FUNDAMENTAL ANALYSIS IN PREDICTING STOCK RETURNS FOR INDONESIA TRANSPORTATION AND LOGISTICS COMPANIES DURING COVID-19 PANDEMIC

Isnaini Nuzula Agustin
Management Department, Faculty of Economic and Business,
Universitas Internasional Batam
isnaini.nuzula@uib.ac.id

Ivander Lukito
Management Department, Faculty of Economic and Business,
Universitas Internasional Batam
ivanderlukito@gmail.com (*corresponding author*)

Abstract: The development of companies in the transportation and logistics sector has been hindered by the increasing Covid-19 pandemic, which minimizes outdoor activities. This study aims to determine the fundamental factors affecting companies' stock returns during the Covid-19 pandemic. Data collection was obtained from annual financial reports available on the official website of idx.co.id during the period 2017-2021, resulting in 81 samples, and panel data regression analysis was used as the research method. The results of the study showed that return on assets had a positive and significant effect on stock returns, while net profit margin had a negative and significant effect on stock returns. Additionally, other variables did not have a significant effect on stock returns. The limitation of this research was that it only used one sector of companies and only tested 21 companies that met the criteria.
Keywords: Financial Factor, Transportation and Logistics, Covid-19, Stock Returns

Abstrak: Perkembangan perusahaan sektor transportasi dan logistik semakin terhambat seiring meningkatnya pandemi Covid-19 yang meminimalisir kegiatan di luar rumah. target dalam penelitian ini mengetahui faktor fundamental perusahaan terhadap pengembalian saham pada masa pandemi Covid-19. Pengumpulan data didapatkan dari laporan keuangan tahunan yang tersedia di *website* resmi idx.co.id selama periode 2017-2021 sehingga didapatkan 81 sampel dan menggunakan analisis regresi data panel sebagai metode penelitian. Hasil penelitian menunjukkan bahwa *return on asset* berpengaruh positif dan signifikan terhadap pengembalian saham dan *net profit margin* berpengaruh negatif dan signifikan terhadap pengembalian saham. Selain itu, variabel lainnya tidak berpengaruh signifikan terhadap pengembalian saham. Limitasi penelitian ini adalah keterbatasan jumlah data mengingat periode Covid-19 baru dimulai sejak 2020 dan masih berjalan hingga saat ini.
Kata Kunci: Faktor Fundamental, Transportasi dan Logistik, Covid-19, Pengembalian Saham

INTRODUCTION

The development of the capital market in Indonesia has evolved rapidly in the last few decades. It was significantly supported by the growth of capital market investors in Indonesia annually. In 2019, it was recorded that there were 2,484,354 investors, which later increased significantly by 201.46% in 2021 to 7,489,337 investors; otherwise, stock price change has a fluctuating characteristic that moves up and down. Therefore, a technique is required to analyze stock price changes in the capital market. Analyses generally used include fundamental analysis and technical analysis. Fundamental analysis refers to company performance, namely report finance, finance performance, company conditions, management performance, and the

company's perspective. Meanwhile, technical analysis refers to the history of stock price change (Lubis, 2021).

The stock price change is vulnerable to national, regional, and global economic conditions. Recently, the world has been attacked by the Covid-19 pandemic, which is initially a health problem and switching has become an economic issue because of various policy restrictions imposed by the government. Thus, the Covid-19 virus negatively impacts the world, not only in health but also the world economy (Priyambudi & Thamrin, 2021). In Indonesia, the invention of the first case confirmation of the Covid-19 pandemic was announced on March 2, 2020, by the Indonesian government, with two people infected a Japanese citizen. Then, on April 10, 2020, the government implemented policies in some areas for quarantined often called PSBB, because of soaring cases of Covid-19 to 3,000 infected positive, and 300 people passed away. Finally, the government applied a *lockdown* policy that obliged all occupational, school, and other activities at home to minimize Covid-19 transmission (Nurcahyono et al., 2021).

Figure 1
Stock Price Movement of Indonesia Composite Index 2020-2021

Source: Investing.com (2023)

Indirectly, the world's stock markets were also affected by the Covid-19 pandemic impact, i.e., there was a significant reduction in stock prices during the pandemic, signaling that Covid-19 affected the stock market as researched by Anh and Gan (2020) that positive case increase can affect stock return level. From the figures taken from tradingview.com, the Composite Stock Price Index (IHSG) stock market experienced a 27.71% decline since the first Covid-19 case was confirmed in Indonesia.

The decline of the stock price in Indonesia due to the Covid-19 pandemic creates uncertainty for investors to predict when stock prices will move up and down. It can become challenging for investors to prefer which suitable stocks to invest in now, and stock returns are also very volatile with global economic movement condition, which has not been definite yet. Utilization of information to analyze the market for investors before making the decision can play an essential role, and hopefully, it can increase big profits and small losses in investing stocks (Priyambudi & Thamrin, 2021).

One of the industrial sectors that experienced pressure due to the Covid-19 pandemic was the transportation sector in Indonesia. This sector is the most affected because the Indonesian government applied restriction regulation activities listed in "The Minister of Transportation (Permenhub) Number 41 of 2020 addresses the regulation regarding "The Control of Transportation in Preventing Covid-19 Spread". One point of this regulation is restricting public transportation use by 50% of the total capacity to keep distance between each passenger (Hadi, 2020). It negatively impacted the performance of transportation sector companies, especially finance companies which experienced a significant income decline because the restrictions on public activity caused a lack of consumers who use the services provided (Yati,

2021). However, Perkumiene et al. (2021) findings discussed that transportation companies and logistics also had a positive impact during the pandemic, such as increasing online logistics and transportation service demands because of the rapid growth of the e-commerce field, automation, intelligence artificial intelligence, and others. Hence, the service became faster and easier.

Figure 2
The Movement of Stock Prices for Three Companies in The Transportation and Logistics Sector
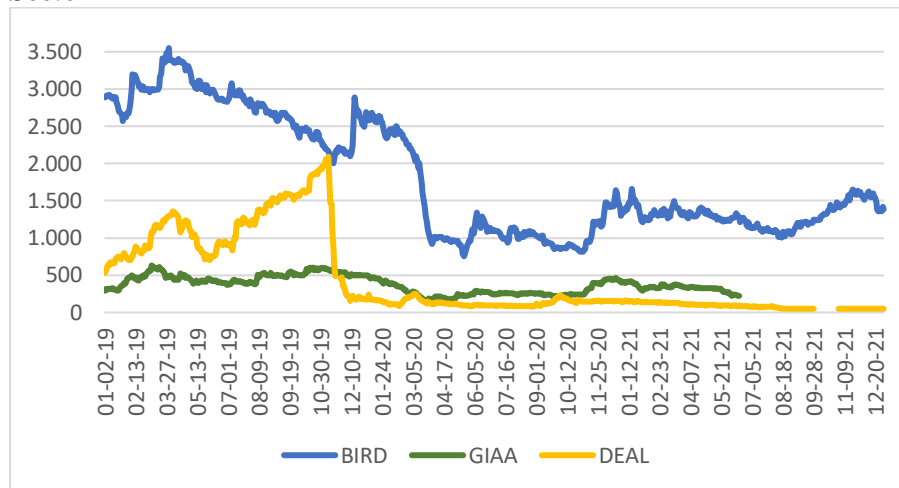
Source: Researcher (2023)

Based on the stock chart above, which consists of three transportation companies, namely PT Blue Bird Tbk (BIRD), PT Garuda Indonesia Tbk (GIAA), and PT Dewata Freight International Tbk (DEAL); the chart indicated that the three companies experienced a significant decline in their stock prices when the first Covid-19 case was announced in Indonesia. Based on the explanation above, this research objective is to determine the effect of profitability ratios consisting of return on equity, return on assets, net profit margin, and market ratios consisting of price earning ratio and price to book value on stock returns in companies in the transportation and logistics sector from 2017-2021 and *Covid-19* as a control variable.

LITERATURE REVIEW

Fundamental factors can be indicators in reflecting the value and condition of a company based on its performance, factors such as financial performance, company management, and others which investors can obtain to add more insight into the company's condition. In the long term, if the company's fundamentals are good, stock returns tend to increase, and vice versa. If the company's fundamentals are bad, stock returns will also decrease. Predicting future stock prices can be applied by evaluating relevant variables to produce an appropriate analysis (Agustina & Purnomo, 2022). The stock return can be obtained from the difference between the money invested and the amount obtained when selling or purchasing stock.

According to Akinroluyo and Dimgba (2022), return on equity can be associated with the amount of net profit returned as the investor equity level, which is a common variable and is widely used to measure a company's financial performance. Mudzakar and Wardanny's (2021) research explained that the higher a company's profit to value, the more feasible it was for an organization to use its internal cash flow and the better its performance would be. It could attract investors because it offered a higher return on equity, so company profits also increased. The research results stated that return on equity positively and significantly impacted stock returns.

Agustina and Purnomo (2022) explain that return on assets is a profitability ratio that describes the financial performance of a company whose net profit is generated from the assets used in the company. Putra's (2022) research revealed that ROA indicated that a company was able to generate profits; thus, it could increase the value of net profit and sales value and would generate greater investor interest, whose research results from return on assets had a positive and significant impact on stock returns.

Santoso et al. (2020) state that the net profit margin measures a company's efficiency level in managing net profit derived from company sales/revenue. The higher the percentage of the NPM value, the better the company manages each of its income; thus, a high NPM value can attract the attention of investors. Research by Nadyayani and Suarjaya (2021) examined that NPM had a positive and significant effect on stock returns because the higher the NPM, the profit level obtained by the company from sales also increased, the increased stock returns attracted the attention of investors, particularly in the manufacturing sector, who became interested in investing in these companies.

According to Doblas et al. (2020), the price earning to ratio is widely employed by investors in predicting stock returns to calculate the expensive and cheap stocks based on the net income generated by the company. Bachri et al. (2020) researched that PER had a positive and significant effect on stock returns because a high PER indicated a high level of investor expectations for company performance in the future, so Investors are inclined to show interest in company shares that have the potential to generate higher returns.

Doblas et al. (2020) also explain that a high price to book value indicates the stock's market price exceeds its book value, which impacts the rate of return on stocks. The research results concluded that the price-to-book value was positive and significant in predicting the share price of Bahraini public financial institutions, where a higher Price-to-Book Value (PBV) ratio indicates the company's capacity to enhance its earnings and strengthen its ability to distribute dividends to shareholders, ultimately leading to the potential for higher future returns.

RESEARCH METHOD

This research used a causal-comparative method (Casual Comparative Research) to identify causes and effects between the dependent and independent variables. The research object was a company listed on the Jakarta Composite Index (IHSG) in Indonesia, and the sample companies consisted of the transportation and logistics sectors which had a total of 21 companies that met the criteria and were taken from 2017 to 2021 reaching a total of 81 samples. Secondary data in financial reports were obtained from www.idx.co.id, www.yahoofinance.com for additional information, and investing.com for stock charts. The data analysis technique employed in this research was panel data regression analysis, which was carried out using the EViews 12 application. The regression model in this research could be presented based on the regression coefficient values as follows:

Table 1
Variable Measurement

No	Variable	Indicator	Source
1	Stock Return	$R_t = \frac{P_t - P_{t-1}}{P_{t-1}}$	Bachri et al. (2020)
2	Return on Equity	$ROE = \frac{Earning\ After\ Tax}{Total\ Equity}$	Nurmayasari et al. (2021)
3	Net Profit Margin	$NPM = \frac{Net\ Profit}{Total\ Sales}$	Lubis (2021)
4	Return on Assets	$ROA = \frac{Earning\ After\ Tax}{Total\ Assets}$	Agustina & Purnomo (2022)
5	Price Earning Ratio	$PER = \frac{Share\ Price}{Earning\ Per\ Share}$	Priyambudi & Thamrin (2021)
6	Price to Book Value	$PBV = \frac{Current\ Stock\ Price}{Book\ Value\ Per\ Share}$	Santoso et al. (2020)

| 7 | Covid-19 | The variable of the Covid-19 pandemic will be measured using a dummy variable, where the years 2020 and 2021, which experienced the Covid-19 pandemic, will be assigned a value of 1, while the years without Covid-19, namely 2017 to 2019, will be assigned a value of 0. | Febriani et al. (2022) |

Source: Researcher (2023)

$$Y = a + \beta_1 ROE + \beta_2 NPM + \beta_3 ROA + \beta_4 PER + \beta_5 PBV + \beta_6 COVID$$

Description:
Y   : Stock Return
a   : Constant
β   : Regression Coefficient
ROE : Return on Equity
NPM : Net Profit Margin
ROA : Return on Asset
PBV : Price to Book Value
COVID : Dummy Covid-19

RESULTS AND CONCLUSIONS
Descriptives Statistics
   Descriptive statistics is an approach to presenting data that involves collecting, arranging, and summarizing it in a manner that facilitates comprehension for data users. It focuses on providing insights and explanations regarding a dataset or phenomenon.

Table 2
Result of Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	C. Variation
Stock Return	81	-0.88839	8.92754	0.4305446	1.40226387	325.69537
ROE	81	-5.59570	5.14151	0.0872140	1.02679707	1177.33055
NPM	81	-2.47066	25.96566	0.2144747	2.92631947	1364.41243
ROA	81	-0.31881	2.07150	0.0174235	0.25465484	1461.55961
PER	81	-1389.88322	920.83802	14.8125769	198.91451870	1342.87585
PBV	81	-40.74122	26.13315	1.5030657	6.09382139	405.42661

Source: Researcher (2023)

   The descriptive statistical test results for 81 samples from 2017 to 2021 demonstrated that the stock return (Y) variable had an average value of 0.43054, a minimum value of -0.88839 and a maximum value of 8.92754, and a standard deviation of 1. 40226. The value of stock returns in the transportation sector could be relatively high, far exceeding the mean of JCI stock return which has only reached 18% in the last 20 years (www.cnbcindonesia.com). The company with the highest stock return value was TMAS in 2021, while the company with the lowest value was SDMU in 2018.

   The return on equity variable had a minimum value of -5.59570 and a maximum value of 5.14151 with an average value of 0.0872140 and a standard deviation value of 1.0267970. In terms of net profit margin, the TAXI company was the company with the highest net profit margin value in 2021, with a value of 25.96566, while the company with the lowest net profit margin value was also a TAXI company in 2020 with a value of -2.47066. The average value of the net profit margin was 0.2144747, while the standard deviation value was 2.92631947.

   The return on assets variable had a value of -0.31881 to 2.017150 with an average value of 0.0174235 and a standard deviation value of 0.25465484. The price earning ratio variable was employed to calculate high or low stock prices. From the test results above, the company with the highest score was the TNCA company in 2021, with a value of 920.83802, while the

DEAL company in 2019 had the lowest score of -1389.88322. Meanwhile, the price-to-book value produced testing data ranging from -40.74122 to 26.13315 with an average value of 1.5030657 and a standard deviation value of 6.09382139.

On the other hand, the Coefficient of Variation (CV) value indicates the level of variation relative to the average. The results indicate that stock return had the lowest CV value, and ROA had the highest CV value. It implied that ROA was the most volatile variable compared to other variables.

Model Selection
Table 3
Best Model Selection

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.302479	(20,54)	0.2179
Cross-section Chi-square	31.886642	20	0.0445
Cross-section random	11.829994	6	0.0659
Breusch-Pagan	0.194662	4.109536	4.304199
	(0.6591)	(0.0426)	(0.0380)

Source: Researcher (2023)

Chow Test
Chow's test was used to choose the best model between Comment Effect Model (CEM) or Fixed Effect Model (FEM), with the provision to fulfill Chow test criteria was the probability value must be above 0.05. Furthermore, the model met the requirements and was considered the best Common Effect Model (CEM). If the probability value is under number 0.05, then it must continue to perform the Hausman test (Nengsih & Martaliah, 2022). Chow's test yielded a probability value of 0.0445, which was smaller than the value of 0.05; hence, the selected model was the Fixed Effect Model and continued by the Hausman test.

Hausman Test
Hausman's test was used to choose the best model between the Fixed Effect Model (FEM) and Random Effect Model (REM). If the probability value was below 0.05, the best model used was the Fixed Effect Model (FEM) and vice versa. If the probability value were above 0.05, the Lagrange Multiplier test would be repeated (Nengsih & Martaliah, 2022). Hausman testing yields a probability value of 0.0659, more significant than the value of 0.05, so the selected model was Random Effect Model and would be continued by Lagrange Multiplier testing.

Lagrange Multiplier Test
The Lagrange Multiplier test was performed to determine the best model between the Common Effect Model (CEM) and Random Effect Model (REM) conducted by Breusch-Pagan. If the probability value was below 0.05, the best-used model was the Random Effect Model (REM), and vice versa. If the probability value is above 0.05, the best model used is the Common Effect Model (CEM) (Nengsih & Martaliah, 2022). Based on the result, the Breusch-Pagan probability value was 0.6591, which was more significant than 0.05, then the testing model best used in the research was the Common Effects Model.

Hypothesis Test Result
Table 4
Result of F Test

Dependent Variable	Statistic	Prob.	Conclusion
Stock Return	3.958218	0.001734	Significant

Source: Researcher (2023)

The results of the *F*-test in Table 4.6 indicated that a value of more than 0.001734 was obtained, lower than 0.05, which could be concluded that the regression model used could be employed to predict the effects of return on equity, net profit margin, return on assets, price earning ratio, and price to book value to stock returns variables. The *t*-test was performed to compare arithmetic *t*-count (*t*-value) with *t*-table value (*t*-critical) to determine significant effects between two variables, X and Y. If the value of *t*-count was more significant from the *t*-table value, so there was a significant effect between X and Y. Conversely when *t*-count value smaller from *t*-table value, there was no significant effect between X and Y (Nengsih & Martaliah, 2022).

Table 5
Result of t Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Conclusion
(*Constant*)	0.001504	0.201671	0.007459	0.9941	
ROE	0.147115	0.181802	0.809202	0.4210	Insignificant
NPM	-0.356153	0.152977	-2.328140	0.0226	Negative Significant
ROA	3.853222	1.878582	2.051133	0.0438	Positive Significant
PER	0.001061	0.000753	1.408694	0.1631	Insignificant
PBV	0.054047	0.030318	1.782668	0.0787	Insignificant
COVID-19	0.682282	0.288565	2.364401	0.0207	Positive Significant

Source: Researcher (2023)

The *t*-test results indicated the probability value of return on equity variable of 0.4210, price earning ratio variable value of 0.1631, and price to book value variable value of 0.0787. Therefore, it could be concluded that return on equity, price earning ratio, and price to book value did not significantly affect the dependent variable. The probability value variable of the net profit margin was 0.0226. It implied that the net profit margin effect had a significant effect on the dependent variable. Furthermore, the return on assets variable had a probability value of 0.0438 which implied that the return on assets variable also had a significant effect on the dependent variable. The probability value of the Covid-19 control variable was 0.0207, i.e., the control variable had a significant positive effect on the dependent variable.

Research results above revealed that there were only two independent variables and one control variable which give a significant effect on stock returns, namely net profit margin, return on equity, and Covid-19 variables; meanwhile, return on equity, price earning ratio, and price to book value variables had no significant effect to stock return.

Hypotheses Testing and Discussion
Return on Equity (H₁)

Partial test results showed that the return on equity variable had no significant effect on stock return. In making decisions, investors paid less attention to the high and low value of ROE because if company profits increased, it can be concluded that company capital could be managed effectively and also changed in profit that fluctuated during the Covid-19 pandemic. It was due to several Community Activities Restrictions Enforcement (PPKM) regulations that made ROE less attractive in investor decision-making. This research was consistent with Bhuyan et al. (2021), Nadyayani and Suarjaya (2021), and Nurmayasari et al. (2021). So, the H₁ is rejected by the statistical test.

Net Profit Margin (H₂)

The partial test results showed net profit margin variable significantly negatively affected stock returns. It implied that the lower the value of a company's NPM, the higher the probability of a return on its stocks. The pandemic created many other burdens due to the negative value of the company's current year profit. However, the company's sales value was positive, where it could be considered that investors often pay attention to total sales in the

financial statements, thus attracting investors who believed that these variables could be relied upon in investments. This research was consistent with Tarmizi et al. (2018) and Kusmayadi et al. (2018). So, the H_2 is accepted by the statistical test.

Return on Assets (H_3)

Based on the results of the partial test, the return on assets variable had a significant positive effect on stock returns. The higher the value of the company's ROA, the higher the rate of return on stock. Transportation and logistics companies require significant assets to carry out their operational activities. Hence, the role of assets became significant for investors to assess the company's financial condition. A healthy ROA indicated that the company could manage company assets well during the pandemic and generate profits that could increase net profit. It could attract investors with a healthy ROA value, which could positively impact investors and companies, thereby increasing stock returns. This research was consistent with Putra (2022), Hồng & Dũng (2021), and Januar et al. (2022). So, the H_3 is accepted by the statistical test.

Price Earning Ratio (H_4)

Based on the results of the partial test, the price earning ratio variable had no significant effect on stock returns. Investors considered that PER would increase when the company's growth was high, but the PER ratio was inaccurate. It was used as an indicator to assess company growth but also required to be considered with other factors such as net income and other macroeconomic factors that could affect company performance and stock returns. This research was consistent with Awalakki and H.N. (2021), Bhuyan et al. (2021), and Ghofir (2020). So, the H_4 is rejected by the statistical test.

Price to Book Value (H_5)

Based on the results of the partial tests, the price-to-book value variable did not significantly affect stock returns. Not many investors employ price to book value as a guide for investing in particular companies because investors usually consider other factors more. Investors tended to choose shares of companies with high-profit potential and had certain beliefs about a company's performance. This research was consistent with Lubis (2021), Harlan and Wijaya (2022), and Claudhea et al. (2021). So, the H_5 is rejected by the statistical test.

This partial test demonstrated that the Covid-19 control variable had a significant positive effect on stock returns. In the early days of the Covid-19 pandemic, the stock market experienced a downturn as investors worried about the impact of the pandemic on the global economy. However, the stock market then recovered gradually with the policies of the government and central banks. The recovery rate of Covid-19 patients could also affect stock market performance in the long term. If the pandemic was handled effectively and the number of cases could be managed and controlled, it could reduce uncertainty and have a positive impact on overall economic performance, which in turn can have a positive impact on stock performance. Thus, stock returns could increase as Covid-19 is handled effectively and investors gain confidence that the economy would improve. This research was consistent with Agustin and Agustino (2022) and Nurcahyono et al. (2021), who stated that the growth rate of recovery of Covid-19 patients had a significant positive effect on stock returns.

Coefficient Test Determination (R^2)

Coefficient test determination was employed to evaluate how much both regression models could explain variation in dependent variables using existing independent variables. The coefficient of determination (R-squared) had a value range between 0 and 1; if the value was 1, the independent variable provided complete information in predicting the dependent

variable. In contrast, if the value was 0, the independent variable did not provide information to predict the dependent variable (Nengsih & Martaliah, 2022).

Table 6
Coefficient Test Determination Outcomes (R^2)

Dependent Variable	Adjusted R-squared	R-squared
Stock Return	0.181580	0.242961

Source: Researcher (2023)

In Table 6, the coefficient determination testing results indicated a coefficient determination value of 0.181580. It implied that the research variable used could only explain 18.1580% of the dependent variable variation; otherwise, other supporting factors that did not exist in this research contributed 81.842% in explaining dependent variable variation.

CONCLUSION

Research results demonstrated that return on equity, price earning ratio, and price to book value variables were not enough to interest investors' attention to notice variables in investing. The net profit margin variable had significant and negative effects on stock returns because investors tended to pay more attention to the total sales on the finance report than the net profit value, which could attract investors to buy the stocks. The return on assets variable showed significant and positive effects on stock returns, which then can be implied that the company was able to manage asset companies and profits during a pandemic well to attract investors to invest in companies with healthy ROA values, and Covid-19 variable had significant and positive effects to a reliable stock return that patient's recovery level could increase stock return. Companies must be more careful in announcing ROA values because they could affect stock returns. Meanwhile, investors must also refine the financial ratios used in analyzing a company because ROA was the only variable that had a positive and significant effect during this pandemic.

The transportation and logistics sector concerned the people and goods mobility which always had an impact on economic activity and ultimately contributed highly to the economic conditions of a country. Therefore, research on changes in transportation and logistics deserves to be explored, especially if a phenomenon such as Covid-19 occurs. However, this research limitation was the minimal amount of data due to the relatively short period of Covid-19, which is still ongoing. In addition, in Indonesia, there are only 21 companies that could be tested, considering that several companies in the transportation and logistics sector have just conducted an IPO in 2020-2021.

DAFTAR PUSTAKA

Agustin, I. N., & Agustino, A. (2022). The response of banking sectors to the Covid-19 pandemic in Indonesia stock exchange. *Almana: Jurnal Manajemen dan Bisnis*, *6*(1), 63–73. https://doi.org/10.36555/almana.v6i1.1742

Agustina, S., & Purnomo, L. I. (2022). The effect of fundamental factors, earning per share and exchange rate on stock returns with dividend policy as intervening variabels. *Keunis*, *10*(2), 56–71. https://doi.org/10.32497/keunis.v10i2.3463

Akinroluyo, B. I., & Dimgba, C. (2022). Banks liquidity ratio and return on equity of Nigeria deposit money bank in Nigeria. *International Journal of Management & Entrepreneurship Research*, *4*(1), 36–47. https://doi.org/10.51594/ijmer.v4i1.283

Anh, D. L. T., & Gan, C. (2020). The impact of the COVID-19 lockdown on stock market performance: Evidence from Vietnam. *Journal of Economic Studies*, *48*(4), 836–851. https://doi.org/10.1108/JES-06-2020-0312

Awalakki, M., & H. N., A. (2021). Impact of financial performance ratios on stock returns – A study with reference to national stock exchange. *International Virtual Conference on Materials, Manufacturing and Nanotechnology*, *3*(3), 2151–2167. https://www.journal-aquaticscience.com/article_136359.html

Bachri, R. S., Dewi, T., Anggraini, E. D., Rahmawati, I. D., & Novatiani, R. A. (2020). The influence of price earning ratio and debt to equity ratio on stock returns (Empirical study of banking companies on the ISE period 2016-2018). *PalArch's Journal of Archaeology of Egypt/Egyptology*, *17*(4), 2854–2860. https://archives.palarch.nl/index.php/jae/article/view/3877

Bhuyan, R., Khandoker, M., Taznin, M., Rahman, S., & Akter, L. (2021). Determining stock return movements of banking sector during global financial crisis: An examination on emerging markets of Bangladesh. *Bulletin of Applied Economics*, *8*(2), 111–123. https://doi.org/10.47260/bae/827

Claudhea, R., Milania G, C., Arivandi D, A., & Mesrawati, M. (2021). Pengaruh solvabilitas, economic value added, profitabilitas, price to book value dan likuiditas terhadap return saham perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia tahun 2017-2019. *Jurnal Akuntansi & Keuangan Unja*, *6*(1), 1–9. https://doi.org/10.22437/jaku.v6i1.12572

Doblas, M. P., Lagaras, M. C. P., & Enriquez, J. A. (2020). Price to earnings and price to book ratios as determinants of stock return: The case of financial institutions listed in Bahrain Bourse. *Journal of Applied Economic Sciences*, *3*(69), 532–539. https://doi.org/10.14505/jaes.v15.3(69).02

Febriani, N., Hayat, A., Sadikin, A., & Juwita, R. (2022). Sustainable growth rate dalam mempengaruhi return saham dengan Covid-19 dan sustainability report sebagai variabel moderasi. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA)*, *6*(3), 352–367. https://doi.org/10.31955/mea.v6i3.2371

Ghofir, A. (2020). Pengaruh price earning ratio, current ratio, dan debt to equity ratio terhadap return saham studi kasus pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia periode 2013-2017. *Akrab Juara: Jurnal Ilmu-Ilmu Sosial*, *5*(1), 1–9. https://akrabjuara.com/index.php/akrabjuara/article/view/937

Hadi, F. (2020, June 9). Pembatasan 50% penumpang di transportasi umum jangan dilonggarkan. *kumparanNEWS*. https://kumparan.com/kumparannews/pembatasan-50-penumpang-di-transportasi-umum-jangan-dilonggarkan-1tZySUoGb3R/full

Harlan, S., & Wijaya, H. (2022). Pengaruh ROA, ROE, EPS, & PBV terhadap stock price dan stock return. *Jurnal Ekonomi*, *27*(03), 202–223. https://doi.org/10.24912/je.v27i03.873

Hồng, N. T. H., & Dũng, N. T. (2021). Impacts of financial leverage on stock returns: Evidence from Vietnam listed firms. *TNU Journal of Science and Technology*, *226*(09), 57–64. https://doi.org/10.34238/tnu-jst.4370

Investing.com. (2023). *Grafik streaming Jakarta stock exchange composite*. Investing.com. https://id.investing.com/indices/idx-composite-chart

Januar, F., Prastyo, T. J., & Syaipudin, U. (2022). Effect of financial performance on stock return during Covid-19. *Jurnal Akuntansi dan Pajak*, *23*(1), 1–7. https://doi.org/10.29040/jap.v23i1.5377

Kusmayadi, D., Rahman, R., & Abdullah, Y. (2018). Analysis of the effect of net profit margin, price to book value, and debt to equity ratio on stock return. *International Journal of Recent Scientific Research*, *9*(7(F)), 28091–28095. https://doi.org/10.24327/ijrsr.2018.0907.2392

Lubis, P. R. (2021). The effect of fundamental factor analysis on blue chips stock returns on the Indonesia stock exchange. *Journal of Management Science (JMAS)*, *4*(2), 43–52. https://doi.org/10.35335/jmas.v4i2.104

Mudzakar, M. K., & Wardanny, I. P. (2021). The effect of return on asset, return on equity, earning per share, and price earning ratio toward stock return (Empirical study of transportation). *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, *12*(8), 387–392. https://turcomat.org/index.php/turkbilmat/article/view/2812

Nadyayani, D. A. D., & Suarjaya, A. A. G. (2021). The effect of profitability on stock return. *American Journal of Humanities and Social Sciences Research (AJHSSR)*, *5*(1), 695–703. https://www.ajhssr.com/wp-content/uploads/2021/01/ZZZC21501695703.pdf

Nengsih, T. A., & Martaliah, N. (2022). *Regresi data panel dengan software EViews*. Fakultas Ekonomi dan Bisnis Islam.

Nurcahyono, Hanum, A. N., & Sukesti, F. (2021). The Covid-19 outbreak and stock market return: Evidence from Indonesia. *Jurnal Dinamika Akuntansi dan Bisnis*, *8*(1), 47–58. https://doi.org/10.24815/jdab.v8i1.18934

Nurmayasari, C., Umar, H., & Indriani, A. (2021). Effect of current ratio, return on equity, debt to equity ratio, and earnings per share on stock returns of mining companies listed on the Indonesia stock exchange. *Budapest International Research and Critics Institute-Journa*, *4*(3), 4967–4982. https://doi.org/10.33258/birci.v4i3.2283

Perkumiene, D., Osamede, A., Andriukaitiene, R., & Beriozovas, O. (2021). The impact of COVID-19 on the transportation and logistics industry. *Problems and Perspectives in Management*, *19*(4), 458–469. https://doi.org/10.21511/ppm.19(4).2021.37

Priyambudi, A. H., & Thamrin, H. (2021). Analysis of the effect of macroeconomics and firm value on consumer goods stock returns. *International Journal of Innovative Science and Research Technology*, *6*(8), 756–763. https://ijisrt.com/assets/upload/files/IJISRT21AUG631.pdf

Putra, I. G. B. N. P. (2022). The influence of liquidity ratio, profitability, leverage and market ratio on stock return in food and beverage sub-sector companies listed on the Indonesia stock exchange. *International Journal of Multidisciplinary Research and Publications*, *5*(1), 59–63. https://ijmrap.com/wp-content/uploads/2022/06/IJMRAP-V5N1P35Y22.pdf

Santoso, B., Sidharta, E. A., & Wardini, A. K. (2020). The impact of fundamental factors on stock return of the engineering and construction services company. *Jurnal Organisasi dan Manajemen*, *16*(2), 158–170. https://doi.org/10.33830/jom.v16i2.818.2020

Tarmizi, R., Soedarsa, H. G., Indrayenti, & Andrianto, D. (2018). Pengaruh likuiditas dan profitabilitas terhadap return saham. *Jurnal Akuntansi dan Keuangan*, *9*(1), 21–33. https://doi.org/10.36448/jak.v9i1.996

Yati, R. (2021, February 5). BPS catat kontraksi sektor transportasi paling parah, ini kata ekonom. *Ekonomi Bisnis*. https://ekonomi.bisnis.com/read/20210205/98/1352771/bps-catat-kontraksi-sektor-transportasi-paling-parah-ini-kata-ekonom