

## **THE INFLUENCE OF PROFITABILITY, LIQUIDITY, AND SOLVENCY RATIOS ON STOCK PRICES OF MANUFACTURING COMPANIES IN THE AUTOMOTIVE AND COMPONENT SUB-SECTOR LISTED ON THE INDONESIAN STOCK EXCHANGE (BEI)**

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### **ABSTRACT**

This research aims to analyze the influence of Profitability, Liquidity, and Solvency Ratios on the Stock Prices of Manufacturing Companies in the Automotive and Component Sub-Sector. The study was conducted on the Indonesia Stock Exchange, utilizing financial report data published annually over a period of 5 years, from 2016 to 2020, as well as the corresponding stock prices in the capital market. The research variables consist of independent variables, namely profitability, solvency, and liquidity ratios, and the dependent variable, which is stock prices. The analysis method employed classical assumption tests, including normality test, multicollinearity test, heteroskedasticity test, and autocorrelation test. The technique utilized was multiple linear regression analysis and determination analysis. Additionally, hypothesis testing was conducted using the F-test to assess the overall influence and t-test to determine partial influence. The results of this research indicate that the variables of profitability, solvency, and liquidity ratios collectively influence stock prices. Meanwhile, solvency and liquidity ratio variables individually have a significant impact on stock prices. Among the three significant variables, the profitability ratio variable has the least significant influence on stock prices.

**Keywords:** Profitability Ratio, Solvency Ratio, Liquidity Ratio and Stock Price.

### **1. INTRODUCTION**

The capital market serves as an intermediary institution that plays a crucial role for investors. It also functions as a support for the economy, connecting those in need of funds with those who have excess capital. Moreover, the capital market can facilitate the creation of efficient fund allocations. With the existence of the capital market, entities with surplus funds (investors) can choose optimal investment alternatives, thereby promoting economic efficiency.

For investors conducting company analyses, the financial reports published by companies are a type of information that can be considered. These reports provide valuable insights to investors, depicting the extent of a company's development and its achievements over time. By using financial reports, investors can calculate the extent of profit growth achieved by a company in relation to the total number of company shares. Through an analysis of financial report information, investors can also assess the intrinsic value of a company's stock compared to its market price. Based on this analysis, investors can make informed decisions on whether to buy or sell the stock.

In the capital market, the price of a company's stock can serve as a benchmark for evaluating its financial performance, indicating whether it is in a reasonable and normal condition. Generally, the better a company's financial performance, the higher its stock price. Stocks represent ownership securities, and they are actively traded on the Stock Exchange due to their risk-high return characteristics. This implies that stocks can offer high returns but also come with high risks. Essentially, stock prices are shaped by the interaction between sellers and buyers on the Stock Exchange, moving in response to the forces of supply and demand for those stocks. Therefore, the more investors interested in stocks within the Manufacturing Sub-Sector of Automotive and Components, the higher the offered stock prices.

This can be observed in the stock price index of the Automotive and Components Sub-Sector. Investors assess a company's performance based on its ability to manage resources effectively to generate profits. The company's capacity to generate profits in its operational activities is a primary focus in evaluating performance because profit serves as an indicator of the company's ability to meet obligations to fund providers. If a company demonstrates strong financial performance, investors are more likely to invest capital, anticipating returns on their investments.

One indicator of a company's success is its listing and active trading of stocks in the capital market. In the capital market, the stock price of a company serves as a benchmark for evaluating its financial performance, indicating whether it is in a reasonable and normal condition. The better a company's performance, the higher its stock price tends to be. The increasing number of traded shares and the higher volume of stock trading contribute to the development of the capital market in Indonesia.

Stock prices are considered indicators of a company's success, reflecting the market forces at the exchange through the buying and selling transactions of a company's stocks. Several factors, both direct and indirect, influence stock prices. These factors can be categorized as fundamental and technical. Fundamental factors provide information about a company's performance, including its ability to meet financial obligations and contribute to the national economy. Technical factors offer insights to investors on when to buy or sell stocks for maximum profit, considering factors such as exchange rates, market conditions, and securities transactions.

To assess whether a company's performance is good or not, one can utilize performance measurement tools, and one such tool is the financial statements of the company. According to Kasmir (2008), there are several financial ratios that can analyze the financial statements of a company, namely Liquidity Ratios, Solvency Ratios, Activity Ratios, and Profitability Ratios. Liquidity ratios depict a company's ability to pay short-term debts, solvency ratios measure how much of a company's assets are funded by debts, activity ratios illustrate a company's effectiveness in utilizing its assets, and profitability ratios represent the company's ability to generate profits. In this study, only profitability, liquidity, and solvency ratios are used. Moreover, Kasmir (2018), analyzing financial statements can be done through examining the ratios present in those statements. Financial ratios are tangible outcomes of a company's performance. Performance measurement can be conducted by comparing a company's financial ratios with those of other companies in a similar subsector over a specific period. Profitability can gauge the effectiveness of a company's management. Therefore, company management is expected to ensure that data can meet the targets set by the company. Profitability can be measured by comparing various components in the financial statements, especially the balance sheet and income statement. The goal is to observe the company's development over a specific period, whether it is a decline or an increase, to identify the causes. The measurement results can be used as an evaluation tool for management performance, determining whether management has worked effectively or not. Liquidity is closely related to a company's ability to meet its financial obligations. Liquidity risk in a company is a significant concern. However, the main cause of a company's inability to meet its obligations lies in the company management's negligence in running its operations. This issue becomes quite serious if it persists without awareness, as it can lead to the company facing bankruptcy. Solvency has various impacts on a company, whether the solvency ratio is low or high. A high solvency ratio entails a significant risk of loss, whereas a low solvency ratio indicates a smaller risk of loss, especially during economic downturns. This impact also results in a lower rate of return during economic upturns. Manufacturing companies, particularly in the Automotive and Components subsector, need to assess their levels of liquidity, solvency, and profitability to measure the soundness of their performance. These factors significantly influence stock prices. If liquidity, solvency, and profitability are good or show improvement in terms of earnings, it demonstrates a company's ability to generate profits with its capital, impacting stock prices. Stock prices play a crucial role in determining a company's success, as the strength of the market on the exchange is reflected in the buying and selling transactions of a company's stocks in the capital market. Lailatul Fitriyah (2012) shown on the influence of liquidity and profitability on stock prices at PT. Astra International, Tbk revealed a significant impact of liquidity and profitability on stock prices. Conversely, a study by Cici Paramida (2011) with the same dependent variable and the independent variable being stock returns at PT. Astra International, Tbk showed no significant influence of liquidity and profitability on stock prices. Previous studies have focused on only two factors, liquidity and profitability, with a single company as the research object, such as PT. Astra International, Tbk. Considering factors that can influence stock prices, solvency of the company itself is an essential aspect. Research can be extended to various companies listed on the Indonesia Stock Exchange (BEI), as in this study, where the sample includes manufacturing companies in the Automotive and Components subsector listed on BEI, with variables of liquidity, solvency, and profitability. The surge in stock transactions and the increasing trading volume can provide valuable information for investors to make decisions on buying, selling, or holding their stocks over a specific period. Therefore, understanding the profitability ratio, liquidity ratio, solvency ratio, and stock prices of companies in the automotive and components subsector can determine the levels of profitability, liquidity, solvency, and stock prices in the upcoming market and serve as a benchmark for future comparisons. The fluctuation in stock prices, whether rising or falling, is influenced by the annual variations in profitability, liquidity, and solvency ratios, as well as the continuous bargaining process of stock prices, which persists until the end of trading hours. This may result from the less effective financial performance and sales of goods and services, leading to fluctuations in profitability, liquidity, and solvency on an annual basis. In conclusion, the dynamic nature of stock transactions and trading volumes provides crucial insights for investors. Understanding the key ratios, such as profitability, liquidity, and solvency, along with monitoring stock prices, allows investors to make informed decisions and anticipate market trends. The continuous bargaining process in stock prices reflects the ongoing fluctuations in financial performance and sales. Investors should remain vigilant and consider these factors for effective decision-making in the ever-changing stock market landscape.

## **2. METHODOLOGY**

This study adopts a quantitative research approach. To ensure focused research and facilitate the investigation process, it is essential to establish problem limitations and scope. The author restricts the problem and scope to the Stock Prices of Companies, specifically delving into factors influencing stock prices. In this regard, the researcher analyzes the profitability, liquidity, and solvency ratios using various financial indicators present in the financial statements of manufacturing companies within the Automotive and Components subsector listed on the Indonesia Stock Exchange (BEI).

The variables examined in this research include:

1. Dependent Variable (Y), which is the Closing Stock Price of Manufacturing Companies in the Automotive and Components Subsector, the focal point of the study. The stock price referred to is the closing stock price.
2. Independent Variables (X) are the variables suspected of influencing Variable Y (Stock Price). The independent variables in this study are X1 = Profitability Ratio, X2 = Liquidity Ratio, and X3 = Solvency Ratio.

a. Profitability Ratio:

Profitability ratio indicates a company's ability to generate profit from its capital usage. Some components of profitability ratios used in this study include:

b. Return on Asset (ROA):

ROA demonstrates a company's capability to generate profit from the assets employed. ROA is a crucial ratio among profitability ratios. The higher this ratio, the better the company's condition. The formula for ROA is as follows:  $\text{Return on Asset} = (\text{Net Income After Tax}) / (\text{Total Assets}) \times 100\%$

c. Liquidity Ratio:

Liquidity Ratio is used to depict a company's ability to settle its short-term obligations. Some components of liquidity ratios used in this study include:

d. Current Ratio:

The Current Ratio measures a company's ability to pay short-term obligations or debts that will become due when called upon. The formula for the current ratio is as follows:  $\text{Current Ratio} = (\text{Current Assets}) / (\text{Current Liabilities}) \times 100\%$

e. Solvency Ratio:

Solvency ratio is used to measure the extent to which a company's activities are funded by debt. A company is considered solvent if its assets or wealth are not sufficient to cover all its debts. Some components of solvency ratios used in this study include:

f. Debt to Equity Ratio (DER):

DER is a ratio used to assess debt with equity. In other words, this ratio helps determine how much equity is used as collateral for debt. The formula for DER is as follows:  $\text{Debt to Equity Ratio} = (\text{Total Debt}) / (\text{Total Equity}) \times 100\%$

### **2.1 Population and Sample**

The population in this study consists of manufacturing companies in the automotive and components subsector listed on the Indonesia Stock Exchange (BEI) during the period 2016 – 2020. There are a total of 13 manufacturing companies in the automotive and components subsector listed on the BEI during this period. The sampling technique used in this research is purposive sampling, which involves selecting samples based on specific considerations, characteristics, and criteria.

The criteria used for sample selection in this study are:

- a. Manufacturing companies in the automotive and components subsector listed on the BEI.
- b. Manufacturing companies in the automotive and components subsector that consistently and comprehensively present financial statement data according to the variables to be examined during the research period from 2016 to 2020.
- c. Manufacturing companies in the automotive and components subsector that are still in operation throughout the research period.

**Table 1.** List of Manufacturing Companies in the Automotive and Components Subsector Listed on the Indonesia Stock Exchange (BEI)

No	Kode	Company
1	ASSI	Astra International Tbk

2	AUTO	Astra Otoparts Tbk
3	BOLT	Garuda Metalindo Tbk
4	BRAM	Indokordsa Tbk
5	INDS	Indospring Tbk
6	IMAS	Indomobil Sukses Internasional Tbk
7	GJTL	Gajah Tunggal Tbk
8	GDYR	Goodyear Indonesia Tbk
9	LPIN	Multi Prima Sejahtera Tbk
10	MASA	Multistrada Arah Sarana Tbk
11	PRAS	Prima Alloy Steel Universal Tbk
12	SMSM	Selamat Sempurna Tbk
13	NIPS	Nipress Tbk

Source: Indonesia Stock Exchange (BEI)

The sampling procedure employed in this research involves using the purposive sampling method. Based on the criteria mentioned above, there are a total of 13 manufacturing companies in the automotive and components subsector listed on the BEI. Out of these, 7 companies do not meet the criteria, resulting in a sample size of 6 companies for this research. The manufacturing companies in the automotive and components subsector selected as samples for the study can be seen in the table below.

Table 2. Research Sample

No	Kode	Company
1	ASSI	Astra International Tbk
2	AUTO	Astra Otoparts Tbk
3	BOLT	Garuda Metalindo Tbk
4	BRAM	Indokordsa Tbk
5	INDS	Indospring Tbk
6	IMAS	Indomobil Sukses Internasional Tbk

Source: Indonesian Stock Exchange (BEI)

## 2.2 Data Analysis Techniques

The analysis technique employed in this study involves classical assumption tests and multiple linear regression, where the collected data is processed and combined between time series and cross-sectional analysis data, resulting in pooled data. The Statistical Product and Service Solution (SPSS) software is utilized as the analytical tool in this research.

### 1. Classical Assumption Tests

As the data used is secondary data, several classical assumption tests underpinning the regression model are conducted. These tests include normality, multicollinearity, heteroskedasticity, and autocorrelation.

#### a. Normality Test

According to Priyastama (2017), normality testing assesses whether the data follows a normal distribution or not, with two techniques: graphical and Kolmogorov-Smirnov. Normality can be observed graphically using a normal probability plot to differentiate the cumulative distribution from the actual data distribution. The Kolmogorov-Smirnov method evaluates normality, with significance values  $>0.05$  indicating non-normal distribution and values  $<0.05$  indicating normal distribution.

#### b. Multicollinearity Test

Ghozali (2013) states that the multicollinearity test aims to detect correlations between independent variables in a regression model. A regression model should ideally exhibit no correlation among independent variables. The detection of multicollinearity is done by examining the Variance Influence Factor (VIF). VIF values  $< 10$  indicate the absence of multicollinearity issues.

c. Heteroskedasticity Test

This test aims to determine whether there is unequal variance of residuals from one observation to another in the regression model. Heteroskedasticity occurs if the variance of residuals remains constant (homoskedastic) or varies (heteroskedastic). Scatterplot graphs can be used to observe the presence of heteroskedasticity.

d. Autocorrelation Test

The autocorrelation test examines whether there is a correlation between disturbances in the linear regression model at time  $t$  and disturbances at time  $t-1$  (previous period). Autocorrelation-free regression models are considered good. The Durbin Watson (DW) test is one way to detect autocorrelation, with a DW value between  $d_U$  and  $4-d_U$  indicating the absence of autocorrelation.

2. Multiple Linear Regression Analysis

Multiple linear regression analysis is employed to measure the influence of two or more independent variables on a single dependent variable and predict the dependent variable using the independent variables. The general equation for the multiple linear regression model in this study is as follows:

$$Y = \alpha + b_1 X_1 + b_2 X_2 + b_3 X_3 + e$$

Where:

- $Y$  is the Stock Price.
- $\alpha$  is the constant.
- $b_1, b_2, b_3$  are the regression coefficients.
- $X_1$  is the Profitability Ratio.
- $X_2$  is the Liquidity Ratio.
- $X_3$  is the Solvability Ratio.
- $e$  is the Error Term.

3. Coefficient of Determination Test ( $R^2$ )

The coefficient of determination test identifies the extent to which independent variables influence the dependent variable. The  $R^2$  value ranges from zero to one, with a higher  $\backslash(R^2)$  indicating a greater influence of independent variables on the dependent variable. Adjusted R square is used in this research since there are multiple independent variables.

a. Simultaneous Test (F Test)

The significance level for hypothesis testing using the F test is set at 0.05 ( $\backslash(\alpha = 5\%)$ ). The decision criteria for this test are as follows:

- 1) If the probability  $F > \alpha$  (0.05), there is no significant influence of independent variables on the dependent variable.
- 2) If  $F < \alpha$  (0.05), there is a significant influence of independent variables on the dependent variable.
- 3) If  $F$  calculated  $>$   $F$  table, independent variables collectively influence the dependent variable.
- 4) If  $F$  calculated  $<$   $F$  table, independent variables collectively do not influence the dependent variable.

b. Partial Test (t Test)

The significance level for this test is set at 0.05 ( $\alpha = 5\%$ ). Decision criteria for this test are as follows:

- 1) If  $t$  calculated  $<$   $t$  table, individual independent variables do not influence the dependent variable.
- 2) If  $t$  calculated  $>$   $t$  table, individual independent variables influence the dependent variable.
- 3) If the significance value  $> 0.05$ , individual independent variables do not have a significant influence on the dependent variable.
- 4) If the significance value  $< 0.05$ , individual independent variables have a significant influence on the dependent variable.

### 3. RESULTS AND DISCUSSION

#### 3.1 Descriptive Analysis

The population in this study consists of manufacturing companies in the Automotive and Component Sub-Sector listed on the Indonesia Stock Exchange (IDX) during the period 2016-2020. The list of companies used for sampling is accessed from [www.idx.co.id](http://www.idx.co.id). Throughout the research period, a total of 13 manufacturing companies in the Automotive and Component Sub-Sector were listed on the Indonesia Stock Exchange.

Based on the purposive sampling process, 6 companies from the group of manufacturing companies in the Automotive and Component Sub-Sector were selected as the research subjects. From the purposive sampling process, 6 sample

companies were obtained and will be analyzed to examine whether there is an influence of Profitability, Liquidity, and Solvability Ratios on the Financial Performance of the companies. The list of names of manufacturing companies in the Automotive and Component Sub-Sector selected as research samples can be seen in Table 3 below.

**Table 3.** List of names of companies in the Automotive and Components Sub-Sector Manufacturing for 2016-2020

No	Kode	Company
1	ASSI	Astra International Tbk
2	AUTO	Astra Otoparts Tbk
3	BOLT	Garuda Metalindo Tbk
4	BRAM	Indokordsa Tbk
5	INDS	Indospring Tbk
6	IMAS	Indomobil Sukses Internasional Tbk

Source: Authors

1. Profitability Ratio

Profitability ratio is a measure that indicates a company's ability to gain profit from the use of its capital. This ratio can also provide a measure of the effectiveness of a company's management. This is demonstrated by the profit generated from sales and investment income. The essence of using this ratio is to demonstrate the efficiency of the company. The following are the data regarding the Profitability Ratios of manufacturing companies in the Automotive and Component Sub-Sector during the research period from 2016 to 2020, which serve as the samples.

**Table 4.** Profitability Ratio Data for Automotive and Component Sub-Sector Manufacturing Companies 2016-2020

No	Kode	Nama Perusahaan	Tahun	Profitabilitas	
				ROA	ROE
1	ASSI	Astra International Tbk	2016	0,07	
			2017	0,08	
			2018	0,08	
			2019	0,08	
			2020	0,05	
2	AUTO	Astra Otoparts Tbk	2016	0,03	
			2017	0,04	
			2018	0,04	
			2019	0,05	
			2020	0,00	
3	BOLT	Garuda Metalindo Tbk	2016	0,09	
			2017	0,08	
			2018	0,06	
			2019	0,04	
			2020	-0,05	
4	BRAM	Indokordsa Tbk	2016	0,08	
			2017	0,08	
			2018	0,07	
			2019	0,05	
			2020	-0,02	
5	INDS	Indospring Tbk	2016	0,02	
			2017	0,05	
			2018	0,04	
			2019	0,04	
			2020	0,02	
6	IMAS	Indomobil Sukses Internasional Tbk	2016	-1,22	
			2017	-0,19	
			2018	0,27	
			2019	0,35	
			2020	-1,40	

Source: Authors

2. Liquidity Ratio

Liquidity ratio is a ratio used to describe a company's ability to settle its short-term obligations. The following are the data regarding the Liquidity Ratios of manufacturing companies in the Automotive and Component Sub-Sector during the research period from 2016 to 2020, which serve as the samples.

**Table 5.** Liquidity Ratio Data for Automotive and Component Sub-Sector Manufacturing Companies 2016-2020

<b>No</b>	<b>Kode</b>	<b>Nama Perusahaan</b>	<b>Tahun</b>	<b>Likuiditas</b>
				<b>CR</b>
1	ASSI	Astra International Tbk	2016	1,24
			2017	1,23
			2018	1,13
			2019	1,29
			2020	1,54
2	AUTO	Astra Otoparts Tbk	2016	1,51
			2017	1,72
			2018	1,48
			2019	1,61
			2020	1,32
3	BOLT	Garuda Metalindo Tbk	2016	4,14
			2017	3,13
			2018	1,80
			2019	2,01
			2020	1,61
4	BRAM	Indokordsa Tbk	2016	1,89
			2017	2,39
			2018	4,24
			2019	2,90
			2020	2,56
5	INDS	Indospring Tbk	2016	3,03
			2017	5,13
			2018	5,21
			2019	5,83
			2020	6,17
6	IMAS	Indomobil Sukses Internasional Tbk	2016	0,96
			2017	0,84
			2018	0,75
			2019	0,77
			2020	0,76

Source: Authors

### 3. Solvency Ratio

Solvency ratio is a ratio used to measure the extent to which a company's activities are financed by debt. A company is considered solvent if the amount of assets or wealth is sufficient to pay off all its debts. The following are the data regarding the Solvency Ratios of manufacturing companies in the Automotive and Component Sub-Sector during the research period from 2016 to 2020, which serve as the samples.

**Table 6.** Solvency Ratio Data for Automotive and Component Sub-Sector Manufacturing Companies 2016-2020

<b>No</b>	<b>Kode</b>	<b>Nama Perusahaan</b>	<b>Tahun</b>	<b>Solvabilitas</b>
				<b>DER</b>
1	ASSI	Astra International Tbk	2016	0,87
			2017	0,89
			2018	0,98
			2019	0,88
			2020	0,73
2	AUTO	Astra Otoparts Tbk	2016	0,39
			2017	0,37
			2018	0,41
			2019	0,37
			2020	0,35
3	BOLT	Garuda Metalindo Tbk	2016	0,25
			2017	0,65
			2018	0,78
			2019	0,66
			2020	0,60
4	BRAM	Indokordsa Tbk	2016	0,50
			2017	0,40
			2018	0,35
			2019	0,27
			2020	0,26
5	INDS	Indospring Tbk	2016	0,20
			2017	0,14
			2018	0,13
			2019	0,10
			2020	0,10
6	IMAS	Indomobil Sukses Internasional Tbk	2016	2,82
			2017	2,37
			2018	3,02
			2019	3,75
			2020	2,81

Source: Authors

#### 4. Stock Price

The stock price is the Present Value of the income that investors will receive in the future. Stock price is also defined as the market price of a stock at a specific time, determined by market participants and influenced by the demand and supply of that stock in the capital market.

**Table 7.** Stock Price Data for Automotive and Component Sub-Sector Manufacturing Companies 2016-2020

No	Kode	Nama Perusahaan	Tahun	Harga Saham
1	ASSI	Astra International Tbk	2016	8.275,00
			2017	8.050,00
			2018	8.225,00
			2019	6.925,00
			2020	6.025,00
2	AUTO	Astra Otoparts Tbk	2016	2.050,00
			2017	2.060,00
			2018	1.470,00
			2019	1.240,00
			2020	1.115,00
3	BOLT	Garuda Metalindo Tbk	2016	790,00
			2017	985,00
			2018	973,00
			2019	840,00
			2020	790,00
4	BRAM	Indokordsa Tbk	2016	6.675,00
			2017	7.375,00
			2018	6.200,00
			2019	10.800,00
			2020	5.200,00
5	INDS	Indospring Tbk	2016	810,00
			2017	1.260,00
			2018	2.220,00
			2019	2.300,00
			2020	2.000,00
6	IMAS	Indomobil Sukses Internasional Tbk	2016	1.310,00
			2017	840,00
			2018	2.160,00
			2019	1.155,00
			2020	1.515,00

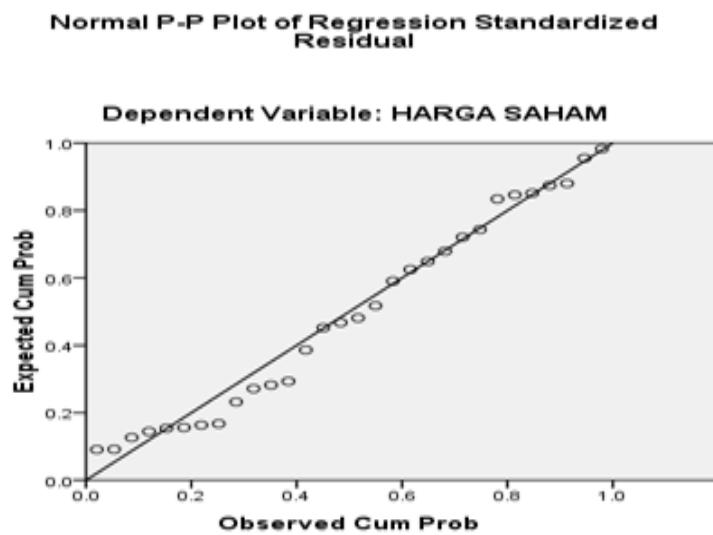
Source: Indonesian Stock Exchange (BEI)

#### 3.2 Classical Assumption Test Results

Before conducting data analysis, the data is tested according to classical assumptions, aiming to obtain a good regression model that is free from Multicollinearity, Heteroscedasticity, Normality, and Autocorrelation, and the generated data should follow a normal distribution. The methods used to test deviations from classical assumptions are as follows:

##### 1. Normality Test

The normality test aims to examine whether residuals in the regression model follow a normal distribution or not. A good regression model is one where the residuals follow a normal distribution. The methods used for testing normality are the normal P-P Plot and the Kolmogorov-Smirnov test. The decision-making basis using the P-P Plot graph is that if the spread of observation points is around the diagonal line, it can be said that the normality assumption has been fulfilled. The results of the test using the P-P Plot graph below (Figure 1). The Figure 1 illustrates data that moves along the linear diagonal line, allowing us to conclude that, in general, the used data follows a normal distribution and meets the normality assumption. The normality test can also be conducted using the Kolmogorov-Smirnov test. The decision-making basis for this test relies on the significance level (p-value), where a p-value greater than  $\alpha = 0.05$  indicates that the distribution of the model residuals is normal. Moreover, the results of the Kolmogorov-Smirnov test can be seen in the following table (Table 8). The results of the normality assumption test using the Kolmogorov-Smirnov test yielded a significance value (p-value) for the residuals of 0.615, which is greater than  $\alpha = 0.05$ . This indicates that the distribution of the residual model is normal, fulfilling the normality assumption.



**Figure 1.** Data Normality Test

Source: Authors

**Table 8.** One-Sample Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		30
Normal Parameters <sup>a,,b</sup>	Mean	0
	Std. Deviation	0.8819304
Most Extreme Differences	Absolute	0.138
	Positive	0.138
	Negative	-0.119
Kolmogorov-Smirnov Z		0.757
Asymp. Sig. (2-tailed)		0.615

Source: Authors

## 2. Multicollinearity Test

Multicollinearity test is an examination of the assumption that independent variables in a model are not correlated with each other. The multicollinearity test uses the Variance Inflation Factor (VIF) value. The decision-making basis using the VIF value, where VIF values < 10 indicate no multicollinearity among variables. The test results with the VIF values can be seen in the following table 9. Results of the multicollinearity test using the Variance Inflation Factor (VIF) obtained VIF values for independent variables < 10, indicating no linear relationship between independent variables. Thus, the multicollinearity assumption is met.

**Table 9.** Multicollinearity Test Results with VIF

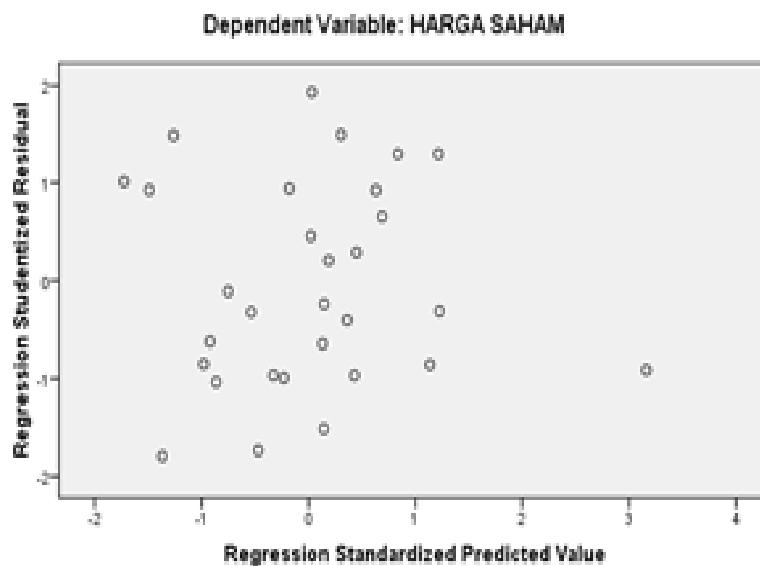
Coefficients <sup>a</sup>			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Profitability	0.952	1.051
	Liquidity	0.879	1.138
	Solvency	0.912	1.097

a. Dependent Variable: Price Stock

Source: Authors

### 3. Heteroskedasticity Test

Heteroskedasticity test aims to examine whether there is a difference in variance from the residual of one observation to another in the regression model. A good regression model is one where heteroskedasticity does not occur. To detect the presence or absence of heteroskedasticity in the regression model, it can be seen from the scatter plot between the predicted values of the dependent variable (ZPRED) and its residuals (SRESID). The analysis results in figure 2 below, show that the points scatter randomly and do not form a specific pattern. This indicates that there is no indication of heteroskedasticity in the tested model, so this assumption is met.



**Figure 2.** Scatter Plot Heteroskedasticity Test

Source: Authors

### 4. Autocorrelation Test

The purpose of the autocorrelation test is to examine whether there is a correlation between disturbance errors in period  $t$  and errors in period  $t-1$  (previous) in a linear regression model. If there is a correlation, it is called an autocorrelation problem. Autocorrelation is often found in time series data. The basis for decision-making using the Durbin Watson test statistic, where if the DW value is between the DU value and the 4-dU value, then the regression model used is free from autocorrelation. The result of testing the autocorrelation assumption with the Durbin Watson method obtained a DW value of 2.229, indicating that the regression model used falls into the region of no autocorrelation because the DW value is close to both the DU value (1.214) and 4-dU value (2.786), indicating no autocorrelation.

**Table 10.** Autocorrelation Test Results

Model Summary <sup>b</sup>	
Model	Durbin-Watson
1	2.229 <sup>a</sup>
a. Predictors: (Constant), Solvency, Profitability, Liquidity	
b. Dependent Variable: Stock Price	

Source: Authors

### 3.2 Multiple Linear Regression Analysis

#### 1. Multiple Linear Regression Analysis

Multiple linear regression analysis aims to examine the clarity of the influence of independent variables on the dependent variable (stock price). Therefore, the researcher employs multiple linear regression based on pooled data. The results of the multiple linear regression analysis of the impact of Profitability Ratio (X1), Liquidity Ratio (X2), and Solvency Ratio (X3) on Stock Price (Y) are as follows table 10.

From the above coefficient values, the regression equation for the variables of operating cash flow and net profit can be formulated as follows:

$$Y = 6780.642 + 770.906 X_1 - 789.475 X_2 - 1414.237 X_3 + e$$

Where:

$Y$  = Stock Price

$X_1$  = Profitability Ratio

$X_2$  = Liquidity Ratio

$X_3$  = Solvency Ratio

From the linear regression equation above, it can be explained that:

1. The regression coefficient  $(X_1)$  is 770.906, indicating that a one-unit change in the Profitability Ratio variable will affect the stock price by 770.906.
2. The regression coefficient  $(X_2)$  is -789.475, indicating that a one-unit change in the Liquidity Ratio variable will affect the stock price by -789.475.
3. The regression coefficient  $(X_3)$  is -1414.237, indicating that a one-unit change in the Solvency Ratio variable will affect the stock price by -1414.237.

**Table 10.** Multiple Linear Regression Results

Model	Coefficients <sup>a</sup>					
	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
1	(Constant)	6780.642	1264.753		5.361	0
	Profitability	770.906	1540.459	0.091	0.5	0.621
	Liquidity	-789.475	310.142	-0.495	- 2.546	0.017
	Solvency	-1414.237	584.889	-0.502	- 2.418	0.023

a. Dependent Variable: Stock Price

Source: Authors

2. Coefficient of Determination Test ( $(R^2)$ )

The coefficient of determination ( $(R^2)$ ) is intended to determine the level of the best accuracy in regression analysis, where it is indicated by the magnitude of the coefficient of determination ( $(R^2)$ ) between 0 (zero) and 1 (one). Moreover, the coefficient of determination ( $(R^2)$ ) is used to determine the percentage of changes in the dependent variable ( $(Y)$ ) caused by the independent variables ( $(X)$ ). Based on the data processing results with the SPSS program, the obtained results are as follows:

**Table 11.** Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.521 <sup>a</sup>	0.271	0.187	2733.011
a. Predictors: (Constant), Solvency, Profitability, Liquidity				

Source: Authors

In the above model summary, the coefficient of determination ( $(R^2)$ ) is 0.271 or 27.10%. This means that the dependent variable, namely stock prices ( $(Y)$ ), can be explained by the independent variables Profitability Ratio ( $(X_1)$ ), Liquidity Ratio ( $(X_2)$ ), and Solvency Ratio ( $(X_3)$ ) by 27.10%, while the remaining 72.90% is explained by other independent variables not included in the study.

a. F-Test

The simultaneous test is used to examine the influence of all independent variables on the dependent variable using the F-statistic, where a calculated F-value greater than the tabulated F-value or a p-value less than  $\alpha$  5% indicates simultaneous influence.

The simultaneous test between Profitability Ratio, Liquidity Ratio, and Solvency Ratio against stock prices yielded a calculated F-value (3.221), which is greater than the tabulated F-value (2), or a p-value (0.039) less than  $\alpha$  5% (0.05), indicating a significant influence between Profitability Ratio, Liquidity Ratio, and Solvency Ratio on stock prices.

**Table 12. F-Test Results**

ANOVA <sup>b</sup>					
Model		Sum of Squares	Df	Mean Square	F
1	Regression	7.22E+07	3	2.41E+07	3.221
	Residual	1.94E+08	26	7469350.584	
	Total	2.66E+08	29		
a. Predictors: (Constant), Solvency, Profitability, Liquidity					
b. Dependent Variable: Price Stock					

Source: Authors

b. t-test

The t-test is used to determine the partial influence of each independent variable on the dependent variable. The test is conducted at a significance level of  $\alpha$  0.50. Based on the data processing results with SPSS, the obtained results are as seen in the following table 13 below.

**Table 13. T-Test Results**

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1	(Constant)	6780.642	1264.753		5.361	0
	Profitability	770.906	1540.459	0.091	0.5	0.621
	Liquidity	-789.475	310.142	-0.495	-2.546	0.017
	Solvency	-1414.237	584.889	-0.502	-2.418	0.023
a. Dependent Variable: Price Stock						

Source: Authors

From the regression coefficient table above, conclusions can be drawn as follows:

- 1) The t-test is used to examine the significance of the constant for each independent variable. From the table, it can be observed that the Profitability Ratio variable has a significance value of 0.621, which is above  $\alpha$  0.05, indicating that Profitability Ratio does not have a significant partial effect on stock prices.
- 2) The t-test is employed to test the significance of the constant for each independent variable. From the table, it is evident that the Liquidity Ratio variable has a significant value of 0.017, which is below  $\alpha$  0.05, indicating that Liquidity Ratio has a significant partial effect on stock prices.
- 3) The t-test is applied to examine the significance of the constant for each independent variable. From the table, it can be seen that the Solvability Ratio variable has a significant value of 0.023, which is below  $\alpha$  0.05, indicating that Solvability Ratio has a significant partial effect on stock prices.

### 3.3 Discussion

#### 1. Analysis of the Influence of Profitability, Liquidity, and Solvency on Stock Prices

Based on the research results, it is found that simultaneously, profitability, liquidity, and solvency affect stock prices. The higher the profitability, the higher the company's profit level, the better the liquidity level, the better the company is perceived by creditors, while the lower solvency indicates lower debt levels. With good financial ratios reflecting good financial conditions, it influences stock prices. Therefore, corporate leaders are advised to maintain financial ratios at a good level to consistently influence the company's stock prices.

#### 2. Analysis of the Impact of Profitability on Stock Prices

Based on the research findings, profitability does not have a significant impact on stock prices. A lower Return on Assets (ROA) indicates ineffective company performance, as evidenced by a declining trend in ROA each year due to net profit values not increasing annually. External factors include the phenomenon of several companies leaving Indonesia, such as Ford and Harley Davidson, and a rise in prices for Honda. Additionally, the year 2019 witnessed the prolonged impact of the Covid-19 pandemic, affecting the automotive industry. The imposition of Large-Scale Social Restrictions (PSBB) has been continually extended. The lengthy supply chain also affects

financing and insurance, resulting in reduced purchasing power and production cuts for companies. This, in turn, impacts company profits, affecting investor attractiveness and stock prices. Thus, improving a company's profitability and financial ratios can enhance investor confidence and stock prices.

### 3. Analysis of the Impact of Liquidity on Stock Prices

Based on the research findings, liquidity has an impact on stock prices. The higher the liquidity level, the better the company's position in the eyes of creditors, as the company is more likely to meet its obligations on time. Good company conditions attract investor interest in investing capital, resulting in an increase in stock prices. If a company's liquidity decreases, investors may perceive the company as having more debts and being less liquid, leading to a decline in stock prices. The influence of liquidity on stock prices may be due to high liquidity levels, attracting investor interest and increasing stock prices. Therefore, companies must maintain or improve their assets to pay short-term debts, increasing liquidity levels and influencing stock prices.

### 4. Analysis of the Impact of Solvency on Stock Prices

Based on the research results, solvency has an impact on stock prices. High solvency has a negative impact on company performance because higher debt levels mean higher interest expenses, reducing profits and causing stock prices to fall. Conversely, low solvency indicates better performance by leading to higher returns and subsequently higher stock prices. Companies need to monitor debt policies to avoid excessively high debt levels, discouraging investor capital investment and affecting stock prices.

## 4. CONCLUSION

Based on the discussion and analysis, it can be concluded that there is a simultaneous influence of liquidity, solvency, and profitability on stock prices in the manufacturing sub-sector of automotive and components companies listed on the Indonesia Stock Exchange. However, on a partial basis, it indicates that there is no influence of profitability on stock prices, there is an influence of liquidity on stock prices, and there is an influence of solvency on stock prices in the manufacturing sub-sector of automotive and components companies listed on the Indonesia Stock Exchange.

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