count is greater than F table, namely $5.127 > 2.679$. It can be concluded that inflation, exchange rate, BI Rate and GDP have a significant effect on Islamic bank stock prices together or simultaneously. The same results were also found in research conducted by Rahma Wiyanti in 2018 in the Accounting journal entitled Analysis of the Influence of 7 Day Repo Rates, Inflation, Exchange Rates, and GDP on the Property Sector Stock Price Index (Empirical Study on the Indonesia Stock Exchange).

Determination Correlation Test (R2)

Tabel 5.
R and R² Test

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.631 ^a	.398	.320	.82432025

a. Predictors: (Constant), Zscore: biRate, Zscore: inflasi, Zscore: pdb, Zscore: kurs

Based on the picture above, an R-value of 0.631 is obtained. According to Sugiyono's interpretational guidelines for the correlation coefficient, it can be said that the factors of GDP, inflation, exchange rates, and BI rates all have a combined impact of 39.8% on the price of Islamic bank stocks, with the remaining variables having the potential to affect the remaining 60.2%.

Conclusion

According to the findings, it is possible to draw the conclusion that inflation has a partially negative effect on the stock values of Islamic banks throughout the period 2017-2019. To put it another way, throughout the period of 2017-2019, the exchange rate did not have any major positive effect on the stock prices of Islamic banks; to put it another way, the exchange rate did not have any impact on the stock prices of Islamic banks during that time period. To some extent, the BI Rate has a significantly positive effect on Islamic bank stock prices in the 2017-2019 period, whereas the GDP has no effect on Islamic bank stock prices in the 2017-2019 period. To some extent, however, the BI Rate has a significantly positive effect on Islamic bank stock prices in the 2017-2019 period. There is a link of 39.8% between the rate of inflation, the exchange rate, the BI Rate, and GDP, all of which have a significant impact on the stock values of Islamic financial institutions.

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