

THE EFFECT OF PBV, DER AND CR ON SHARE PRICE OF STATE-OWNED BANKS

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Abstract – *The purpose of this study is to analyze the effect of Price to Book Value, Debt To Equity Ratio (DER) and Cash Ratio on Share Prices of State-Owned Banks. Using quantitative research, from 4 state-owned banks, quarterly data, for 2 years, namely 2022 – 2023, through financial statements on the OJK website. Using multiple linear regression analysis, with the program Eviews 10. PBV (X1) variables have a partial positive effect on Stock Price (Y) while DER (X2) and cash ratio (X3) variables partially do not have a significant effect on Stock Price (Y). From the results of the F test Simultaneously the Stock Price is influenced jointly (simultaneously) and significantly by the variables PBV, DER and Cash Ratio. The results of statistical calculations show the value of $F_{calculate} > F_{table}$, which is $4.420149 > 3.340$ and significance of $0.03536 < 0.05$. The calculation of the coefficient of determination (adjusted R^2) obtained is 0.8343. This means that 83.43% of the share price of state-owned banks for the 2022-2023 period, while the remaining 16.57% is influenced by other variables that were not studied in this study.*

Keywords: PBV, DER, CR, Stock price

I. INTRODUCTION

Seeing the development of the business world in Indonesia, the capital market is one of the sectors that provides considerable profits. Investment in stocks is an investment that is in great demand by investors. Banking sector, one of the important sectors in building the economy. The Bank as an organizing institution and provider of financial services and payment traffic, functions as a financial intermediary institution that distributes funds from parties who have excess funds to those who need funds. Based on Law No. 7 of 1992, affirmed in Law No. 10 of 1998 in terms of its function, banks are divided into 3 types, namely Central Banks, Commercial Banks and Rural Banks. Before deciding to invest their capital, investors will look at financial performance, through financial statements. Financial statements can influence investor decisions in the money market, in an effort to find investment opportunities in the capital market, by paying attention to stock prices. Stock price uncertainty is a problem that needs to be analyzed before investing, so as not to lose money (Abdul Aziz Junaedi et al., 2021). Investors are interested in investing in stocks, because they are promising with high returns (A. Rahman et al., 2022). Price to Book Value (PBV) is a value used in comparing stock prices versus shares of the same business group and business nature. According to (M. Irfan and F. Charisma, 2020) and (Siti S. Alya, 2022) PBV affects stock prices, while according to (Reni et. Al., 2020) there is no influence of PBV on stock prices. Debt to Equity Ratio (DER) is used as a measure of the amount of collateral available in the ability to pay long-term obligations, if the ratio is low, the better the company's ability to pay long-term obligations. According to (Lestari and Suryantini, 2019) DER has no effect on Share Price, while (Setiawan & Sumantri, 2020) and (Rahmawati et al., 2022) DER has no effect on stock price. Current ratio is a ratio to measure a company's ability to pay off its short-term obligations, how far the amount of current assets is to pay its current debt. According to (Karnawati & Wahyuningsih, 2023) and (Falah

& Hapsari, 2023) CR has no effect on stock price, while (Setiawan & Sumantri, 2020) and (Rahmawati et al., 2022) DER has no effect on Share Price. From the explanation above, this study wants to see the effect of Price to Book Value (PBV), Debt to Equity Ratio (DER) and Current Ratio (CR) on stock prices at state-owned banks for the 2022-2023 period.

II. METHODS

Population

The population in this study is state-owned banks, namely Bank Mandiri (BMRI), Bank Tabungan Negara (BBTN), Bank Negara Indonesia (BBNI), and Bank Rakyat Indonesia (BBRI). The unit of analysis in this study is the share price of state-owned bank companies and has complete financial statements listed on the Indonesia Stock Exchange (IDX) for the period 2022 – 2023. Data obtained from OJK and IDX websites. The sample used was 32, starting from quarter 1 of 2022 to quarter 4 of 2023 from the financial statements of state-owned banks. The data used is combined data or a combination of cross section and time series called panel data, (Basuki, 2016). Data processing uses Eviews 10 and excel to explain the relationship between the independent variable and the dependent variable. The Dependent (Y) variable used is the quarterly closing price from 2022 to 2023 of each state-owned bank issuer listed on the Indonesia Stock Exchange. The Free Variables in this study are Debt to Equity Ratio, Price Book Value, and Current Ratio

Determination of Estimation Models

Before regressing panel data, the right model test is first carried out on each equation, namely the Chow test, Hausman test and Lagrange Multiplier test. Test the Chow test to determine whether the correct model is t Common Effect Model or Fixed Effect Model. Test criteria : If the probability of chi-square > 0.05 then the proper model is the Common Effect Model. If the probability of chi-square < 0.05 then the proper model is the Fixed Effect Model.

Data Regression Analysis

Multicollinearity Test

Panel The value of the correlation coefficient is Pair Wise Correlation, provided that if the value of the coefficient > 0.80 then the result of the model has multicollinearity, on the contrary < 0.80 then the model is free from multicollinearity problems (Ratmono, 2013).

Heteroscedasticity Test

The heteroscedasticity test in this study uses a glacier test with the assumption of: Significance value > 0.05: no symptoms of heteroscedasticity Significance value < 0.05: heteroscedasticity symptoms occur

Panel Data Regression Analysis

Panel data regression analysis consists of three models, namely Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The common effect model assumes that the intercept of each variable is the same.

T Test

To find out whether the independent variable has a significant effect on the dependent variable, partially. This test is carried out to further examine which independent variable has a significant effect on the dependent variable. T test decision making can be based on looking at the significance value, i.e. the significant value of $t < \alpha$ (5%), then H_0 is rejected and vice versa.

Test F

To prove the effect together of the independent variable on the dependent variable by comparing the level of significance. Using a significant value of 5% (0.05), the hypothesis criteria are as follows: If the significant value > 0.05 then H_0 is accepted and H_a is rejected. If the significant value < 0.05 then H_0 is rejected and H_a is accepted.

Coefficient of Determination

Test The coefficient of determination is carried out to detect the overall influence of independent variables, namely Price to Book Value (PBV), Debt to Equity Ratio, and Current Ratio, in explaining the dependent variable, namely Stock Price.

III. RESULTS AND DISCUSSION

Model Selection

From the Chow test obtained the following results:

Table 1. Test Chow

Redundant Fixed Effects Tests
 Equation: Untitled
 Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	21.256414	(3,25)	0.0000
Cross-section Chi-square	40.549261	3	0.0000

Source : Data processed by Eviews 2024

From table 1 the resulting chi-square probability value is 0.0000 smaller than $\alpha = 0.05$ then the right model is Fixed Effect Model.

Hausman Test

From the Hausman test obtained the following results:

Table 2. Hausman Test

Correlated Random Effects - Hausman Test
 Equation: Untitled
 Test cross-section random effects

Test Summary	Chi-Sq. statistic	Chi-Sq. d.f.	Prob.
Cross-section random	63.769243	3	0.0000

Source : Data processed by Eviews 2024

From table 2. resulting in a chi-square probability value of 0.0000 smaller than $\alpha = 0.05$ then the correct model is Fixed Effect Model. From the chow test and the Hausman test, the right model is the Fixed Effect Model.

Multicollinearity Test

Table 3. Multicollinearity Test

	X1 (PBV)	X2 (DER)	X3 (CR)
X1 (PBV)	1.000000	0.327190	-0.262262
X2 (DER)	0.327190	1.000000	-0.549856
X3 (CR)	-0.262262	-0.549856	1.000000

Source : Data processed by Eviews 2024

From table 3.it can be seen that the value of the correlation coefficient between independent variables is smaller than 0.80 or close to 1. It was concluded that there was no multicollinearity between independent variables in this study.

Heteroscedasticity Test

Table 4. Heteroscedasticity Test

Variabel	Coefficient	Std. error	t-Statistic	Prob
C	5043.975	2014.901	2.503337	0.0192
PBV	-6.095341	3.568469	-1.708111	0.1000
DER	811.1214	1384.464	0.585874	0.5632
CR	170.1345	825.4740	0.206105	0.8384

Source : Data processed by Eviews 2024

From table 4 it can be seen that the significance value is greater than 0.05, it can be concluded that the data in this study did not occur symptoms of heteroscedasticity.

Panel Data Regression Analysis

$$Y = 5043.97497541 - 6.09534112333 * X1 + 811.121440222 * X2 + 170.134477021 * X3 + [CX=F]$$

Based on the above formula, it can be concluded :

- The constant value is 5043.97497541, if the independent variables namely PBV, DER and CR are 0, then the stock price is considered equal to the constant value of 5043.97497541.
- The value of PBV, amounting to - 6.09534112333, concludes that PBV has a negative influence on stock prices. Every 1% increase in the share price proxied by the PBV, will decrease by 6.09534112333, assuming another independent variable remains.
- The value of DER, amounting to 811.121440222, concludes that DER has a positive influence on the stock price. Every 1% increase in the share price proxied by DER, will increase by 811.121440222, assuming another independent variable remains.
- The value of CR, amounting to 170.134477021, concludes that CR has a positive influence on the stock price. Every 1% increase in the share price proxied by CR, will increase by 170.134477021 assuming another independent variable remains.

T Test

Based on table 4. In the results of the T test above, it can be concluded as follows: A calculated t value of -1.708111 with a probability value of 0.1000 on the PBV variable, the value is greater than the significant value of 5% (< 0.05), then accepts H0 and rejects Ha. PBV does not have a positive and significant influence on the share price of state-owned banks A calculated t value of -0.585874 is obtained with a probability value of 0.5632 in the DER variable, the value is greater than the significant value of 5% (< 0.05), then accepts H0 and rejects Ha. DER does not have a positive and significant influence on the share price of state-owned banks A calculated t value of 0.206105 is obtained with a probability value of 0.8384 in the CR variable, the value is greater than the significant value of 5% (< 0.05), then accepts H0 and rejects Ha. CR does not have a positive and significant influence on the share

price of state-owned banks

Test F

Table 5. Test F

Fixed Effect Model	
R-Squared	0.866410
Adjusted R-Squared	0.834348
Prob (F-Statistic)	0.000000

Source : Data processed by Eviews 2024

The results of the F test in the table above explain that the F-Statistic value is 0.000000 where the probability value is smaller than 0.05 (< 5%) which shows that all independent variables in this study affect the stock price together.

Coefficient of Determination

Test From table 5, the R-Squared value of 0.8343 or 83.43% shows that the independent variables, namely Price to Book Value (PBV), Debt to Equity Ratio (DER), and Current Ratio (CR) can explain 83.43% of the dependent variable, namely stock price, the remaining 16.57% is explained by other factors outside this study.

IV. CONCLUSION

The results of the study found that :

- Price to Book Value (PBV) has no effect on stock prices, in line with (Reni et. Al., 2020) because PBV is not one of the main variables for investors in determining investment decisions. PBV is a market valuation ratio determined by market dynamics Based on the theory presented by (Setiawan & Sumantri, 2020) and (Rahmawati et al, 2022).
- Debt to equity ratio has no effect on stock price, If the company's DER is high, there is a possibility that the company's stock price will be low because when the company earns profits, companies tend to use these profits to pay their debts compared to distributing dividends.
- The current ratio does not affect the stock price, which means that the size of the current ratio does not have an impact on the size of the price (Herr, 2017) of stocks, a low current ratio indicates risk, while a high current ratio indicates that there is an excess of current assets, which will have an adverse influence on the company's performance. Current assets generally generate lower returns compared to fixed assets

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