

p-ISSN 2722-7782 | e-ISSN 2722-5356

DOI: https://doi.org/

# ANALYSIS OF THE EFFECT OF MACROPRUDENTIAL AND MACROPRUDENTIAL INDICATORS ON THE STOCK PRICE INDEX OF ISLAMIC BANKS IN INDONESIA USING THE ERROR CORRECTION MODEL

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#### Abstract:

The experience of various crises that have occurred, including the impact of the Covid-19 pandemic, presents a challenge to implement macroprudential policies to ensure the financial system survives and continues to carry out its function in driving the economy. The existing macroprudential policies tend to be individual and focus on prudent banking and other financial institutions. Economic fluctuations that occur on the macro side will greatly impact, either directly or indirectly, the stock price index, as well as the company's internal indicators which are considered to have a major influence on the decisions of investors and potential investors to take action on the stock exchange. The type of research used in this research is quantitative research. The nature of this research is descriptive with a quantitative approach. The data collection technique in this research is Literature Study. The test carried out in this study is the multiple linear regression analysis test (multiple linear regression method), this study uses the ECM model to obtain the best model which includes the classical assumption test. The results of this study based on the partial short-term relationship test, it can be concluded that the Exchange Rate, Inflation, and TPF in the short term have no significant effect on the PNBS Stock Price Index. Meanwhile, short-term CAR has a significant positive effect on the PNBS Stock Price Index. Based on the results of the partial long-term relationship test, it can be concluded that in the long term, the Exchange Rate has a significant negative effect and TPF and CAR have a significant positive effect on the PNBS Stock Price Index while Inflation has no significant effect on the PNBS Stock Price Index. Based on the output results of the simultaneous short-term and long-term F test, it shows that all independent variables simultaneously have a significant effect on the PNBS Stock Price Index in the short term. Based on the provisions of the MUI DSN through the issued fatwas related to the Sharia capital market and Sharia shares, it is explained that Sharia stock investment to invest according to the perspective of Sharia economic law is allowed.

<b>Keywords:</b> Macroprudential; Micro-Prudential; Exchange Rate; Inflation; Car; Stock Price Index.					
Article Histo	ory				
Accepted	:				
Revised	:				
Publish	:				

### **INTRODUCTION**

The banking industry is an industry that has a role in the growth and development of the economy in a country and is one of the needs for the community where now people have a lot of needs for financial services both in the form of savings, distribution of funds and the provision of other services (Sari et al., 2020). The direction of development of the Islamic banking and finance industry in Indonesia is certainly strongly influenced by the direction of national economic development. As one of the economic instruments, Islamic financial institutions should be a catalyst for achieving economic targets. So far, economic growth with stable macroeconomic indicators is one of the main focuses of Indonesia's economic development (Darsono & Ali, 2017). As an industry that continues to grow rapidly, of course, the position of the Islamic banking industry in the national banking system will be increasingly important, where the dynamics in it will have a significant effect on the stability of the banking and financial system.

The first Sharia Bank in Indonesia is the result of the work of the MUI banking team, namely with the establishment of PT Bank Muamalat Indonesia (BMI) on November 1, 1991. Sharia banking shows increasing development in line with the issuance of Law No. 10 of 1998 which contains the legal basis and various types of businesses that can be operated and carried out by all Islamic banks in Indonesia (Saebah & Asikin, 2022). In addition, as an initial form of regulation for conventional commercial banks in Indonesia to open branches based on Sharia principles known as Sharia Business Units (UUS) or even carry out a complete conversion into Sharia Commercial Banks (BUS).

The development of Islamic banking in Indonesia that occurred in 2008 was related to the ratification of Law Number 21 of 2008 concerning Sharia Banking which was passed by the House of Representatives (DPR) with government support. The new regulations contained in the Law relate to corporate governance, prudential principles, risk management, settlement in the event of a dispute, fatwa authority, and Islamic banking committee as well as guidance and supervision of Islamic banking.

The performance of Islamic banking can be seen from the increase in the number of Islamic banks and the number of offices that increasingly show their existence in Indonesia, it identifies that public trust in Islamic banking is increasing. Because, the growth of each bank is strongly influenced by the development of bank activities in collecting and distributing public funds, which will then affect the bank's performance which is reflected in increased profits (Nurmalia, 2021).

Based on Sharia Banking Statistics data published by the Financial Services Authority (OJK) in November 2021, the number of Islamic banks in Indonesia is 15 Sharia Commercial Banks (BUS), 20 Sharia Business Units (UUS), and 163 Sharia People's Financing Banks (BPRS) (Keuangan, 2021). Based on the total number of Islamic banks, only 4 Islamic banks are listed on the Indonesia Stock Exchange (IDX) with the calculation of the Indonesian Sharia Stock Index

(ISSI) as Sharia stocks consisting of 4 Sharia Commercial Banks, namely PT Bank Panin Dubai Syariah (PNBS), PT Bank Syariah Indonesia (BRIS), PT Bank Tabungan Pensiunan Nasional Syariah (BTPS) and PT Bank Aladin Syariah (previously named PT. Bank Net Indonesia Sharia).

Table 1
Sharia Commercial Banks in Indonesia

No	Bank Umum Syariah (BUS)
1	PT. Bank Aceh Syariah
2	PT. BPD Nusa Tenggara Barat Syariah
3	PT. Bank Muamalat Indonesia, Tbk
4	PT. Bank Victoria Syariah
5	PT. Bank BRI Syariah
6	PT. Bank Jabar Banten Syariah
7	PT. Bank BNI Syariah
8	PT. Bank Syariah Mandiri
9	PT. Bank Mega Syariah
10	PT. Bank Panin Dubai Syariah, Tbk
11	PT. Bank Syariah Bukopin
12	PT. BCA Syariah
13	PT. Bank Tabungan Pensiunan Nasional Syariah
14	PT. Bank Aladin Syariah
15	PT. Bank Syariah Indonesia, Tbk
	Country CDC OUV Newspark on 2024

Sumber: SPS OJK November 2021

Currently, sharia-based financial instruments have developed in Indonesia, for example, such as Sharia Banks, Sharia Capital Markets, and Sharia Commodity Markets. Indonesia is a large market to develop the Islamic financial industry. Sharia investment in the capital market has a role to develop the market share of the Islamic financial industry in Indonesia (Suciningtias & Khoiroh, 2015).

The Islamic capital market is an alternative investment using Islamic stocks. Sharia shares are investment instruments that state proof of ownership participation in a company following Sharia principles. A high rate of return in stock investment is followed by a large level of risk, so when investing it is necessary to know about the things that affect the occurrence of these risks (Muharrami et al., 2018). Investor decisions in choosing stocks as an investment require information in the form of a recap of stock movement data, namely the stock price index that provides stock price information at a certain time on the exchange.

The development of Sharia stocks in the Indonesian capital market began with the publication of the Jakarta Islamic Index (JII) in July 2000. Jakarta Islamic Index (JII) is a group of shares of publicly listed companies on the Indonesia Stock Exchange (IDX) that meet Sharia criteria. On May 12, 2011, IDX published the Indonesia Sharia Stock Index (ISSI) (Rachmawati & Laila, 2015). Unlike JII, whose members are only 30 liquid Sharia stocks, ISSI is a Sharia stock index consisting of all Sharia stocks that were previously listed on the JCI joining other non-sharia stocks and joining the Sharia Securities List (DES) (Ardana, 2016).

Some important factors that can affect the Sharia index are macroeconomic and monetary variables such as Bank Indonesia Sharia Certificates, Inflation, Money Supply, Exchange Rate, and others. While internal factors that can influence are such as national economic conditions, security, political conditions, government policies, and others (Chotib & Huda, 2019). One of the factors considered by investors in choosing a company to invest funds in is the performance or health of a company. The better the performance of a company, the higher its operating profit and the more benefits that can be enjoyed by shareholders, the company will be trusted by the public because it has a good reputation and in the end can increase stock prices. With a high business value, investors look at the company to invest so that there will be an increase in stock prices. Even if stocks of companies that perform well, their prices can go down. One such phenomenon occurs in the banking sector (Setyawan & Mawardi, 2012).

Banking stocks are the most popular stocks. It was even rumored to outperform the growth of the Composite Stock Price Index. The banking sector has an important role in mediating the economy between those who have excess funds and those who need funds. For such interests, banks with sound financial management system performance are needed. The existence of a banking health assessment will be able to assist interested parties in making decisions (Pudja Alifah, 2017).

The global financial crisis event is a sign that price stability policies do not guarantee macroeconomic stability and financial crisis. Financial crises can occur due to four main factors, namely vulnerability in the financial sector, unprudent macroeconomic policies, poor government and corporate institutional governance, and large capital flow volatility. Existing macroprudential policies tend to be individual and focus on prudence in the banking industry, as well as other financial institutions, and are not related to market risk (Eichengreen, 2004).

### **METHOD**

The type of research used in this study is quantitative research. Quantitative research is research that emphasizes its analysis of numerical/numerical data. This study also explains descriptively, which aims to describe the subject and object of research based on the data concerned (Azwar, 2014). The nature of this research is descriptive with a quantitative approach. Quantitative descriptive research is research that aims to describe the data collected to solve research problems (Nurhayati, 2012).

The population contained in this study is Sharia Commercial Banks (BUS) in Indonesia which have a stock price index on the Indonesia Stock Exchange (IDX). The sampling technique used in this study uses purposive sampling techniques, Purposive sampling is a sampling technique with certain considerations. The reason for using this purposive sampling technique is because it is suitable for quantitative research, or studies that do not generalize (Sugiyono, 2013). The sample used in this study is Bank Panin Dubai Syariah is the first Islamic bank to list

on the stock market (Indonesia Stock Exchange) and the research period contained in this study starts from 2017-2021, based on this only Bank Panin Dubai Syariah is included in this research period.

The data collection technique used in this study is a Literature Study which means this research collects data and theories relevant to the problem to be researched by conducting a literature study of literature and other library materials such as articles, journals, books, official websites, and previous research (Vivin & Wahono, 2017). The data collection technique used in this study is by collecting data on financial ratios contained in PNBS's quarterly financial statements that have been published on PNBS's official website. In addition, data on the PNBS stock price index report was obtained from the official website of the Indonesia Stock Exchange. As well as data related to macroprudential indicators in this study was obtained from Bank Indonesia publication reports.

The data source in this study uses secondary data sources in the form of PNBS company's quarterly financial statements for the 2017-2021 period obtained from the official website of Bank Panin Dubai Syariah, inflation data obtained from the official website of the Central Statistics Agency, and exchange rates obtained from the official website of Bank Indonesia. Secondary data is data that has been collected by data collection institutions and published to the data user community (Kuncoro, 2001). Regression analysis needs to be carried out several requirements tests, it aims to find out whether there are deviations or disturbances to the variables contained in this study (Subando, 2021).

Four stages of testing must be carried out, including, First, Data Stasionecity Test, namely the Unit Root Test, Stationary data test methods have developed rapidly along with the attention of econometricians to time series econometrics. In testing whether the data contains root unit root units or not. If the results of the Dickey-Fuller Augmented test state that the probability value > 0.05 then the data is not stationary and HI is rejected and if the probability value < 0.05 then the stationary and HI data are accepted (Lumonang et al., 2018). Second, the Cointegration Test can be interpreted The cointegration test is used to give an early indication that the model used has a long-term relationship (cointegration relation). The results of the cointegration test are obtained by forming residuals obtained by progressing from the independent variable to the dependent variable in OLS. The residual must be stationary at the level to be said to have cointegration (Romanda, 2020).

Third, the Short-Term and Long-Term Models are Short-term ECM tests used to see if all independent variables individually have a short-term effect on the dependent variable. The long-term ECM test is used to see if all independent variables individually have a long-term effect on the dependent variable (Umatin, 2021). Fourth, the Classical Assumption Test is carried out to provide certainty that the regression equation obtained has accuracy in estimation, is unbiased and consistent Ghozali (2016), The classical assumption tests carried out

in this study are Normality Test, Autocorrelation Test, Multicollinearity Test, and Heteroscedasticity Test.

Hypothesis testing is a procedure that will result in a decision to accept or reject a hypothesis. Hypothesis testing is carried out to determine the effect of the independent variable on the dependent variable. Test the hypothesis conducted in this study, namely (Farida, 2021): (a) Statistical test t (partial). (b) Simultaneous Significance Test (Statistical Test F) The data analysis method used in this study is time series analysis with the Error Correction Model (ECM). Time series analysis is an analysis carried out based on data or observations that are time-oriented or chronological to the variables to be observed (Farida, 2021). Such analysis is especially useful for research data whose changes are influenced by time or previous observations. In its development, Time Series analysis is widely used in several fields, namely economics, finance, transportation and so on (Prasetya et al., 2020). The error Correction Model is a form of the model used to determine the short-term and long-term effect of independent variables on dependent variables. Error Correction Model (ECM) is a model used to correct regression equations among variables that are not individually stationary to return to their equilibrium values in the long run. In addition to being able to determine the influence of economic models in the short and long term, ECM models also have uses including overcoming non-stationary data and direct regression problems (Setiadi, 2013).

The use of ECM models in spurious regression problems can be overcome through the use of appropriate difference variables in the model. But without eliminating long-term information due to the use of different data only, because ECM also includes level variables. A valid ECM model indicates a cointegration (long-term relationship) between variables, the model specification is correct, the theory is correct, and there is a causality relationship (at least a one-way relationship in which the independent variable significantly affects the dependent variable) (Domowitz & Elbadawi, 1987). Error Correction Mechanism is a technique used to correct short-term balance to long-term equilibrium, introduced by Sargan and popularized by Engle and Granger. To use the ECM model there must be a cointegration relationship between variables. After that, the ECM model is formed using residuals from its long-term equation or cointegrated equation (Hodijah & Angelina, 2021).

### **RESULTS AND DISCUSSION**

Table 1					
Descriptive Statistical Test					
Value	LN_Y	LN_X1	X2	LN_X3	<u>X4</u>
Mean	4,297500	9,564000	2,695000	15,84050	21,42300
Median	4,245000	9,565000	2,920000	15,87000	18,25500
Maximum	5,030000	9,700000	4,370000	16,00000	31,43000
Minimum	3,910000	9,500000	1,330000	15,61000	11,51000
Std. Dev.	0,351626	0,046043	0,919631	0,109999	6,605371

Based on data processing through descriptive statistical tests, it can be concluded that:

# a. X1 (Exchange Rate – Macroprudential Indicator)

Based on the statistical tests that have been carried out, the variable X1 which is one of the macroprudential indicators, namely the Exchange Rate (exchange rate) shows a minimum value of 9.500000 and a maximum of 9.700000 with a standard deviation of 0.046043 while the average value (mean) is 9.564000.

# b. X2 (Inflation – Macroprudential Indicator)

Based on the statistical test that has been carried out, the variable X2 which is one of the macroprudential indicators, namely Inflation shows a minimum value of 1.330000 and a maximum of 4.370000 with a standard deviation of 0.919631 while the average value (mean) is 2.695000.

### c. X3 (Third Party Funds – Macroprudential Indicators)

Based on the statistical test that has been carried out, the variable X3 which is one of the macroprudential indicators, namely Third Party Funds (DPK) shows a minimum value of 15.61000 and a maximum of 16.00000 with a standard deviation of 0.109999 while the average value (mean) is 15.84050.

### d. X4 (Capital Adequacy Ratio – Microprudential Indicator)

Based on the statistical test that has been carried out, the variable X4 which is one of the macroprudential indicators, namely the Capital Adequacy Ratio (CAR) shows a minimum value of 11.51000 and a maximum of 31.43000 with a standard deviation of 6.605371 while the average value (mean) is 21.42300.

Table 2
Data Stasionecity Test (Root Test) Independent and Dependent Variables

	• •	•	-
Var	ADF test statistic scores	Probability	Information
X1	-3,337607	0,0274	Stationary
X2	-1,175367	0,6624	Non-stationary
Х3	-1,762594	0,3861	Non-stationary
X4	-1,919115	0,3171	Non-stationary
Y	-2,223731	0,2049	Non-stationary
	X1 X2 X3	X1         -3,337607           X2         -1,175367           X3         -1,762594           X4         -1,919115	Var         scores         Probability           X1         -3,337607         0,0274           X2         -1,175367         0,6624           X3         -1,762594         0,3861           X4         -1,919115         0,3171

Based on the conclusions in the table above, it can be interpreted that there is only one variable that is proven to be stationary, namely the variable X1 (Exchange Rate) while several others, such as variables X2 (Inflation), X3 (Third Party Funds), X4 (Capital Adequacy Ratio) and Y (Stock Price Index) are not stationary in the level stationary test, it is proven that the probability value of ADF is greater than the level of  $\alpha$  0.05. Based on this, further testing is needed at the First Difference level. The results of the Augmented Dickey-Fuller (ADF) stationary test at the First Difference level are presented in the Table as follows:

Table 3

Data Stasionecity Test (Root Test) First Difference Independent and Dependent Variables

Variable	ADF test statistic scores	Probability	Information
X1	-3,337607	0,0274	Stationary
X2	-6,048389	0,0001	Stationary
Х3	-5,238641	0.0006	Stationary
X4	-4,574136	0,0023	Stationary
Υ	-5,861317	0,0002	Stationary

Based on the table above, it can be seen that the probability value of all variables is smaller than the level of  $\alpha$  0.05. So it can be interpreted that the ADF test at the First Difference level on all independent and dependent variables proved stationary.

Table 4
Cointegration Test

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4,938283	0,0010
Test cri	tical		
values:	1% level	-3,831511	
	5% level	-3,029970	
	10% level	-2,655194	

Based on the results of the output above shows a probability level of 0.0010. Because the probability level < 0.05, the residual value is stationary. So it can be concluded that there is a cointegration or long-term relationship between exchange rate variables, inflation, third-party funds, and capital adequacy ratio to the PNBS stock price index.

- A. The effect of variables included in macroprudential and macroprudential indicators on the PNBS Stock Price Index partially
- 1. The Effect of Macroprudential Indicators (Exchange Rates) on the PNBS Stock Price Index
- a. Short Term Relationships

Based on the results of tests that have been carried out using Eviews 10 software, it is stated that in the short term, one of the macroprudential indicators, namely the Exchange Rate (Exchange Rate), does not have a significant effect on the PNBS Stock Price Index. Based on the results of the short-term relationship test partially shows that the Coefficient value is -2.312824, then the independent variable, namely one of the macroprudential indicators (Exchange Rate) obtains a probability value of 0.0659 > 0.05. So it can be concluded that the hypothetical result of H0 is accepted. Thus, one of the macroprudential indicators, namely the Exchange Rate (Exchange Rate) in the short term, does not have a significant effect on the PNBS Stock Price Index. Based on this, if the Rupiah exchange rate depreciates (weakens), the company's profit level will also be considered to decrease which results in a decrease in the

stock price level, and vice versa if there is an appreciation (currency strengthening) (Saputri, 2020). The results of this study are supported by previous research conducted by Oktoviana (2020) which stated that in the short and long term, the Exchange Rate (Exchange Rate) does not significantly affect the Stock Price Index. However, this study does not support previous research conducted by Sani (2018) showing that the Exchange Rate (Exchange Rate) has a significant effect on the PNBS Stock Price Index.

### b. Long Term Relationship

Based on the results of tests that have been carried out using Eviews 10 software, it is stated that in the long term, the variable Exchange Rate (Exchange Rate) has a significant negative influence on the PNBS Stock Price Index. Based on the results of the long-term relationship test partially shows that the Coefficient value is -3.248526, then the independent variable, namely one of the macroprudential indicators (Exchange Rate) obtains a probability value of 0.0297 < 0.05. Based on this, it shows the results of the hypothesis, namely HI is accepted. Thus, one of the macroprudential indicators, namely the Exchange Rate (Exchange Rate), in the long term has a significant negative effect on the PNBS Stock Price Index.

The test results that have been carried out show that the increase in the value of the Rupiah against the Dollar indicates an improvement in the economic situation in Indonesia, on the other hand, if the value of the Rupiah against the Dollar decreases it indicates the weakening of the Rupiah currency. A high exchange rate of the Rupiah against the Dollar will result in a decrease in the cost of raw materials and equipment needed by the company so production costs will also decrease. The decline will increase profits obtained by the company.

The increase in the Rupiah exchange rate against the Dollar will be a signal for investors with the strengthening of the Rupiah value expected to provide investor benefits for their investments in the future. The existence of an increased market reaction will be indicated by an increase in the stock price index in the stock exchange (Puspitasari & Andayani, 2018). The results of this study are supported by previous research conducted by Sani (2018) showing that the Exchange Rate (Exchange Rate) has a significant negative effect on the PNBS Stock Price Index. However, this study does not support previous research conducted by Oktoviana (2020) which stated that in the short and long term, the Exchange Rate (Exchange Rate) does not significantly affect the Stock Price Index.

### B. The Effect of Macroprudential Indicators (Inflation) on the PNBS Stock Price Index

### a. Short Term Relationships

Based on the results of testing that have been carried out using Eviews 10 software, it is stated that in the short term, one of the macroprudential indicators, namely inflation, does not have a significant effect on the PNBS Stock Price Index. Based on the results of the short-term relationship test partially shows that the Coefficient value is -2.312824, then the independent

variable, namely one of the macroprudential indicators (Inflation) obtains a probability value of 0.2541 > 0.05. Based on this, it shows the results of the hypothesis, namely H0 is accepted. Thus, one of the macroprudential indicators, namely short-term inflation, does not have a significant effect on the PNBS Stock Price Index. However, the results of this study are different from the theory that states that inflation has a negative relationship with stock prices. This is reflected if the inflation rate is high, investors tend to invest their funds in other instruments that can provide higher returns, so in theory, the stock price of an entity will tend to fall (Saputri, 2020). The results of this study are supported by previous research conducted by Sani (2018) and Oktoviana (2020) showing that inflation has no significant effect on the PNBS Stock Price Index. However, this study does not support previous research conducted by Deviana (2018) which stated that inflation has a significant positive effect on the Stock Price Index.

### b. Long Term Relationships

Based on the results of testing that have been carried out using Eviews 10 software, it is stated that even in the long run, one of the macroprudential indicators, namely inflation, does not have a significant effect on the PNBS Stock Price Index. Based on the results of the short-term relationship test partially shows that the Coefficient value is 0.193322, then the independent variable, namely one of the macroprudential indicators (Inflation) obtains a probability value of 0.0612 > 0.05. Based on this, it shows the results of the hypothesis, namely H0 is accepted. Thus, one of the macroprudential indicators, namely long-term inflation, does not have a significant effect on the PNBS Stock Price Index.

The results of this study are different from the theory that has been described before, that inflation is an important factor in investors' consideration of investing in the stock market. High inflation in a country will make the price of goods and services will also increase, and economic actors will tend to hold back the consumption of these goods and services. For companies, the high inflation rate will be followed by increased company operating costs, if the increase is not followed by an increase in revenue results it will cause stock prices to fall and be reflected by low market reaction and stock price index in the market will be sluggish (bearish) (Puspitasari & Andayani, 2018).

The results of this study are supported by previous research conducted by Sani (2018) and Oktoviana (2020) showing that inflation has no significant effect on the PNBS Stock Price Index. However, this study does not support previous research conducted by Deviana (2018) which stated that inflation has a significant positive effect on the Stock Price Index.

# C. The Effect of Macroprudential Indicators (Third Party Funds) on the PNBS Stock Price Index

### a. Short Term Relationships

Based on the results of tests that have been conducted using Eviews 10 software, it is stated that in the short term, one of the macroprudential indicators, namely Third Party Funds, does not have a significant effect on the PNBS Stock Price Index. Based on the results of the short-term relationship test partially showed that the Coefficient value was 0.931062, then the independent variable, namely one of the macroprudential indicators (Third Party Funds) obtained a probability value of 0.2171 > 0.05. Based on this, it shows the results of the hypothesis, namely H0 is accepted. Thus, one of the macroprudential indicators, namely Third Party Funds, in the short term does not have a significant effect on the PNBS Stock Price Index. The results of this study are supported by previous research conducted by Oktoviana (2020) showing that in the short term third-party funds do not have a significant effect on the PNBS Stock Price Index.

### b. Long Term Relationships

Based on the results of tests that have been conducted using Eviews 10 software, it is stated that in the long run, one of the macroprudential indicators, namely Third Party Funds, has a significant positive influence on the PNBS Stock Price Index. Based on the results of the short-term relationship test partially showed that the Coefficient value was 1.476767, then the independent variable, namely one of the macroprudential indicators (Third Party Funds) obtained a probability value of 0.0347 < 0.05. Based on this, it shows the results of the hypothesis, namely HI is accepted.

Thus, one of the macroprudential indicators, namely Third Party Funds, in the long term has a significant positive effect on the PNBS Stock Price Index. Based on the results of this study, it supports the previous theory which states that every increase in deposits has a positive correlation with the increase in a company's stock price. As one of the important components in banking financial statements, deposit growth, and increase can indicate that a banking entity has a positive level of health. The results of this study are supported by previous research conducted by Oktoviana (2020) showing that in the long term, third-party funds have a significant positive effect on the PNBS Stock Price Index.

### D. The Effect of Macroprudential Indicators (CAR) on the PNBS Stock Price Index

# a. Short Term Relationships

Based on the results of tests that have been conducted using Eviews 10 software, it is stated that in the short term, one of the macroprudential indicators, namely the Capital Adequacy Ratio, has a significant positive influence on the PNBS Stock Price Index. Based on the results of the short-term relationship test partially shows that the Coefficient value is 0.035346,

then the independent variable, namely one of the macroprudential indicators (Capital Adequacy Ratio) obtains a probability value of 0.0062 < 0.05. Based on this, it shows the results of the hypothesis, namely HI is accepted. Thus, one of the macroprudential indicators, namely the Capital Adequacy Ratio, in the short term has a significant positive effect on the PNBS Stock Price Index. Capital Adequacy Ratio (CAR) or capital is one of the factors that affect the level of a company's stock price. The greater the CAR, the greater the bank's profit, or the smaller the risk of a bank, the greater the profit obtained by the bank. This will certainly be able to attract investors to invest their capital (Yuliani, 2007).

# b. Long Term Relationships

Based on the results of tests that have been conducted using Eviews 10 software, it is stated that in the long run, one of the macroprudential indicators, namely the Capital Adequacy Ratio, also has a significant positive influence on the PNBS Stock Price Index. Based on the results of the short-term relationship test partially shows that the Coefficient value is 0.047903, then the independent variable, namely one of the macroprudential indicators (Capital Adequacy Ratio) obtains a probability value of 0.0011 < 0.05. Based on this, it shows the results of the hypothesis, namely HI is accepted. Thus, one of the macroprudential indicators, namely the Capital Adequacy Ratio, in the long term has a significant positive effect on the PNBS Stock Price Index.

# E. The effect of all independent variables included in macroprudential and macroprudential indicators on the PNBS Stock Price Index simultaneously

# a. Short Term Relationships

Based on the acquisition of output results on simultaneous F tests in the short term, it can be seen that the acquisition of F-statistic probability values is 0.018233 < 0.05 so it can be concluded that H0 is rejected and HI is accepted. This shows that the variables Exchange Rate, Inflation, Third Party Funds, and Capital Adequacy Ratio together (simultaneously) have a significant influence on the PNBS Stock Price Index in the short term so that regression models can be used to predict the dependent variable. In addition, the results of the coefficient of determination test obtained an R2 value of 0.464924, it shows that the percentage of contribution of the influence of the independent variable to the dependent variable is 46.64%, which can be interpreted that the independent variable derived from macroprudential and macroprudential indicators in the short term can explain 46.64% of the dependent variable. The remaining 53.36% was influenced by other factors outside the regression model.

### b. Long Term Relationships

Based on the acquisition of output results on the simultaneous F test in the long term, it can be seen that the acquisition of the F-statistic probability value is 0.002911 < 0.05 so it can

be concluded that H0 is rejected and HI is accepted. This shows that the variables Exchange Rate, Inflation, Third Party Funds, and Capital Adequacy Ratio together (simultaneously) have a significant influence on the PNBS Stock Price Index in the long run so that regression models can be used to predict the dependent variable.

In addition, the results of the coefficient of determination test obtained an R2 value of 0.539749, it shows that the percentage of contribution of the influence of the independent variable to the dependent variable is 53.97%, which can be interpreted that the independent variable derived from macroprudential and macroprudential indicators, in the long run, can explain 53.97% of the dependent variable. The remaining 46.03% was influenced by other factors outside the regression model.

#### **CONCLUSION**

Based on the results of the research that has been conducted, it can be concluded that: (a) Based on the results of the short-term relationship test partially, it can be concluded that macroprudential indicators, namely the Exchange Rate (Exchange Rate) and Inflation in the short term do not have a significant effect on the PNBS Stock Price Index. Furthermore, macroprudential indicators, namely deposits in the short term, do not have a significant effect on the PNBS Stock Price Index, while CAR in the short term has a significant positive effect on the PNBS Stock Price Index. Based on the results of the partial long-term relationship test, it can be concluded that in the long run, macroprudential indicators, namely the Exchange Rate, have a significant negative effect on the PNBS Stock Price Index, while long-term inflation does not have a significant effect on the PNBS Stock Price Index.

Furthermore, macroprudential indicators, namely DPK and CAR, in the long term have a significant positive effect on the PNBS Stock Price Index. (b) Based on the results of the output on the simultaneous F test in the short term shows that the variables Exchange Rate, Inflation, DPK, and CAR together (simultaneously) have a significant influence on the PNBS Stock Price Index in the short term so that regression models can be used to predict the dependent variable.

Furthermore, based on the results of the output on the long-term simultaneous F test shows that the variables Exchange Rate, Inflation, DPK, and CAR together (simultaneously) have a significant influence on the PNBS Stock Price Index in the long run so that regression models can be used to predict the dependent variable. (c) Based on the provisions of the National Sharia Council of the Indonesian Ulema Council (DSN MUI) through fatwas issued related to the Sharia capital market and Sharia stocks, it is explained that investment in Sharia stocks to invest according to the perspective of sharia economic law is permissible.

### **BIBLIOGRAPHY**

- Ardana, Y. (2016). Pengaruh variabel makroekonomi terhadap indeks saham Syariah di Indonesia: model ECM. *Esensi: Jurnal Bisnis Dan Manajemen, 6*(1), 17–30. https://doi.org/10.15408/ess.v6i1.3118
- Saebah, Nur, & Asikin, Muhamad Zaenal. (2022). Efektivitas Pengembangan Digital Bisnis pada Gen-Z dengan Model Bisnis Canvas. *Jurnal Syntax Transformation*, 3(11), 1534–1540.
  - Azwar, S. (2014). Metode Penelitian, Yogyakarta: Pustaka Pelajar, 2012. *Reliabilitas Dan Validitas Edisi*, 4.
  - Chotib, E., & Huda, N. (2019). Analisis Pengaruh Variabel Ekonomi Makro terhadap Indeks Saham Syariah Indonesia (ISSI) periode 2016-2019. *JEBA (Journal of Economics and Business Aseanomics)*, 4(1), 1–22. https://doi.org/10.33476/j.e.b.a.v4i1.1235
  - Darsono, D. K. K., & Ali, A. D. K. K. (2017). Perbankan Syariah di Indonesia. *Jakarta: PT Raja Grafindo Persada*.
  - Domowitz, I., & Elbadawi, I. (1987). An error-correction approach to money demand: the case of Sudan. *Journal of Development Economics*, 26(2), 257–275. https://doi.org/10.1016/0304-3878(87)90029-0>
  - Eichengreen, B. J. (2004). Capital flows and crises. MIT press.
  - Farida, S. H. N. (2021). Pengaruh Pajak, Exchange Rate, Kualitas Audit, Mekanisme Bonus (Bonus Plan), Dan Tunneling Incentive Terhadap Transfer Pricing Pada Perusahaan Sektor Pertambangan Di Bursa Efek Indonesia Tahun 2015-2019. UNIVERSITAS ISLAM NEGERI SULTAN SYARIF KASIM RIAU.
  - Ghozali, I. (2016). Aplikasi Analisis multivariete dengan program IBM SPSS 23 (Edisi 8). *Cetakan Ke VIII. Semarang: Badan Penerbit Universitas Diponegoro*, 96.
  - Hodijah, S., & Angelina, G. P. (2021). Analisis pengaruh ekspor dan impor terhadap pertumbuhan ekonomi di Indonesia. *Jurnal Manajemen Terapan Dan Keuangan*, 10(01), 53–62.
  - Keuangan, O. J. (2021). Statistik Perbankan Syariah November 2021. Jakarta: OJK.
  - Kuncoro, M. (2001). Metode kuantitatif: Teori dan aplikasi untuk bisnis dan ekonomi. *Yogyakarta: UPP-AMP YKPN*.
  - Lumonang, D. A., Masinambow, V. A. J., & Mandeij, D. (2018). Pengaruh Pertumbuhan Produk Domestik Bruto Dan Pertumbuhan Tingkat Bungan Terhadap Pertumbuhan Jumlah

Tabungan Di Indonesia Periode 2009.1-2017.4. Jurnal Berkala Ilmiah Efisiensi, 18(2).

- Analysis of the Effect of Macroprudential and Macroprudential Indicators on the Stock Price Index of Islamic Banks in Indonesia Using the Error Correction Model
- Muharrami, R. S., Zahidah, S., & Yoga, I. (2018). Pergerakan Harga Saham Syariah Pada Saham Bank Syariah Di lihat Dari Faktor Makroekonomi. *BISNIS: Jurnal Bisnis Dan Manajemen Islam*, *5*(1), 175–190.
- Nurhayati, S. (2012). Metodologi penelitian praktis. *Pekalongan: Fakultas Ekonomi Universitas Pekalongan*.
- Nurmalia, G. (2021). Green Banking Dan Rasio Kecukupan Modal Mempengaruhi Pertumbuhan Laba Bank Umum Syariah Di Indonesia. *Fidusia: Jurnal Keuangan Dan Perbankan, 4*(2).
- Prasetya, B. D., Pamungkas, F. S., & Kharisudin, I. (2020). Pemodelan dan Peramalan Data Saham dengan Analisis Time Series menggunakan Python. *PRISMA, Prosiding Seminar Nasional Matematika*, *3*, 714–718.
- Pudja Alifah, F. (2017). Pengaruh Return On Asset (Roa), Net Interest Margin (Nim), Dan Capital Adequacy Ratio (Car) Terhadap Harga Saham Perbankan Syariah Di Indonesia Periode 2012-2015. Universitas Muhammadiyah Surakarta.
- Puspitasari, D., & Andayani, A. (2018). Pengaruh Variabel Makro dan Karakteristik Perusahaan Terhadap Indeks Harga Saham di Jakarta Islamic Index. *Jurnal Ilmu Dan Riset Akuntansi (JIRA)*, 7(5).
- Rachmawati, M., & Laila, N. (2015). Faktor Makro Ekonomi yang mempengaruhi pergerakan harga saham pada indeks saham Syariah Indonesia (ISSI) di Bursa Efek Indonesia (BEI). Jurnal Ekonomi Syariah Teori Dan Terapan, 2(11). https://doi.org/10.20473/vol2iss201511
- Romanda, R. (2020). Analisis Faktor-Faktor yang Mempengaruhi Inflasi di Indonesia Tahun 2015-2019 dengan Pendekatan Error Corection Model (ECM). *Jurnal Akuntansi Dan Ekonomika*, 10(1), 119–128.
- Saputri, O. B. (2020). Pengaruh Makroprudensial Dan Mikroprudensial Terhadap Harga Saham. *EL DINAR: Jurnal Keuangan Dan Perbankan Syariah*, 8(2), 130–146.
- Sari, P. M., Bahrudin, M., & Nurmalia, G. (2020). Studi komparatif analisis efisiensi kinerja perbankan syariah di indonesia antara metode data envelopment analysis (dea) dan stochastic frontier analysis (sfa). *Fidusia: Jurnal Keuangan Dan Perbankan*, 3(1).
- Setiadi, I. O. (2013). Analisis Faktor-Faktor Yang Mempengaruhi Permintaan Uang Di Indonesia Tahun 1999: Q1-2010: Q4 Dengan Pendekatan Error Corection Models (Ecm). *Economics Development Analysis Journal*, 2(1).
- Setyawan, A. W. P., & Mawardi, W. (2012). Pengaruh Komponen Risk Based Bank Rating Terhadap Harga Saham Perusahaan Perbankan Yang Go Public Di Bursa Efek Indonesia (Bei) Tahun 2008-2011. Fakultas Ekonomika dan Bisnis.

- Subando, J. (2021). *Teknik Analisis Data Kuantitatif Teori dan Aplikasi dengan SPSS*. Penerbit Lakeisha.
- Suciningtias, S. A., & Khoiroh, R. (2015). Analisis dampak variabel makro ekonomi terhadap indeks saham syariah indonesia (ISSI). *Conference In Business, Accounting, And Management (CBAM)*, 2(1), 398–412.
- Sugiyono, D. (2013). Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D.
- Umatin, L. Q. (2021). Pengaruh Capital Adequacy Ratio (CAR) dan Beban Operasional Terhadap Pendapatan Operasional (BOPO) Terhadap Profitabilitas pada PT Bank Syariah Bukopin Periode Tahun 2013-2020. IAIN Ponorogo.
- Vivin, Y. A., & Wahono, B. (2017). Analisis perbandingan kinerja keuangan bank umum syariah dengan bank umum konvensional di Indonesia. *E-JRM: Elektronik Jurnal Riset Manajemen*, 6(08).
- Yuliani, Y. (2007). Hubungan efisiensi operasional dengan kinerja profitabilitas pada sektor perbankan yang go publik di Bursa Efek Jakarta. *Jurnal Manajemen Dan Bisnis Sriwijaya*, 5(10), 13–41.

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**Jurnal Syntax Admiration** 

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