Abstract

This study aims to examine and analyze the effect of Risk Profile, Good Corporate Governance (GCG), Earnings, Capital (RGEC), and Earnings per Share (EPS) on stock prices with financial distress as an intervening variable. The sampling technique used purposive sampling based on certain criteria and data used was secondary data, that is, annual reports of commercial banks in Indonesia for the period of 2012–2018 with a sample of 23 banks from a total population of 81 banks. This type of research is explanatory with a quantitative descriptive approach to describe or explain quantitative data. The data obtained was analyzed using SEM (Structural Equation Model) with the AMOS Program. The results showed that RGEC, EPS, and financial distress affect stock prices. This is based on testing the direct effect as indicated by a p-value that is smaller than 0.05. Based on the mediation test, the results show that financial distress cannot mediate the effect of RGEC and EPS on stock prices as indicated by a p-value greater than 0.05. The implication of this research is very important for investors to analyze stock price changes based on RGEC, EPS, and financial distress to gain profits. In addition, there are various warning signs indicating that a company is experiencing financial distress or it is heading towards such a state. Being aware of these signs can help prevent failure.

Keywords: Commercial Banks, Earning Per Share, Financial Distress, RGEC, Stock Prices

JEL Classification Code: G21, G32, G33

1. Introduction

The other way to grow your fortune is to invest your assets so that they increase in value over time. Whether you invest in stocks, bonds, mutual funds, options, futures, precious metals, real estate, small business, or a combination of all of the above, the objective is to generate cash. This can come in the form of increased value to the investment, dividend income, or the sale of a business, or some other liquidity event. Hundreds of banks trade on the major stock exchanges, and they come in various sizes, geographic locations, and focuses. The International Finance Corporation (IFC) estimated that investor interest in stocks and bonds had reached 21 trillion US $ in 2019 as a result of the global market investment. Irama (2018) explained that company performance is indicated by stock prices that move in the same direction as the company’s performance.

More than anything, investors want to see a return on their investment. Investors are in the business of putting money
into growing businesses so they can make money (Permata, 2018). The movement of stock prices is influenced by the condition of the company, if the company is approaching bankruptcy, the share price will decline. Companies with financial distress have lower stock prices than companies that do not experience financial distress.

Financial distress is a condition in which a company or individual cannot generate sufficient revenues or income, making it unable to meet or pay its financial obligations. Financial distress is often a harbinger of bankruptcy and can cause lasting damage to one’s creditworthiness (Nurdin, 2019). Financial distress is a situation where a business has certain kinds of financial difficulties. Classically, such financial difficulties include the inability to settle debts and obligations of the business and may even lead to the more severe consequences of bankruptcy and liquidation. Investors and related parties will also suffer losses because the company is unable to maintain financial stability (Nurdin, 2019).

The company’s performance can also be reflected in the amount of profits that investors gained, one of which is Earnings per Share (EPS). EPS is a company’s net profit divided by the number of common shares it has outstanding. EPS indicates how much money a company makes for each share of its stock and is a widely used metric for estimating corporate value. A higher EPS indicates greater value because investors will pay more for a company’s shares if they think the company has higher profits relative to its share price (Khairani, 2016).

Another factor that affects stock price change is the financial soundness level of the bank that can be measured using the risk-based bank rating method with the components of the Risk Profile, Good Corporate Governance, Earning, and Capital (RGEC). Yasa (2015) researched the effect of the RGEC component on changes in stock prices and found that the RGEC consisting of Risk Profile, GCG, CAR, and ROA can be used as a proxy for bank soundness assessments that can affect stock price changes. This research is also supported by Dewi (2016) who determined the effect of bank soundness variables as measured by risk profile, good corporate governance (GCG), return on assets (ROA), net interest margin (NIM), and capital adequacy ratio (CAR) on stock prices in banking companies in Indonesia.

2. Literature Review

2.1. Signaling Theory

Signaling theory is useful for describing behavior when two parties (individuals or organizations) have access to different information. Typically, one party, the sender, must choose whether and how to communicate (or signal) that information, and the other party, the receiver, must choose how to interpret the signal. Signaling theory posits that the signaler (the firm sending the signal) will engage in purposeful behavior to communicate information that reduces information asymmetry in a manner beneficial to the firm. Signaling theory is a theory that discusses how signals relating to the success and failure of management are conveyed to investors. The signal that is conveyed is in the form of a financial report or annual report by management as a form of information. A good and positive signal is a reflection that the company has experienced growth and improvement in terms of income and this will be informed to investors through the company’s financial statements (Widagdo, 2020).

2.2. Stock Prices

Stocks are securities that serve as proof of ownership of a company and can be traded on the capital market. The company’s wealth is reflected in the value of its stocks. The share price also reflects the value of the company. Stock price movements change very quickly and are influenced by many factors. Stocks prices consist of the lowest price, the highest price, the average price, and the closing price. This study uses the average annual stock price. The stock price is a benchmark for investors to find out the real condition of the company (Sukesti, 2021). Stock prices are strongly influenced by fundamental and technical factors. Investors need accounting information to assess the risks inherent in their investments.

2.3. Financial Distress to Stock Prices

Financial distress is a term in corporate finance used to indicate a condition when promises to creditors of a company are broken or honored with difficulty. If financial distress cannot be relieved, it can lead to bankruptcy (Permata, 2018). Financial distress is a situation in which an organization or any individual is not capable enough to honor its financial obligations as a result of insufficient revenue. It is usually because of high fixed costs, outdated technology, high debt, improper planning and budgeting, improper management and can ultimately lead to insolvency or bankruptcy (Wibowo, 2015). This study uses a modified Altman Z-Score method to predict the company’s financial difficulties. In addition, Altman’s Z-Score method is also user-friendly and has been widely used in many countries. Financial distress with the Altman Z-Score proxy can be used to predict changes in the company’s stock price.

2.4. RGEC to Stock Prices

The health of the bank has an important role and cannot be separated from the function of the bank to advance and
develop the Indonesian economy, and to maintain public trust (Fitrawati, 2016). Noviantari (2017) explained that the assessment of the soundness of a bank can be used to restore public trust, measure credibility and establish a good strategy in implementing API policies. The CAMELS ratio affects the price of shares listed on the Indonesian Stock Exchange. CAMELS is an international rating system used by regulatory banking authorities to rate financial institutions, according to the six factors represented by its acronym. The CAMELS acronym stands for “Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity. The CAMEL rating system is no doubt an essential tool for the identification of the financial strengths and weaknesses of a bank by evaluating the overall financial situation of the bank for any corrective actions to be taken.

Bank Indonesia Regulation Number: 13/1/PBI/2011 explains that the soundness of a bank can be assessed using a risk approach called Risk-Based Bank Rating (RBBR) that consists of:

a. Risk Profile: Assessment of inherent risk as well as the quality of risk management implementation for bank operations. The risk profile is proxied by the Non-Performing Loan (NPL) and Loan to Deposit Ratio (LDR).

b. Good Corporate Governance (GCG): Assessment of bank management in implementing GCG principles uses a composite self-assessment score according to Bank Indonesia criteria.

c. Earning: The ability of banks to generate profits and is proxied by Return on Assets (ROA) and Net Interest Margin (NIM).

d. Capital: The adequacy of capital and management of bank capital, which is proxied by the Capital Adequacy Ratio (CAR).

2.5. EPS to Stock Prices

Jihadi (2021) explained that large company profits can increase the market value of the stock. EPS is an important financial measure, which indicates the profitability of a company (Erawati & Pratama, 2014). Khairani (2016) stated that EPS is the portion of a company’s profit that is allocated to every individual share of the stock. It is a term that is of much importance to investors and people who trade in the stock market. The higher the earnings per share of a company, the better is its profitability. Permata (2018) found that EPS has a significant effect on stock prices too. The formulation of the hypothesis is as follows (Figure 1).

\[ H1: \text{RGEC has a negative effect on financial distress.} \]
\[ H2: \text{EPS has a negative effect on financial distress.} \]
\[ H3: \text{Financial distress has a negative effect on stock prices.} \]
\[ H4: \text{RGEC has a positive effect on stock prices.} \]
\[ H5: \text{EPS has a positive effect on stock prices.} \]
\[ H6: \text{RGEC affects stock prices with financial distress as an intervening variable.} \]
\[ H7: \text{EPS has an effect on stock prices with financial distress as an intervening variable.} \]

3. Research Methodology

This type of research is an explanatory study with a quantitative descriptive approach. Descriptive research is a quantitative research method that attempts to collect quantifiable information for statistical analysis of the population sample. This study uses secondary data (financial reports) obtained from the official website of the Indonesia Stock Exchange (BEI), namely www.idx.co.id. The population of this study is all commercial banks listed on the

![Figure 1: Theoretical Framework](image)

- NPL
- LDR
- ROA
- NIM
- CAR
- RGEC
- Financial Distress
- Stock Price
- EPS

Figure 1: Theoretical Framework
Indonesia Stock Exchange from 2012-2018 (as many as 81 banks). The sampling technique used purposive sampling based on certain criteria.

3.1. Stock Price

The stock price is the result of the supply and demand prices in the capital market (Polii, 2014). This research uses the annual average stock price for the period 2012–2018 in rupiah currency units.

3.2. Financial Distress

Financial distress is used to indicate a condition when promises to creditors of a company are broken or honored with difficulty. If financial distress cannot be relieved, it can lead to bankruptcy (Wibowo, 2015). Financial distress is measured by a modified Altman Z-Score with a formula of Gebreslassie (2015).

\[ Z = 6.56 X_1 + 3.26 X_2 + 6.72 X_3 + 1.05 X_4 \]  \hspace{1cm} (1)

Description Variables:
- \( X_1 \) = Working Capital / Total Assets
- \( X_2 \) = Retained Earnings / Total Assets
- \( X_3 \) = Earnings before Interest and Tax / Total Assets
- \( X_4 \) = Book Value of Equity / Total Liabilities

The result of the Altman Z-Score is then measured by scoring 0 and 1. If \( Z > 1 \), 1 = 0 (nonfinancial distress). \( Z < 1 \), 1 = 1 (financial distress) (Sadida, 2018).

3.3. RGEC

RGEC is used to measure the soundness of a bank.

a. Non-Performing Loan (NPL) is the ratio used to determine the amount of non-performing loans compared to the amount of credit extended by banks (Warsa & Mustanda, 2016).

\[ \text{NPL} = \frac{\text{Total non-performing loans}}{\text{Total loans distributed}} \times 100\% \]  \hspace{1cm} (2)

b. Loan to Deposit Ratio (LDR) is used to assess a bank’s liquidity by comparing a bank’s total loans to its total deposits (third-party funds) for the same period (Dewi, 2016).

\[ \text{LDR} = \frac{\text{Total loans extended}}{\text{Third-Party Funds}} \times 100\% \]  \hspace{1cm} (3)

c. Good Corporate Governance (GCG) is good corporate governance. This study uses a composite value that is in accordance with the bank’s self-assessment in implementing GCG (Iskander & Laila, 2016).

d. Return on Asset (ROA) is a profitability ratio that provides how much profit a company is able to generate from its assets (Noviantari, 2017).

\[ \text{ROA} = \frac{\text{Profit before tax}}{\text{Average total assets}} \times 100\% \]  \hspace{1cm} (4)

e. Net Interest Margin (NIM) is a ratio that reflects the company’s ability to generate interest based on its productive assets (Dewi, 2016).

\[ \text{NIM} = \frac{\text{Net interest income}}{\text{Average earning assets}} \times 100\% \]  \hspace{1cm} (5)

f. Capital Adequacy Ratio (CAR) is a ratio that can accommodate the risk of bank losses (Wismaryanto, 2013).

\[ \text{CAR} = \frac{\text{Capital}}{\text{ATMR}} \times 100\% \]  \hspace{1cm} (6)

3.4. EPS

Earnings Per Share (EPS) is the comparison of net income after tax with the number of outstanding shares and expressed in rupiah (IDR).

\[ \text{EPS} = \frac{\text{Earning After Tax (EAT)}}{\text{number of outstanding shares}} \]  \hspace{1cm} (7)

This research is a quantitative analysis using Structural Equation Modeling (SEM) with AMOS Program to answers the hypothesis. SEM is a combination of factor analysis with the aim of examining the relationship between the variables of a model. We test the direct influence between one variable and another with the criteria of significance value \( \alpha < 0.05 \). The effect of the intervening variable was tested by using the Sobel test.

4. Results

The analysis below is based on the results of research using SEM and AMOS.
4.1. Sample Adequacy

The number of companies used in this study was 23 banks with 138 data. The minimum sample size required for research using SEM AMOS is 100–200 samples for the Maximum Likelihood (ML) method with the assumption that normality is met so that this study has met the required minimum number.

4.2. Normality Test

The data normality test in this study was for testing both univariate and multivariate normality, and the results showed that the c.r values are −1.194 and −0.718, respectively, and these values not more than ±2.58, hence, we can conclude that the data was normally distributed (Byrne, 2001).

4.3. Outliers Test

Outliers can be evaluated by analyzing data on univariate outliers and multivariate outliers (Kline, 2004). The z-score value of univariate outliers is all data values < 3.00 and probability values > 0.05 so that the data is declared free of outliers.

4.4. CFA (Confirmatory Factor Analysis) Test

Indicators are able to form constructs that are measured by the magnitude of the coefficient weighting factor which must be >0.5 to be considered feasible to reflect the variable (Hair, 1998).

Based on Table 1, 3 indicators are omitted because, after testing, only NPL, NIM, and CAR reflect the RGEC variable. LDR and GCG are not able to meet the factor weights, while ROA has a large factor weight and is able to stand alone so that when combined with other indicators it will worsen the results.

4.5. Goodness of Fit

Based on the analysis using AMOS, the results are shown in Table 2.

4.6. Hypothesis Test

a. Direct Effect

The results of data analysis from the direct influence between variables are used in hypothesis testing, which can be seen in Table 3.

The direct effect test above uses the standard assumption of p-value <0.05. Based on Table 3 above, it can be concluded that hypothesis 1 is rejected because the p-value is >0.05, while hypothesis 2, hypothesis 3, hypothesis 4, and hypothesis 5 are accepted because the p-value is <0.05.

b. In-Direct Effect

One of the weaknesses of AMOS, when compared to other SEM programs, is that the significance of the indirect effect cannot be known, so testing the indirect effect in this study is done using the Sobel test (Sobel, 1982). Following are the test results can be seen in Table 4 below.

Based on Table 4, which examines the indirect effect between RGEC and EPS on stock prices through financial

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**Table 1: CFA Test**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPL</td>
<td>−0.57</td>
<td>−0.54</td>
<td>Valid</td>
</tr>
<tr>
<td>NIM</td>
<td>0.69</td>
<td>0.63</td>
<td>Valid</td>
</tr>
<tr>
<td>CAR</td>
<td>0.48</td>
<td>0.52</td>
<td>Valid</td>
</tr>
<tr>
<td>LDR</td>
<td>0.15</td>
<td>−</td>
<td>Invalid</td>
</tr>
<tr>
<td>GCG</td>
<td>−0.21</td>
<td>−</td>
<td>Invalid</td>
</tr>
<tr>
<td>ROA</td>
<td>0.72</td>
<td>−</td>
<td>Invalid</td>
</tr>
</tbody>
</table>

**Table 2: Goodness of Fit Table**

<table>
<thead>
<tr>
<th>Goodness of Fit Index</th>
<th>Cut off Value</th>
<th>Result</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>χ²</td>
<td>Df = 6, Critical value = 12.5916</td>
<td>6.364</td>
<td>Good Fit</td>
</tr>
<tr>
<td>Significancy probability</td>
<td>≥0.05</td>
<td>0.384</td>
<td>Good Fit</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤0.08</td>
<td>0.021</td>
<td>Good Fit</td>
</tr>
<tr>
<td>GFI</td>
<td>≥0.90</td>
<td>0.985</td>
<td>Good Fit</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥0.90</td>
<td>0.948</td>
<td>Good Fit</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤2.00</td>
<td>1.061</td>
<td>Good Fit</td>
</tr>
<tr>
<td>TLI</td>
<td>≥0.90</td>
<td>0.997</td>
<td>Good Fit</td>
</tr>
<tr>
<td>CFI</td>
<td>≥0.90</td>
<td>0.999</td>
<td>Good Fit</td>
</tr>
</tbody>
</table>

**Table 3: Direct Effects**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Estimate</th>
<th>SE</th>
<th>CR</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>−0.286</td>
<td>0.042</td>
<td>−1.346</td>
<td>0.178</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>−0.408</td>
<td>0.001</td>
<td>−2.319</td>
<td>0.020</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>−0.252</td>
<td>89.576</td>
<td>−3.450</td>
<td>***</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>0.372</td>
<td>44.668</td>
<td>2.035</td>
<td>0.042</td>
</tr>
<tr>
<td>Hypothesis 5</td>
<td>0.342</td>
<td>1.124</td>
<td>2.485</td>
<td>0.013</td>
</tr>
</tbody>
</table>
distress, the results show that financial distress is unable to mediate the relationship between RGEC and EPS effect on stock prices. This is indicated by a $p$-value that is greater than 0.05, which means it is not significant, so it can be concluded that hypothesis 6 and hypothesis 7 are rejected.

5. Discussion

RGEC has no effect on financial distress because, at the NPL level, banks do not only channel credit to the public, but also to other banks that need funds. CAR also shows that if the bank experience losses but its capital structure is maintained, it will have a high CAR value even though it is at a loss (Sadida, 2018).

EPS is used to view the company’s financial growth rate. Banks with negative EPS for several periods have poor growth and earnings prospects, making them less attractive to investors. This condition makes it difficult for banks to obtain funds from outside parties due to negative income, which will have an impact on the possibility of financial distress.

Banks’ financial conditions are closely related to share prices. Stock prices of banks experiencing financial distress tend to decline (Permata, 2018). This is because financial distress indicates that the company is in a bad condition so that the market responds negatively to this information. This is in line with the signaling theory which states that negative signals will result in a decrease in stock prices (Nariman, 2016).

Based on the results of hypothesis testing, RGEC has a positive and significant effect on stock prices. These results are reinforced by previous research conducted by Dewi (2016), Yasa (2015), and Febiolla (2019). RGEC is proxied by 3 indicators, namely NPL, NIM, and CAR that are able to influence stock prices. NPLs reduce banks’ earnings and cause losses, which weighs on their soundness. A high NPL indicates that the risks borne are higher hence investors’ confidence in the bank will decrease causing a decline in stock prices.

NIM is concerned with net interest income. A high NIM value results in an increase in profit so that it affects the increase in stock prices. CAR is critical to ensure that banks have enough cushion to absorb a reasonable amount of losses before they become insolvent. In addition to NPL and NIM, a bank with a high CAR is considered safe and likely to meet its financial obligations. The higher a bank’s CAR, the more likely it is to be able to withstand a financial downturn or other unforeseen losses. Hence, investors’ confidence in the bank, which increases the stock prices.

The relationship between EPS and stock prices shows that there is a positive and significant effect. This result is in line with research previously conducted by Khairani (2016) and Erawati and Pratama (2014). The EPS formula indicates a company’s ability to produce net profits for common shareholders. Higher earnings per share is always better than a lower ratio because this means the company is more profitable and the company has more profits to distribute to its shareholders. Although many investors do not pay much attention to the EPS, a higher EPS ratio often makes the stock price of a company rise.

The decline in the stock price of a healthy bank does not always indicate financial distress because the direct effect of RGEC is greater on stock prices than the indirect effect through financial distress. This is supported by the results of mediation testing which shows that the financial distress variable cannot mediate the effect of RGEC on stock prices. The results also show that the financial distress variable cannot mediate the relationship between EPS and stock prices. The direct effect of EPS on stock prices is greater than the indirect effect through financial distress, so it can be concluded that financial distress cannot mediate the effect of EPS on stock prices.

6. Conclusion

Based on the research conducted, it can be concluded that RGEC has no effect on financial distress. This is because the indicators used as a proxy for RGEC are not able to influence the financial condition of the bank. In addition, the company’s growth rate as measured by EPS has a negative effect on financial distress. A high EPS decreases the probability of bankruptcy. Financial distress has a negative effect on stock prices because the stock prices of banks experiencing financial distress tend to decline.

Banks with a good health level attract investors so that their share prices will be high. In addition, EPS has a positive effect on stock prices because EPS serves as an indicator of a company’s profitability. A higher EPS indicates greater value because investors will pay more for a company’s shares if they think the company has higher profits relative to its share price. Meanwhile, financial distress is unable to mediate the effect of RGEC or EPS on stock prices because the direct effect of RGEC and EPS is greater than the indirect effect through financial distress.

For potential investors who are going to invest in stocks, they should first conduct an assessment of the health and EPS of the bank concerned so that investment risk can be minimized. Hence, before judging the merit of a company as an investment option, investors should also check other...
important factors as well. In fact, they should align EPS with other financial/non-financial parameters (risk profile, good corporate governance (GCG), earnings, capital (RGEC)), to gain a fair idea of a company’s overall scope, profitability, and market performance. The variable used as an intervening variable in this study is unable to mediate the effect of RGEC or EPS on stock prices, hence, they can be replaced with other intervening variables and retested with larger sample size.

References


