Soundness and Performance Bank in Indonesia Year 2014 – 2020

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Abstract. This study examines the effect of aspects of the bank financial performance (ROE, DER, NPM and EPS) and bank soundness (NIM, GCG, NPL, CAR) on stock prices of banking companies listed on the Indonesia Stock Exchange in 2014 – 2020. The sample in This study amounted to 21 banking companies. The analytical method used in this research is panel data regression analysis. This study found that ROE, NPM, and EPS had a significant effect on stock prices, while DER, GCG, NIM, NPL, and CAR had no significant effect on stock prices. Based on the test results, the results show that in general the performance level of banking companies is still in accordance with the standards set out in Bank Indonesia Regulation Number. 6/10/PBI/2004 and the banking soundness of all banks is still within the standard in accordance with Bank Indonesia Circular Letter Number. 15 /15/DPNP 2013.

Keyword: Bank Soundness, Bank Financial Performance, Stock Price

1. Introduction

Amid global and domestic economic conditions that are still depressed due to the COVID-19 pandemic, banking resilience in general in the fourth quarter of 2020 is still maintained, as reflected in bank capital which is quite solid with a CAR of 23.81%; this shows the bank's adequate ability to absorb risk. The banking intermediation function declined slightly due to contracted credit growth, while deposits recorded high growth (11.11%, year on year). Banking liquidity is also adequate, as reflected in the LDR, LA/NCD, and LA/DPK ratios of 82.24%, 146.72%, and 31.67%, respectively. However, it is necessary to pay attention to the increase in credit risk and decrease in profitability in line with economic activity that has not yet recovered due to the impact of the COVID-19 pandemic [1–3]. The average stock prices of banking companies from 2020 are as follows:

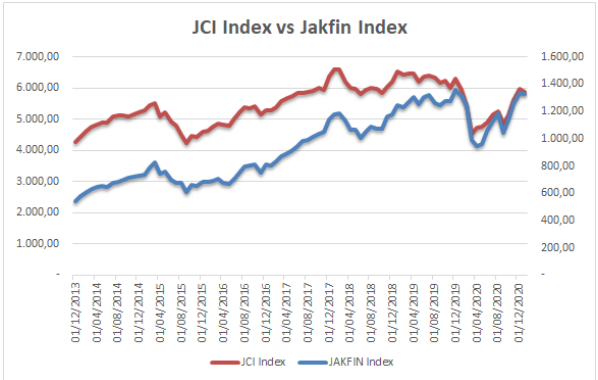

Figure 1. The average price of banking shares in Indonesia

The share price is the value of a share that reflects the company's assets that issued the shares, the changes or fluctuations being determined mainly by the forces of supply and demand in the stock market (secondary market) [4]. The more investors want to buy or hold a stock, the higher the price; On the contrary, the more investors want to sell or release a share, the lower the price. [5]. Stock prices are

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influenced by two factors, namely external and internal factors. External factors include regulations, general level of economic activity, taxation, and stock market conditions, while internal factors include estimated earnings per share, company earnings turnover, risk of future company earnings, management's use of debt, and dividend policy [6]. The factors that affect stock prices are easy to identify. The problem is how to assign these factors into a scoring system to choose which stocks should be included in the portfolio. Several studies have stated that several variables affect stock prices, including ROE, EPS, DER, and NPM. [7–9]. Some of the fundamental factors that the researcher will discuss are NPM, ROE and EPS. The larger the Net Profit Margin, the more productive the company's performance. In addition to these four factors that could affect stock price, other factors fall into the category of bank soundness assessment, namely: NPL, NIM, CAR, and GCG.

ROE is used to measure the net income generated by the management of invested capital by the business owner. ROE is measured by comparing net income and total equity. The highest ROE number indicates to shareholders that the return on investment is high.; ROE can also reflect how much net profit will be obtained from all assets owned by the company, which can impact the level of stock prices. The level of profitability performance measured by NPM can be used to measure how much net profit can be obtained from the company's sales. NPM is a profitability metric that shows how significant is the percentage of net profit obtained on each sale. The higher this number, the better, since the profitability of the company is considered relatively high. If net profit after tax increases relatively faster than sales, the NPM increases [10]. The size of the NPM can also affect the size of the company's share price. DER is a comparison between debt and equity. The DER guarantees how much the company's debt will be guaranteed with the capital used to finance it . DER will have an impact on the performance of the company and will lead to an appreciation of the stoke price. [11–13]. EPS is the company's income and is a benchmark for investors to invest their capital in the company. The high number of EPS will increase investor confidence to increase the investment which the company needs. High EPS measures the company's ability to earn net income [9,14]. A NPL compares total non-performing loans and total loans extended to debtors. If the bank has a high level of NPL, it will affect costs; in other words, the higher the NPL will disturb the company [15,16]. Research by Sasaki & Suzuki [17] explained that NPL is partially able to influence stock prices. NIM reflects the market risk that arises due to the movement of market variables, which can cause losses for the bank. Based on Bank Indonesia regulations, one of the proxies for market risk is the interest rate, measured by the difference between funding interest and loan interest or between total funding interest costs and total loan interest costs. Potential investors use the variable CAR to measure the strength of their capital compared to risk-weighted assets. If it is related to stocks, the tendency is that investors will be interested in a bank with a high CAR level [18,19]. GCG is an important mechanism that is expected to encourage healthy business practices. Good corporate governance (GCG) factor assessment assesses the quality of bank management on the implementation of GCG principles [20]. GCG variable also influences stock prices, where GCG is believed to improve company performance or value, impacting stock prices.

2. Methodology

The form of this research is an associative method with a quantitative approach, which can be interpreted as a research statement asking for the relationship between two or more variables. Research in associative problems examines how a variable has a relationship and is related to other variables or whether one variable causes changes in other variables. [21]. The research sample is to be studied using the purposive sampling method. Namely, the sample is selected based on specific considerations. The criteria for taking the sample are:

1. Banking companies that go public are listed on the Indonesia Stock Exchange in 2015-2020.
2. Not liquidated or delisted in the research year.

Based on the purposive sampling criteria, 21 banking issuers from 44 banking issuers were listed on the Indonesia Stock Exchange. The sampling technique used in this research is purposive sampling, namely: the sampling technique with specific considerations/judgment sampling [21].

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3. Results & Discussion

Table 2. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	21.445932	(20,118)	0.0000
Cross-section Chi-square	225.441466	20	0.0000

Based on the results of the Chow test above, the result is that the probability value is 0.0000 < 0.05, so it can be concluded that the most suitable model to be used in this equation is the FEM. Furthermore, to test the selection of the FEM and the REM.

Table 3. Hausman Test Result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	28.371647	8	0.0004

Based on the results of the Hausman test above, the result is that the probability value is 0.0004 < 0.05, so it can be concluded that the most suitable model to be used in this equation is the FEM.

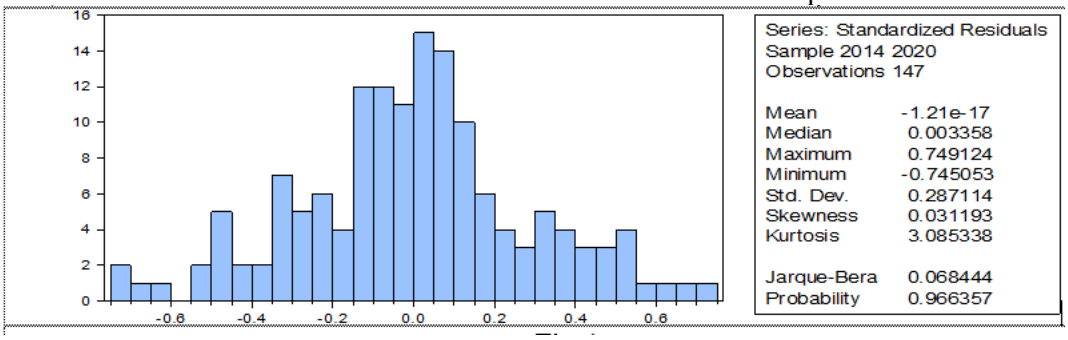

Figure 2. Normality Test Result

Based on Fig.1, it is known that the probability value (0.966) > 0.05, so it can be concluded that the assumption of normality in the research equation is accepted.

Table 4. Multicollinearity Test Result

	X1	X2	X3	X4	X5	X6	X7	X8
X1	1.000000	0.834359	0.162723	0.581410	0.565134	-0.091288	-0.403292	0.516765
X2	0.834359	1.000000	0.011612	0.406425	0.410654	0.044001	-0.272567	0.328975
X3	0.162723	0.011612	1.000000	0.060360	-0.030399	-0.317216	0.025869	-0.029590
X4	0.581410	0.406425	0.060360	1.000000	0.328962	-0.044778	-0.353267	0.691916
X5	0.565134	0.410654	-0.030399	0.328962	1.000000	0.084519	-0.270349	0.275470
X6	-0.091288	0.044001	-0.317216	-0.044778	0.084519	1.000000	-0.015577	-0.031713
X7	-0.403292	-0.272567	0.025869	-0.353267	-0.270349	-0.015577	1.000000	-0.270972
X8	0.516765	0.328975	-0.029590	0.691916	0.275470	-0.031713	-0.270972	1.000000

Based on the normality test results, it was found that there was no high correlation value or more than 0.8, so it can be concluded that there was no multicollinearity.

Table 5. Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.674579	0.190905	3.533588	0.0006
X1	0.001044	0.005032	0.207398	0.8360
X2	-4.27E-05	0.001377	-0.031003	0.9753
X3	2.41E-06	0.000313	0.007693	0.9939
X4	-5.96E-05	9.24E-05	-0.645422	0.5197
X5	-0.011534	0.011087	-1.040391	0.3000
X6	-0.002794	0.002263	-1.234788	0.2190
X7	-0.015403	0.018396	-0.837285	0.4039
X8	-0.075194	0.044430	-1.692414	0.0928

Based on Table 5, the results show that the probability value of each variable is > 0.05, so it can be concluded that there is no heteroscedasticity in this research equation.

Table 6. Autocorrelation Test Results

Nilai Durbin Watson
1.89

Based on these results, the following results were obtained du (1.63) > 1.89 > 4 -1.89 so that it can be concluded that there is no autocorrelation in this research equation.

Table 7. F Test and Coefficient of Determination Results

R-squared	0.945717
F-statistic	73.42154
Prob(F-statistic)	0.000000

In the F test, the calculated F value in the second equation is 76.42, and the probability value is 0.000. the F table value in the second equation is 2.07 at a significant level of 0.05 so that it can be obtained that the calculated F value (76.42) > F table (2.07) and the probability value (0.000) < significant level (0.05), so it can be concluded that EPS, ROE, NPM, DER, NPL, GCG, NIM, and CAR simultaneously to the price of banking shares. Furthermore, based on the results of the coefficient of determination, the results show that the effect of EPS, ROE, NPM, DER, NPL, GCG, NIM, and CAR to stock price is 0.945 (94.5%) to share price.

Table 8. F Test Results and Coefficient of Determination

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5088.844	2678.267	1.900051	0.0599
X1	232.1698	50.55892	4.592063	0.0000
X2	35.45192	14.24296	2.489085	0.0142
X3	-2.434029	5.712149	-0.426114	0.6708
X4	12.67981	1.655520	7.659112	0.0000
X5	-204.0326	170.8240	-1.194402	0.2347
X6	9.749340	27.66343	0.352427	0.7251
X7	-60.16323	177.5265	-0.338897	0.7353
X8	-263.0350	587.4322	-0.447771	0.6551

Based on Table 8 above, the following equation can be obtained:

$$\text{Stock Price (Y)} = 5088.844 - 232.16\ (\text{ROE})_{it} - 35.45\ (\text{DER})_{it} - 2.43\ (\text{NPM})_{it} + 12.67\ (\text{EPS})_{it} - 204.11\ (\text{NIM})_{it} + 9.74\ (\text{CAR})_{it} - 60.16\ (\text{NPL})_{it} - 263.03\ (\text{GCG})_{it}$$

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1. **ROE - Stock Prices**
   t-count value is 4.59 with a probability level of 0.000. While the t-table value is 1.97 and the significant level is 0.05, it can be concluded that ROE has a significant effect on stock prices [22].
2. **NPM - Stock Prices**
   t-count value is 2.48 with a probability level of 0.014. While the t-table value is 1.97 and the significant level is 0.05, it can be concluded that NPM has a significant influence on stock prices [7–9].
3. **DER - Stock Prices**
   t-count value is -0.42 with a probability level of 0.67. While the t-table value is 1.97 and the significant level is 0.05, it can be concluded that DER does not significantly affect stock prices [15].
4. **EPS - Stock Price**
   t-count value is 7.65 with a probability level of 0.000. While the t-table value is 1.97 and the significant level is 0.05, it can be concluded that EPS has a significant effect on stock prices[7–9].
5. **NIM - Stock Prices**
   t-count value is 1.19 with a probability level of 0.23. While the t-table value is 1.97 and the significant level is 0.05, it can be concluded that NIM does not significantly affect stock prices [12].
6. **CAR - Stock Prices**
   t-count value is 0.35 with a probability level of 0.72. While the t-table value is 1.97 and the significant level is 0.05, it can be concluded that CAR does not significantly affect stock prices [23].
7. **NPL - Stock Prices**
   t-count value is 0.33 with a probability level of 0.73. While the t-table value is 1.97 and the significant level is 0.05, it can be concluded that NPL does not significantly affect stock prices [17].
8. **GCG - Stock Prices**
   t-count value is 0.44 with a probability level of 0.65. While the t-table value is 1.97 and the significant level is 0.05, it can be concluded that GCG does not significantly affect stock prices [20].

Besides that, there are also several factors that can affect the level of performance and soundness of banks, namely the economic slowdown in 2014 - 2015 which caused many banks to write off and carry out asset sales (one example is Bank CIMB Niaga which sold its assets in 2015. which reached Rp 3 trillion), was also influenced by the non-significant accelerated rate of credit distribution, especially in 2020. Besides that, the conservative strategy chosen by many banking companies to reduce the risk level of the non-performing loan ratio had an insignificant impact on the growth of net profit of banking companies. Meanwhile, in 2018 again, banking companies in book 2-4 faced challenges in the form of increasing interest rates, the weakening of the rupiah exchange rate and also the trade war between the US and China causing violence which caused the growth of credit distribution to stagnate from 2017. In 2019 banking companies returned. have to face challenges that affect the level of stock prices, performance and soundness of banks caused by weak global commodity demand and have a direct impact on credit growth which only reached 6.08%. in 2020, especially in the second quarter of 2020, the growth of the financial services and insurance sectors reached a trend of -10.3% from 2019, in addition to that, the level of CAR, ROE and NPM also decreased significantly from 2019.

4. Conclusion

The results show that in general, the performance level of banking companies is still in accordance with the standards set out in Bank Indonesia Regulation No. 6/10/PBI/2004, and the banking soundness of all banks is still within the standard in accordance with Bank Indonesia Circular Letter Number 15 /15/DPNP 2013. Based on the results of panel data regression testing, it was found that there were differences in the

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effect of the variables of banking performance and banking health on stock prices in banking companies. Based on the research results above, managerial implications can be formulated for companies, investors, and the government. Banking companies must maintain the level of banking performance because the test results found that the variables of performance measurement have a more significant effect than the variables related to the bank's soundness. Investors must see and pay attention to in detail the level of performance and health as a fundamental basis for investing so that the returns obtained from investment results can be optimal. The government must formulate policies that can assist the recovery of banking performance, especially during a pandemic because conditions in the banking sector can have a systemic effect on other business sectors. In further research, it is recommended to use external variables as moderating variables such as inflation rate, economic growth, geopolitical conditions, credit interest rates, etc. In addition, to assess the performance of banking companies, it can also be applied to other business sectors such as companies engaged in manufacturing, real estate, accretion, and so on so that the results of other studies can show the level of influence of banking performance on stock prices in sectors other than banking.

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