IConEnt

The 4th International Conference on Entrepreneurship

THE IMPACT OF COVID-19 PANDEMIC TOWARDS STOCK RETURN IN INDONESIA
(Empirical Study on Companies Listed in IDX during period of 2019–2020)

Meiliana Jaunanda[a], Gabrielle Angelica Beatrice Inzen[b]

[a]Universitas Pelita Harapan, Tangerang, Indonesia
[b]Universitas Pelita Harapan, Tangerang, Indonesia

ABSTRACT

This research was conducted to analyze the impact of Return on Asset (ROA), Market Capitalization, COVID-19 Pandemic, and Stock Sector towards Stock Return in Indonesia. The independent variables used in this study are Return on Asset (ROA), Market Capitalization, Daily Increase of COVID-19 Total Confirmed Cases, and Stock Sector as a dummy variable. The control variables used in this study are Debt-to-Equity Ratio (DER) and Company Size. The dependent variable used in this study is Stock Return. The population of this study is the companies that are listed in Indonesia Stock Exchange (IDX) during 2019 and 2020. A total of 776 samples are collected based on the purposive sampling method used in this study. The results showed that: (1) Return on Asset (ROA) has a significant positive impact towards stock return; (2) Market Capitalization has a significant positive impact towards stock return; (3) Daily Increase of COVID-19 Total Confirmed Cases has a significant negative impact towards stock return; and (4) Stock Sector has an insignificant negative impact towards stock return.

Keywords: **Return on Asset, Market Capitalization, COVID-19 Pandemic, Stock Returns.**

INTRODUCTION

Indonesia, the largest economy in Southeast Asia, has been recognized for its substantial economic growth, ranking 7th globally by GDP and 15th by nominal GDP. The country's stock market has evolved significantly, with the number of listed companies growing from 24 in 1987 to over 700 by 2020. In an effort to further stimulate the market, the Indonesian government launched the "Yuk Nabung Saham" campaign in 2015 to promote stock investing among the population. This initiative aimed to transition Indonesia from a savings-focused society to one more engaged in investment, leading to a notable increase in market participation, with capital market investors rising from 1.6 million in 2018 to 6.1 million by August 2021.

Despite these advancements, Indonesia's annual GDP growth has been slowing, dropping from 6.224% in 2010 to 5.018% in 2019. This economic deceleration was exacerbated by the COVID-19 pandemic, which led to a global economic downturn, causing Indonesia's GDP to shrink by 2.04% in 2020. As of September 2021, Indonesia had over 4.1 million confirmed COVID-19 cases, and globally, the pandemic caused severe disruptions, including to stock markets.

Historically, stock returns have been impacted by significant events, such as pandemics. The 2002–2004 SARS outbreak and other health crises like Zika and Ebola have all shown the potential to influence stock returns negatively. During the COVID-19 pandemic, Indonesia's stock market also experienced substantial volatility. The Jakarta Composite Index saw a 16% drop in March 2020 following the announcement of the country's first COVID-19 cases, though the market began to recover after social distancing measures were implemented.

Stock return, the profit or loss investors realize from their investments, can be analyzed through two main approaches: technical analysis and fundamental analysis. Technical analysis involves studying past price movements to predict future returns, while fundamental analysis assesses a company's financial health through indicators like profitability ratios, leverage ratios, and market value ratios. Among these, return on assets (ROA), market capitalization, and debt-to-equity ratio (DER) are critical in understanding a company's performance and its impact on stock returns.

ROA measures how efficiently a company uses its assets to generate profit, with a higher ROA indicating better profitability and potentially higher stock returns. A company with a high ROA is more attractive to investors, which can drive up its stock price and returns. Similarly, market capitalization, which reflects the total value of a company's outstanding shares, positively correlates with stock return as higher market caps signal investor confidence and company stability.

On the other hand, DER, which measures a company's reliance on debt, has a negative impact on stock returns. A high DER suggests that a company is heavily indebted, which can deter investors due to the increased financial risk. Companies with lower debt are generally seen as more stable, making their stocks more attractive and increasing their returns.

Another important factor in determining stock return is company size, typically measured by total assets. Larger companies are perceived as safer investments due to their ability to generate consistent profits and weather economic downturns. Consequently, stock returns tend to be higher for larger companies compared to smaller, riskier firms.

The COVID-19 pandemic affected different sectors of the Indonesian stock market unevenly. Sectors like healthcare and consumer goods experienced positive stimuli due to increased demand for medical services and essential goods. Conversely, sectors like transportation were negatively impacted by social distancing measures and travel restrictions. The varying responses of different sectors to the pandemic illustrate how external shocks can have diverse effects on stock performance.

This research builds upon previous studies, such as those by Abdullah M. Al-Awadhi and colleagues, which analyzed the impact of COVID-19 on stock returns. While earlier research focused on market capitalization and market-to-book ratio, this study introduces additional variables like ROA, DER, and company size to provide a more comprehensive understanding of stock return determinants. By incorporating these financial indicators, the research aims to offer a deeper analysis of how company fundamentals, combined with market and pandemic-related factors, influence stock returns in Indonesia.

There is also a significant gap in research on the effects of COVID-19 on stock returns, particularly in relation to Indonesia's stock market. Previous pandemics, such as SARS and the Spanish flu, were less impactful on global stock markets compared to COVID-19, which has caused unprecedented economic and financial disruptions worldwide. Understanding how different factors, including company performance metrics and sector-specific dynamics, interact with such an extraordinary event can provide valuable insights for investors and policymakers.

In summary, the COVID-19 pandemic has underscored the importance of both financial fundamentals and external events in shaping stock market performance. By examining the roles of profitability, leverage, market valuation, and company size, this research seeks to shed light on the

key drivers of stock return in the context of a global health crisis, offering practical implications for investors navigating the volatile market environment.

LITERATURE REVIEW

Theoretical Framework

Efficient Market Hypothesis

The efficient market hypothesis suggests that the market is said to be efficient when the prices are a full reflection of all existing information. There are three information subcategories: First, historical information such as historical prices of the stock; second, publicly available information such as annual income, stock split, etc.; and third, insider information that is retrieved monopolistically (Anggraini, 2021). According to (Shleifer, 2003), the efficient market hypothesis contains three assumptions: 1) Investors are assumed to act rationally and would value stocks based on rational reasoning. 2) Some of the investors would act irrationally. However, their actions are assumed to be random, hence there would be no significant effect as they will cancel each other out. 3) Rational arbitrary investors would minimize the effects of irrational investors towards the stock prices in the capital market. According to (Hasanuddin, 2015), there are several things that should be fulfilled in order to achieve an efficient market: 1) There are a big number of investors who are considered rational and are eager to gain maximum profit. Those investors are actively participating in the market by analyzing, evaluating, and trading. 2)All market participants can receive information at the same time, at a low cost, and in an easy way. 3) The information sent out is random. 4) Investors would quickly react towards the information received; hence stock prices will move according to their appropriate value. This means, because the information sent out is random, it means that each of the changes in stock prices are both independent and random. The changes in stock prices today are not affected by the changes in the past as the recent change is a result of the new information received recently.

Conceptual Framework

Model 1 (Year 2019)
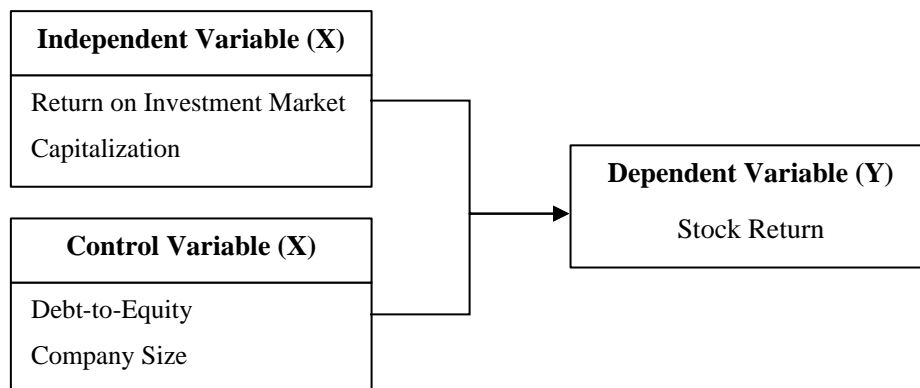
Model 1 uses data from the year 2019.

Figure 2.2 Conceptual Framework Model 1

Model 2 (Year 2020)

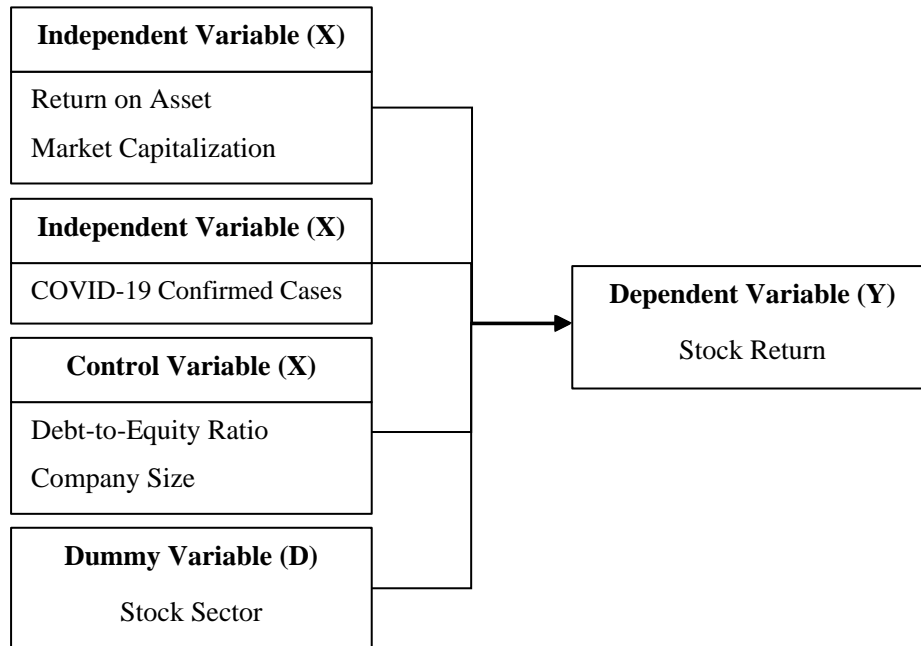Model 2 uses data from the year 2020.

Figure 2.3 Conceptual Framework Model 2

Hypothesis Development

The Impact of Return on Asset Towards Stock Return in Indonesia

Return on asset is a financial ratio that measures a company's profitability. This ratio can be used to indicate a company's ability to create profits based on the quantity of assets it owns. The better the return on investment (ROI), the more profitable the company is.A study conducted by (Nugroho, 2020) found that ROA has significant positive effect towards stock return. Another study conducted by (Mogonta & Pandowo, 2016) also agrees that ROA has a significant positive effect towards stock return. A study conducted by (Permatasari et al., 2019) found that ROA has significant effects towards stock return. However, a study conducted by (Mangantar et al., 2020) found that ROA has insignificant negative effects towards stock return. Hence, based on the statements above, the hypothesis that can be drawn is:

H1: Return on asset has a positive impact towards stock return

The Impact of Market Capitalization Towards Stock Return in Indonesia

Market capitalization is a measure of total value in money of a company's outstanding share of stock. Market capitalization can be used to compare one company's stock with the others. Market capitalization can help compare the size of companies. A study conducted by (Tahir et al., 2013) found that market capitalization has a positive and significant effect towards stock return. Another study conducted by (Wahyudi et al., 2020) also found that market capitalization has a positive effect towards stock return. Hence, based on the statements above, the hypothesis that can be drawn is:

H2: Market capitalization has a positive impact towards stock return.

The Impact of Daily Increase of COVID-19 Total Confirmed Cases Towards Stock Return in Indonesia

The daily increase of COVID-19 total confirmed cases measures the total number of people tested positive for COVID-19 in one particular day. A study conducted by (Anh & Gan, 2020) revealed that daily cases of COVID-19 negatively affect stock return significantly. This result is on par with a study done by (Tek & Madai, 2021) which stated that COVID-19 daily infected cases are significantly negatively related with stock returns. Another study conducted by (Xu, 2021) also agrees that stock return is negatively affected by COVID-19 cases. These results are consistent with a study conducted by (Zach, 2003) which stated that stock returns may be affected by major events. Hence, based on the statements above, the hypothesis that can be drawn is:

H3: Daily increase of COVID-19 total confirmed cases has a negative impact towards stock return.

The Impact of Stock Sector Towards Stock Return in Indonesia

Stock sector is defined as the categorization of companies' stock based on its sector of operations. The Indonesia Stock Exchange categorized the stock into 9 sectors: agriculture; mining; basic industry and chemicals; miscellaneous industry; consumer goods; property, real estate and building construction; infrastructure, utility and transportation; finance; and trade, service and investment. These stock sectors have different amounts of stocks listed in them. For the purpose of this study, several stock sectors that are viewed to be more impacted by COVID-19 are getting the value 1, whereas the stock sectors that are not affected are getting the value 0. A study conducted by (Karim & Saba, 2021) shows different results regarding the effect of COVID-19 cases towards stock return. The study concluded that different sectors' stock return reacted differently towards COVID-19 cases. Several sectors were impacted by the number of COVID-19 cases, while the other sectors were not impacted. Another study conducted by (Trisnowati & Muditomo, 2021) also found that only 6 out of 9 stock sectors in Indonesia are affected by COVID-19. Hence, based on the statements above, the hypothesis that can be drawn is:

H4: Stock sector has a negative impact towards stock return.

METHODOLOGY

Sample

Sample is defined as a certain portion of a population (Banerjee & Chaudhury, 2010). Purposive sampling, also known as judgment sampling, is the intentional selection of a participant based on the individual's characteristics (Etikan, 2016). Based on this interpretation, this research uses purposive sampling technique by defining a few characteristics and criteria that must be fulfilled in order to qualify as a part of the sample. The sample data used for Model 1 is taken from the year 2019, whereas the sample used for Model 2 is taken from the year 2020. The criteria for the samples are as follows:

1. The company is listed on the Indonesia Stock Exchange during the period of 2018–2020.
2. The company's IPO date is before 1 January 2018.
3. The company should publish annual financial reports during the period of 2019–2020.

4. The company is not experiencing bankruptcy.
5. The company published financial reports that contain information that is necessary for this research.
6. The company is not operating in the financial sector.

Empirical Model

The empirical models used to analyze the impact of COVID-19 pandemic towards stock return in Indonesia are as follows:

Model 1 (Year 2019)

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$

Model 2 (Year 2020)

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_5 X_5 + \beta_3 X_3 + \beta_4 X_4 + \square_0 D + e$

where:

Y : Stock return
α : Constant
$\beta_1, 2, 3, 4, 5$: Regression coefficient
$\square_0$: Regression coefficient
X_1 : Return on asset
X_2 : Market capitalization
X_3 : Debt-to-equity ratio
X_4 : Company Size
X_5 : COVID-19 cases
D : Stock sector
e : error

RESULT

Descriptive Statistical Analysis

Descriptive statistical analysis provides a summarization of the quantitative explanations and the characteristics of the data analyzed by using total number of observations (N), maximum value, minimum value, average value (mean), and standard deviation.

TABLE 1

DESCRIPTIVE STATISTICS

	N	Minimum	Maximum	Mean	Std. Deviation
STOCK_RETURN	776	-.9564	2.0423	-.105553	.3365343
ROA	776	-.3143	.3163	.013050	.0769456
DER	776	-3.9969	12.1409	.653370	1.0016123
COM_SIZE	776	10.6474	19.6790	14.976026	1.6632418
M_CAP	776	2.1958	12.9024	7.396371	1.8599009
COV_CASE	776	.0000	7.6161	3.808042	3.8104982
D_SECTOR	776	0	1	.81	.395
Valid N (listwise)	776				

Coefficient of Determination (R^2)

TABLE 2

COEFFICIENT OF DETERMINATION (R^2) RESULT FOR REGRESSION MODEL 1 AND 2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.354[a]	.126	.121	.3154999
2	.452[b]	.204	.198	.3014155
a. Predictors: (Constant), M_CAP, DER, ROA, COM_SIZE				
b. Predictors: (Constant), M_CAP, DER, ROA, COM_SIZE, D_SECTOR, COV_CASE				
c. Dependent Variable: STOCK_RETURN				

Coefficient of determination (R^2) test is useful to test how far the independent variables can explain and represent the dependent variable. As seen on Table 4.7, the R Square (R^2) value of regression model 1 is 0.126. For a more accurate result, we should use the value of the Adjusted R Square, which is 0.121. This means the independent variables in this study manage to explain the dependent variable as much as 12.1%, whereas the remaining 87.9% is explained by other factors and variables.

However, for regression model 2, as seen on Table 4.7, the R Square (R^2) value is 0.204, which is 0.078 higher than model 1. For a more accurate result, we can refer to the Adjusted R Square value, which is 0.198 for model 2, resulting in a 0.077 increase compared to model 1. This means the independent variables in model 2 are able to explain the dependent variable as much as 19.8%, whereas the remaining 80.2% is explained by other factors and variables. This shows that the independent variables in model 2 can explain the dependent variable 7.7% more than model 1.

Simultaneous Significance (F-Statistics)
Table 3 F-Statistics Result for Regression Model 1 and 2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.027	4	2.757	27.696	.000[b]
	Residual	76.746	771	.100		
	Total	87.773	775			
2	Regression	17.908	6	2.985	32.853	.000[c]
	Residual	69.865	769	.091		
	Total	87.773	775			

a. Dependent Variable: STOCK_RETURN
b. Predictors: (Constant), M_CAP, DER, ROA, COM_SIZE
c. Predictors: (Constant), M_CAP, DER, ROA, COM_SIZE, D_SECTOR, COV_CASE

A simultaneous significance (F-statistics) test is used to analyze whether the regression model's independent variables as one whole affects the dependent variable. Looking at Table 4 we can see that the F value for regression model 1 (year 2019) equals to 27.698 with a significance level of 0. This significance level is lower than $\alpha = 0.05$. From this, we can conclude that the independent variables from regression model 1, which are return on asset (ROA) and market capitalization (M_CAP), simultaneously and significantly affect the dependent variable. As a

result, the regression model 1 (year 2019) can be used to explain the dependent variable stock return (STOCK _RETURN).

Looking at Table 3, we can see that the F value for regression model 2 equals to 32.853 with a significance level of 0. This significance level is lower than $\alpha = 0.05$. From this, we can conclude that the independent variables from regression model 2 (year 2020), which are return on asset (ROA), market capitalization (M_CAP), total increase in daily covid confirmed cases (COV_CASE), and stock sector (D_SECTOR), simultaneously and significantly affects the dependent variable. As a result, the regression model 2 (year 2020) can be used to explain the dependent variable stock return (STOCK_RETURN).

Partial Significance (t-Statistics)

TABLE 4
T-STATISTICS RESULT FOR REGRESSION MODEL 1 AND 2

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.577	.126		4.577	.000
	ROA	.885	.165	.202	5.376	.000
	DER	.013	.012	.038	1.077	.282
	COM_SIZE	-.085	.013	-.422	-6.806	.000
	M_CAP	.078	.012	.430	6.716	.000
2	(Constant)	.608	.122		5.003	.000
	ROA	.681	.159	.156	4.282	.000
	DER	.010	.011	.029	.845	.399
	COM_SIZE	-.075	.012	-.373	-6.267	.000
	M_CAP	.071	.011	.392	6.338	.000
	COV_CASE	-.025	.003	-.282	-8.592	.000
	D_SECTOR	-.035	.028	-.041	-1.259	.209

Significance (t) test can be used to analyze whether each of the independent variables has any significant effect towards the dependent variable. Looking at Table 4 based on the significance level of the t-test, most of the independent variables in regression model 1 (year 2019) significantly affect the dependent variable. The independent variables that have a significance level that is lower than 0.05 are return on asset (ROA) and market capitalization (M_CAP). These independent variables are considered to have a partial significant effect towards the dependent variable stock return (STOCK_RETURN), which means each of the independent variables strongly affects stock return.

Looking at Table 4, based on the significance level of the t-test, most of the independent variables in regression model 2 (year 2020) significantly affect the dependent variable. The variables that have a significance level that is lower than 0.05 are return on asset (ROA), market capitalization (M_CAP) and covid confirmed cases (COV_CASE). These independent variables

are considered to have a partial significant effect towards the dependent variable stock return (STOCK_RETURN), which means each of the independent variables strongly affects stock return. However, the dummy variable stock sector (D_SECTOR) has a significance level of 0.209, which is higher than 0.05. This means, the dummy variable stock sector (D_SECTOR) has insignificant effect towards stock return (STOCK_RETURN).

Analysis of Regression
The Impact of Return on Asset towards Stock Return
Based on the partial significance test (t-test) results on Table 4 the independent variable return on asset (ROA) has a positive significant impact towards the dependent variable stock return (STOCK_RETURN). In regression model 1 (year 2019), ROA has a significance level of 0.000, which is under the 5 percent significance rate ($\alpha = 0.05$). ROA also has an unstandardized beta of 0.885. In regression model 2 (year 2020), ROA has a significance level of 0.000, which is under the 5 percent significance rate ($\alpha = 0.05$). ROA also has an unstandardized beta of 0.681. As a result, we accept H_1 that return on assets has a positive impact towards stock return.

Investors tend to analyze companies' performance by looking at their annual financial report. They use tools such as financial ratios to measure the company's performance. One of the financial ratios that investors often use is the profitability ratio return on assets. This ratio measures how well a company can generate profits using their assets. As the main objective of a business in making profits, companies with high profitability rates are more interesting for investors. Investors are more likely to invest in a stock from a company that is more profitable, which translates to having a higher ROA rate. This then makes the price of the stocks increase, which results in a higher stock return. Companies with higher profitability rates are also more likely to grow and expand their business. This is because they can use the profits earned to further improve their business operations. Another aspect that investors seek in a company is growth. As a company grows, that company increases in value, which means their stock is likely to also increase in value. This then results in a higher stock return, which is what investors are seeking for.

Comparing results from regression model 1 and 2, we can see that both models gave significant results. The significance level for both model 1 and 2 is 0, which is below the 5 percent significance rate ($\alpha = 0.05$). This means, ROA for both year 2019 and 2020 significantly impacts stock return. This proves that even with the existence of an unusual major event such as COVID-19 pandemic, ROA maintains its position as a significant factor that affects stock return. Even amid high levels of uncertainty, investors still believe that ROA is an important financial ratio that is considered when investing in stocks.

The result of this study is consistent with the first hypothesis (H_1) which states that ROA has a positive impact towards stock return. This is also consistent with the study conducted by (Mogonta & Pandowo, 2016) and (Nugroho, 2020) which states that ROA has a significant positive effect towards stock return. However, it is inconsistent with the study conducted by (Mangantar et al., 2020) which states that ROA has insignificant negative effect towards stock return.

The Impact of Market Capitalization towards Stock Return

Based on the partial significance test (t-test) results on Table 4 the independent variable market capitalization (M_CAP) has a positive significant impact towards the dependent variable stock return (STOCK_RETURN). In regression model 1 (year 2019), M_CAP has a significance level of 0.000, which is under the 5 percent significance rate ($\alpha = 0.05$). M_CAP also has an unstandardized beta of 0.078. In regression model 2 (year 2020), M_CAP has a significance level of 0.000, which is under the 5 percent significance rate ($\alpha = 0.05$). M_CAP also has an unstandardized beta of 0.071. As a result, we accept H_2 that market capitalization has a positive impact towards stock return.

Market capitalization measures a company's outstanding share of stock's total value in money. It is generally used as a tool to compare one stock to another. It can also be used to compare the size of a company and its stock valuation. Generally, investors are more willing to invest their money in stocks with higher valuation. This is because stocks that are high in value are usually owned by larger companies. Larger companies have more resources and therefore are more likely to generate profits. They are also more likely to grow and expand their business because they have more resources to do so. In addition to that, larger companies are also less likely to go bankrupt. This causes investors to have more trust in companies that are larger in size, and they proceed to invest in their stocks. Another reason investors prefer to invest their money in larger cap stocks is because they are less volatile. This gives investors a sense of security, while also giving investors a good future prospect.

Humans are generally loss averse. They tend to minimize and escape from loss. This is also prevalent in investors. Because investors are loss averse, they are more likely to invest their money in stocks with mid to high market capitalization. Market capitalization shows us a company's business development stage. Larger cap stocks are considered mature and are lower in risk, but also lower in growth prospect. Because larger cap companies have grown and mature so much, there is less room for it to grow exponentially. Their growth rate is lower compared to the newly established companies. Nevertheless, because they have stood their ground and built that foundation, it is also less likely for larger cap companies to go bankrupt, hence the risk of loss is much lower. Middle cap stocks are usually companies that have passed their early stage of growth, have built a good foundation, and are ongoing to reach their maximum potential and maturity. These stocks offer higher potential in growth but also with a higher risk. Because middle cap companies have not reached their maturity, there is still room for growth and expansion. Their growth rate is higher than larger cap companies, but lower than the smaller cap companies. However, the risk of bankruptcy and loss for middle cap companies is higher than large cap companies. Investors who are seeking higher growth prospects with the exchange of higher risk tend to invest their money in middle cap companies. Lastly, we have small cap companies. Smaller cap companies offer bigger potential for growth and expansion. However, these are the companies who just started their journey and have not built a strong foundation. Hence, these companies are more likely to file for bankruptcy. Investing in a small cap stock is highly risky. Therefore, investors are less likely to invest their money in smaller cap stocks. Usually, only a small portion of an investor's portfolio will go to small cap stocks. Because smaller cap stocks have higher volatility, and with a major unusual event such as COVID-19 pandemic happening, the volatility

of the stock market is even higher. This causes investors to invest less on smaller cap stocks, which causes stock prices to decrease, and stock return also decreases.

The result of this study is consistent with the second hypothesis (H_2) which states that market capitalization has a positive impact towards stock return. This is also consistent with the study conducted by (Tahir et al., 2013) and (Wahyudi et al., 2020) which states that market capitalization has a significant positive effect towards stock return.

The Impact of Daily Increase of COVID-19 Total Confirmed Cases towards Stock Return

Based on the partial significance test (t-test) results on Table 4 the independent variable covid case (COV_CASE) has a negative significant impact towards the dependent variable stock return (STOCK_RETURN). In regression model 2 (year 2020), COV_CASE has a significance level of 0.000, which is under the 5 percent significance rate ($\alpha = 0.05$). COV_CASE also has an unstandardized beta of –0.075. As a result, we accept H_3 that the daily increase of COVID-19 total confirmed cases has a positive impact towards stock return.

The COVID-19 pandemic can be categorized as a major unusual event. A major event can affect stock returns as investors' behavior can be affected by that major event. The increase in total confirmed cases causes investors to be fearful as it relates to the severity of COVID-19 pandemic. This fearful behavior causes investors to change their investing pattern and reduces their trust in stocks. A lot of investors choose to withdraw their money from the stock market. This causes the price of stocks to fall, hence reducing the stock return.

The decrease in stock return is also affected by the COVID-19 protocols and lockdowns. As social distancing protocols are instilled, consumer behavior changes and their buying pattern also changes. Lockdown policies also cause production rate to decrease. This means companies cannot function properly, hence causing them to generate less profits. This causes investors to be less willing to invest their money on stocks, which eventually causes a decrease in stock price and stock return.

The result of this study is consistent with the third hypothesis (H_3) which states that the daily increase of COVID-19 total confirmed cases has a negative impact towards stock return. This result is consistent with a study done by (Tek & Madai, 2021) which stated that COVID-19 daily infected cases are significantly negatively related with stock returns. It is also consistent with a study conducted by (Xu, 2021) which agrees that stock return is negatively affected by COVID-19 cases.

The Impact of Stock Sector towards Stock Return

Based on the partial significance test (t-test) results on Table 4 the dummy variable stock sector (D_SECTOR) has a negative but insignificant impact towards the dependent variable stock return (STOCK_RETURN). In regression model 2 (year 2020), D_SECTOR has a significance level of 0.209, which is greater than the 5 percent significance rate ($\alpha = 0.05$). D_SECTOR also has an unstandardized beta of –0.033. As a result, we accept H_4 that the stock sector has a negative impact towards stock return.

Stocks in Indonesia are divided into 9 sectors: agriculture; mining; basic industry and chemicals; miscellaneous industry; consumer goods; property, real estate and building construction; infrastructure, utility and transportation; finance; and trade, service and investment.

These sectors are categorized by their business operations. Different stimuli have different effects towards each sector. Based on the 2020 GDP growth rate data provided by Statistics Indonesia, the stock sectors most affected by COVID-19 pandemic are: trade; property, real estate, and building construction; mining; infrastructure, utility, and transportation; consumer goods; and basic industry and chemicals. However, based on the result of this study, the stock sector does not significantly affect stock return. The significance level of D_SECTOR is 0.209, which is way above the 5 percent significance rate ($\alpha = 0.05$). This result is concurrent with a previous study conducted by (Mugiarni & Wulandari, 2021) which reveals that only two out of six chosen stock sectors have significant impact towards stock return, which are consumer goods and basic industry and chemicals. This means most of the stock sectors do not have significant impact towards stock return in Indonesia.

The result of this study is consistent with the fourth hypothesis (H_4) which states that the stock sector has a negative impact towards stock return. This is consistent with the study conducted by (Karim & Saba, 2021) and (Trisnowati & Muditomo, 2021) which states that several stock sectors are more affected than others regarding to COVID-19.

CONCLUSION

This study is conducted to learn the impact of COVID-19 pandemic towards stock return. This research topic is interesting as COVID-19 pandemic is a relatively new and unusual phenomenon. This study uses independent variables namely return on asset (ROA), market capitalization and daily increase of COVID-19 total confirmed cases. This study also uses a dummy variable of the stock sector which represents the sectors most affected by COVID-19 pandemic. The dependent variable for this study is stock return. The companies observed in this study are the public companies listed in Indonesia Stock Exchange (IDX) during the period of 2019 to 2020. There are a total of 388 companies that fulfills the criteria described in Chapter 3 and are used as samples in this study. Based on the results of the tests done to the models used in this study, the author found that:

1. Return on asset has a significant positive impact towards stock return. This means we can accept the first hypothesis (H1) as ROA has a positive impact towards stock return.
2. Market capitalization has a significant positive impact towards stock return. This means we can accept the second hypothesis (H2) as market capitalization has a positive impact towards stock return.
3. Daily increase of COVID-19 total confirmed cases has a significant negative impact towards stock return. This means we can accept the third hypothesis (H3) as daily increase of COVID-19 total confirmed cases has a negative impact towards stock return.
4. Stock sector has an insignificant negative impact towards stock return. This means we can accept the fourth hypothesis (H4) as the stock sector has an impact towards stock return.

Implication of Results

Based on the results of this study, the author is able to recognize several implications, such as:
This study can help investors in making decisions regarding their investment in the Indonesia Stock Exchange (IDX), especially during the era of COVID-19 pandemic. It is hoped that investors can have a better understanding regarding the use of financial ratios and which financial ratios

have greater impact towards stock return. Moreover, it is hoped that investors can further understand how the daily increase of COVID-19 total confirmed cases in Indonesia impacts the stock return in Indonesia Stock Exchange (IDX). This study can help future and further researchers to have a better knowledge and understanding regarding the impact of COVID-19 pandemic towards stock return in Indonesia.

REFERENCE

Acheampong, P., Agalega, E., & Shibu, A. K. (2014). The Effect of Financial Leverage and Market Size on Stock Returns on the Ghana Stock Exchange: Evidence from Selected Stocks in the Manufacturing Sector. *International Journal of Financial Research*, *5*(1). https://doi.org/10.5430/IJFR.V5N1P125

AFM. (2020, June 3). *Indonesia Economy – Tremendous progress over the last two decades*. https://www.asiafundmanagers.com/int/indonesia-economy-outlook/

Anggraini, D. (2021). Dampak COVID-19 Terhadap Perubahan Harga Saham. *JBEMK*, *1*(1), 1–13. https://ihsg-idx.com/

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

Badan Pusat Statistik. (2021). *Pertumbuhan Ekonomi Indonesia Triwulan IV-2020*. https://www.bps.go.id/pressrelease/2021/02/05/1811/ekonomi-indonesia-2020-turun-sebesar-2-07-persen--c-to-c-.html

Banerjee, A., & Chaudhury, S. (2010). Statistics without tears: Populations and samples. *Industrial Psychiatry Journal*, *19*(1), 60. https://doi.org/10.4103/0972-6748.77642

Brooks, C. (2014). *Introductory Econometrics for Finance* (3rd ed.). MPG Printgroup Ltd. http://prof.iauba.ac.ir/images/Uploaded_files/Introductory%20Econometrics%20for%20Finance%20(2014)[3523178].PDF

Burns, A., Mensbrugghe, D. van der, & Timmer, H. (2006). Evaluating the Economic Consequences of Avian Influenza. *Global Development Finance*. http://www.worldbank.org/gdf2006.

Chen, M. H., Jang, S. C. (Shawn), & Kim, W. G. (2007). The impact of the SARS outbreak on Taiwanese hotel stock performance: An event-study approach. *International Journal of Hospitality Management*, *26*(1), 200–212. https://doi.org/10.1016/j.ijhm.2005.11.004

Claessens, S., & Kose, M. A. (2013). Financial Crises: Explanations, Types and Implications. *SSRN Electronic Journal*. https://doi.org/10.2139/SSRN.2295201

Clauss, F. J. (2010). *Corporate financial analysis with Microsoft Excel*. McGraw Hill.

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. In *Journal of Management* (Vol. 37, Issue 1, pp. 39–67). https://doi.org/10.1177/0149206310388419

Cousineau, D., & Chartier, S. (2010). Outliers detection and treatment: a review. *International Journal of Psychological Research*, *3*(1), 58–67. https://doi.org/10.21500/20112084.844

Dang, C., & Li, Z. F. (2013). Measuring Firm Size in Empirical Corporate Finance. *SSRN Electronic Journal*. https://doi.org/10.2139/SSRN.2345506

Davis, C. P. (2021, March 29). *Medical Definition of Pandemic*. MedicineNet. https://www.medicinenet.com/pandemic/definition.htm

Dwi Putra R.A., & Rahmanti, W. (2013). Return dan Risiko Saham Pada Perusahaan Perata Laba dan Bukan Perata Laba. *Jurnal Dinamika Akuntansi*, *5*(1), 55–66.

Etikan, I. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. https://doi.org/10.11648/J.AJTAS.20160501.11

Fernando, J., Boyle, M. J., & Rathbun, P. (2021, August 19). *Market Capitalization*. How to Value a Company. https://www.investopedia.com/terms/m/marketcapitalization.asp

Ghozali, I. (2006). *Aplikasi analisis multivariate dengan program SPSS*. Badan Penerbit Universitas Diponegoro.

Gordon, J. (2020, December 19). *Capital Markets - Definition*. The Business Professor. https://thebusinessprofessor.com/en_US/investments-trading-financial-markets/capital-markets-definition

Hasanuddin. (2015). Analisis Komparatif Abnormal Return Saham JII dan Non JII Sebelum dan Sesudah Libur Idul Fitri (Periode 2009-2013). *Jurnal MIX*, *VI*(2), 246–259. https://mix.mercubuana.ac.id/media/154222-analisis-komparatif-abnormal-return-saha-6599c6a7.pdf

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, *31*(1–3), 405–440.

IDX. (2016). *Laporan Tahunan 2015*. https://www.idx.co.id/media/1210/2015.pdf

IDX. (2021). IHSG Index Fact Sheet. *IDX Stock Index Handbook*, *1.2*, 16. https://www.idx.co.id/media/9816/idx-stock-index-handbook-v12-_-januari-2021.pdf

Julianto, A. R., & Syafarudin, A. (2020). Stock Return Analysis and Implications in Company Value (Plastic and Packaging Companies Listed in IDX). *International Journal of Engineering Technologies and Management Research*, *6*(7), 101–118. https://doi.org/10.29121/ijetmr.v6.i7.2019.420

Karim, M. R., & Saba, S. A. (2021). COVID-19 and Stock Return: Empirical Evidence from Developing Economy. *International Journal of Management, Accounting and Economics*, *8*(6). www.ijmae.com

Madhav, N., Oppenheim, B., Gallivan, M., Mulembakani, P., Rubin, E., & Wolfe, N. (2017). Pandemics: Risks, Impacts, and Mitigation. *Disease Control Priorities: Improving Health and Reducing Poverty (3rd Edition)*, *9*, 315–345. https://doi.org/10.1596/978-1-4648-0527-1_CH17

Majid, M. S. Abd., & Benazir. (2015). An Indirect Impact of the Price to Book Value to the Stock Returns: An Empirical Evidence from the Property Companies in Indonesia. *Jurnal Akuntansi Dan Keuangan*, *17*(2), 91–96. https://doi.org/10.9744/jak.17.2.91-96

Mangantar, A. A. A., Mangantar, M., & Baramuli, D. N. (2020). Pengaruh Return on Asset, Return on Equity dan Debt to Equity Ratio Terhadap Return Saham Pada Subsektor Food and Beverage di Bursa Efek Indonesia. *Jurnal EMBA : Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *8*(1), 272–281. https://doi.org/10.35794/EMBA.V8I1.27527

McLeod, S. A. (2019, August 1). *What are Independent and Dependent Variables*. Simply Psychology. https://www.simplypsychology.org/variables.html

Mogonta, K., & Pandowo, M. (2016). *Analyzing The Effect of Return on Assets, Return on Equity and Earnings Per Share on Market Share Price: A Study of LQ-45 Mining Companies Listed on Indonesia Stock Exchange*. *4*(2), 703–713.

Mugiarni, A., & Wulandari, P. (2021). The Effect of Covid-19 Pandemic on Stock Returns: An Evidence of Indonesia Stock Exchange. *Journal of International Conference Proceedings*, *4*(1), 28–37. https://doi.org/10.32535/jicp.v4i1.1122

Nugroho, B. Y. (2020). The Effect of Book to Market Ratio, Profitability, and Investment on Stock Return. *SSRG International Journal of Economics and Management Studies (SSRG-IJEMS)*, *7*(6), 102–107. www.internationaljournalssrg.org

Permatasari, N. D., Nurlaela, S., & Titisari, K. H. (2019). Return on Assets, Return on Equity, Earning Per Share Terhadap Harga Saham Perusahaan Sektor Jasa Di Bursa Efek Indonesia. *Jurnal Ilmiah Edunomika*, *3*(01), 90–96. https://doi.org/10.29040/JIE.V3I01.412

Porta, M. (2014). A Dictionary of Epidemiology. In M. Porta (Ed.), *A Dictionary of Epidemiology (DRAFT)* (6th ed.). Oxford University Press. https://doi.org/10.1093/ACREF/9780199976720.001.0001

Qiu, W., Rutherford, S., Mao, A., & Chu, C. (2017). The Pandemic and its Impacts. *Health, Culture and Society*, *9*(0), 1–11. https://doi.org/10.5195/hcs.2017.221

Santoso, Y. W. (2018). Penyebab Krisis Finansial Global tahun 2008: Kegagalan Financial Development dalam Mendorong Pertumbuhan dan Stabilitas Ekonomi. *Jurnal Hubungan Internasional*, *11*(1), 155–169. https://doi.org/10.20473/JHI.V11I1.5853

Shleifer, A. (2003). Inefficient Markets: An Introduction to Behavioral Finance. *Inefficient Markets*. https://doi.org/10.1093/0198292279.001.0001

Skrivanek, S. (2009). *The Use of Dummy Variables in Regression Analysis What is a Dummy variable?* http://www.moresteam.com

Tahir, S. H., Sabir, H. M., Alam, T., & Ismail, A. (2013). Impact of Firm's Characteristics on Stock Return: A Case of Non-Financial Listed Companies in Pakistan. *Asian Economic and Financial Review*, *3*(1), 51–61. https://www.researchgate.net/publication/279930853_Impact_Of_Firm's_Characteristics_On_Stock_Return_A_Case_Of_Non-Financial_Listed_Companies_In_Pakistan_Toheed_Alam

Tek, A., & Madai, B. (2021). *Impact of COVID-19 Pandemic on Stock Market Returns*. https://ssrn.com/abstract=3794199

Trisnowati, Y., & Muditomo, A. (2021). COVID-19 and Stock Market Reaction in Indonesia. *Journal of Accounting and Investment*, *22*(1), 23–36. https://doi.org/10.18196/JAI.V22I1.8859

Violita, C. E. (2019). Stock Liquidity and Stock Return. *Ekspektra : Jurnal Bisnis Dan Manajemen*, *3*(2), 111. https://doi.org/10.25139/EKT.V3I2.2047

Wahyudi, A. S., Beny, & Daniel. (2020). Analisis Pengaruh Kapitalisasi Pasar dan Rasio Keuangan Terhadap Return Saham. *Media Bisnis*, *12*(1), 9–16. https://doi.org/10.34208/MB.V12I1.875

WHO. (2020). *Listings of WHO's response to COVID-19*. World Health Organization. https://www.who.int/news/item/29-06-2020-covidtimeline

Wijaya, C. (2020, April 7). PSBB Jakarta mulai 10 April selama dua minggu, namun pakar menyebut hasil efektif satu bulan untuk tekan Covid-19 - BBC News Indonesia. *BBC*. https://www.bbc.com/indonesia/indonesia-52194441

World Bank. (n.d.). *GDP growth (annual %) - Indonesia | Data*. Retrieved September 15, 2021, from https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2020&locations=ID&start=1961&view=chart

World Bank. (2021). *World Development Indicators*.

Wu, Y. C., Chen, C. S., & Chan, Y. J. (2020). The outbreak of COVID-19: An overview. *Journal of the Chinese Medical Association*, *83*(3), 217–220. https://doi.org/10.1097/JCMA.0000000000000270

Xu, L. (2021). Stock Return and the COVID-19 pandemic: Evidence from Canada and the US. *Finance Research Letters*, *38*, 101872. https://doi.org/10.1016/J.FRL.2020.101872

Zach, T. (2003). Political Events and the Stock Market: Evidence from Israel. *International Journal of Business*, *8*(3), 244–266. https://doi.org/10.2139/ssrn.420242