



Analysis of the Probability of Financial Distress as a Moderating Variable that Influences Stock Returns in Coal Companies (2018-2022)

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ABSTRACT: This research was conducted to examine and analyze the influence of operating activity cash flow, investing activity cash flow, financing activity cash flow, liquidity, and total asset turnover as independent variables on stock returns as the dependent variable, along with the ability of probability financial distress to moderate the relationship between the independent variable and the variable dependent. The research method in this research is quantitative research with panel data regression analysis using the EViews application. The research object in this study is coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. The sampling technique used purposive sampling and found 130 observations. The research results show that operating activity cash flow has a positive effect on stock returns. Meanwhile, investing activity cash flow, financing activity cash flow, liquidity, and total asset turnover have no effect on stock returns. The probability of financial distress is unable to moderate the relationship between operating activity cash flow, investing activity cash flow, financing activity cash flow, liquidity, and total asset turnover with stock returns.

KEYWORDS: Financing Activity Cash Flow, Investing Activity Cash Flow, Liquidity, Stock Return, Operating Activity Cash Flow, Total Asset Turnover.

PRELIMINARY

Technological progress which is increasing rapidly nowadays is the era of industrial revolution 4.0, in this case competition in the industrial world is increasingly high. Strategies in business need to be developed immediately and efforts must be made to adapt to changes in current preferences, in order to maintain survival and achieve the company's goals of growing higher and optimally in generating profits. However, this cannot be separated from the need for company resources that are able to support the company's expansion efforts. One source of funding that is optimal in providing the company's funding needs is through the issuance of shares.

Companies are required to maintain a high share presence in the eyes of investors to optimize company funding through share issuance. In general, the most critical thing in the view of investors to be taken into consideration in assessing the existence of a company's shares is what the company's stock return opportunities are. Therefore, companies must strive to maintain company stock returns optimally so that investor trust and loyalty can be maintained. Thus, the popularity of good company shares will encourage an increase in investors' willingness to buy the issuer's shares at a high price level.

Stock returns are the main thing that investors generally focus on first when they want to assess a stock they want to buy. A company's stock return is reflected through changes in the company's share price. High stock returns indicate a better image of the issuer in the eyes of investors. In this way, company shares are increasingly known and remembered as shares that have the potential to provide consistent and growing returns for investors. Therefore, it is very important for companies to maintain consistent stock returns produced by the company.

There is a stock return phenomenon experienced by coal companies on the Indonesian Stock Exchange. In 2018, the coal company stock market reportedly made large profits marked by the increase in coal prices to reach the highest point in the last three years (Muthmainah, 2018). While in the middle stable global conditions, PT Adaro Energy Indonesia Tbk, which is a coal company, experienced a sharp decline in share prices of up to 25.7% (Budiartie & Kevin, 2018). In 2019, the coal company stock market experienced a fall in stock returns, marked by a decline in share prices to their lowest position in the last two years. This issue caused the shares of coal companies on the Indonesian Stock Exchange to experience quite strong pressure which resulted in the company's share price dropping (Saleh, 2019). However, the fall in coal prices does not seem to have an effect on the performance of PT Bayan Resources Tbk (BYAN) shares. PT Bayan Resources Tbk (BYAN) experienced an increase in stock returns, marked by the skyrocketing share price of PT Bayan Resources Tbk (BYAN) by 19.56% (Saragih, 2019).



In 2021, the coal company stock market shot up quite high, marked by new coal prices reaching the best performance, increasing by 27.65%. The price of mining commodities has risen, showing the highest prices of all time, such as coal, aluminum, tin and nickel (KH, 2021). Meanwhile, in the conditions of the coal company stock market which was soaring, PT Sumber Global Energy Tbk (SGER) experienced a decline in stock returns, which was marked by a decline in share prices of 6.8% (Alfaruq, 2021). Thus, the discrepancy between the stock returns produced by the company and its view of the company's industrial situation provides new challenges for companies and investors in making the right decisions. For company management, in determining strategies to maintain the stability of increasing the company's stock returns. Meanwhile, for investors, they need to consider other things that have the potential to influence the stock returns generated by a company so they can choose the right issuer to invest in.

Past research results state that stock returns are influenced by factors such as operating activity cash flow (Ghodрати & Abyak, 2014) (Tunio, et al., 2020) (Kasmiati & Santosa, 2019) (Kipngetch, Tenai, & Kimwolo, 2021) (Ernayani & Robiyanto, 2016) (Juniarti & Satriawan, 2023) (Pahlawan, Pramono, & Siyo, 2022), investing activity cash flow (Tunio, et al., 2020) (Kasmiati & Santosa, 2019) (Pahlawan, Pramono, & Siyo, 2022), financing activity cash flow (Tunio, et al., 2020) (Kasmiati & Santosa, 2019) (Ernayani & Robiyanto, 2016), liquidity (Bustami & Heikal, 2019) (Fachrudin & Ihsan, 2021) (Albertus & Mangunsong, 2021), total asset turnover (Bustami & Heikal, 2019) (Sunaryo, 2022) (Sausan, Korawijayanti, & Ciptaningtias, 2020) (Sutopo, 2022) (Larasati, Subing, & Mansur, 2023), and probability of financial distress (Fachrudin & Ihsan, 2021) (Saji, 2018).

Operating activity cash flow reflects changes in cash flow activity results in operating activities that occur in the company in a period, which have a positive influence on stock returns. The higher the operating activity cash flow, the higher the stock return of a company. The results of previous research conducted by Tunio, et al. (2020) on gas and oil marketing industry companies listed on the Pakistan Stock Exchange for the 2004-2017 period stated that operating activity cash flow showed a positive influence on stock returns. Kipngetch, Tenai, & Kimwolo (2021) also stated that operating activity cash flow had a positive influence on stock returns in research on companies listed on the Nairobi Stock Exchange during the 2007-2019 period. However, research by Fachrudin & Ihsan (2021) on energy companies listed on the Indonesia Stock Exchange for the 2016-2018 period stated that operating activity cash flow showed no influence on changes in stock returns.

Investing activity cash flow reflects changes in cash flow activity results in investment activities that occur in the company during a certain period, which have a negative influence on stock returns. The more cash outflows that occur in investment activities will increase the stock return of a company. Kasmiati & Santosa (2019) stated that investing activity cash flow had a negative influence on stock returns in research on service companies listed on the Indonesia Stock Exchange during the 2011-2016 period. The results of previous research conducted by Tunio, et al. (2020) on gas and oil marketing industry companies listed on the Pakistan Stock Exchange for the 2004-2017 period also stated that investing activity cash flow showed a negative influence on stock returns. However, research by Khanji & Siam (2015) on banking companies listed on the Jordan Stock Exchange for the 2010-2013 period stated that investing activity cash flow showed no influence on changes in stock returns.

Financing activity cash flow reflects changes in cash flow activity results in financing activities over a certain period of time, which have a negative influence on stock returns. The more cash outflows that occur in financing activities will increase the stock return of a company. The results of previous research conducted by Yuliarti & Diyani (2018) on pharmaceutical industry companies listed on the Indonesia Stock Exchange for the 2011-2016 period stated that financing activity cash flow showed a negative influence on stock returns. However, research by Pahlawan, Pramono, & Siyo (2022) states that financing activity cash flow shows no influence on changes in stock returns in automotive manufacturing companies listed on the Indonesia Stock Exchange for the 2014-2020 period.

Liquidity reflects a ratio that states the issuer's capacity to pay off current liabilities using its current assets, which has a positive influence on stock returns. The more a company has a high level of liquidity, the more a company's stock return will increase. The results of previous research conducted by Istiqomah & Mardiana (2020) on pharmaceutical industry companies listed on the Indonesia Stock Exchange for the 2013-2017 period stated that liquidity showed a positive influence on stock returns. However, Barua's (2020) research states that liquidity does not show any influence on changes in stock returns in insurance companies listed on the Dhaka Stock Exchange for the 2009-2019 period.

Total asset turnover reflects the amount of income obtained from the turnover of assets managed by the issuer, which has a positive influence on stock returns. The more a company has a high level of total asset turnover, the more a company's stock return will increase as well. The results of previous research conducted by Sausan, Korawijayanti, & Ciptaningtias (2020) on property and real estate companies listed on the Indonesia Stock Exchange for the 2012-2017 period stated that total asset turnover showed a



positive influence on stock returns. However, research by Albertus & Mangunsong (2021) states that total asset turnover does not show any influence on changes in stock returns in banking companies listed on the Indonesia Stock Exchange for the 2018-2019 period.

Probability of financial distress shows the possibility of bankruptcy or not, which has a negative influence on stock returns. The more a company has a high level of probability of financial distress, the lower a company's stock return will be. The results of previous research conducted by Saji (2018) on realty firms listed on the National Stock Exchange (NSE) of India for the 2012-2017 period stated that the probability of financial distress showed a negative influence on stock returns.

This research emerged because of a phenomenon that occurred in coal companies, namely that there were issuers that provided high stock returns, amidst unfavorable industry conditions. On the other hand, when the industrial situation is very good, there are companies that are unable to produce stock returns that are equivalent to the progress of the industry. Apart from that, there are inconsistent results of previous research. Therefore, researchers are interested in researching again with the title "Analysis of the Probability of Financial Distress as a Moderating Variable that Influences Stock Returns in Coal Companies (2018-2022)".

THEORETICAL BASE

Signalling Theory

Signalling theory is a theory that expresses financial decisions, for example, financing and dividend distribution are signals transferred by issuer managers to shareholders. Signal theory was developed by Stephen A. Ross in 1977. Signalling theory emphasizes the importance of information published by issuers for policy making by external parties of issuers in investing. A very important element for business people and shareholders is information. This is because information provides an image, description, or record for past, present and future situations related to the survival status of an issuer and its stock market situation (Ross, 1977). Signalling theory is based on two ideas (Yuliarti & Diyani, 2018): (1) The same information is available to certain parties. Issuer managers have the possibility of knowing more complex information compared to shareholders. (2) When information is available to everyone in a balanced manner, it raises the possibility of inequality felt by everyone. This is a reality that is generally lived in everyday life.

Efficiency Market Hypothesis

The efficient market hypothesis describes stock prices, gathering information, and making adjustments in response to new information quickly and automatically. Capital market efficiency is a situation when the stock price makes adjustments by rushing to the emergence of additional information, thus the stock price already contains all the information. Basically, the information obtained will be adjusted and reflected in market prices. The event results in an overadjustment or underadjustment than it should be. This is due to the act of buying and selling shareholders due to the information they have in an effort to optimize the profits obtained (Reilly & Brown, 2012).

The efficient market hypothesis predicts a market tendency to show a positive market reaction to good information and a negative response to bad information. Market efficiency in terms of information is an efficient market that is observed based on the point of view only emphasized on information. Meanwhile, market efficiency in terms of decisions is an efficient market that is observed only from the proficiency of market players in making policies on the basis of receiving information (Dwipayana & Wiksuana, 2017).

Operating Activity Cash Flow

Operating cash flow is the amount of money sent for merchandise procurement, tax settlement, vendor fees, wages, and other operating expenses. Operating cash flow information offers administration with an accurate description of how much money a company needs to utilize or generate from day-to-day business operations. Cash inflows consist of cash obtained from selling merchandise and services or alternatively referred to as cash receipts from goods or services sold, cash interest and dividends obtained from businesses and other cash receipts that are not explicitly related to financing or investment cash flows (Kipngetch, Tenai, & Kimwolo, 2021)

Based on signalling theory, when company management distributes information related to increased operating cash movements, it can show positive signals (good news) in investors' views of the company. This event will illustrate the large capacity of issuers in carrying out issuer operations to make a profit so that investors increasingly have an interest in investing in the company



and will have an impact on the issuer's stock return. This description with the results of past researchers has something in common, namely showing that operating activity cash flow has a positive influence on stock returns (Ghodrati & Abyak, 2014) (Tunio, et al., 2020) (Kasmiati & Santosa, 2019) (Kipngetch, Tenai, & Kimwolo, 2021) (Ernayani & Robiyanto, 2016) (Juniarti & Satriawan, 2023). Based on the theory and previous research above, the following hypothesis was formed:

H₁: Operating Activity Cash Flow has a positive effect on Stock Return

Investing Activity Cash Flow

Cash flow in investment activities is a cash movement that has a relationship in terms of investment in infrastructure and other long-term assets. Examples include cash in terms of payments on fixed assets, cash in terms of long-term investments in securities, cash in terms of receipts for the sale of fixed assets, and cash in terms of receipts for the sale of long-term investments in securities (Broome, 2004). Cash flow in investment activities that have increased illustrates that there are many sales activities of company investment assets, while cash movements that have decreased illustrate that many companies buy investment assets. This is one of the signals for shareholders in reviewing the performance of issuers in the future (Yuliarti & Diyani, 2018).

Based on signalling theory, it shows that companies that provide information on active investment cash flow are reduced giving positive signals to investors. Meanwhile, when issuers channel information related to cash flow in less active investment activities, it shows a negative signal for investors. This is supported by the efficiency market hypothesis, investors will react to information received related to investment cash flows. This can be reviewed through stock price movements that occur and will have an impact on stock returns. This description is in line with the results of past research that investing activity cash flow shows a negative influence on stock returns (Tunio, et al., 2020) (Kasmiati & Santosa, 2019). Based on past theories and researchers, hypotheses are formed as below:

H₂: Investing Activity Cash Flow negatively affects Stock Return

Financing Activity Cash Flow

Cash flow from funding activities is the movement of cash obtained from income and expenses related to funding activities both for a long time with creditors (debt) and with investors. Separate disclosures in cash movements arise as a result of funding activities contributing to forecasting claims related to future cash flows by the company's funders. Therefore, it is very important to make a separate disclosure. The variable of measuring cash flow in funding activities can be reviewed through funding cash movements in the presentation of an issuer's cash flow statement in a certain period, smaller than the cash movements of funding activities in the past, then divided by the cash movements of funding activities in the past (Kasmiati & Santosa, 2019).

Based on signalling theory, it is explained that issuers convey cash flow information for large funding activities to signal well in the eyes of investors. Conversely, companies that convey little funding cash flow information will give a bad signal in the eyes of investors who want to invest in a company. Based on the efficiency market hypothesis, the company's funding cash flow information will be reflected in the value of the company's stock return. This is a result of investor responses to information received regarding the company's condition in terms of its funding cash flow. This description with the results of past researchers is also in line, namely financing activity cash flow shows a negative influence on stock returns (Yuliarti & Diyani, 2018). Based on past theories and researchers, hypotheses are formed as below:

H₃: Financing Activity Cash Flow negatively affects Return Stock

Liquidity

Liquidity focuses on the ease and speed with which assets can be converted into cash. One measure of liquidity is the current ratio which describes the potential for issuers to make current bill payments using their current assets. Higher reliance on current liabilities will reduce the company's liquidity. A high level of liquidity states the potential of issuers so that they can be appreciated by investors, but if the ratio is too high, it indicates idle cash conditions or poor current asset management (Fachrudin & Ihsan, 2021).

Based on signalling theory, companies that provide information about increased liquidity show signals with positive properties in the view of shareholders. Meanwhile, issuers provide information on low liquidity giving negative signals in the view of shareholders. This is in line with the efficiency market hypothesis which explains that information on the high level of liquidity of issuers will be reflected in an increase in stock prices due to the response of shareholders who are increasingly interested in



investing in the issuer, thereby impacting the issuer's stock return. This description with the results of past researchers is in line, namely liquidity shows a positive influence on stock returns (Indiyani, Sunarsih, & Yuliastuti, 2020) (Istiqomah & Mardiana, 2020). Based on past theories and research, hypotheses are formed as below:

H₄: Liquidity has a positive effect on Stock Return

Total Asset Turnover

Total asset turnover is a measurement to calculate how much the level of issuers is effective in utilizing company resources. The higher the efficiency of using assets, will encourage faster returns on cash for the company. The ratio of total asset movement aims to measure the utilization of business assets or operating assets, namely whether for example there is a tendency to overinvest in assets related to the sales volume obtained by the company. In general, higher asset turnover will encourage more efficient asset utilization (Bustami & Heikal, 2019).

Based on signalling theory, companies that provide information on high total asset turnover will show positive signals for shareholders. Conversely, companies that provide information on low total asset turnover will signal in a negative direction to shareholders. In line with the efficiency market hypothesis, stating that information on the company's total asset turnover will have an impact on the reaction of investor interest in investing so that the value of stock returns will reflect the results of investor responses to changes in a company's total asset turnover. This description is also supported by the results of past research that total asset turnover shows an influence in a positive direction on stock returns (Bustami & Heikal, 2019) (Sausan, Korawijayanti, & Ciptaningtias, 2020). Based on past theories and researchers, hypotheses are formed as below:

H₅: Total Asset Turnover has a positive effect on Stock Return

Probability Financial Distress

High probability of financial distress can cause issuers to have a poor outlook value in earning income. The view of increased financial distress probability occurs when the company experiences a decrease in revenue to experience losses. Financial performance that is not good, generally responded poorly is marked by a decrease in stock prices, thus it will affect stock returns for shareholders (Husein & Mahfud, 2015).

The probability of financial distress is an opportunity for companies to experience financial distress in the coming year. Numbers range from 0 to 1. When the number 0 indicates the company is very healthy and the number 1 indicates the company is experiencing financial distress at the most severe level. Companies that experience financial distress at the most severe levels can end up in bankruptcy, reducing investors' profit expectations so that stock prices are most likely to fall (Fachrudin & Ihsan, 2021). Probability financial distress shows a negative influence on stock returns (Fachrudin & Ihsan, 2021) (Saji, 2018) (Sitoresmi & Herawaty, 2020).

Based on signalling theory, probability financial distress gives a strong signal and greatly impacts investor preferences. Companies that provide financial statement information that shows a high probability of financial distress will state negative signals and will weaken the relationship between operating activity cash flow and stock returns. This is based on the implications of the company's condition that is not good and will hinder the improvement of the company's operational performance. So that the attractiveness of investors in investing in shares of a company will decrease and have an impact on the return of company shares. Based on the theory above, a hypothesis is formed as below:

H₆: Probability Financial Distress is able to moderate the relationship of Operating Activity Cash Flow with Stock Return

Based on signalling theory, probability financial distress gives a strong signal and greatly impacts investor preferences. Companies that provide financial statement information that shows a high probability of financial distress will state negative signals and will weaken the relationship between investing activity cash flow and stock returns. This is due to the impact of high financial distress will inhibit issuers from investing, by increasing the company's fixed assets to increase company earnings and ultimately reduce the company's stock return. Based on the theory above, a hypothesis is formed as below:

H₇: Probability Financial Distress is able to moderate the relationship of Investing Activity Cash Flow with Stock Return

Based on signalling theory, probability financial distress gives a strong signal and greatly impacts investor preferences. Companies that provide financial statement information that shows a high probability of financial distress will state negative signals and will weaken the relationship between financing activity cash flow and stock returns. This is because due to the high probability of financial distress will prevent the company from distributing dividends to its shareholders and fulfilling its short-term obligations.



Thus, investors will be less interested in investing in a company and will have an impact on decreasing the company's stock return. Based on the theory above, a hypothesis is formed as below:

H₈: Probability Financial Distress is able to moderate the relationship between Financing Activity Cash Flow and Stock Return

Based on signalling theory, probability financial distress gives a strong signal and greatly impacts investor preferences. Companies that provide financial statement information that shows a high probability of financial distress will state negative signals and will weaken the relationship between liquidity and stock returns. This is because due to the high probability of financial distress will inhibit the liquidity of an issuer higher so that shareholders will have less interest in investing and reduce the return on shares of a company. Based on the theory above, a hypothesis is formed as below:

H₉: Probability Financial Distress is able to moderate the relationship between Liquidity and Stock Return

Based on signalling theory, probability financial distress gives a strong signal and greatly impacts investor preferences. Companies that provide financial statement information that shows a high probability of financial distress will state negative signals and will weaken the relationship between total asset turnover and stock returns. This is because high probability financial distress will hinder the optimization of the company's asset turnover in generating sales so that shareholders become less interested in investing and reduce the company's stock return. This description is in line with the results of past researchers, namely probability financial distress is able to moderate the relationship between total asset turnover and stock returns (Sunaryo, 2022). Based on past theories and researchers, hypotheses are formed as below:

H₁₀: Probability Financial Distress is able to moderate the relationship between Total Asset Turnover and Stock Return

RESEARCH METHOD

The type of quantitative descriptive research became the design in this study. Data collection in the form of numbers becomes a symbol of an event or event, and analysis is carried out using statistical techniques (Yusuf, 2016). Population is a coal company listed on the Indonesia Stock Exchange in the 2018-2022 period. The population is taken from the source site www.idx.co.id. Sampling using Purposive Sampling Technique. A related method of assigning samples based on certain criteria is called the purposive sampling method (Radjab & Jam'an, 2017). A total of 32 companies became the population and the criteria applied in taking samples are as below: (1) Coal companies that are successively listed on the Indonesia Stock Exchange during the 2018-2022 period. (2) Companies that successively publish financial statements to the public during the period 2018-2022.

The data analysis technique uses panel data regression. Researchers utilize EVIEWS with the aim of knowing how the results of the influence of the independent variable on the dependent variable, namely stock return. After multiple regression analysis testing was carried out, the moderating variable, probability financial distress, was regression tested using interaction tests. This test is to understand the presence or absence of the ability of moderating variable to moderate the relationship between the independent variable and the dependent variable. The regression equation used is as below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 Z + \beta_7 X_1.Z + \beta_8 X_2.Z + \beta_9 X_3.Z + \beta_{10} X_4.Z + \beta_{11} X_5.Z + \varepsilon$$

Information:

Y	: Stock Return
α	: Constant
$\beta_1 - \beta_{11}$: Regression Coefficient
X ₁	: Operating Activity Cash Flow
X ₂	: Investing Activity Cash Flow
X ₃	: Financing Activity Cash Flow
X ₄	: Liquidity
X ₅	: Total Asset Turnover
Z	: Probability Financial Distress
ε	: Standard Error



RESEARCH RESULTS

Descriptive Statistic

This research uses data on the financial statements of coal companies for the 2018-2022 period with 130 observations. Based on descriptive statistical data, information was obtained about the minimum, maximum, mean, and standard deviation values of each variable in the study. The results of descriptive statistical data are presented in the table below:

Table 1. Descriptive Statistic Results

	Return Saham	Operating Activity Cash Flow	Investing Activity Cash Flow	Financing Activity Cash Flow	Liquidity	Total Asset Turnover	Probability Financial Distress
Mean	0.510663	-1.931348	2.099876	3.863315	0.828090	0.328536	0.016723
Median	-0.005616	-0.265802	-0.206835	1.321296	0.749017	0.046874	0.000389
Maximum	65.42842	185.3871	273.4191	146.1302	2.586129	1.000000	0.271924
Minimum	-27.68273	-205.7630	-61.36258	0.156595	0.000000	0.000000	-0.181978
Std. Dev.	7.486909	28.43344	24.98008	15.94925	0.599591	0.415431	0.065325
Skewness	4.171791	-1.371776	9.849472	7.900976	0.695300	0.734858	0.630361
Kurtosis	47.97685	37.93969	109.0602	65.55082	2.940376	1.723887	6.267415
Jarque-Bera	11334.55	6653.341	63032.74	22545.83	10.49382	20.52120	66.43770
Probability	0.000000	0.000000	0.000000	0.000000	0.005264	0.000035	0.000000
Sum	66.38622	-251.0752	272.9839	502.2310	107.6517	42.70965	2.173942
Sum Sq. Dev.	7230.941	104291.4	80496.58	32814.83	46.37675	22.26320	0.550494
Observations	130	130	130	130	130	130	130

Normality Test

The results of the normality test conducted with the Jarque-Bera Test stated that the data were normally distributed. Here are the normality test results:

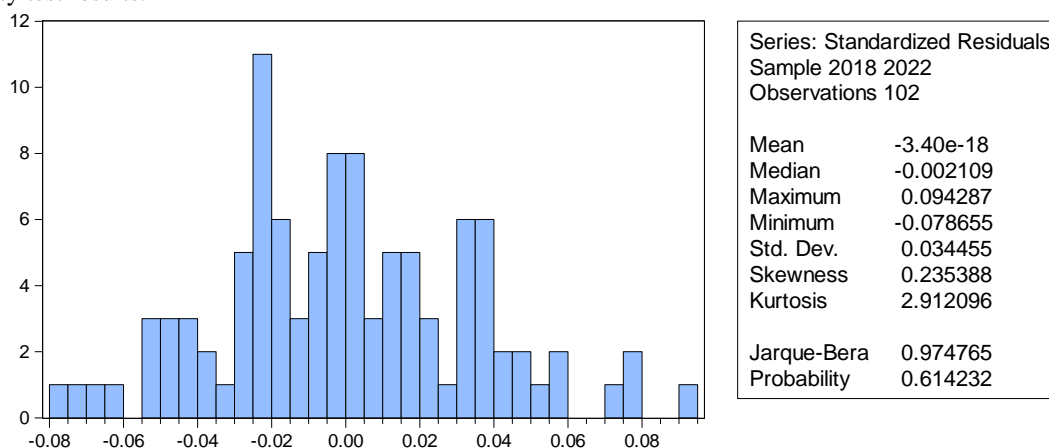


Figure 1. Normality Test Results

Multicollinearity Test

The results of the multicollinearity test conducted showed that there was no multicollinearity in this study. The following are the results of the multicollinearity test:



Table 2. Multicollinearity Test Results

	Operating Activity	Investing Activity	Financing Activity	Liquidity	Total Asset
	Cash Flow	Cash Flow	Cash Flow		Turnover
Operating Activity	1.000000	-0.202419	0.442841	0.100956	0.168824
Investing Activity	-0.202419	1.000000	-0.192806	0.171681	-0.026035
Financing Activity	0.442841	-0.192806	1.000000	-	-0.029435
Liquidity	0.100956	0.171681	-0.018910	1.000000	0.138616
Total Asset	0.168824	-0.026035	-0.029435	0.138616	1.000000
Turnover					

Heteroscedasticity Test

The results of the heteroscedasticity test conducted with the Glejser Test showed that heteroscedasticity did not occur in this study. The following are the results of the heteroscedasticity test:

Table 3. Heteroscedasticity Test Results

	Coefficient	Std. Error	t-Statistic	Prob.
C	0.024785	0.004149	5.973500	0.0000
Operating Activity	0.001802	0.000974	1.850544	0.0673
Cash Flow				
Operating Activity	-0.000309	0.000460	-0.672236	0.5030
Cash Flow				
Financing Activity	-0.000821	0.000529	-1.553229	0.1237
Cash Flow				
Liquidity	-0.000562	0.001115	-0.504397	0.6151
Total Asset Turnover	0.004406	0.004081	1.079457	0.2831

Autocorrelation Test

The results of the autocorrelation test conducted with the LM Test showed that there was no autocorrelation in this study. Here are the results of the autocorrelation test:

Table 4. Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.592332	Prob. F(2,94)	0.5551
Obs*R-squared	1.269487	Prob. Chi-Square(2)	0.5301

Hypothesis Test

After testing the data analysis requirements is completed, significance testing is carried out with the results of panel data regression using a random effect model as follows:



Table 5. Hypothesis Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001445	0.007142	-0.202270	0.8401
Operating Activity Cash Flow	0.004222	0.001676	2.519214	0.0134
Operating Activity Cash Flow	9.02E-05	0.000792	0.113902	0.9096
Financing Activity Cash Flow	0.000489	0.000910	0.537739	0.5920
Liquidity	0.001974	0.001919	1.028706	0.3062
Total Asset Turnover	0.009365	0.007025	1.333047	0.1857
R-squared	0.141516	Mean dependent var		0.011940
Adjusted R-squared	0.096803	S.D. dependent var		0.037186
S.E. of regression	0.035340	Sum squared resid		0.119899
F-statistic	3.165005	Durbin-Watson stat		2.002485
Prob(F-statistic)	0.010919			

Hypothesis Test with Moderating Variable

After testing the first equation hypothesis, testing the second equation hypothesis was carried out with the results of panel data regression using a random effect model with moderating variable as follows:

Table 6. Hypothesis Test Results with Moderation Variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001117	0.010989	0.101656	0.9193
Operating Activity Cash Flow	0.003835	0.001904	2.014357	0.0470
Operating Activity Cash Flow	-0.000995	0.001250	-0.795295	0.4285
Financing Activity Cash Flow	0.000673	0.001080	0.622536	0.5352
Liquidity	0.000966	0.002327	0.415025	0.6791
Total Asset Turnover	0.013452	0.008922	1.507662	0.1351
Probability Financial Distress	-0.002077	0.018195	-0.114135	0.9094
OCF_ Probability Financial Distress	-0.000691	0.005815	-0.118802	0.9057
ICF_ Probability Financial Distress	0.002154	0.001982	1.086813	0.2800
FCF_ Probability Financial Distress	-0.001416	0.003346	-0.423097	0.6732
Liquidity_ Probability Financial Distress	0.006837	0.014398	0.474880	0.6360
TATO_ Probability Financial Distress	-0.031614	0.021363	-1.479834	0.1424
R-squared	0.207451	Mean dependent var		0.011940
Adjusted R-squared	0.110584	S.D. dependent var		0.037186
S.E. of regression	0.035070	Sum squared resid		0.110690
F-statistic	2.141607	Durbin-Watson stat		2.116464
Prob(F-statistic)	0.024849			

DISCUSSION

The Effect of Operating Activity Cash Flow on Stock Return

Based on the results of this study, it shows that operating activity cash flow has a positive effect on stock returns in coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. Operating Activity Cash Flow has a significance value of $0.0134 < 0.05$ and has a positive coefficient which means H_1 is received. The results of this study are supported by signalling



theory which explains that when company management distributes information related to increased operating cash movements, it can show positive signals (good news) in investors' views of the company. This event will illustrate the large capacity of issuers in carrying out issuer operations to make a profit so that investors increasingly have an interest in investing in the company and will have an impact on the issuer's stock return.

The results of this study are in line with the results of previous studies conducted by Ghodrati & Abyak (2014), Tunio, et al. (2020), Kasmiasi & Santosa (2019), Kipngetch, Tenai, & Kimwolo (2021), Ernayani & Robiyanto (2016), and Juniarti & Satriawan (2023) which stated that operating activity cash flow has a positive influence on stock returns. The higher the operating activity cash flow, the return on shares of a company will increase. This is because when the cash flow of operating activities increases, investors will increasingly have a good view of the company's performance in generating cash flow through its operational activities. Thus investors will be increasingly interested in investing in a company and encourage the return on shares of a company to increase.

The results of this study are not in line with the results of previous studies conducted by Fachrudin & Ihsan (2021), Hanifah & Khafid (2016), Bala (2017), Yuliarti & Diyani (2018), and Khanji & Siam (2015) which stated that operating activity cash flow does not affect stock returns. Fachrudin & Ihsan's research (2021) was conducted on energy companies listed on the Indonesia Stock Exchange for the period 2016-2018 and Hanifah & Siam (2015) conducted research on mining companies listed on the Indonesia Stock Exchange for the period 2010-2014. In 2014, the Indonesian government began to strictly enforce a ban on the export of domestic raw materials abroad. This resulted in the company's operating cash flow capacity decreasing due to the government regulation. These mining companies are generally in the process of adjusting to remain going concern amid restrictions on operational activity opportunities that occur. Therefore, information on cash flow of operating activities in mining companies listed on the Indonesia Stock Exchange is not a consideration for investors in making decisions in investing in that period period, so that cash flow of operating activities does not affect stock returns.

Research conducted by Bala (2017) examined the effect of cash flow of operating activities on stock returns in banking companies listed on the Sudan Stock Exchange and research conducted by Khanji & Siam (2015) on banking companies listed on the Jordan Stock Exchange. The object of research of this previous researcher is banking companies that generally adhere to sharia principles, namely in Sudanese countries that identify themselves as Arab and Jordanian which is known to be a group of Arab countries. In the principles of Islamic banking, there are strict restrictions on lending and borrowing, namely related to usury, which is prohibited from taking additional assets or capital in multiple. This will have an impact on the limited operating cash flow of banking companies compared to banks that do not adhere to sharia principles. Therefore, operating cash flows in companies listed on the Sudan Stock Exchange and on the Jordan Stock Exchange, are not subject to investor assessment in investing so that they do not affect stock returns.

In Yuliarti & Diyani's research (2018), research related to the effect of cash flow of operating activities on stock returns was carried out on pharmaceutical companies listed on the Indonesia Stock Exchange for the 2011-2016 period. In 2013, there was a public speech that strongly urged the importance of comprehensive halal certification carried out on pharmaceutical products in Indonesia. This has an impact on the suppression of operating cash flow capacity in pharmaceutical companies in Indonesia in that period. Therefore, operating cash flow information in the research period is not a reference for investors in making investment decisions so that it does not affect the company's stock return.

The Effect of Investing Activity Cash Flow on Stock Return

Based on the results of this study, it shows that investing activity cash flow has no effect on stock returns in coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. Investing Activity Cash Flow has a significance value of $0.9096 > 0.05$ which means H_2 is rejected. Agency theory supports the results of this study. Based on agency theory, there are differences that occur in interested parties in the company, in this case related to the availability of information and interests among management as agents and shareholders as principals. The company's management has the opportunity to make arrangements for investment cash flow items to make adjustments to the interests of management. Although the company carries out high investment activities, this does not determine that the company makes optimal use of its fixed asset resources to generate operating income. There are companies that carry out high investment activities, but are unable to manage existing assets optimally, with a number of assets that



are idle without operating. Investors as shareholders have limited information related to this. Therefore, the high or low investment activity cash flow in the company does not affect investor preferences in investing so that it does not have an impact on stock returns.

The results of this study are in line with the results of previous research conducted by Yuliarti & Diyani (2018), Bala (2017), Khanji & Siam (2015), Ernayani & Robiyanto (2016) which stated that investing activity cash flow does not affect stock returns. Based on this research, it can be seen that investing cash flow activities are very actively carried out by coal companies, but this is not able to affect the company's stock returns more optimally. Thus, it shows that the role of investing activity cash flow does not affect investor interest in investing so that the company's stock returns are also not affected.

The results of this study are not in line with the results of previous research conducted by Tunio, et al. (2020), Kasmiasi & Santosa (2019) which stated that investing activity cash flow has a negative influence on stock returns. The research of Tunio, et al. (2019) was conducted on gas and oil marketing industry companies listed on the Pakistan Stock Exchange. Pakistan is a country that has territorial conflict disputes with India. As a country that is still in territorial conflict and is a country that has a much bigger opponent than him, the country of Pakistan has a very big obstacle in advancing his country. The gas and oil marketing industry, which is a commodity product that is needed by the community, has a significant impact on society. Therefore, when this Pakistani industrial company is able to make additional investments for its operations, it will show the company's resilience and give a good image in the eyes of investors. Therefore, the more companies in the previous researcher's research actively use cash flow in investment activities, the more investors prefer to companies so as to encourage an increase in the company's stock return.

Kasmiasi & Santosa's (2019) research was conducted on service companies listed on the Indonesia Stock Exchange. The activities of service industry companies are closely related to the availability of capacity of fixed assets that are used for rent as service provision in company operations. Therefore, the more companies in the previous researcher's research actively use cash flow in investment activities, the more investors prefer to companies so as to encourage an increase in the company's stock return. Therefore, high or low financing activity cash flow in the company is not enough to affect investor preferences in investing so that it does not have an impact on stock returns.

The Effect of Financing Activity Cash Flow on Stock Return

Based on the results of this study, it shows that financing activity cash flow has no effect on stock returns in coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. Financing Activity Cash Flow has a significance value of $0.5920 > 0.05$ which means H_3 is rejected. Agency theory supports the results of this study. Based on agency theory, there is a dissimilarity in the availability of information and interests that occur between management as agents and shareholders as principals. Company management has great potential in utilizing cash flow funding items for the benefit of management. When a company conducts funding cash flows such as distributing dividends to investors, it does not mean that the company is in good shape. Management can distribute dividends with the motivation to improve the company's good image in the eyes of investors to be able to get funding in the future period, even though the company is actually in a bad condition. Therefore, high or low financing activity cash flow in the company is not enough to affect investor preferences in investing so that it does not have an impact on stock returns.

The results of this study are in line with the results of previous research conducted by Bala (2017), Khanji & Siam (2015), Pahlawan, Pramono, & Siyo (2022) which stated that financing activity cash flow does not affect stock returns. Based on this study, it can be seen that the high financing activity cash flow which shows the low dividend distribution carried out by coal companies, does not affect investor interest in investing in the company. This is characterized by the company's ability to provide stock returns for investors. Therefore, the role of financing activity cash flow does not affect the company's stock return.

The results of this study are not in line with the results of previous research conducted by Yuliarti & Diyani (2018) which stated that financing activity cash flow has a negative influence on stock returns. In Yuliarti & Diyani's research (2018), research related to the effect of cash flow of funding activities on stock returns was carried out on pharmaceutical companies listed on the Indonesia Stock Exchange for the 2011-2016 period. In 2013, there was a public speech that strongly urged the importance of comprehensive halal certification carried out on pharmaceutical products in Indonesia. This has an impact on the importance of funding needs for companies to meet the demands of fulfilling halal certification, until the company increases funding sources through debt, resulting in a decrease in company profits in that period. Therefore, the information on increased funding cash flow is very much a consideration for investors in making decisions to invest in pharmaceutical companies in this previous research so that it has a negative influence on the company's stock return.



The Effect of Liquidity on Stock Return

Based on the results of this study, it shows that liquidity does not affect stock returns in coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. Liquidity has a significance value of $0.3062 > 0.05$ which means H_4 is rejected. The results of this study are supported by agency theory which explains that there are differences in the availability of information and interests between management as agents and shareholders as principals. Shareholders as principals realize that good liquidity is not enough to increase shareholder preferences in investing. This is because information on the company's liquidity level is only related to the company's ability to fulfill its obligations to creditors. Meanwhile, the thing related to the interests of shareholders as principals directly is the distribution of dividends by the company. Therefore, high or low liquidity in the company does not affect investor preferences in investing so that it does not have an impact on stock returns.

The results of this study are in line with the results of previous research conducted by Surjandari, Nurlaelawati, & Soma (2020), Barua (2020), Komala & Nugroho (2013), Irawan & Polimpung (2021), Sutopo (2022), Kusnandar & Sari (2020), and Larasati, Subing, & Mansur (2023) which stated that liquidity does not affect stock returns. Based on this research, it can be seen that the high liquidity of coal companies does not have an impact on optimal stock returns. This is because, coal companies as the object of this study have receivables and inventories that tend to be of very large value, this causes the high or low level of company liquidity is not enough to be a significant consideration for investors in making investment decisions. Therefore, the role of liquidity does not affect the company's stock return.

The results of this study are not in line with the results of previous studies conducted by Indiyani, Sunarsih, & Yuliastuti (2020), Istiqomah & Mardiana (2020), and Albertus & Mangunsong (2021) which stated that liquidity has a positive influence on stock returns. In Indiyani, Sunarsih, & Yuliastuti's (2020) research, research related to the effect of liquidity on stock returns was carried out on manufacturing companies listed on the Indonesia Stock Exchange. In the object of research in the research of Indiyani, Sunarsih, & Yuliastuti (2020), manufacturing companies in their operations greatly utilize the cycle of debt activities from vendors and receivables activities from customers. Therefore, high information on the company's liquidity level is very important in reflecting the company's good operational conditions so that it greatly impacts the investor preferences of manufacturing companies and has an impact on increasing the company's stock return.

In the Istiqomah & Mardiana research (2020), previous researchers conducted research on pharmaceutical companies listed on the Indonesia Stock Exchange for the 2013-2017 period. In 2013, there was a public speech that strongly urged the importance of comprehensive halal certification carried out on pharmaceutical products in Indonesia. This has an impact on the importance of companies being able to maintain liquidity amid increasing funding sources through debt for companies to meet the demands of fulfilling the halal certification. Therefore, this high liquidity information is a positive consideration for investors in making decisions to invest in pharmaceutical companies in this previous research so that it has a positive influence on the company's stock return.

In research, Albertus & Mangunsong (2021) conducted research on banking companies listed on the Indonesia Stock Exchange. The main activity in banking companies is savings and loans which strongly demands the ability of the company's cash availability to fulfill its obligations for customers who deposit at bank companies. Therefore, high information on the level of liquidity of banking companies is also very important in maintaining customer trust and reflecting a good corporate image so that it greatly impacts the investor preferences of banking companies and has an impact on increasing the company's stock return.

The Effect of Total Asset Turnover on Stock Return

Based on the results of this study, it shows that total asset turnover does not affect stock returns in coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. Total Asset Turnover has a significance value of $0.1857 > 0.05$ which means H_5 is rejected. The results of this study are supported by agency theory which explains that there are differences in the availability of information and interests between management as agents and shareholders as principals. Management as an agent has the opportunity to take advantage of sales recognition to increase asset turnover ratios. Investors realize that the high total asset turnover of a company is not enough to increase investor preferences in investing. This is because the information on the level of the company's asset turnover ratio has not taken into account the company's ability to streamline the costs used by the company in obtaining profits. Therefore, the high or low ratio of total asset turnover in the company does not affect investor preferences in investing so that it does not have an impact on stock returns.



The results of this study are in line with the results of previous research conducted by Indiyani, Sunarsih, & Yuliasuti (2020) and Albertus & Mangunsong (2021) which stated that total asset turnover does not affect stock returns. Based on this research, it can be seen that the high total asset turnover of coal companies does not have an impact on optimal stock returns. This is because, coal companies as the object of this study tend to have a very large sales turnover, this causes the high or low level of total company asset turnover is not enough to be a significant consideration for investors in making investment decisions. Therefore, the role of total asset turnover does not affect the company's stock return.

The results of this study are not in line with the results of previous studies conducted by Bustami & Heikal (2019), Sausan, Korawijayanti, & Ciptaningtias (2020), and Sutopo (2022) which stated that total asset turnover has a positive influence on stock returns. In the research of Bustami & Heikal (2019) and Sausan, Korawijayanti, & Ciptaningtias (2020), research related to the effect of total asset turnover on stock returns was carried out on property companies listed on the Indonesia Stock Exchange. In the object of research in this previous study, property companies in the company's main activity are the sale of property inventory assets which tend to use large capital. Therefore, high total asset turnover for property companies is very important in reflecting optimal company performance conditions so that it greatly impacts the preferences of property company investors and has an impact on increasing company stock returns.

In Sutopo's research (2022), previous researchers conducted research on food and beverages companies listed on the Indonesia Stock Exchange. In the object of research in this previous study, food and beverages companies seem to have asset turnover to generate high sales. This is because food and beverages are the basic needs of people who have a very high level of consumers. The company's ability to have a high total asset turnover is very important in the view of investors. Therefore, the information on high total asset turnover is a positive reference for investors in making investment decisions in food and beverages companies in this previous research so that it has a positive influence on the company's stock return.

The Ability of Probability Financial Distress as a Moderating Variable to Stock Returns

Based on the results of this study, it shows that probability financial distress is unable to moderate the relationship between operating activity cash flow and stock returns in coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. The interaction of Operating Activity Cash Flow with Probability Financial Distress has a significance value of $0.9057 > 0.05$ which means H_6 is rejected. The results of this study are supported by agency theory which explains that there are differences in the availability of information and interests between management as agents and shareholders as principals. Management as an agent will continue to strive to improve the company's operating activity cash flow to obtain performance achievements for the benefit of receiving incentives despite the possibility of financial difficulties that occur in the company. Therefore, the presence or absence of probability financial distress in companies is unable to moderate the relationship between operating activity cash flow and stock returns.

Based on the results of this study, it shows that probability financial distress is unable to moderate the relationship between investing activity cash flow and stock returns in coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. The interaction of Investing Activity Cash Flow with Probability Financial Distress has a significance value of $0.2800 > 0.05$ which means H_7 is rejected. The results of this study are supported by agency theory which explains that there are differences in the availability of information and interests between management as agents and shareholders as principals. The company's management will continue to manage investment cash flow items to adjust to management's interests. Just like when the company experiences a decline in performance, management will still be able to carry out investment activities to support the improvement of the company's operations in the future period, despite the possibility of financial difficulties that occur within the company. Therefore, the presence or absence of probability financial distress in the company is not able to moderate the relationship of investing activity cash flow with stock returns.

Based on the results of this study, it shows that probability financial distress is unable to moderate the relationship between financing activity cash flow and stock returns in coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. The interaction of Financing Activity Cash Flow with Probability Financial Distress has a significance value of $0.6732 > 0.05$ which means H_8 is rejected. The results of this study are supported by agency theory which explains that there are differences in the availability of information and interests between management as agents and shareholders as principals. The company's management can still utilize the cash flow funding item to adjust to management's interests despite the possibility of financial difficulties that



occur within the company. There are companies when they are in a high-performance period, management distributes dividends with the motivation to improve the company's good image in the eyes of investors to be able to get funding in the future period. However, there are companies that withhold profit sharing with the aim of expanding the company so as to increase the company's pro forma in the future period. Therefore, the presence or absence of probability financial distress in the company is not able to moderate the relationship between financing activity cash flow and stock returns.

Based on the results of this study, it shows that probability financial distress is unable to moderate the relationship between liquidity and stock returns in coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. The interaction of Financing Activity Cash Flow with Probability Financial Distress has a significance value of $0.6360 > 0.05$ which means H_0 is rejected. The results of this study are supported by agency theory which explains that there are differences in the availability of information and interests between management as agents and shareholders as principals. Shareholders as principals will still realize that the existence of good liquidity has not been enough to increase shareholder preferences in investing despite the possibility of financial difficulties that occur in the company. This is because the company's liquidity level information remains only related to the company's ability to fulfill its obligations to creditors. Meanwhile, matters related to the interests of shareholders as direct principals remain the distribution of dividends by the company. Therefore, the presence or absence of probability financial distress in the company is not able to moderate the relationship between liquidity and stock returns.

Based on the results of this study, it shows that probability financial distress is unable to moderate the relationship between total asset turnover and stock returns in coal companies listed on the Indonesia Stock Exchange for the 2018-2022 period. The interaction of Total Asset Turnover with Probability Financial Distress has a significance value of $0.1424 > 0.05$ which means H_{10} is rejected. The results of this study are supported by agency theory which explains that there are differences in the availability of information and interests between management as agents and shareholders as principals. Management as a permanent agent has the opportunity to take advantage of sales recognition to increase the asset turnover ratio despite the possibility of financial difficulties that occur within the company. Investors remain aware that the high total asset turnover of a company has not been enough to increase investor preferences in investing. This is because the information on the level of the company's asset turnover ratio has not taken into account the company's ability to streamline the costs used by the company in obtaining profits. Therefore, the presence or absence of probability financial distress in the company is not able to moderate the relationship between total asset turnover and stock return.

The results of this study are not in line with the results of previous research conducted by Sunaryo (2022) which stated that probability financial distress is able to moderate the relationship between total asset turnover and stock returns. In Sunaryo's research (2022), research related to the ability of probability financial distress to moderate the relationship between total asset turnover and stock returns was carried out on property companies listed on the Southeast Asia Stock Exchange. In the object of research in this previous study, property companies in the company's main activity are the sale of property inventory assets which tend to use large capital. Therefore, the existence of probability financial distress will greatly disrupt the condition of the performance of property company asset turnover so that it greatly impacts the preferences of property company investors and has an impact on increasing the company's stock return.

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