

Impact of Covid 19 Confirmed Cases, Covid 19 Confirmed Death Cases and Financial Performance on Cumulative Abnormal Return (CAR)

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Abstract

This study aims to see the effect of the variable positive confirmed cases of covid 19, confirmed death cases of covid 19, return on assets (ROA), leverage, liquidity and company size (size) on cumulative abnormal returns (CAR) during the Covid 19 pandemic. Samples used in this research is purposive sampling. This research was conducted on LQ45 companies listed on the IDX in 2020 during the COVID 19 pandemic. The results of hypothesis testing in this study showed that Positive confirmed cases of Covid 19, Cases of death confirmed positive for Covid 19, Return on assets (ROA) and Company Size (Size) shows no effect on CAR but Leverage (DER) and Liquidity (CR) shows there are an effect on CAR.

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1. Introduction

On January 3, 2020, the Wuhan Health Committee reported 44 cases of viral pneumonia of unknown cause. Massive migration during the Lunar New Year and the geographical location of Wuhan as an important transportation hub in China caused the disease to spread outside of China as early as January 2020. According to the Centers for Disease Control and Prevention (CDC), symptoms of COVID-19 can occur within 2 days or for 14 days after exposure to or contact with an already exposed person, which makes it even more difficult to confirm and control during the early stages. By assessing the risk of spread and severity of COVID-19 outside China, WHO declared the virus a pandemic on March 11, 2020. As of March 23, China, Italy and the United States had the number of confirmed COVID-19 cases of 19,881,601, 59,138, and 31,573 (WHO situation report). According to the CDC and many other researchers today, the source of COVID-19 is unknown and there is no specific vaccine or treatment (Haiyue Liu et al. 2020). The response to COVID-19 carried out by each ASEAN member country is very diverse and one of them is implementing a system *lock down* strict regulations in some countries (Djalante et al. 2020). The first Covid-19 case in Indonesia was announced on March 2, 2020, or about 4 months after the first Covid-19 case was found in China. The total number of corona cases in Indonesia on March 2 was two cases and on March 6 only 2 positive cases were found. However, on March 13 there was an immediate spike of up to 35 new cases and since then, cases of corona have continued to increase in Indonesia.

Starting with May 15, 2020, most US and European states decided to relax social distancing restrictions and revive economic activity, although the new coronavirus continues to spread in America (Albulescu 2020). In China, the spread of the disease is gradually reduced, but continues to spread in another country. The negative impact on the stock markets of China and other Asian countries in the early stages of the epidemic extended to European and American countries and had a negative impact on European and US stock markets (He et al. 2020). Likewise with Indonesia, the market capitalization of issuers whose shares are listed on the most liquid index on the stock exchange (LQ45) was eroded by Rp 1,724.59 trillion, or down 37.1% from Rp 4,647.46 trillion to Rp 2,922.87 trillion during the year. Most of LQ45's shares now have *price-to-earnings ratio* (PER) below 10 times, some of them even only 1-4 times, with *price to book value* (PBV) only 01 times. The following is a table *Price Earnings Ratio* (PER) LQ45 Indexed Company as of 6 February 2020 and as of 6 March 2020.

In addition, the object of this research was carried out on LQ45 index companies on the IDX (Indonesian Stock Exchange) while previous research was conducted on companies listed on the ASX (*Australian Securities Exchange*). The reason the



researcher took the LQ45 index sample was because of the decline in stock prices and company performance as the background above. In addition, LQ45 shares are forty five (45) issuers that have gone through a selection process with high liquidity (*LiQuid*) as well as several other selection criteria. These criteria may include consideration of market capitalization. The variables in this study consisted of independent and dependent variables. The independent variables consist of positive confirmed cases of covid 19, confirmed death cases of COVID 19, *Profitability (ROA)*, *Liquidity*, *Leverage* and *Company Size (Sizes)*. While the dependent variable is *Abnormal Cumulative Return (CAR)*.

The process of collecting data on positive confirmed cases of COVID 19 and confirmed cases of death for COVID 19 was taken at the time of the announcement of the COVID-19 pandemic by President Jokowi in Indonesia, namely March 2, 2020 to March 16, 2020, research on confirmed cases of positive COVID 19 and confirmed deaths of COVID 19 has performed by Badr Nadeem Ashraf (2020) who examines the stock market response to the COVID-19 pandemic by using data daily stock market returns from 64 countries during the period 22 January 2020 to 17 April 2020. Then for the company's performance Data were collected in quarters I, II, III and IV in 2020 in accordance with research conducted by Hao Liu, Yi, and Yin (2020) who conducted research on The effect of firm-level operating flexibility on stock performance during the COVID-19 outbreak in China by taking a sample of all Chinese companies listed on the Shanghai and Shenzhen stock exchanges and data collected using the third quarter 2019 report. Therefore, researchers are interested in conducting research with the title **“Impact of COVID 19 Confirmed Cases, COVID 19 Confirmed Deaths and Financial Performance on Cumulative Abnormal return (CAR) (Empirical Study on LQ45 Index Companies on the IDX)”** The objectives to be achieved from this study are as follows to obtain empirical evidence that whether confirmed cases of COVID 19, confirmed death cases of COVID 19, Profitability (ROA), liquidity, leverage and firm size (sizes) effect on CAR (Cumulative Abnormal Return).

2. Literature Reviews

Signal Theory

Signal theory is basically concerned with information asymmetry. This theory overcomes the problems that arise from information asymmetry. This is because the party providing the information can give a signal to the related party. Signaling theory emphasizes the importance of information issued by the company on investment decisions of outsiders. Complete, relevant, accurate and timely information is needed by investors in the



capital market as an analytical tool to make these decisions. According to Jogiyanto (2013) that information published as an announcement will provide a signal for investors in making investment decisions. If the announcement contains a positive value, it is expected that when all market participants receive the information, market participants first analyze the information as a good signal (*goodnews*) or bad signal (*badnews*).

Stakeholder Theory

Stakeholders are parties who have an interest in the company or stakeholders in which these parties can influence or be affected by the actions of the business. Stakeholders consists of two parties, namely internal parties and external parties. Internal parties include the organization itself; shareholders; business owner; and employees. While stake holder external parties include consumers; suppliers; competitor; investors; government; local community; media and society at large (Kumalasari, 2018).

Corona Virus (COVID-19)

The COVID-19 pandemic phase began on March 11, as the official announcement was made by WHO. Until the end of March, cases of new infections increased exponentially, and the virus spread rapidly throughout the world. However, the social distancing measures implemented by most governments contributed to the stabilization of new infection cases reported daily around 100,000 at the global level, among them 20,000 in the US. Starting May 15, 2020, most countries in the US and Europe decided to relax social distancing restrictions and revive economic activity, even though the new coronavirus continues to spread in America (Albulescu 2020). Ashraf (2020) found that the stock market responded negatively to the increase in confirmed cases of COVID-19.

Return on Assets (ROA)

Return on Assets (ROA) is a profitability ratio that shows the percentage of profit (net income) obtained by the company in relation to overall resources or the average number of assets. In other words, Return on Assets is a ratio that measures how efficiently a company manages its assets to generate profits over a period. The more efficient the company in the use of its assets which will ultimately generate profits for the company, a positive ROA indicates that the total assets used for the company's operations are able to provide profits for the company. Conversely, if the ROA is negative, it shows that the total assets used are not profitable. Therefore, the higher the ROA value indicates that the financial performance of a company is getting better.



Company Size (Size)

Company size is the size of the company can be measured by total assets by using the calculation of the logarithm of total assets. According to Chauvin and Hirschev (1993) in (Ju et al., 2021) company size is a factor that affects the company's financial performance based on economies of scale and superior market power. If the assets owned by a company are getting bigger, then the company can invest, both for current assets and fixed assets and also to meet product demand. This further expands the market share to be achieved which will then affect the company's profitability and also the company's stock return.

Liquidity

The liquidity ratio is generally used to determine the ability of a company to meet its short-term obligations in a timely manner. In this study, the liquidity ratio is proxied by the current ratio (Current Ratio). Liquidity according to Fred Weston in Kasmir (2016:129) is a ratio that describes the company's ability to meet short-term obligations (debt). This means that if billed, the company will be able to meet the debt, especially debt that is due. According to Kasmir (2016: 130) the liquidity ratio or also known as the working capital ratio is a ratio used to measure how liquid a company is by comparing the components on the balance sheet. The assessment can be carried out for several periods so that the company's liquidity development can be seen from time to time.

Leverage

Meanwhile, according to Kasmir (2015:151) Leverage is the solvency ratio or Leverage ratio is the ratio used in measuring the extent to which the company's assets are financed with debt. This means how much debt burden is borne by the company compared to its assets. In a broad sense it is said that the solvency ratio is used to measure the company's ability to pay all its obligations, both short term and long term if the company is dissolved (liquidated). McConnell and Servaes (1990) in (Ju et al., 2021) Leverage represents the main financial condition that shows the liquidity of a company, is also a factor that affects the company's financial performance, with the benefits of a tax shield.

Cumulative Abnormal Return (CAR)

Return is the result obtained from an investment. According to Jogiyanto (2013) stock returns are divided into two, namely realized returns and expected returns. Realized return is a return that has occurred which is



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calculated based on historical data. This realized return is important in measuring the company's performance and as a basis for determining future returns and risks. Expected return is the expected return in the future and is still uncertain. Investors are faced with uncertainty between the returns to be obtained and the risks they will face. Financial statements are useful for investors, so investors also react to it. This investor reaction can be observed around the publication date of the financial statements. This reaction can be measured using Cumulative Abnormal Return (CAR). Cumulative Abnormal Return (CAR) is the sum of the previous day's abnormal returns in the event period for each security (Jogiyanto, 2011:572).

Effect of positive confirmed cases of COVID 19 and confirmed death cases of COVID 19 on CAR (*Cumulative Abnormal Return*).

According to Heyden and Heyden (2020) short-term reactions impact on company stock prices in the US, UK and 15 European stock markets during various stages of the COVID-19 pandemic including the first case of COVID-19, the first death from the virus and the initial announcement of fiscal and monetary policies. They found that in general, there was no significant reaction to the first case of COVID-19 but that the first associated death usually triggered a significant negative CAR. Country-specific fiscal policy announcements negatively affected stock returns but monetary policy calmed the market. Investigating stock market reactions to daily confirmed COVID-19 cases and deaths in 64 countries, Ashraf (2020) found a negative relationship between growth in confirmed cases and stock market returns. He concluded that the stock market's response to the COVID-19 pandemic varied according to the stage of the outbreak. Based on the description above, the first hypothesis (H1) and the second hypothesis (H2) for this study are:

H1: Positive confirmed cases of COVID 19 affect Cumulative Abnormal Return

H2: The confirmed death cases of COVID 19 affect Cumulative Abnormal Return

Influence Return On Assets (ROA) on (CAR) Cumulative Abnormal Return

Brigham and Houston (2010) in (Linzy Prati Putri 2015) that the greater the ROA, the better the company's ability to generate profits by using every asset it has, so that the company's stock price increases. Companies that get a higher ROA actually tend not to have a larger annual stock returns, stock returns have increased but the increase is not significant. This condition can explain that the reaction shown by investors to profitability information is not as appropriate as expected or in this case the reaction of investors at the end of the year does not follow the profitability obtained by the company



at the end of the year. This is because not all investors already know the profitability information obtained by the company at the end of the year because at that time the financial statements were actually in the audit process so that the information received by investors was not completely reliable (Wardani, Hermiyetti, and Yusuf 2017). According to Agustia (2014) ROA has no effect on the company's stock price. Companies with good or increasing ROA conditions do not have the company's attractiveness by investors. This condition makes the company's stock price not increase so that the increase in ROA will not have an impact on the company's stock return. Based on the description above, the third hypothesis (H3) for this study is: H3: Return on Assets (ROA) has an effect on Cumulative Abnormal Return (CAR) during the COVID-19 pandemic

Effect of Liquidity on (CAR) Cumulative Abnormal Return

According to Syofyan (2010:301) in Wardani, Hermiyetti, and Yusuf (2017), the liquidity ratio is a ratio that measures the company's ability to meet its short-term obligations. High corporate liquidity indicates that the company will be able to fulfill its obligations to shareholders. Liquidity level is the company's ability to meet its short-term obligations. Current Ratio This high can be due to uncollectible receivables which of course cannot be used quickly to pay debts. With Current Ratio The higher the net profit, the less the company generates because a high current ratio indicates an excess of current assets which is not good for the company's performance because current assets generate lower profits (profits) compared to their fixed assets.

Furthermore, liquidity has an effect on CAR which shows that companies with higher liquidity show abnormal returns higher during the COVID-19 pandemic situation. This result contradicts the notion that investors should perceive high-liquidity firms in a better position to deal with the potential negative cash flow implications associated with adverse events. However, these results can indicate that investors perceive high liquidity as a signal of management's anticipation of a potential cash flow or liquidity crisis. Therefore, investors of companies with liquidity will react to both negative and positive events. Finally, CAR was found to be invariant with respect to Leverage and Profitability (Heyden and Heyden 2020). Based on the description above, the fourth hypothesis (H4) for this study is:

H4: Liquidity affects Cumulative Abnormal Return (CAR) during the COVID-19 pandemic



Influence Leverage on Cumulative Abnormal Return (CAR)

Debt to assets ratio (DAR) is one of the ratios leverage which can show the total assets to meet all obligations/anticipate debt. According to Syamsudin 2009:54 in Wardani, Hermiyetti, and Yusuf 2017. Debt to assets ratio (DAR) is a ratio that can show the relationship of long-term loans provided by creditors to the total assets of the company. If earnings per share increase, it will have an impact on increasing stock prices or stock returns, so theoretically DAR will have a positive effect on stock returns. According to Wardani, Hermiyetti, and Yusuf (2017) leverage has no significant effect on stock returns.

Investors who ignore the company's debt ratio will consider accounting information, company description, neutral information, advocate recommendations, and personal financial needs in making decisions to invest (Al-Tamimi: 2004) in (Agustia 2014). Leverage firms under external shocks signal a potential increase in business risk, thereby causing investor anxiety and causing stock declines (Ding et al. 2020). Otherwise, leverage bigger are more resilient in the face of stock reactions to the COVID-19 shock, at the cost of high financial distress (Jang and Tang, 2009) in (Song, Yeon, and Lee 2021) Based on the description above, the fifth hypothesis (H5) for this study is:

H5: Liquidity affects Cumulative Abnormal Return (CAR) during the COVID-19 pandemic

Influence Company Size on Cumulative Abnormal Return (CAR)

The size of the company which is reflected in total assets tends to affect stock returns. This is because large companies have relatively greater growth than small companies, so the rate of return on shares of large companies is greater than the stock returns of small companies. Therefore, Investors will speculate more to choose large companies in the hope of obtaining large returns. According to Zulfa (2013) firm size has no significant effect on stock prices. This shows that the size of the company at the time of publication of the financial statements is not informative enough and is no longer a concern of investors in making investment decisions and estimating returns in this observation period.

Investors assume that large companies are not always able to provide a large rate of return and vice versa, small companies do not rule out the possibility of providing a high rate of return for their investors. Size has a statistically significant negative effect on CAR indicating that investors who hold shares of small companies react more strongly to an event (both positive and



negative) in the COVID-19 pandemic situation. A negative coefficient representing an inverse relationship between size and the firm's CAR is consistent with our previous finding of a larger (smaller) average CAR for the smallest portfolio (Heyden and Heyden 2020). Based on the description above, the sixth hypothesis (H6) for this study is:

H6: Company Size has an effect on Cumulative Abnormal Return (CAR) during the COVID-19 pandemic

3. Research Methods

Population and Sample

The population in this study are LQ45 index companies listed on the IDX for the 2020 period (Quarter 1, 2, 3 and 4). Samples were taken using the method *purposive sampling*. All data used in this study are secondary data using the panel data regression method, which combines between *cross section* and *time series*. Based on the sample criteria, a sample of 23 LQ45 companies was obtained after the selection process was carried out. Here's a sample from the company LQ45 listed on the IDX:

Table 1. Sample LQ 45 Companies listed on the IDX

Sample Criteria	Amount
IDX-listed LQ45 company	45
Major evaluation conducted by IDX during 2020	(6)
Companies using foreign currency	(7)
Financial reports that have not been published	(3)
Incomplete data	(6)
Number of companies sampled Total	23
sample 23 x 4 quarters	92

Source: Data processed 2021

Operational Definition and Variable Measurement

Stock returns in this study were measured using Cumulative Abnormal Return (CAR). Cumulative Abnormal Return (CAR) is the sum of the event period returns for each security. The first step to calculate CAR is to calculate Actual Return and Market Return.

1. Formula actual return stock: $R_{it} = (P_{it} - P_{i,t-1}) / P_{i,t-1}$
2. Market Return Formula:

$$R_{mt} = \left[\frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}} \right]$$



3. Formula Cumulative Abnormal Return (CAR)=

$$CAR_i = \sum_{t=1}^n R_{it} - R_{mt}$$

Independent Variable (X)

1. Positive Confirmed Cases of COVID 19 and Confirmed Deaths of COVID 19

This virus is contagious very quickly and has spread to almost all countries, including Indonesia, in just a few months. The Ministry of Health released the total number of confirmed positive cases is 502,110 and every day it increases and spreads to all provinces in Indonesia. Figures for the number of confirmed positive cases are obtained from the website (<http://covid19.go.id/>). Data collection starts since President Jokowi announced that the Corona Virus (COVID19) had become a pandemic, namely on March 2 2020.

2. Return on Assets (ROA)

The ultimate goal to be achieved by the company is to obtain maximum profit or profit. To measure the level of profit or profit of a company, profitability ratios are used. Kasmir (2016: 196) in his book states that profitability is a ratio used to assess the company's ability to seek profit. This is indicated by the profit generated from sales and investment income. The ROA formula is as follows:

$$ROA = \frac{Net\ Income}{Asset\ Total}$$

3. Liquidity

Liquidity according to Fred Weston in Kasmir (2016:129) is a ratio that describes the company's ability to meet short-term obligations (debt). This means that if billed, the company will be able to meet the debt, especially debt that is due. According to Kasmir (2016: 130) the liquidity ratio or also known as the working capital ratio is a ratio used to measure how liquid a company is by comparing the components on the balance sheet. The CR formula is as follows:

$$Current\ Asset = \frac{Current\ Assets}{Current\ Liabilities}$$

4. Leverage

Kasmir (2016) mentions leverage ratio is the ratio used to measure the extent to which the company's assets are financed with debt. This means that the amount of debt used by the company to finance its business activities is compared to using its own capital. According to McConnell



and Servaes (1990) in (Ju et al., 2021) leverage represents the main financial condition that shows the liquidity of a company, is also a factor that affects the company's financial performance, with the benefits of a tax shield. The DAR formula is as follows:

$$DAR = \frac{Total\ Liabilities}{Total\ Assets} \times 100$$

5. Company Size

According to Chauvin and Hirschev (1993) in (Ju et al., 2021) company size is a factor that affects the company's financial performance based on economies of scale and superior market power. If the assets owned by a company are getting bigger, then the company can invest, both for current assets and fixed assets and also to meet product demand. This further expands the market share to be achieved which will then affect the company's profitability and also the company's stock return. Company size is symbolized by using Log Natural Total Assets with the aim of reducing excessive data fluctuations.

4. Results and Discussion

Descriptive statistics

The distribution of descriptive statistics for each variable in LQ45 companies listed on the IDX is shown in table 2 below:

Table 2. Description of Research Variables of LQ45 Companies Listed on the IDX

	N	Min	Max	mean	Std. Deviation
Positive Confim Case of Covid	92	1427	182690 78	371.73 51	925,645
Death Case Confirm Positive Covid	92	49	5451	2401.18	1525.509
Return on Assets	92	- . 009	. 358	. 04416	. 057776
Leverage	92	. 149	3.291	1.14884	. 892464
Liquidity	92	. 294	4,535	1.93025	. 964393
Company Size	92	29,543	33,536	31.40632	. 864876
Abnormal Return	92	- . 374	1,517	- . 00247	. 275830
Valid N (listwise)	92				

Source: Data processed 2021

The results of the data normality test are shown in table 3:



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Table 3. Normality Test Results of LQ45 Companies Listed on the IDX

		Unstandardized Residual
N		68
Normal Parameters _{a,b}	mean	- .0018646
	Std. Deviation	.23187839
Most Extreme Differences	Absolute	.158
	Positive	.158
	negative	- .081
Test Statistics		.158
asymp. Sig. (2-tailed)		.000 _c
Exact Sig. (2-tailed)		.059
Point Probability		.000

Source: Data processed 2021

From the value of Probability Exact Sig. (2-tailed) above, shows that the regression model has been normally distributed, because the probability value of Exact Sig. (2-tailed) count for LQ45 companies listed on the IDX > 0.05, which is 0.059.

Multiple Regression Equation

The following are the results of the regression model of LQ45 companies listed on the IDX in this study, namely:

$$Y = 1,563 + 2.040E-5 X_1 - 0.01 X_2 - 0.853 X_3 - 0.117 X_4 - 0.092 X_5 - 0.043 X_6 + e$$

Coefficient of Determination

Based on table 4 it can be seen that the value of *Adjusted R-Square* for LQ45 companies listed on the IDX is 0.201. These results indicate that the ability of the independent variable to predict the variation of the dependent variable is 20.1%, while the remaining 79.9% (100%-20.1%) is influenced by other variables not included in this study.

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.503 _a	.253	.201	.246586

Source: Data processed 2021



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T test (Regression Coefficient Test)

Based on table 5 in below is the result of the hypothesis can be concluded as following:

Table 5. Multiple Regression Test Results

	B	Std. Error	Beta	t	Sign
(Constant)	1.563	1.051		1.486	.141
Case Confirm (+) Covid	2.040E-5	.000	3,841	1,752	.083
Death Case Confirm (+) Covid	-.001	.000	-3.376	-1,539	.127
Return on Assets	-.853	.506	-.179	-1,688	.095
Leverage	-.117	.044	-.380	-2,685	.009
Liquidity	-.092	.041	-.322	-2,243	.028
Company Size	-.043	.033	-.135	-1.319	.191

Source: Data processed 2021

a. Dependent Variable: Abnormal Return

Positive Confirmed Case of Covid 19

The positive confirmed case of covid 19 has a sign value of 0.083 which is greater than the significance level of 0.05 which means that the positive confirmed case of covid 19 has no effect on the *Cumulative Abnormal Return* (CAR). This shows that the confirmed case of covid 19 does not have an effect on stock prices, especially in the CAR of the LQ45 company listed on the IDX. This research is in line with Heyden and Heyden's (2020) short-term reaction to the impact on company stock prices in the US, UK and 15 European stock markets during various stages of the COVID-19 pandemic including the first cases of COVID-19. They found that in general, there was no significant reaction to the first case of COVID-19. Country-specific fiscal policy announcements negatively affect stock returns but monetary policy calms the market and the results of this study are not in line with Ashraf (2020) which examines stock market reactions to daily confirmed COVID-19 cases and deaths in 64 countries. Ashraf (2020) found a negative relationship between growth in confirmed cases and stock market returns. He concluded that the stock market's response to the COVID-19 pandemic varied according to the stage of the outbreak.



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Positif Covid 19 Confirmed of Death Cases

The case of death confirmed positive for covid 19 has a sig value of 0.127 which is greater than the significance level of 0.05 which means that the case of death confirmed positive for covid 19 has no effect *Cumulative Abnormal Return* (CAR). This means that the confirmed COVID-19 death case has no impact on company prices, especially CAR. This study is not in line with Heyden and Heyden (2020) short term reaction impact on company share prices in US, UK and 15 European stock markets during various stages of the COVID-19 pandemic, the first related death usually triggers a significant negative CAR according to Asraf (2020) which examined the stock market reaction to confirmed Covid-19 deaths in 64 countries, found a negative relationship between growth in confirmed deaths and stock market returns. He concluded that the stock market's response to the COVID-19 pandemic varied according to the stage of the outbreak.

Return on Assets (ROA)

Return on Assets (ROA) has a sig value of 0.095 greater than the significance level 0.05 which means that return on assets (ROA) showed no effect on Cumulative Abnormal Return (CAR). This means that companies that get a higher ROA tend not to have a larger annual stock return, stock returns have increased but the increase is not significant. This condition can explain that the reaction shown by investors to profitability information is not as expected. The results of this study this is in line with research conducted by Agustia (2014) which states that ROA has no effect on the company's stock price. Companies with good or increasing ROA conditions do not have the company's attractiveness by investors. This condition prevents the company's stock price from increasing so that the increase in ROA will not have an impact on the company's stock returns during the Covid 19 pandemic.

Leverage (DER)

Leverage has a sig value of 0.009 which is smaller than the 0.05 significance level which means that leverage affect Cumulative Abnormal Return (CAR). Debt to assets ratio (DAR) is a ratio that can show the relationship of long-term loans provided by creditors to the total assets of the company. If earnings per share increase, it will have an impact on increasing stock prices or stock returns, so theoretically DAR will have a positive effect on stock returns. The results of this study are in line with research conducted by Syamsudin (2009: 54) in Wardani, Hermiyetti, and Yusuf (2017) and Jang and Tang (2009) in Song, Yeon, and Lee (2021) which



state that Leverage bigger are more resilient in the face of stock reactions to the COVID-19 shock, at the cost of high financial hardship. The results of this study differ from those of Wardani, Hermiyetti, and Yusuf (2017) and Ding et al. (2020) which states that Leverage companies under external shocks signal a potential increase in business risk, thereby causing investor anxiety and causing stock declines.

Liquidity (CR)

Liquidity has a sig value of 0.028 which is smaller than a significance level of 0.05 which means that liquidity has an effect on Cumulative Abnormal Return (CAR). This could be due to the level of liquidity is the company's ability to meet its short-term obligations. The higher the level of company liquidity, the company's short-term performance and prospects can be said to be good. With good performance and future prospects, investors will increasingly believe in the company and encourage investors to invest. This results in an increase in stock prices, so the rate of return (returns) received will be even higher. The results of this study are in line with Ulfa (2013) which states that the level of liquidity affects stock prices. Likewises with Heyden and Heyden (2020) research which states that liquidity has an effect on CAR which shows that companies with higher liquidity show abnormal returns higher during the COVID-19 pandemic situation. These results contradict the notion that investors should perceive high-liquidity firms in a better position to deal with the potential negative cash flow implications associated with adverse events. However, these results may indicate that investors perceive high liquidity as a signal of management's anticipation of a potential cash flow or liquidity crisis. Therefore, investors of companies with liquidity will react to both negative and positive events. Finally, CAR was found to be invariant with respect to leverage.

Company Size (Size)

Firm size has a sig value of 0.191 which means it is greater than the 0.05 significance level which means that liquidity has no effect on Cumulative Abnormal Return (CAR). This shows that the size of the company at the time of publication of the financial statements is not informative enough and is no longer a concern of investors in making investment decisions and estimating returns in this observation period. Investors assume that large companies cannot always provide a large rate of return and vice versa, small companies do not rule out the possibility of being able to provide a high rate of return for their investors. The results of this study are in line with Zulfa (2013) which states that Sizes (Firm Size) has no significant effect on stock prices. But it is not in line with (Heyden & Heyden, 2020) which states that' size has a statistically



significant negative effect on CAR indicating that investors who hold shares of small companies react more strongly to an event (both positive and negative) in the COVID-19 pandemic situation.

CONCLUSIONS AND SUGGESTION

Positive confirmed cases of covid 19 show no effect on CAR. So, it can be concluded that the positive confirmed cases of covid 19 have no effect on the Cumulative Abnormal Return (CAR). This is because there was no significant reaction to the first case of COVID-19 against the company's CAR. Covid-19 confirmed death cases show no effect on CAR. This means that the confirmed COVID-19 death case has no impact on company prices, especially CAR. Return on assets (ROA) shows no effect on CAR. This means that companies that get a higher ROA tend not to have a larger annual stock return, stock returns have increased but the increase is not significant. Leverage affect Cumulative Abnormal Return (CAR). Debt to assets ratio (DAR) is a ratio that can show the relationship of long-term loans provided by creditors to the total assets of the company. If earnings per share increase, it will have an impact on increasing stock prices or stock returns, so theoretically DAR will have a positive effect on stock returns. Liquidity affects Cumulative Abnormal Return (CAR). This could be due to the level of liquidity is the company's ability to meet its short-term obligations. The higher the level of company liquidity, the company's short-term performance and prospects can be said to be good. Company size (size) has no effect on Cumulative Abnormal Return (CAR).

This shows that the size of the company at the time of publication of the financial statements is not informative enough and is no longer a concern of investors in making investment decisions and estimating returns in this observation period. For further research, the research period will be narrower, namely when the PSBB policy is enforced by the government, then the sample can be selected at the time of the PSBB policy the most impactful sectors such as transportation companies, restaurants and hotels where there is a travel restriction policy by the government that has an impact on these companies.

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