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The Effect of the Covid-19 Pandemic on Stock Returns with Moderating Variables of Cash Holding and Earnings Management

Surya Dwi Kurniawan [1*)] , Eka Bertuah [2)]

[1,2)] Master of Management Study Program, Faculty of Economics and Business, Esa Unggul University, Jakarta, 11510, Indonesia

ARTICLE INFORMATION

ABSTRACT

This study aims to determine the impact of the COVID-19 pandemic in Indonesia on company cash holdings, earnings management practices, and stock returns. To overcome this, a parameter estimation method can be used by adding weight to each parameter, namely the Generalized Least Square (GLS) method. The results showed that the covid-19 pandemic had a significant negative impact on the company's cash holding as a consequence of the company's decreased ability to generate profits. The value of $P>|z|$ shows the number 0.109 which means that the variable has no significant effect. The results of the hypothesis test show that *cash holding* significant effect on *earnings management*. At the same time, the company's long-term stock returns are not significantly affected by the COVID-19 pandemic. Earning management practices are also not proven to significantly affect stock returns.

Corresponding Author:

Surya Dwi Kurniawan
Master of Management Study Program, Faculty of Economics and Business,
Esa Unggul University
Email: surya.kurniawan@pertamina.com

INTRODUCTION

The Covid-19 pandemic has hit many countries in the world since January 2020 [1]. Even though the World Health Organization (WHO) officially declared the Covid-19 pandemic on March 11, 2020, several countries such as Israel, Russia, and the United States have already implemented a ban on traveling abroad their citizens [2]. The presence of a pandemic had a serious impact on the world economy and resulted in a sharp decline in the performance of companies in various industries globally [3]. The impact of a very significant economic downturn was due to the existence of strict health quarantines in various countries, causing very limited economic activity [4]. To deal with operational risks and to ensure company resilience in the face of the Covid-19 pandemic, company managers tend to increase short-term cash holding levels by making bank loans, or equity funding [2].

COVID-19 initially broke out in Wuhan, China, towards the end of December 2019. Then it spread to all the provinces there. In less than two months, the core coronavirus has caused 80,000 cases and 3,000 deaths. Beginning in the third week of January 2020, Covid then entered several countries in Asia, America, Europe, Australia, and Arika.When the epidemic subsided in China, the spread of COVID-19 actually exploded in a number of American, European, and Asian countries. As of April 24, 2020, the number of confirmed cases in the US, Spain, Italy, France, Germany, the UK, Turkey, and Iran has surpassed China as the initial epicenter. While in the number of deaths, there are six countries that exceed China, namely: the US, Italy, Spain, France, Britain, Germany, Iran, and Belgium. Meanwhile, the number of victims in the Netherlands is also starting to approach that in China.The COVID-19 outbreak in China has indeed subsided. Similar conditions are also experienced.a number of European countries which in the March-May 2020 period became the epicenter of COVID-19 such as Italy, Spain, France, England and Germany. The epicenter has shifted from China to Europe and is now sweeping across the country [5]. The COVID-19 pandemic has had a very significant impact on capital markets around the world, causing investors to lose money [6].

On the other hand, companies in Indonesia experience increased credit risk [7]. In the midst of the pressure of the need for cash holding and the increase in credit risk, the Government of Indonesia provides credit relaxation for companies affected by COVID-19 [8]. One alternative motivation to perform earnings management is to reduce political risk [9]. The political cost hypothesis states that companies that are faced with political risk will tend to carry out earnings management to reduce profits so that political costs can be lowered [10]. Therefore, it is very interesting to examine whether the pressure of the urgent need for cash encourages company management to practice earning management to gain the trust of creditors or minimize profits to get relaxation facilities from the government.

Previous research conducted by Qin et al. (2020) [2] concluded that the COVID-19 pandemic had a significant positive impact on the company's cash holding level. Fu & Shen. (2020) [11] stated in his research results that Covid-19 had a significant negative impact on company performance in the energy industry. This is in line with the results of research conducted by Mafrolla et al. (2017) [12] where stock market indexes in countries affected by COVID-19 fell very quickly after the virus outbreak hit. However, the research on the impact of COVID-19 was carried out in China and no similar research has been conducted in Indonesia. Research on the

effect of earning management practices on stock prices conducted by Hariandja et.all, (2022) [13] concludes that earnings management practices make investors set stock prices too high then they should be. AlNajjar & Riahi Belkaoui (2001) [14] in their research results state that the management of companies with a high level of investment opportunity makes accounting choices to reduce reported earnings. Research on earnings management has been widely carried out by previous researchers, but there is still little research linking it to the COVID-19 pandemic. Many previous researchers have researched earnings management and stock price variables, but few have linked these variables to the COVID-19 pandemic. In addition, previous studies conducted in Indonesia involving the COVID-19 pandemic only measured the condition of these variables before and after Covid-19 without getting sufficient confidence whether the difference in conditions was caused by the Covid-19 pandemic.

With the explanation above, the purpose of this research is to determine the effect of covid-19 on the company's cash holding, earning management practices, and stock returns in the long term. In addition, this study will also examine the role of cash holding as a moderating variable for the impact of COVID-19 on earning management practices and the role of earning management as a moderating variable for the impact of COVID-19 on long-term stock returns.

The signaling theory put forward about method management company provides information about the things that have been done to realize the wishes of the owner of the company [15]. From the description put forward in on, so could said that *signaling theory* is a theory which put forward

method management company give a signal to para investors about which has done for realizing desire these investors. According to Gao et al., (2017) [16] *cash holding* is the amount of cash set aside by the company to fulfill the need of its finances. During the COVID-19 pandemic, a health quarantine is applied which strictly limits the activity operational company and caused a drop in company income [2].

Dang et.all (2017) [17] defines *earnings management* as intervening significantly in the process of reporting finance external which aims for profit for shareholders or managers. Connelly et. all (2017) [18] defines earnings management as a phenomenon that occurs when business management intervenes to report finance and internal transactions by making the necessary changes to both mislead shareholders about the company's financial performance or to influence results contract based on the performance finance company. Shares are proof of participation or ownership of a person or entity in something company or company limited. A share is a certificate that states that the holder share is an investor from a company that publishes effect [19]. Portion ownership is determined by how much investment is invested in the company [20]

Hypothesis

H1: Pandemic Covid-19 impact negative significant to *cash holding* company

H2: The covid-19 pandemic has a significant negative effect on earning practices management in a company, pandemic covid-19 triggers *earnings minimization*

H3a: *cash holding* influential negative significant to practice *earnings management (earnings minimize)*

H3b: *cash holding* will weaken the impact of negative covid-19 on *earning* practice *management (earnings minimize)*

H4: Covid-19 pandemic influential negative significant to return share

H5a: *Earnings management* influential positive significant to *return share*

H5b: *Earnings management* strengthens the impact of pandemic covid-19 to *stock returns*

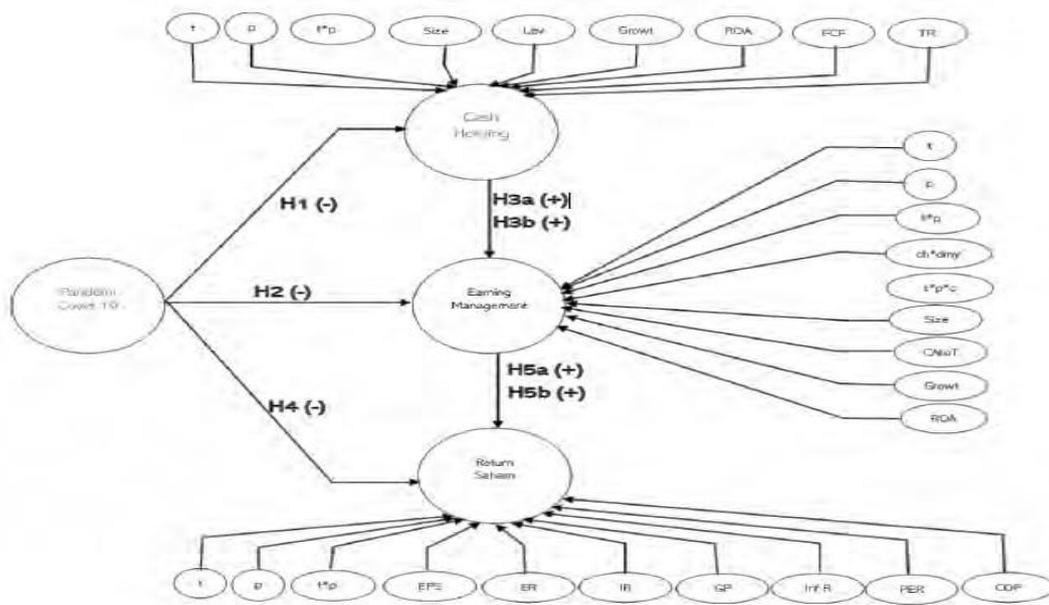The model study depicted in the description above is as follows in figure 1.

Figure 1. Model Study

RESEARCH METHOD

Election Sample and Respondent

The research population is the companies listed on the Stock Exchange Indonesian Effect. Sample selection is done by selecting companies that are recorded in the board recording main in Exchange Effect Indonesia. Exchange Effect Indonesia divides the industry into several sub-sectors. The research method used is a quantitative method. Where is Data Research that is used is the company's financial data listed on the main recording board Exchange Effect Indonesia from a period quarter I 2015 until the second-quarter yearof 2021. Data were taken from *Bloomberg* with criteria: available data complete financial statements within the period used in the study, and no currently in pressure financial heavy more from 2 years in period study. From the method of taking samples, they obtained 191 sample companies spread over 40 subsector industries.

Measurement

In this study, the COVID-19 pandemic was treated as a treatment [2]. Grouping of companies as affected companies or not affected by the covid-19 pandemic based on the analysis of Pefindo, (2020) [21] and combined with Analysis Results Survey Impact Covid-19 to perpetrator business [22].

Affected: *Coal Mining, Non-Building Construction, Property & Real Estate, Automotive & Components, Building Construction, Cement, Ceramics, Glass, Porcelain, Cosmetics & Household, Crude Petroleum & Natural Gas Production, Electronics, Fishery, Footwear, Land / Stone Quarrying, Metal &Mineral mining, Retail trade, textiles, garments, restaurants, Hotel & Tourism,Tourism, Restaurant And Hotel, Transportation, Animal Feed, Cable, Crops, Energy, Food & Beverages, Metal & Allied Products, Toll Road, Airport, Harbor And Allied Products, Wood Industries*

Not affected: *Plantation, Wholesale (Durable & Non Durable Goods), Printing & Media, Chemicals, Computer & Services, Houseware, Plastics & Packaging, Pulp & Paper, Tobacco Manufacturers, Healthcare, pharmaceuticals, Telecommunication.*

Data and information about level *cash holding*, mark *discretionary accruals,* and stock *returns* of companies that are in the group *treatment* and *comparison* for the period before and after the pandemic covid-19 taken from the database *Bloomberg.* To measure the impact of the pandemic covid-19 to level *cash holding* company at a time test hypothesis 1, used **model 1** as follows in table 1: *Cash holding* $_{it}$ = $0\_$ + 1 Treated $_{it}$ * Period $_{it}$ + 2 Treated $_{it}\_$ + 3 Period $_{it}\_$ + 4 SIZE $_{it}\_$ + 5 LEV $_{it}\_$ + 6 GROWTH $_{it}\_$ + 7 ROA $_{it}\_$ + 8 FCF $_{it}\_$ + 9 TR $_{it}\_$ + 10 Codes $\_$ + 11 YEAR $\_$ + $it\_$

(1)

Table 1. Data and information about level *cash holding*, mark *discretionary accruals,* and stock *returns* of companies

Variable	Calculation
Cash Holding	level *cash holding* company calculated from the formula **total cash** / **total assets**
Treated	dummy variable indicating the degree of impact of covid-19, value 1 for high and very high impact companies, and currently and 0 for a company which caught impact light and no affected
Period	variable dummy which indicates the period before and after pandemic covid-19, mark 1 symbolize the period after the pandemic and0 for the period before pandemic covid-19
Size	size company which calculated from logarithm natural total asset
Lev	ratio total asset on total Liability
Growth	growth total assets company which is calculated from formula = (total assets period t - total asset period $t-1$)/total asset period $t-1$
ROA	is ratio Among net profit on a total asset which is calculated withformula = net profit/balance end total asset
FCF	*free cash flow*, calculated from formula = *Current Cash Operation – ExpenditureCapital – Expenditure for repair asset*

Variable	Calculation
TR	Rotation accounts receivable business, calculated with formula = income net/average accounts receivable
Code	variable for control sample individual in the data panel
YEAR	variable for the control period in the data panel

To measure the impact of the COVID-19 pandemic on the practice of *earning management* while testing hypothesis 2 is used **model 2** in table 2 as follows:

Discretionary Accruals $_{it}$ = 0 _ + 1 Treated it * Period $_{it}$ + 2 Treated $_{it}$ _ + 3 Period $_{it}$ _ + 4 SIZE it _ + 5 CAToCS it _ + 6 GROWTH it _ + 7 ROA it _ +8 Codes _ + 9 YEAR _ + it *(2)*

Table 2. Calculation of earning management while testing hypothesis 2

Variable	Calculation
Discretionary Accruals	based on **Model Jones which has modified :**DACC $_{it}$ = (TACC $_{it}$ /Ta $_{it-1}$) − (NDACC $_{it}$ /Ta $_{it-1}$) description : DACC $_{it}$ = *Discretionary Accruals* company i on year tTACC $_{it}$ = Total Accrual company i on year t NDACC $_{it}$ = *Non- Discretionary Accruals* company i on year t ta $_{it-1}$ = Total asset company i on year t-1
TACC it	net profit – cash flow from operation
NDACC	NDACC $_{it}$ /Ta $_{it-1}$ = 1 _ (1/Ta $_{it-1}$) + 2 _ ((REV $_{it}$ - REC $_{it}$) /Ta $_{it}$ -1) + 3 _ (PPE $_{it}$ /Ta $_{it-1}$) description : REV $_{it}$ = _ change income company I on year t REC $_{it}$ = _ change accounts receivable business company i on year tPPE $_{it}$ = asset permanent form company i on year t for look for coefficient on equality in on soused regression linear with model following : TACC $_{it}$ /Ta $_{it}$ -1 = 1 (1/Ta $_{it}$ -1) + 2 (REV $_{it}$ /Ta $_{it}$ -1) + 3 (PPE $_{it}$ /Ta $_{it}$ -1)
Treated	variable dummy which indicates level impact covid-19,mark 1 for a company which caught impact tall and very high, and currently and 0 for a company which caught impactlight and not affected
Period	variable dummy which indicates the period before and afterpandemic covid-19, marks 1 symbolize the period after the pandemic and 0 for the period before pandemic covid-19
Size	size company which calculated from logarithm natural total asset
CAtoTA	Cash ratio and equivalent Cash / Total Asset
Growth	growth total assets company which is calculated from formula = (totalassets period t - total asset period $_{t-1}$)/total asset period $_{t-1}$
ROA	ratio Among net profit on a total asset which is calculated with formula =net profit/balance total end asset
Code	variable for control sample individual in the data panel
YEAR	variable for the control period in the data panel

For test hypotheses 3a and 3b
Used **model 3** in table 3 as following :
Discretionary Accruals it = 0 + 1 Cashholdings it * Treated it *Period it + 2 Treated it * Period it + 3 Treated it _ + 4 Period it _ + 5 Cashholdings it _ + 6 SIZE it _ + 7 CAToCS it _ + 8 GROWTH it + 9 ROA it + 10 Code + 11 YEAR + it *(3)*

The model used to measure the impact of covid-19 on stock returns as well as testing **hypothesis 4** is as following **:**

Stock Return it = 0 + 1 Treatedit *Period it +* 2 Treated it + 3 Period it *+ 4 EPS it + _ 5 ER* it _ + *6 SB it* _ *+ 7 GP it* _ *+ 8 IR t* _ *+ 9 PER it* _ *+ 10 WOP it* _ *+* 11 Codes _ + 12 YEAR _ + it *(4)*

then to test **hypotheses 5a and 5b** as following :
*Stock Return   it = 0 + 1 DiscretionaryAccruals * Treated it * Period t + _ _* 2 Treated it * *Period* it _ + 3 Treated it _ + 4 Period it _ *+ 5 EPS t* _ *+ 6 ER t* _ *+ 7 SB t* _ *+ 8 GP t* _ *+ 9 IR t* _ *+ 10 PER t* _ *+ 11 COP t* _ *+ 12* _ *DiscretionaryAccruals* it + it *(5)*

Table 3. Calculation the impact of covid-19 on Stock Returns

Variable	Calculation
Return share	(*last price t – last price $t-1$)/last price* $t-1$
Treated	dummy variable indicating degree impact of covid-19, a score of 1 for high and very impacted companies tall, and currently and 0 for a company which caught impact light and no affected
Period	variable dummy which indicates the period before and afterpandemic covid-19, marks 1 symbolize the period after the pandemic and 0 for the period before pandemic covid-19
EPS	profit clean/total sheet share circulating
ER	mark swap Rupiah to Dollar America
SB	ethnic group flower loan
GP	price gold was taken from data from Bank Indonesia
InfR	level inflation
PER	*Price to Earnings ratio* = price share per sheet/profit clean persheet
COP	price oil world *(crude oil price)*
Code	variable for control sample individual in the data panel
year	variable for the control period in the data panel

A data study is a data panel which is merging between *cross-section* data and *time-series* data or called panel data. Calculation *of difference in difference* value using multiple linear regression analysis with software STATA 14.2.

RESULT AND DISCUSSION

The research was conducted using the multiple linear regression method using dummy variables. The data used is panel data, namely: the merging of time series

data (a certain time span) and cross-section (many companies).

Table 4. Descriptive Statistics Model I

Depending Variable : Cash Holding

Variables	mean	Std. Dev.	Min	Max	Obs	N	T
Cash holding	0.09727	0.0989058	0.0002174	0.69709	4966	191	26
Leverage	2.58296	1.815454	0.320000	18.95000	4966	191	26
Size	13.00281	1.483768	8.9404	17.05100	4966	191	26
Growth	0.01459	0.1201714	-0.926530	12.3128	4966	191	26
ROA	0.00754	0.0498219	-1.0745	2.12458	4966	191	26
Rec_TO	64.92683	85.22069	0.07000	2370.13	4966	191	26
FCF	2.66E+08	1.33E+10	-1100000	9.20E+11	4966	191	26

Descriptive Statistics

Table 4 shows the *descriptive statistical* model I with the dependent variable cash holdings. The number of observations in model one is 4,996 observations consisting of 191 companies and 26 quarterly periods of observation. *mean* value, standard deviation, *min,* and *max* indicates that the data range used in the study i s very wide. Thing the done to ensure that the sample taken in the study represents the population.

Table 5. Descriptive Statistics Model II

Depending Variable: Earnings Management

Variables	mean	Std. Dev.	Min	Max	Obs	N	T
Discretionary Account	-0.11341	0.3423724	-1.05467	3.84034	4992	192	26
Size	12.98773	1.505135	5.458	17.051	4992	192	26
Cash to Total Asset	9.686222	9.884026	0.022	69,709	4992	192	26
ROA	0.7011552	13.34316	-207,866	419,857	4992	192	26
Growth	1.163733	10.61735	-98,389	146,114	4992	192	26

Table 5 shows *descriptive statistics model II* with variable dependent *earnings management* which is represented by *discretionary accruals*. Amount observation in model one as many as 4,342 observations consisting of 167 companies and 26-period quarterly observation. Conditions statistics on model II which showed in table 5 are not much different from model I where the *mean*, standard deviation, *min,* and *max* indicate that the range of data used in the study is very wide.

Table 6. Descriptive Statistics Model III

Depending Variable : Return Share

Variables	mean	Std. Dev.	Min	Max	Obs	N	T
Return Share	0.1315195	0.227956	0.001	1,677	4914	189	26
Earnings per Share	0.001803	0.013740	-0.143	0.777	4914	189	26
Exchange Rate	14008.77	739,625	12998	16367	4914	189	26

Depending Variable : Return Share

Variables	mean	Std. Dev.	Min	Max	Obs	N	T
Ethnic group Flower	0.051992	0.01416	0.0279	0.075	4914	189	26
Gold Price	49.6671	9.00485	38.62	69.24	4914	189	26
inflation Rate	0.0349423	0.01497	0.014	0.0709	4914	189	26
PER	37.58437	382.1717	-17.80	11,980	4914	189	26
Crude Oil Price	52.18	12,156	18.84	74.15	4914	189	26
Market Capitalization	5.407895	1.888168	0.773805	10.6088	4914	189	26

Table 6 shows *descriptive statistics* model III with variable dependent stock returns. The number of observations on model one is as much as 4.914 Observations consisting of 189 companies and 26 quarterly periods of observation. The statistical conditions in model III shown in table 6 are not much different from model I and model II where the *mean*, standard deviation, *min,* and *max* show that the range of data used in the study is very wide. However, the number of companies sampled in models II and III is not as much as in model I.

Unit Root Test
Before Doing regression linear double, need to do a *unit root test* to ensure that the data panel used character stationery. This test needs This done to avoid *spurious regression.*

Table 7. Result of Unit Root Test I

Variable	Levin-Lin-Chu	Hadri LM test
Cash holding	Panels are stationary	All panels are stationary
Leverage	Panels are stationary	All panels are stationary
Size	Panels are stationary	All panels are stationary
Growth	Panels are stationary	some panels contain units roots
ROA	Panels are stationary	All panels are stationary
Rec_TO	Panels are stationary	All panels are stationary
FCF	Panels are stationary	All panels are stationary

Table 7 above states that at the levin-lin-chu level there are several variables that are not stationary, so it is necessary to look at the variables at the level of the Hadri LM test. The results show that some panels contain unit roots and all panels do not move at the presence level of the LM test under various conditions.

Table 8. Result of Unit Root Test II

Variable	Levin-Lin-Chu	Hadri LM test
Discretionary Accrua	Panels are stationary	All panels are stationary
Size	Panels are stationary	All panels are stationary
Cash to Total Assets	Panels are stationary	All panels are stationary
ROA	Panels are stationary	some panels contain units roots

According to Table 8, there are all variables that are not stationary at the levin-lin-chu level, so it is necessary to look at the variables at the level of the presence of the LM test. The results show that some panels contain unit roots and all panels do not move at the presence level of the LM test under various conditions. Where the Hadri LM test for unit root testing on panel data is similar to the KPSS test, this test tests the null hypothesis that there is no unit root in the panel data. Hadri's test is based on the residuals of individual OLS regressions on a constant or on a constant and trend (LPDRB_Real and LGov_Real).

Table 9. Result of Unit Root Test III

| Variable	*Levin-Lin-Chu*	*Hadri LM test*
Return Share	All panels are stationary	All panels are stationary
Earnings per Share	All panels are stationary	All panels are stationary
Exchange Rate	All panels are stationary	All panels are stationary
Ethnic group Flower	All panels are stationary	All panels are stationary
Gold Price	Panels contain units' roots	All panels are stationary
inflation Rate	All panels are stationary	All panels are stationary
PER	All panels are stationary	All panels are stationary
Crude Oil Price	Panels contain units' roots	All panels are stationary
Market Capitalization	All panels are stationary	All panels are stationary

Table 9 above states that at the levin-lin-chu level there are several variables that are not stationary and there are variables that contain unit roots, so it is necessary to look at the variables at the level of the presence of the LM test. The results show that all panels do not move at the level of the LM test under various conditions.

From *the unit root test* done, several variables onlyfulfill one of *the unit root tests* performed. The focus of this research is to examine the impact of covid-19 on variables dependent. A variable that only fulfills the wrongone unit root test no Becomes the focus main in a study so that variable- variable is maintained.

Parallel Trends Test
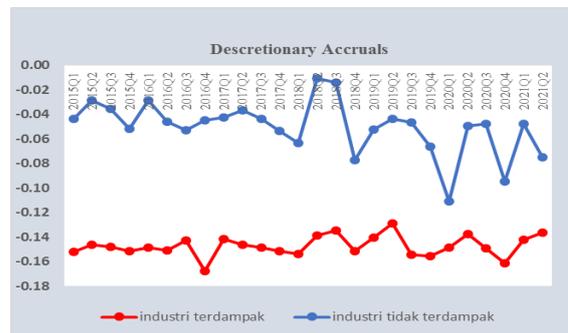Parallel Trends Test Variable Dependent Cash Holding
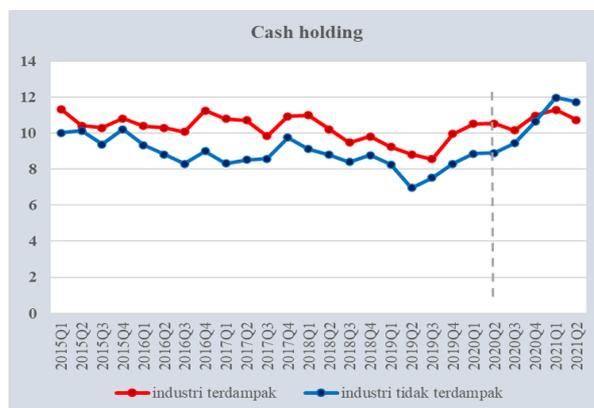
Figure 2. *Parallel Trends Test* Variable Depending Cash Holding

Parallel trend test which showed on picture 2 shows that no there is difference trend which significant Among group industry affected with industrial groups not affected before pandemic covid-19 Even though on some periods there is a difference in the direction of the *trend*, but the next period it returns show direction *trend* which same. Period 2017Q2-2017Q3 shows the difference in the trend where the affected industrial groups experienced a decrease in *cash*

holding while the unaffected industrial group experienced an increase in *cash holding*. However, in the period 2017Q3-2017Q4 *trend cash holding* both of them return experience increase so the difference direction trend on period 2017Q2-2017Q3 no influence whole trend from 2015Q1-2020Q1 by significant.

Parallel Trends Test Variable Dependent Earnings Management

Figure 3. *Parallel Trends Test* Variable Depending *Discretionary Accruals*

Parallel trend test which showed figure 3 shows that no there is difference trend which significant Among group industry affected with group industry no affected before pandemic covid-19 Although on a number of the period there are difference direction *trends*, the next period again shows the same *trend direction*. Period 2015Q3-2015Q4 shows the different trends in which industry groups affected experience drop mark *discretionary accrual* whereas group industry no affected experience increase *discretionary accruals*. However, in the period 2015Q4-2016Q1 *trend discretionary both accruals* have increased again so that the difference in the direction of the trend in the 2015Q3

2015Q4 period does not affect the overall trend from 2015Q1-2020Q1 insignificant.

Parallel Trends Test Variable Dependent Return Share

The parallel trend test shown in Figure 4 shows that there are various trends in many periods before pandemic covid-19 hit. For help To dojustification, a straight line trend is made to determine the trend stock return trend before the covid-19 pandemic hit (2015Q1-2019Q4) which is symbolized with a line dashed. Trends line straight show that the group industry affected its trend which same as the group industry not affected before the covid-19 pandemic hit.

Figure 4 *Parallel Trends Test* Variable Depending *Return Saham*

Election Model Regression linear multiple

In the model in figure 4, the study encloses the variable ***treated*** which is a variable dummy for indicates is the company the included in the group affected or not affected by covid-19 Variable treated is not affected by changes in the time variable (period). Use variable unaffected by variable change time in a model, making the model unable to use *Fixed Effect Model* (" *FEM*"). The use of *FEM* can only be done if the variable is unique to variable time [23]. So that there are two possibilities The type of regression that will be used in this research is *Pooled Least Square* (" *PLS*") or *Random Effect Model* (" *REM"*).

Determination of the best regression model between PLS and REM is done by performing the *Breusch and Pagan Lagrangian multiplier* test. It aims to find out whether the use of the PLS regression model is still effective in producing an estimation model.

Table 10. Breusch and Pagan Lagrangian Multiplier Test

Breusch and Pagan Lagrangian multiplier test	Model I	Model II	Model III
Prob > chibar2	0.00000	0.00000	0.00000

From Table 10 in on obtained results test *Breusch and Pagan LM* with Prob>Chibar2 0.0000 for all three models. Based on the *Breusch and Pagan LM . test* it can be concluded that the REM method with the *General Least Square technique* is more effective in predicting the model. According to Al Saedi & Alaa (2018) [24] , the estimation method *General Least Square ("GLS")* can produce estimates that meet *Best Linear Unbiased Estimators (BLUE)* even though the panel data used is not fulfilled the assumption of homoscedasticity and there is autocorrelation. Method *GLS* is capable maintain a nature estimator which no bias and is consistent as well as capable overcome heteroscedasticity problems . GLS method was able to maintain the nature of the estimator that is not biased and consistent and able to overcome the problem of heteroscedasticity (Aditya R et al., 2019).

Test Hypothesis

Regression results with the *Random Effect GLS Regression method* for the three models can be seen in Table 8, Table 9, and Table 10.

Table 11. Results Of The Regression Model I

Random-effects GLS regression

Depending Variable : Cash Holding
Number of Observations : 4,966 Number of
Group : 191
Number of Periods : 26
R^2 : **0.3243**

Independent Var	Coefficient	P > |z|	Level of significance
treated*period	**-0.0137863**	**0.000**	**Significant at 0.001**
treated	0.0209376	0.035	Significant at 0.05
period	0.0200933	0.000	Significant at 0.001
Leverage	0.0196791	0.000	Significant at 0.001
Size	-0.0022349	0.296	Note significant
Growth	0.0093265	0.010	Significant at 0.001
ROA	0.0526721	0.001	Significant at 0.001
Rec_TO	2.02E-06	0.880	Note significant
FCF	-3.26e-14	0.554	Note significant
Constanta	0.0590134	0.043	Significant at 0.05

Table 11 shows the results of the regression model I used to measure the influence of pandemic covid-19 to *cash holding*. Mark R2 – as big as 0.3243 shows that the independent variables together affect variable dependent as big as 32.43%. Mark P>\|z\| show mark significance variable independent to variable independent. If P>\|z\| <0.05 so the independent variable is significant to the dependent variable at the level of significance of 5% if P>\|z\| <0.01 then the independent variable is significant to the variable dependent on the level of significance 1%, and if P>\|z\| <0.001 so variable independent significant to variable dependent on level significance 0.1%.

Influence pandemic covid-19 to *cash holding* showed with variable *treated*period* which is result dummy variable interaction Among variable dummy *treated* and variable dummy *period.* Coefficient variable *treated*period* show mark negative where Thing the show that pandemic covid-19 own influence negative to *cash holding.* Mark P>\|z\| variable *treated*period* is 0.000 or significant to the cash holding variable on level significance 0.1%. Thus hypothesis 1 which state that "Pandemic Covid-19 impact negative significant to *cash holding* company" was accepted.

Table 12. The Results Of Regression Model II

Random-effects GLS regression

Depending Variable : Discretionary Accrual
Number of Observations : 4,992
Group : 192
Number of Periods : 26

R²	:	- 0.3911		

Independent Var	Coefficient	P >|z|	Level of significance
treated*period	**0.01699**	**0.188**	**Note significant**
treated	-0.105901	0.021	Note significant
period	-0.014817	0.098	Note significant
Cashholding-dummy	**-0.02859**	**0.000**	**Significant at 0.001**
treated*period*ch_dummy	**0.00368**	**0.773**	**Note significant**
Size	0.0225295	0.000	Significant at 0.001
Cash to Total Asset	-0.001049	0.012	Significant at 0.001
Growth	3.09E-04	0.136	Note significant
ROA	2.44E-03	0.000	Significant at 0.001
Constanta	-0.314516	0.000	Significant at 0.001

Table 12 shows the results of regression model II which is used for measuring the impact of the covid-19 pandemic on *earnings management.* R-value ^{2} equal to 0.3911 indicates that the independent variables together affect the dependent variable by 39.11%. The impact of the covid-19 pandemic on *earnings management is* indicated by the variable *treated*period* which is a dummy variable resulting from the interaction between dummy variables *treated* and variable dummy *period.* Coefficient variable *treated*period* show mark negative where Thing the show that pandemic covid-19 own influence negative to *earnings management.* Mark P>\|z\| variable *treated*period*is as big as 0.188. With thus hypothesis 2 which state that "Pandemic covid-19 influential negative significant to practice *earnings management*ina company, pandemic covid-19 trigger *earnings minimization" was* rejected.

Variable *cashholding_dummy* on table 9 shows the influence of cash holding company on *earnings management.* Coefficient variable *cashholding_dummy* is negative which indicates that the *cash condition holding* company influential negative to practice *earnings*

management, or with saying other the more tall *cash holding* company so management company will trigger management company for To do *earnings minimization.* P value>\|z\| variable *cashholding_dummy* of 0.000 which means significant to the *earning management variable* at a significance level of 0.1%. Thus, hypothesis 3a which states that " *cash holding* has an effect " significant negative on the practice of *earning management (earning minimizing)"* is accepted.

Interaction Among variables *treated, period* and *cashholding_dummy* showthe role of the *cash holding* variable as a variable that moderates the negative effect of pandemic covid-19 on *earnings management*. Coefficient variable positive value so that debilitating impact negative pandemic covid-19 to *earnings management*. However thusP value>\|z\| shows the number 0.344 which is much larger than 0.05. The thingthis shows is that the role of variable cash holding as variable moderation is not significant. Thus hypothesis 3b which states that " *cash " holding* will weaken the impact of negative covid-19 to practice *earnings management (earnings minimize)" was* rejected.

Table 13. The Results Of Regression Model III

Random-effects GLS regression

Depending Variable	: Stock Return
Number of Observations	: 4,914
Group	: 189
Number of Periods	: 26
R²	**: 0.2433**

Independent Var	Coefficient	P > |z|	Level of significance
treated*period	**-0.0142511**	**0.006**	**Significant at 0.01**
treated	0.246551	0.227	Note significant
period	-0.0054383	0.426	Note significant
desc_acc_dummy	**0.0167969**	**0.11**	**Note significant**
treated*period*dacc_dummy	**0.0020029**	**0.95**	**Note significant**
Market Capitalization	0.0858223	0.000	Significant at 0.001
Earnings per Share	0.2536863	0.004	Significant at 0.01
PER	-0.00000108	0.771	Note significant
Exchange Rate	6.61E-07	0.728	Note significant
Ethnic Group Flower	0.0658294	0.688	Note significant
Gold Price	0.0003001	0.433	Note significant
Inflation Rate	0.0408634	0.790	Note significant
Crude Oil Price	0.000306	.0779	Note significant
Constanta	-0.37743	0.000	Significant at 0.001

Table 13 shows the results of regression model III which was used for measuring the effect of the covid-19 pandemic on stock *returns.* R $^{2\ value}$ of 0.2433 shows that variables independent by together same affect the dependent variable by 24.33%. The impact of the covid-19 pandemic to *return* share showed with the variable *treated*period* which is a dummy variable resulting from the interaction between the *treated dummy variables* and variable dummy *period.* Coefficient variable *treated*period* show mark negative where Thing the show that pandemic covid-19 own influence negative to *return* share. Mark P>|z| variable *treated*period* is 0.006 which means that it is significant to the *stock return variable* at the level of 1% significance. Thus, hypothesis 4 which states that the "Pandemic" covid-19 influential negative significant to return stock "*is* accepted.

Variable *desc_acc_dummy* shows the influence *of earnings management* on stock returns. The coefficient of the variable *desc_acc_dummy* is positive which is show that earnings management is done by the management company influential positive to return share, with saying other If the company does *earn maximization*, the stock *return* will be higher than it should be and if the company does *earn minimization* then stock *returns* will be lower than they should be. But the value of P>|z| shows the number 0.109 which means that the variable has no significant effect on the dependent variable. So it can be said that hypothesis 5a which statesthat " *Earning management* influential positive significant to *return share" was* rejected.

Variable *treated*period*dess_acc_dummy* shows the role variable *earning management* as a variable that moderates the negative impact of the pandemic covid-19 on stock *returns.* Variable coefficient worth positive so that character strengthens the negative impact of the covid-19 pandemic on stock *returns.* However, the value of P>|z| shows the number 0.954 which indicates that the

variable does not affect all stock *returns.* P value>|z| which exceeds the level of trust of 95% indicates that the existence variable does not affect the dependent variable. Thus hypothesis 5b which state that " *Earning management* strengthen impact pandemic covid-19 against *return shares"* was rejected. From the discussion test hypothesis in on could summarize in table 14 as follows.

Table 14. Hypothesis

	Hypothesis	Result
H1	Pandemic Covid-19 impact negative significant to *cash holding* company	accepted
H2	Pandemic covid-19 influential negative significance to practice *earnings management* in a company, pandemic covid-19 trigger *earnings minimization*	rejected
H3a	*cash holding* influential negative significant to practice *earnings management*	accepted
H3b	*cash holding* will weaken the impact of negative covid-19 to practice *earnings management (earnings minimize)*	rejected
H4	Pandemic covid-19 influential negative significant to return share	accepted
H5a	*Earnings management* influential positive significant to *return share*	rejected
H5b	*Earnings management* strengthens impact o f pandemic covid-19 to *return share*	rejected

Discussion

The hypothesis test show that *cash holding* significant effect on *earnings management*, so the role of the variable *cash holding* as variable moderation is worthy to be measured. Results test the hypothesis this is in accordance with a study done by Acharya et.all (2012) [25] which state that motivation management company to maintain a position *cash holding* triggers the existence practice alignment profit.

Results variable hypothesis test cash holding as variable influence moderation The negative impact of the covid-19

pandemic shows an insignificant effect. Although *cash holding* owns a significant effect on *earnings management*, no proven difference in significant *earnings management* before and after pandemic covid-19 between companies affected and not affected by COVID-19.

Influence of Pandemic Covid-19 on Price Share

Testing the hypothesis that the COVID-19 pandemic harms return share produces a coefficient negative and with a mark P>|z| as big as 0.006 or significant on level trust 99%. Results findings could be interpreted as the following :

a. Company experience drop return

share consequence from existence pandemiccovid-19,

b. The company which affected covid-19 experience a drop in return share more tall compared company which not affected covid-19

c. The more tall impact covid-19 to something company, the morebig drop returns the stock.

These findings are in accordance with research conducted by Mafrolla et.all (2017) [12] which shows that there are abnormal stock returns in 21 countries with market trading which is the most in the world. Mafrolla et.all(2017) [12] also states that the decline in stock returns in Asian stock markets is more rapid compared to other stock markets in Europe. This decline in stock returns caused appearance risk new which is not yet could estimated how criticalimpact on the economy of a country. This risk triggers the investors interested in the investment with the objective for secure the fund invested.

Influence Pandemic Covid-19 to Price share with Variable Moderation *Earnings Management*

Results test hypothesis show that *earnings management* no own influence which significant to return share. Results confirmed on testing hypothesis next that variable *earnings management* no could Become variable moderation which strengthens or weaken the impact of negative pandemic covid-19 to return share.

Observing the previous hypothesis testing regarding the impact of covid-19 on *earning management* which is not significant, these findings are consistent. Practice *earnings management* which done by management company no

experience change significant with existence pandemic covid-19, so that no capable influence evaluation investors to price share.Change economy macro which significant also no make managementthe company performs *earnings management* sporadically.

CONCLUSION

The objective of the study is to know the impact of pandemic covid-19 on *cash holding, earning management,* and stock returns, and to test whether *cash holding* could moderate the impact covid-19 on *earnings management* and whether *earnings management* can moderate the impact of covid-19 on *return* share. Results study this show that pandemic covid-19 own a significant negative impact on the company's *cash holding*, a negative impact with no significance to *earnings management*, and an impact negative significantto stock *returns.* Meanwhile, the variable *cash holding* cannot be a variable that moderates the impact of pandemic covid-19 on *earnings management, and earnings management* variables are also not able to weaken or strengthen the impact of the COVID-19 pandemic on stock *returns.* Earnings Management cannot strengthen or weaken the impact of the pandemic covid-19 to return share especially caused application standard accountancywhich required to companies which recorded in board recording main Exchange Effect Indonesia. summary of the main topics covered or a re-statement of your research problem, but a synthesis of key points and, if applicable, where you recommend new areas for future research.

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BIOGRAPHIES OF AUTHORS

Author 1	
	Surya Dwi Kurniawan Surya Dwi Kurniawan earned a master's degree in financial management from Esa Unggul University, Jakarta, Indonesia in 2022. He previously earned his bachelor's degree in accounting from Sekolah Tinggi Ilmu Ekonomi Yayasan Keluarga Pahlawan Negara (STIE YKPN) Yogyakarta, Indonesia in 2009. He is currently a senior analyst in the field of financial reporting who is an expert in analyzing the company's financial statements at PT Perusahaan Gas Negara Tbk. In carrying out his daily duties at the company, he also regularly and continuously conducts scientific studies and literature studies to help the company's directors make strategic decisions based on valid and relevant facts and data. Most of his internal research is related to macroeconomic and stock market analysis. He can be contacted via email surya.kurniawan@pertamina.com
Author 2	
	Eka Bertuah earned a Doctorate degree from Padjadjaran University, Bandung, Indonesia. Previously in 1999 he obtained a master's degree in financial management from Esa Unggul University, Jakarta, Indonesia. He currently teaches as a lecturer at Esa Unggul University with expertise in financial management. Apart from teaching, he is also active in research activities in the fields of macroeconomics, microeconomics, and financial management. He can be contacted via email eka.bertuah@esaunggul.ac.id