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Analysis of the Effect of Covid-19 on Stock Prices in IDX30

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ABSTRACT: The Covid-19 pandemic has hit Indonesia since March 2020 until now. This health disaster has affect Indonesia's macroeconomic conditions and the performance of many companies. The study examined the effect of the Covid-19 pandemic on the stock prices of all companies included in the IDX30 Index. The hypothesis test used is the average difference test. The results of the study found that the Covid-19 pandemic could have a positive, negative, or no effect on the stock prices of companies included in the IDX30 Index.

KEYWORDS: Covid-19 pandemic, stock prices, and the IDX30 index.

INTRODUCTION

The Covid-19 outbreak began in the Chinese city of Wuhan, then spread rapidly throughout the world, including Indonesia. In order to limit the wider spread, the government issued Government Regulation no. 21 of 2020 concerning Large-Scale Social Restrictions in the context of Accelerating the Handling of Covid-19 which was set on March 31, 2020. With this regulation, most community activities must be carried out at home. This is what causes the economic activities of the community to be affected which then has an impact on the continuity of the company's operations.

To limit the spread of increasing transmission, the community needs to be immune by providing free vaccines. However, the vaccination program has not yet been completed, Covid19 has mutated into a Delta where the transmission is very fast so the government needs to carry out Emergency PPKM in Java and Bali (kumparan.com) which will be implemented in July 2021. The implementation of this Emergency PPKM further limits social and economic activities. Public. Where mass gatherings are prohibited, office activities are restricted, community economic activities are also restricted.

Research conducted by Istiono, Erwin and Sri Handini entitled "Pandemic Covid-19, Economic Performance, and Share Market Performance (Case Study In Indonesia) found the results that: The Covid-19 pandemic has reduced Indonesia's economic growth to cause a recession which is indicated by negative growth in GDP for two quarters, namely in the 2nd quarter and 3rd quarter of 2020. On average, during 2020 on a y-on-y basis, there were 8 business fields that experienced positive growth. The information and communication sector experienced the highest positive growth and was followed by health services and social activities. The business fields that experienced the highest negative growth were the transportation & warehousing sector and the accommodation & food supply sector. The performance of the capital market, as indicated by market returns, declined significantly during the Covid-19 pandemic and the decline in Indonesia's economic performance. All (10) industry lines that make up the stock price index generate negative average returns per month during 2020. The industry line that produces the largest negative returns is infrastructure.

In connection with the conditions and situations above, the researchers were intrigued to examine the effect of the Covid-19 pandemic on the prices of stocks selected or included in Index 30 (IDX30). IDX30 was launched on April 23, 2021. The stocks included in the calculation of this index were taken from the 30 best stocks with the highest market capitalization of the LQ-45 Index. The IDX30 index is expected to be a reference for investors in investing in stocks that have high liquidity and large capitalization. The factors that become the basic criteria for membership of the IDX30 Index are transaction activities such as transaction value, transaction frequency, number of transaction days, and market capitalization.

LITERATURE REVIEW

Investment

Investments can be made in *real assets* (building factories, making new products, adding distribution channels, etc.), or in financial assets (*financial assets*), or securities (buying certificates of deposit, *commercial paper,* stocks, bonds or mutual fund certificates)

(Husnan; 2015:3).

In general, investment is an investment activity to earn profits in the future. In a broad sense, capital is not only in the form of money, but also other resources.

Understanding investment according to Yogiyanto, investment is defined as delaying current consumption to be used in efficient production for a certain period of time. With the opportunity for efficient production, delaying current consumption to invest in that production will increase total utility (Yogiyanto, 2015: 5).

Investment is a commitment to the amount of funds made at that time with the aim of getting some benefits in the future. The purpose of someone making an investment is to add to the total utility value of a product (Tandelilin: 2010: 4)

Investment is a commitment to a number of funds or other resources that are carried out at this time, with the aim of getting a number of benefits in the future. For example, someone buys shares today with the hope of profiting from an increase in stock prices (*capital gain*) or a number of dividends in the future related to the time and risks associated with the investment (Handini & Erwin: 2020: 2).

In this study, what will be discussed is about investing in the capital market or in *financial assets,* namely stocks that are included in the IDX30 group of shares.

Company Value

Sartono (2010: 487), states that "Company value is the selling value of a company as an operating business". The value of the company referred to here is the value of the company if the company is a closed company, which is the same as the value that is willing to be paid if the company is sold.

The value of the company for a publicly traded company is the same as the market value of the shares plus the market value of the shares (Husnan: 2015). If the market value of debt is held constant then the value of the company is equal to the market value of the stock. Harmono (2014: 233), "Corporate value is the company's performance which is reflected by the stock price formed by supply and demand in the capital market which reflects the public's assessment of the company's performance".

Factors Affecting Firm Value (Stock Price) Stock

prices are influenced by internal factors (fundamental factors) and company external factors (factors outside the company that cannot be controlled by the company).

Internal factors related to the company's prospects are reflected in the company's financial statements (Suad H.2015: 40). Meanwhile, external factors include macroeconomic factors, interest rates, GNP, currency exchange rates, as well as all information that enters the capital market, pandemics such as COVID-19 that affect the fields of Health, Education, the economy and others (Suad H:2015:175)

In this study, we will examine the influence of company external factors in the form of information about the covid19 pandemic on the prices of shares included in IDX30, by comparing the prices of IDX30 shares before and during the covid-19 pandemic.

Previous Research Previous

Research related to the impact of Covid-19 is as follows:

Research conducted by Istiono, Erwin and Handini entitled Pandemic Covid-19, Economic Performance, and Stock Market Performance (Case Study in Indonesia) found the following results: Research This shows that the Covid-19 pandemic in Indonesia is still ongoing until the end of the observation period. This pandemic is expected to continue until the best vaccine is found to stop the spread of Covid-19.

The pandemic has reduced Indonesia's economic growth to lead to a recession as indicated by negative growth in GDP for two quarters, namely in the 2nd quarter and 3rd quarter of 2020. On average, during 2020 on a y-on-y basis, there were 8 fields. Businesses experiencing positive growth. The information and communication sector experienced the highest positive growth and was followed by health services and social activities. The business fields that experienced the highest negative growth were the transportation & warehousing sector and the accommodation & food supply sector.

The performance of the capital market, as indicated by market returns, declined significantly during the Covid-19 pandemic and the decline in Indonesia's economic performance. All (10) industry lines that make up the stock price index generate negative average returns per month during 2020. The industry line that produces the largest negative returns is infrastructure.

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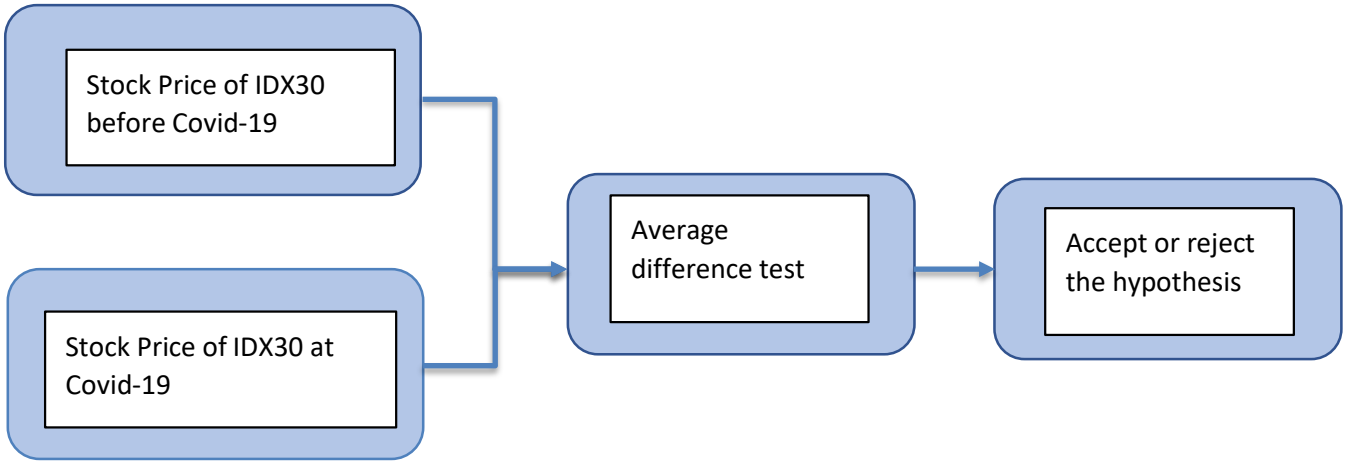
Research Framework Research



Hypotheses

Based on the problem formulation in the introduction and the conceptual framework, the hypotheses proposed in this study are:

1. The Covid-19 pandemic affects the stock prices of companies included in the IDX30 index.
2. The year the Covid-19 pandemic affected the stock prices of the companies included in the IDX30 index.

RESEARCH METHOD

The research method used in this study is a descriptive method, which explains the effect of the Covid-19 pandemic on the prices of stocks included in IDX30. The research was conducted on the IDX website for the period 2019 and 2020. The object of the research is the stocks that are included in the IDX30 as follows:

Table. 1

No	Stock	No	Stock
1	ACES	16	ICBP
2	ADRO	17	INCO
3	ANTM	18	INDF
4	ASII	19	INKP
5	BBCA	20	INTP
6	BBNI	21	JPFA
7	BBRI	22	KLBF
8	BBTN	23	MNCN
9	BMRI	24	PGAS
10	BTPS	25	PTBA
11	CPIN	26	SMGR
12	ERAA	27	TLKM
13	EXCL	28	TOWR
14	GGRM	29	UNTR
15	HMSP	30	UNVR

Population and Sample

The population of this study are all companies listed on the Indonesia Stock Exchange, which in early 2021 more than 600 companies were listed on the Indonesia Stock Exchange.

The sampling technique used in this research is purposive sampling, which is to determine the companies that are used as samples with certain considerations. The considerations used in the purposive sampling technique are:

1. Companies listed on IDX-30

2. Active in stock trading during the observation period.

Based on this sampling technique, there are 30 companies that are members of the sample that will be observed for analysis in this study.

Data Collection Method The data

Collection method used in this research is documentary, which is collecting data from several documents that are already available. The data is available on the Indonesia Stock Exchange website, which can be downloaded at any time.

Sources and Types of Data The

Type of data used in this study is quantitative data with a ratio scale, namely data on stock prices of various companies listed in the IDX-30. The data is obtained from secondary data sources, namely data taken from the publications of the Indonesia Stock Exchange.

Analysis Tools

The data analysis method used in this study is a quantitative method, namely a comparison or comparison technique. The stock prices of sample companies before the Covid19 pandemic were compared with stock prices during the Covid-19 pandemic. With this analysis method, it can be seen the difference in stock prices before and during the Covid-19 pandemic.

Concept Measurement

There are two variables in this study, namely the Covid-19 Pandemic and Stock Prices. The Covid-19 pandemic is a health catastrophe caused by a virus known as the corona virus. This pandemic started in December 2019 in Wuhan, China. Meanwhile in Indonesia, this pandemic will occur starting in March 2020. Until mid-2021, this pandemic will continue to occur both in Indonesia and in other countries. The Covid-19 pandemic is used as a cut-off point between before and during the Covid-19 pandemic.

Stock price is the number of units of money issued by an investor to get one share. The unit of money used is Rupiah. The stock price used in this study is the closing stock price at the beginning of each month.

DISCUSSION

Data Normality Test

All data used for analysis were tested for normality. This normality test was conducted to determine the hypothesis test statistic that corresponds to the distribution of stock price data during the observation period.

There are three approaches used in the data normality test, namely: (1) Asymptotic, (2) Monte Carlo, and (3) Exact. Data is normally distributed if it has a p-value or the value of significance (*Sig.*) is greater than the level of significance or value of *alpha* (〈) established by researchers at 5 percent.

The results of the calculation of the p-value (Sig,) using SPSS software show that there are 29 stock price data that are normally distributed, because they have a p-value or *significance* (*Sig*.) greater than five percent (0.05). One stock price data from ANTM company is not normally distributed because it has a Sig value less than 5 percent.

The results of the normality test of the data determine the hypothesis test statistics used to test the average difference in stock prices. For data that are normally distributed, the average difference test of stock prices uses parametric statistics, namely the t hypothesis test for paired samples (*paired samples t test*). Meanwhile, for data that are not normally distributed, nonparametric statistics are used, namely the hypothesis *Wilcoxon signed ranks test*.

Test of Average Differences The

Paired mean difference test is used to test the difference in average stock prices from one observation period to another for the same research object. The hypothesis test statistics used were paired sample t-test for data that were normally distributed and the Wilcoxon sign hypothesis test for data that were not normally distributed.

The period of observation or recording of data from all research objects is from March 2019 to October 2021. During the 32 months of observation, then, it is divided into 4 parts of analysis time, namely: T1; T2; T20; and T21. The explanation for each notation is as follows:

(1) T1 is the observation period from March 2019 to February 2020 or for one year; (2) T2 is the observation period from March 2020 to February 2021 or for one year; (3) T20 is the observation period from March 2020 to December 2020 or for ten months; and (4) T21 is the observation period from January 2021 to October 2021 or for 10 months.

Based on the division of the 4 observation periods, the average difference test of stock prices is divided into two discussions, namely: (a) the comparison of the average share price between T1 and T2; and (b) comparison of average share prices between T20 and T21.

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Test of Average Differences T1 with T2

This hypothesis test is to test the effect of the Covid-19 pandemic on stock prices. This difference test illustrates the difference in the average share price between before the Covid19 pandemic and during the Covid-19 pandemic. The observation period from March 2019 to February 2020 is the period before the Covid-19 pandemic occurred. While the observation period from March 2020 to February 2021 is the period of the Covid-19 pandemic.

The difference in the average price between T1 and T2 times is significant (meaningful) if the Sig value is less than 0.05 (Sig < 0.05). The difference is not significant when the Sig value is greater than or equal to 0.05 (Sig ⍰ 0.05). The value of 0.05 (5 percent) is the standard significance level chosen by the researcher.

The results of the analysis show that there are 24 companies that experienced a decrease in the average price of shares traded on the Indonesia Stock Exchange during the Covid-19 pandemic (T2) compared to the average price before the pandemic (T1). Among these 24 stocks, there are 19 stocks that have significantly different average prices, because they have a Sig value (p-value) less than 0.05 or 5 percent. This shows that there has been a significant (significant) decline in stock prices during the pandemic (T2) when compared to stock prices before the pandemic (T1). This shows that the Covid-19 pandemic has caused a real decline in stock prices or has a negative effect on stock prices.

Meanwhile, the other 5 stocks also experienced a decrease in stock prices on average from the time before the pandemic (T1) to the time during the pandemic (T2), but this decline was not significant. This shows that the average price of the 5 stocks is relatively the same between before the pandemic (T1) and during the pandemic (T2). The 5 stocks that experienced a decrease in price but were not significant were shares of companies with the BBCA code; BTPS; EXCL; KLBF; and UNTR. For the case of these 5 stocks, it can be concluded that the Covid-19 pandemic has no effect on stock prices.

The five stocks that experienced the largest average price decline were: (1) PGAS; (2) HMSP; (3) BBNI; (4) BBTN; and (5) INTP. PGAS (Perusahaan Gas Negara) is a company engaged in the Energy sector with Oil & Gas Storage & Distribution sub-industry. The average share price of PGAS decreased by 43.62 percent. HMSP (HM Sampoerna) is a company engaged in the Consumer Non-Cyclical sector with the Tobacco sub-industry. The average share price of HMSP decreased by 41.36 percent. BBNI (Bank Negara Indonesia) is a company engaged in the financial sector with the Banks sub-industry. BBNI's average share price decreased by 40.08 percent. BBTN (State Savings Bank) is a company engaged in the financial sector with the Banks sub-industry. BBTN's average share price decreased by 39.41 percent. INTP (Indocement Tunggal Perkasa) is a company engaged in the Basic Materials sector with the Construction Materials sub-industry. The average price of INTP shares decreased by 36.47 percent.

The results of this analysis also show that there are 6 stock prices that have increased, namely the average price during the pandemic (T2) is greater than the average price before the pandemic (T1). These six shares are shares of companies with the code ANTM; CPIN; ERAA; INCO; INKP; and TOWR. Five stock prices (besides TOWR) rose but not significantly. This means that the pandemic has no (positive) effect on stock prices.

Shares of companies with the TOWR code show an interesting phenomenon, because these share prices actually rose significantly during the Covid-19 pandemic. The company operates in the infrastructure sector with sub-industry in *wireless telecommunication services*. This shows that the Covid-19 pandemic has a positive effect on stock prices.

The increase in the average price of the six shares were: (1) TOWR of 32.25 percent; (2) ANTM by 21.78 percent; (3) INCO of 19.61 percent; (4) INKP by 12.40 percent; (5) CPIN of 1.10 percent; and (6) ERAA of 0.05 percent.

Test of Average Differences T20 with T21

This second hypothesis test is to test the effect of the timing of the Covid-19 pandemic on stock prices. This difference test is a test of the difference in the average stock price between the observation periods from March 2020 to December 2020 (T20) with the observation time from January 2021 to October 2021 (T21). This differential test compares the average stock price during the first year of the pandemic with the average stock price during the second year of the pandemic.

The results of the analysis using SPSS software show that of the 30 stocks included in the IDX30 index, there are 21 stocks whose average price during 2021 is higher than the average price during 2020. This indicates that there is an increase in the average price of from 2020 to 2021. Meanwhile, the average price of the other 9 stocks decreased from 2020 to 2021 or the average price in 2021 was lower than the average price in 2020.

Among the 21 stocks that experienced an average price increase on average, there are 14 stocks experiencing a significant difference in the average price. The 14 shares are for companies with the code: ADRO; ANTM; BBCA; BBNI; BBRI; BBTN; BMRI; CPIN; ERAA; INCO; JPFA; PTBA; TLKM; and TOWR. This means that investors have given positive expectations to the 14 stocks. In other words, all efforts to control the Covid-19 pandemic have had a positive effect on stock prices or there is a significant positive difference between the average price during the first year of the pandemic and the average price during the second pandemic.

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There are 7 stocks that experienced an average price increase from 2020 to 2021, but this increase was not significant. The seven shares are for companies with the code: ASII; EXCL; INKP; MNCN; PGAS; SMGR; and UNTR. For this case, it shows that the stock prices are relatively the same during the first 10 months of the pandemic (in 2020) with the second 10 months of the pandemic (in 2021). This shows that all efforts to control the Covid-19 pandemic have no significant effect on stock prices or there is no significant difference between the average price during the first year of the pandemic and the second year of the pandemic. The five stocks that experienced the largest average price increase were: (1) ANTM; (2) ERAA; (3) JPFA; (4) INCO; and (5) BBTN. ANTM experienced an average price increase of 214.55 percent. ERAA experienced an average price increase of 97.11 percent. JPFA experienced an average price increase of 62.20 percent. INCO experienced an average price increase of 50.31 percent. BBTN experienced an average price increase of 31.35 percent.

The analysis also shows that there are 9 stocks that experienced a decrease in average price. These nine stocks are ACES; BTPS; GGRM; HMSP; ICBP; INDF; INTPs; KLBF; and UNVR. Four stocks experienced a significant decline, namely GGRM shares; HMSP; ICBP; and UNVR. GGRM shares experienced an average price decline of 18.04 percent. HMSP shares experienced an average price decline of 20.90 percent. ICBP shares experienced an average price decline of 91.06 percent. UNVR shares experienced an average price decline of 27.53 percent. This shows that all efforts to control the Covid-19 pandemic have no positive effect on stock prices or there is a (negative) difference between the average price during the first year of the pandemic and the average price during the second year of the pandemic.

Five stocks that also experienced an average but not significant decline in price were:
(1) ACES with a decline rate of 12.13 percent; (2) BTPS with a decline rate of 0.03 percent;
(3) INDF with a decline rate of 4.96 percent; (4) INTP with a decline rate of 2.07 percent; and
(5) KLBF with a decline rate of 2.24 percent. This case shows that all efforts to control the
Covid-19 pandemic have an insignificant negative effect on stock prices or there is no difference (negative) between the average stock price during the first year of the pandemic and the average stock price during the second year of the pandemic.

The combination of the two different average tests above can show changes in the average price during the observation period (32 months) which is divided into three periods, namely the year before the pandemic, the first year of the pandemic, and the second year of the Covid-19 pandemic. Changes in the average price indicate an increase or decrease from one period to the next.

Regardless of the degree of significance of the difference in the average price from one period to another, the results of the analysis show a mix of down and up from the two comparisons of the average price during the period of observation.

There are 9 company stocks that experienced 2 times the average price decline, namely the shares of companies with the ACES code; BTPS; GGRM; HMSP; ICBP; INDF; INTPs; KLBF; and UNVR. The shares of this company have continued to decline during the 20 months of the Covid-19 pandemic. This shows that the Covid-19 pandemic has lowered the average price of these stocks.

There are 15 stocks that experienced a decrease in average price during the first year and then the average price of these shares experienced an increase during the second year of the pandemic. These shares are from companies with the code: ADRO; ASII; BBCA; BBNI; BBRI; BBTN; BMRI; EXCL; JPFA; MNCN; PGAS; PTBA; SMGR; TLKM; and UNTR. This shows that the Covid-19 pandemic has lowered the average price of these stocks during the first year of the pandemic. However, during the second year of the pandemic, the average price of these 15 stocks has increased. This indicates that the pandemic caused stock prices to decline in the first year but that these stock prices rose again during the second year of the pandemic. Meanwhile, the remaining 6 stocks never experienced a decline in average prices during the Covid-19 pandemic, both during the first year and the second year. These shares are shares of 6 companies with the code ANTM; CPIN; ERAA; INCO; INKP; and TOWR. Of these 6 companies, TOWR is an attractive company, because it continues to experience a significant increase in average prices during the Covid-19 pandemic both during the first year and second year. This case shows that the Covid-19 pandemic has raised the average stock price. This means that the Covid-19 pandemic has had a positive effect on stock prices.

CONCLUSION

Based on the previous discussion, the following conclusions can be drawn:

1. The Covid-19 pandemic has had a significant negative effect on the stock prices of most of the shares of the companies (19 companies) included in the IDX30 index. This effect is shown by the decrease in average prices during the pandemic in the first year.
2. The Covid-19 pandemic has had a significant positive effect on the stock price of 1 company (TOWR). This effect is shown by the increase in average prices during the first year of the pandemic.
3. The Covid-19 pandemic did not significantly affect some share prices (5 share prices went up and 5 stock prices fell) during the first year of the pandemic.

4. The Covid-19 pandemic during the second year had a positive effect on many stock prices (14 companies) as indicated by a significant increase in average prices in the second year of the Covid-19 pandemic.
5. The Covid-19 pandemic during the second year has had a significant negative effect on some shares (4 companies), which is indicated by a decrease in the average price.
6. The Covid-19 pandemic in the second year did not significantly affect some stocks (7 share prices went up and 5 stock prices fell).

SUGGESTIONS

Here are some suggestions that need to be considered for future researchers:

1. Should consider using more company objects that are observed.
2. Should consider using daily stock prices.

REFERENCES

1) Ganggas, Gadang, dkk. 2013. *Pengaruh Faktor Mikro dan Faktor Makro Ekonomi Terhadap Harga Saham Perusahaan Mining and Mining Services yang Terdaftar di Bursa Efek*
2) *Indonesia (BEI) Periode 2008-2011*. Jurnal Administrasi Bisnis (JAB), Vol. 6 No.2
3) Harmono.2014. *Manajemen Keuangan Berbasis Balance Scored*. Jakarta: PT Bumi Aksara.
4) Husnan.S. 2015. Dasar-Dasar Teori Portfolio & Analisis Sekuritas. Jogjakarta:UPP STIM YKPN. Edisi Kelima
5) Istiono, Erwin D.A and SriHandini 2021. Pandemic Covid-19, Economic Performance, and Share Marjet Performance (Case Study In Indonesia)
6) Jogiyanto H. 2015. *Teori Portfolio dan Analisis Investasi*. Edisi kesepuluh . BPFE. Yogyakarta.
7) Sartono, Agus. 2010. *Manajemen Keuangan Teori dan Aplikasi*. Yogyakarta: BPFE.
8) Sri Handini, Erwin Dyah A. 2020.Teori *Portfolio dan Pasar Modal Indonesia.* SCOPINDO Media Pustaka. Surabaya