International Journal of Economics and Management Sciences
Volume. 1 No. 4 November 2024
e-ISSN: 3046-9279, p-ISSN :3048-0965, Page 260-269
DOI: https://doi.org/10.61132/ijems.v1i4.271
Available online at: https://international.areai.or.id/index.php/IJEMS

Analysis Of Stock Price Determinants In Islamic Banks In Indonesia

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Abstract.*This study aims to determine and analyze stock prices by looking at the direct and indirect effects between inflation, interest rates, exchange rates, ROA and stock prices in Islamic Banks in Indonesia. This study uses panel data regression with variables of inflation, interest rates, exchange rates, ROA, andstock prices with data analysis using SPSS 22 software. The period of this study is 2020-2022. The results of this study indicate that inflation, interest rates, and exchange rates are significant to ROA. Inflation and ROA are directly significant to stock prices. Meanwhile, interest rates and exchange rates directly have no effect on stock prices. For the indirect relationship between inflation, interest rates, and exchange rates affect stock prices through ROA.*

Keywords: *Stock Price,ROA,Inflation,Interest Rate,Exchange Rate*

1. INTRODUCTION

Bank Syariah Indonesia is a bank that operates in accordance with sharia principles. The implementation of sharia principles is the main differentiator with conventional banks. Islamic banks are banks whose activities leave the problem of usury. Thus, the avoidance of interest which is considered usury is one of the challenges faced by the Islamic banking world. Islamic banks consist of PT Bank Aladin Syariah (BANK), PT Bank Panin Dubai Syariah Tbk (PNBS), PT BTPN Syariah Tbk (BTPS), and PT Bank Syariah Indonesia Tbk (BRIS).

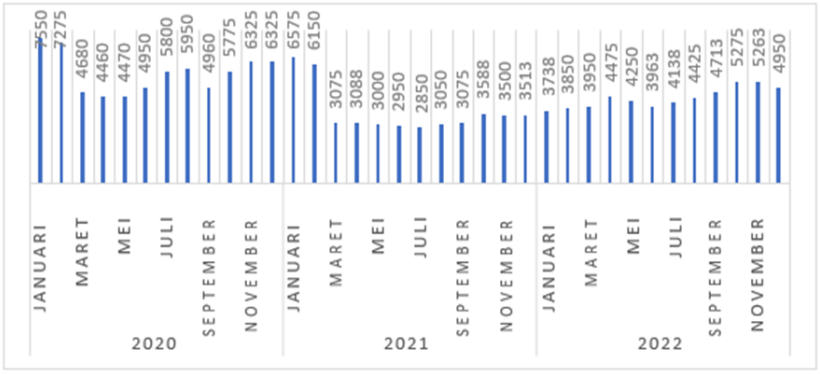
Currently, the development of investment in a country is influenced by economic growth. The higher the level of economic growth in the country, the higher the level of welfare of its people. Public welfare is usually characterized by an increase in income levels. When the income level of the community is high, the community will tend to have more funds. Some of the extra funds can be used to invest in savings and stocks. The banking sector is still a profitable investment place for investors because it can grow every year. One of the things that must be taken into consideration by an investor. Before investing in stocks is the stock price. Stock prices are formed from market mechanisms in the form of demand and supply of shares. Companies that are generally considered good and favored by investors are companies that have stock price stability and have a pattern of movement that tends to increase over time.

But in reality, the share price on the Indonesia Stock Exchange (IDX) is not always fixed or notalways in accordance with the wishes of investors, which tends to fluctuate at any time it can increase or decrease, if a company experiences a decrease in its share price there is

Received: September 15, 2024; Revised: September 29,2024; Accepted: October 01,2024;Published: October 03,2024;

a possibility that the company will be bought or acquired by another company and the company's operational costs will be disrupted in fulfilling its obligations so that the company must go into debt with a bank for the continuity of the company's operations.

Figure 1.Data on the Development of Islamic Bank Share Prices in Indonesia 2020-2022



The graph above shows that the share price experienced the sharpest decline in 2021 in March, the phenomenon that occurred was due to fluctuations in the share price of the Covid-19 pandemic whichcaused the average calculation of banking companies to not benefit because the shares in the following year were worth less than the share price in the previous year. Fluctuating stock price conditions make it difficult for investors to determine when the right time to buy or sell shares. Stock price fluctuations are a risk for investors, because if investors make the wrong decision investors will not get *capital gains* but instead get *capital loss*. Thus, investors must understand what causes stock price fluctuations.

The company's performance is good with the monitoring of the company's work assessment which can be seen from the inflation rate and the interest rate on the high expected return of investors than when the initial investors invested their funds for the company. According to Sella & Ardini (2022) there are several factors that can affect stock prices, namely inflation, interest rates, exchange rates, andROA.

Inflation is an increase in the price of goods and services in general and continuously within a certain period of time. Signal theory states that if inflation is higher, it will cause stock prices to decline. An increase in the price of one or two goods alone cannot be called inflation unless the increase is widespread or results in price increases in other goods. High inflation rates are usually associated with unfavorable economic conditions. This means that the economy is experiencing demand for products that exceeds its product supply capacity, so prices tend to rise. The inflation rate is a factor that must beconsidered in the investment process. Inflation is an economic symptom that shows a continuous increase in the general price level (Hasyim, 2016). (Hasyim, 2016).

The second factor is interest rates. According to Pindyck et al. (2005)(2005), interest rates are the price paid by borrowers to lenders. In theory, interest rates and stock prices have a negative relationship. Interest rates that are too high will affect the *present value of* the company's cash flow, so that existing investment opportunities will no longer be attractive. A high interest rate will increase the cost of capital that the company will bear and will also cause the return required by investors from an investment to increase. Then the third factor is the exchange rate. The exchange rate is the amount of currency in a region that will be exchanged for foreign currencies, for example the Indonesian currencywill be exchanged for Singapore dollars.

2. METHODS

The type of research used in this research is quantitative research with a descriptive approach. In this study, sampling was carried out by *purposive sampling*, which is a sampling technique with certain criteria. (Hardani, 2020). The type of data analyzed in this study is secondary data in the form of panel data using the period from January 2020 to December 2022 in four banking companies, namely PT Bank Aladin Syariah (BANK), PT Bank Panin Dubai Syariah Tbk (PNBS), PT BTPN Syariah Tbk (BTPS), and PT Bank Syariah Indonesia Tbk (BRIS) for 36 months (2020-2022), thus obtaining a finalsample of 144 observation data. The data analysis model used to discuss the problems in this study is panel data regression analysis using the help of SPSS 22 software and the sobel test is used to see the indirect effect.

To test the level of significance of each regression coefficient of the independent variable on thedependent variable, the coefficient of determination (R^2) is used to measure how far the model's abilityto explain the variation in the dependent variable. The coefficient of determination is 0 and 1. A value close to 1 means that the independent variables provide almost all the information needed. Furthermore, the F statistical test is to determine whether there is an influence between the independent variables on the dependent variable. If the probability <0.05, then H0 is rejected and H1 is accepted. However, if theprobability > 0.05, then H0 is accepted and H1 is rejected. Then, T test to make a decision whether the hypothesis is proven or not with a significance level ($\alpha = 0.05$). Where if t count> t table, then H1 is accepted and if t count < t table, then H0 is accepted. Furthermore, the Sobel test is carried out with a test tool, namely using the calculation for the sobel test available on the web https://www.danielsoper.com/statcalc/calculator.aspx?id=31 and information is needed by entering the original sample and standard error of each independent variable on the dependent

variable if there is a mediator and without a mediator. If the sobel test statistic> t table with a significant 5%, then the variable can be said to be able to mediate between the independent variable and the dependent variable.

3. RESULTS AND DISCUSSION

After testing between variables with the help of SPSS 22 software, the research results can be seen in the following table with information on Inflation (X_1), Interest Rates (X_2), Exchange Rates (X_3), ROA (Z) and Stock Prices (Y).

Table 1. Test Results of Direct Influence between Variables

Influence between Variables	Coefficient	t-statistic	Probability	Description
$X_1 \rightarrow Z$	-1.154	-2.244	0.027	Significant
$X_2 \rightarrow Z$	4.143	2.454	0.016	Significant
$X_3 \rightarrow Z$	-16.408	-2.555	0.012	Significant
$X_1 \rightarrow Y$	-0.983	-3.167	0.002	Significant
$X_2 \rightarrow Y$	0.246	0.241	0.810	Not Significant
$X_3 \rightarrow Y$	0.345	0.088	0.930	Not Significant
$Z \rightarrow Y$	-0.573	-9.917	0.000	Significant
*) Significance at α = 5% N = 144				

Source: Processed Data, (2024)

Table 2. Test Results of Indirect Influence between Variables

Influence between Variables	t-statistic	Probability	Description
$X_1 \rightarrow Z \rightarrow Y$	2.189	0.028	Significant
$X_2 \rightarrow Z \rightarrow Y$	2.380	0.017	Significant
$X_3 \rightarrow Z \rightarrow Y$	2.473	0.013	Significant

Source: Data processing, (2024)

Based on the R square value of Urbanization (Z) in table 1 of 0.903. meaning that 90% of urbanization variables in Indonesia can be explained simultaneously by poverty, income, education andhealth variables. While the remaining 10% is explained by other variables that are not included in the research model. This is also reinforced by the F test with a probability of 0.000, meaning that the independent variables together can explain urbanization at the 5% level. In observing the estimation results of urbanization, the variable that does not show an insignificant effect is the income variable. While poverty, education and health variables have a significant effect with a significance level of 5 percent.

The R square value of population density (Y) in the processed data is 0.472. This means that 47%of population density variables in Indonesia can be explained simultaneously by the variables of poverty, income, education, health and urbanization. While the remaining 53% is explained by other variables not included in the research model. This is also reinforced by the F test with a probability of 0.000, meaning that the independent variables together can explain the level of population density at the 5 percent level.

The results of data processing in table 1 show that inflation (X_1) has a significant negative effecton ROA with a probability value of 0.027 <0.05. The test results are in accordance with the first hypothesis. The negative coefficient means that inflation and ROA have an unidirectional relationship. The results of this study are in line with Lindayani & Dewi (2016), Ali (2011), and Zarrouk et al. (2016)These findings confirm the Fisher Effect theory developed by Irving Fisher. Irving Fisher stated that in an inflationary environment, prices will tend to rise. If interest rates do not rise with inflation, the real value of debt becomes lower. This can be beneficial for companies with debt, as they can repay the debt with less valuable money. However, this effect is not necessarily positive for all firms. If prices rise faster than interest rates, then the firm may experience a decline in the real value of the firm's assets. Therefore, the effect of inflation on a firm's ROA may vary depending on a number of economic and managerial factors. Then, the direct effect of inflation on stock prices shows a negative and significant effect with a probability value of 0.002 < 0.05. The test results are in accordance with the hypothesis. The results of this study are in line with Efriyenty (2020), Mayasari (2021) and Agustin et al. (2023)which says that inflation has a negative and significant effect on stock prices. This finding indicates that higher inflation will not increase stock prices, this is in accordance with the prospect theory which shows that during the Covid-19 condition inflation has a role in changes in stock prices because high or low inflation rates are a factor in public consumption interest. Therefore, if investors believe that inflation will affect stock prices negatively and tend to choose not to invest in stocks. However, if investors believe that inflation will bring benefits to these companies, they will decide to invest. In this case, investors will consider the impact of inflation on profit prospects and investment risks before making investment decisions in banking companies during the Covid-19 pandemic. As for the indirect effect of inflation on stock prices through ROA based on the results of the sobel test calculation in Table 2 with a probability value of 0.028 <0.05, it can be concluded that inflation has an influence on stock prices through ROA. Thus the tenth hypothesis is rejected. This research is in line with Rera & Suminar (2022) and Adiwinata & Purnawati (2019)According to Rera & Suminar (2022), profitability is the company's ability to generate

profit or profit as measured by ROA. The higher the ROA of a company, the higher the share price, so ROA is able to mediate the effect of inflation on stock prices. According to Fahmi (2013) inflation can increase a company's revenue. The increase in revenue results in the profitability of the company increasing which will also increase the company's share price.

Based on the test results for the interest rate variable (X_2) shows a significant positive effect on ROA with a probability value of 0.016 <0.05, which means that the second hypothesis is accepted. In line with Keynes' theory which states that interest rates are determined by demand and supply determined in the money market. The demand for money according to Keynes is based on the conception that people generally have the desire to remain liquid to fulfill the motives for holding money. If the supply and demand in banking increases, it will be followed by interest rates that also increase so that it affects ROA. The results of this study are in accordance with research from Wulandari & Sipahutar (2021) andYunita (2013) which states that when interest rates rise, it will be followed by an increase in deposit rates which has a direct impact on the decrease in third party funding sources of Islamic banks. This decrease in deposits is a result of the transfer of public funds to conventional banks to get higher interest rewards. If DPK falls, then the profitability of Islamic banks will also decrease. Then, the direct effect of interestrates on stock prices shows a positive and insignificant effect with a probability value of 0.810> 0.05. The test results are not in accordance with the fifth hypothesis. The results of this study are in line with Agustin et al. (2023)which says that interest rates have no effect on stock prices. The results of this study are also supported by previous research Maronrong & Nugrhoho (2019) and Sebo & Nafi (2021). The study suggests that interest rates trigger an increase or decrease in the value of stock prices. If interest rates increase, stock prices can soar or decline. This is also different from the prospect theory, namely if a high interest rate causes the potential return on investment to decrease, then investors will hesitate to buy shares of related companies. The results above show that high interest rates cause stock prices to rise or fall. This causes investors in the Covid-19 condition to invest in the capital market and will be more likely to invest in the money market, because investment in the money market tends to have a clearer and more stable level of risk. Meanwhile, for the indirect effect of interest rates on stock prices through ROA based on the results of the sobel test calculation in Table 2, the probability value is 0.017

<0.05, it can be concluded that interest rates affect stock prices through ROA, meaning that the ninth hypothesis is accepted. This research is in line with Machbubah (2020)which says that when interest rates rise, investors tend to switch from risky investments, such as stocks to safer investments such as bonds or money market instruments. This is because the

higher rate of return from safer investments becomes more attractive. Rising interest rates can also increase the cost of borrowing, reducing a company's net profit and in turn can affect profitability. A company's profitability can act as a mediator in the relationship between interest rates and stock prices. If a company can maintain or increase its profitability despite rising interest rates, then this can stabilize or even increase its share price.

The results of data processing on the exchange rate variable (X_3) show a positive and significanteffect on ROA with a probability value of 0.012 <0.05. Thus the third hypothesis is accepted. This finding is in line with the theory of Pohan (2008) which states that realistic exchange rate management and low enough changes will encourage increased demand for credit for productive businesses so as to increase bank profitability and encourage healthy banking development. Strengthening the value of a country's currency against other countries can signal an appreciation that shows the strengthening of therupiah against the dollar will also increase the profitability of banks, where companies that carry out business development and increase exports will apply for credit to the bank. The income from the loan interest will increase the profitability of the bank. Then, the direct effect of exchange rates on stock prices shows a positive but insignificant effect with a probability of 0.810> 0.05. The test results are not in accordance with the sixth hypothesis. The exchange rate does not play an important role in triggering changes in the prospects used because a rising exchange rate will increase the company's expenses and cause a decrease in stock prices, so investors will consider exchange rate fluctuations in estimating the income and risk of an investment. If they expect risks due to high exchange rate fluctuations, then investors may decide not to buy shares of companies operating in a particular sector. However, if they estimate that exchange rate fluctuations will not affect investment returns, then they can decide to keep buying the company's shares. Meanwhile, the results explain that the high exchange rate causes stock prices to rise or fall. As for the indirect effect of exchange rates on stock prices through ROA based on the results of the sobel test calculation in Table 2 with a profitability value of 0.013 <0.05, it can be concluded that ROA can mediate the relationship between exchange rates and stock prices. Thus the tenth hypothesis is accepted. The results of this study are supported by Machbubah (2020) who said thatROA can mediate the relationship between exchange rates and stock prices. This is reinforced by Tandelilin's theory, which states that if the rupiah exchange rate strengthens against the dollar, it will be a positive signal for an economy experiencing inflation. This can have a positive impact on company profits which will increase stock earnings. Empirically, the rupiah exchange rate has an influence on the capital market in several countries. This finding is also in line with Rera & Suminar (2022)which says that the

exchange rate on stock prices mediated by profitability has a positive and significant effect. Where the strengthening of the currency exchange rate will increase stock prices. The strengthening of the rupiah against the dollar will reduce production costs so that the company will get more profit.

The results of data processing on the ROA variable (Z) show a negative and significant effect on stock prices with a probability value of 0.000 <0.05. Thus the seventh hypothesis is accepted. The results show that the results of this study support the Signalling theory which suggests the signals given by the company through financial reports including ROA to influence investors' decisions in investing. Empirical findings conducted (Arifiani, 2019) said that ROA has an effect on stock prices. ROA in predicting stock prices is very influential because the nature and pattern of ROA carried out by the company is very precise so that there are some assets that work or are used efficiently so that the maximum share price is obtained. In addition, income covers the cost of capital and the shortfall must be covered by some of the income coming from shareholders. If ROA rises, then the willing profit for ordinary shareholders will also increase. (Sari & Trisnawati, 2022).

4. CONCLUSION

Based on the results of the study, the conclusions regarding the Analysis of Stock Price Determinants in Islamic Banks in Indonesia are as follows:

1) Inflation has a direct effect on ROA and stock prices. This finding implies that inflation will have adirect impact on ROA and also have a direct impact on stock prices. and indirectly through ROA affects stock prices. This implies that inflation has an impact on stock prices through ROA.
2) Interest rates directly have no effect on stock prices, this implies that interest rates have no impact on increasing stock prices, but indirectly interest rates have an influence on stock prices through ROA. This implies that interest rates will have an impact on increasing stock prices if through ROA.
3) The exchange rate directly has no effect on stock prices, this is because the exchange rate against the dollar is high and is not followed by an increasing stock price. However, the exchange rate indirectly affects the stock price through ROA, which implies that the exchange rate has an impact on the increase in stock prices if through ROA.

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