Comparison Analysis of LQ-45 Share Prices Before and During The Covid-19 Pandemic

Melinda S Meliala[1]; Annisa Sumaiya [2]; Anita Dwi Octavia[3]; Filia Gabrilia Monangin[4]

[1] *Melindameliala825@gmail.com, Faculty of Economy and Business, Universitas Mercu Buana, Indonesia*

[2] *Annisasumaiya3@gmail.com, Faculty of Economy and Business, Universitas Mercu Buana, Indonesia*

[3] *Anitadwioctavia@yahoo.com, Faculty of Economy and Business, Universitas Mercu Buana, Indonesia*

[4] *Filiagabrilia10@gmail.com, Faculty of Economy and Business, Universitas Mercu Buana, Indonesia*

Abstract

The COVID-19 pandemic has impacted the world of capital markets, especially in LQ45. The company's share price globally, the Indonesian state, also experienced an unprecedented decline. The purpose of this study is to analyze the impact of the COVID-19 pandemic on LQ45 shares by comparing the average price of LQ45 shares before and after the COVID-19 pandemic in Indonesia. This study uses IBM SPSS Version 22 with a different pair-sample test model (compare means paired sample t-test). The results of this study indicate that the decline in stock prices in LQ45 shares before and after the COVID-19 pandemic reached Rp1,234.76.

INTRODUCTION

We are currently experiencing something unexpected, namely the spread of Coronavirus Disease 2019 (COVID-19) caused by the SARS-CoV-2 virus. The spread of this disease has occurred since the end of 2019. On December 31, 2019, the World Health Organization (WHO) reportedly identified the first case of COVID-19 in Wuhan City, China. This COVID-19 case continues to spread rapidly to other countries around the world. As the number of COVID-19 cases increases worldwide, on March 11, 2020, WHO declared COVID-19 a global pandemic (WHO, 2020).

This infectious disease can cause economic losses, reflected in the movement of stock prices. One of the infectious disease epidemics that affect companies' stock price is the COVID-19 pandemic (Jiang, 2017). The World Health Organization (WHO) explains that the Coronavirus (Cov) is a virus that will infect the respiratory system tract. This infection is called Covid-19, which will cause mild flu to acute illnesses such as the Middle East respiratory syndrome (MERS-CoV) and severe respiratory syndrome (SARS-CoV).

Based on these data, the coronavirus has had an impact on lowering the performance of the LQ45 stock index. Domestic stock prices fell significantly, including the LQ-45 Index. A stock price is a form of securities or securities traded on the capital market (stock exchange). The share price in question is each company's closing price, obtained from the share price at closing per day, then calculated monthly.

The LQ45 stock index is the leading stock in Indonesia. The LQ45 Index is a stock market index on the Indonesia Stock Exchange (IDX), consisting of 45 companies with the largest and most liquid capitalization rates and the most significant share ownership portion selected through several selection criteria. Only actively traded stocks will be included in the LQ 45 index. This

means that the LQ 45 index is stock from issuers in great demand by investors. Therefore the LQ 45 index can be used as a reference in assessing stock trading performance activities in the capital market. Before the entry of Covid-19 into Indonesia, the LQ-45 Index grew by 3.23% at the end of 2019 (cnbcindonesia.com).

After the entry of Covid-19 in Indonesia in February 2020, several members of LQ-45 decreased by 15%. This impacts the Indonesian economy, which will affect stock trading in Indonesia. It will affect investor reactions and affect the market situation on the Indonesia Stock Exchange as a whole.

Previous related studies such as those conducted by Soureka & Muchlis, 2007 and Ayu et al., 2013 analyzed stocks under different conditions (before and after the stock split). Furthermore, other research conducted by Khan et al., 2020; Budiyanti, 2020, Evans, 2020 illustrates the adverse effects of the spread of Covid-19, which is detrimental to various parties. This condition requires empirical evidence on the performance of existing stocks to see their effect during the pandemic. This study was developed to prove how significant the comparison of stock prices before covid and during Covid-19 where the Covid-19 virus outbreak affects the difference in stock prices on the LQ 45 index and then uses the results from this analysis to provide investment advice to investors and policymakers.

RESEARCH METHODOLOGY

This study uses a quantitative approach in comparative descriptive research, which compares the stock price of LQ45 in the period before and after the COVID-19 pandemic. The data collection technique in this research uses secondary data taken from Yahoo Finance. The data used to process stock price comparisons is historical data in the adj price column or the closing price on that day. The data collection period is August 26, 2019, or before the Covid-19 announcement, and August 26, 2020, after the Covid-19 announcement (effective market trading day).

To analyze the difference in LQ45 stock prices before and after announcing the first COVID-19 cases in Indonesia, this study used a paired sample t-test, namely the paired sample t difference test between the average LQ45 stock prices. In the period before and after the announcement of the Covid-19 pandemic. As a prerequisite before performing this paired sample t-test, it is necessary to test for normality. The basis for decision making in the normality test is if the significance value (sig.) is more significant than 0.05, then the data in the study is usually distributed. Otherwise, if the significance (sig.) is less than 0.05, then the data in the study is not normally distributed. The researcher used IBM SPSS version 22 statistical software to conduct data analysis.

THINKING FRAMEWORK
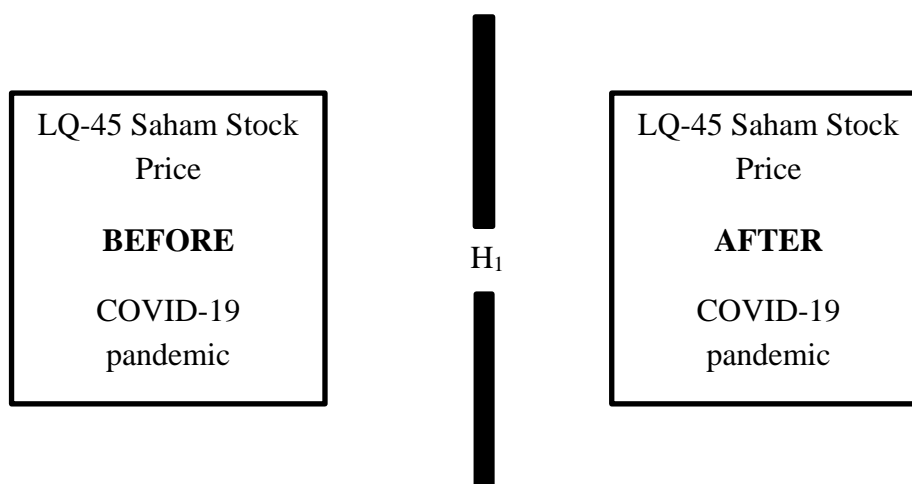
Based on the description above, the hypotheses put forward are:

H_1: There is a difference in the stock price of LQ45 in the period before and after the COVID-19 pandemic.

RESULTS AND DISCUSSION

Table 1. LQ-45 Stock Volatility

Nos.	Code	Stock Name	Stock Price Before the Pandemic (26 August 2019)	Stock Price After the Pandemic (26 August 2020)	Price Difference (percentage)
1	ADRO	Adaro Energy Tbk.	1,125.00	1,110.00	-1,33%
2	AKRA	AKR Corporindo Tbk.	4,270.00	3,030.00	-29,04%
3	ANTM	Aneka Tambang Tbk.	1,235.00	785.00	-36,44%
4	ASII	Astra International Tbk.	6,675.00	5,350.00	-19,85%
5	BBCA	Bank Central Asia Tbk.	6,100.00	6,305.00	3,36%
6	BBNI	Bank Negara Indonesia (Persero) Tbk.	7,700.00	5,325.00	-30,84%
7	BBRI	Bank Rakyat Indonesia (Persero) Tbk.	4,270.00	3,740.00	-12,41%
8	BBTN	Bank Tabungan Negara (Persero) Tbk.	2,000.00	1,565.00	-34,14%
9	BMRI	Bank Mandiri (Persero) Tbk.	7,250.00	6,350.00	-12,41%
10	BRPT	Barito Pacific Tbk.	905.00	895.00	-1,10%
11	BSDE	Bumi Serpong Damai Tbk.	1,350.00	780.00	-42,22%
12	BTPS	Bank Tabungan Pensiunan Nasional Syariah Tbk.	3,220.00	3,890.00	20,81%
13	CPIN	Charoen Pokphand Indonesia Tbk	5,025.00	6,100.00	21,40%
14	CTRA	Ciputra Development Tbk.	1,095.00	760.00	-30,59%
15	ERAA	Erajaya Swasembada Tbk.	310.00	349.00	12,58%
16	EXCL	XL Axiata Tbk.	3,480.00	2,480.00	-28,74%
17	GGRM	Gudang Garam Tbk.	69,475.00	52,675.00	-24,18%
18	HMSP	H.M. Sampoerna Tbk.	2,690.00	1,700.00	-36,80%
19	ICBP	Indofood CBP Sukses Makmur Tbk.	12,050.00	10,350.00	-14,11%
20	INCO	Vale Indonesia Tbk.	3,530.00	3,780.00	7,08%
21	INDF	Indofood Sukses Makmur Tbk.	7,925.00	7,345,48	-7,31%
22	INDY	Indika Energy Tbk.	1,350.00	1,065.00	-21,11%
23	INKP	Indah Kiat Pulp & Paper Tbk.	6,850.00	9,425.00	37,59%
24	INTP	Indocement Tunggal Prakarsa Tbk.	21,725.00	12,275.00	-43,50%

Nos.	Code	Stock Name	Stock Price Before the Pandemic (26 August 2019)	Stock Price After the Pandemic (26 August 2020)	Price Difference (percentage)
25	ITMG	Indo Tambangraya Megah Tbk.	13,000.00	8,400.00	-35,38%
26	JPFA	Japfa Comfeed Indonesia Tbk.	1,575.00	1,155.00	-26,67%
27	JSMR	Jasa Marga (Persero) Tbk.	5,600.00	3,940.00	-29,64%
28	KLBF	Kalbe Farma Tbk.	1,690.00	1,590.00	-5,92%
29	LPPF	Matahari Department Store Tbk.	3,020.00	1,280.00	-57,62%
30	MEDC	Medco Energi Internasional Tbk.	626.46	474.00	-24,34%
31	MNCN	Media Nusantara Citra Tbk.	1,240.00	915.00	-26,21%
32	PGAS	Perusahaan Gas Negara Tbk.	1,920.00	1,315.00	-31,51%
33	PTBA	Bukit Asam Tbk.	2,470.00	2,130.00	-13,77%
34	PTPP	PP (Persero) Tbk.	1,850.00	1,020.00	-44,86%
35	PWON	Pakuwon Jati Tbk.	640.00	422.00	-34,06%
36	SCMA	Surya Citra Media Tbk.	247.00	242.00	-2,02%
37	SMGR	Semen Indonesia (Persero) Tbk.	13,250.00	10,450.00	-21,13%
38	SRIL	Sri Rejeki Isman Tbk.	338.00	230.00	-31,95%
39	TKIM	Pabrik Kertas Tjiwi Kimia Tbk.	9,950.00	6,900.00	-30,65%
40	TLKM	Telekomunikasi Indonesia (Persero) Tbk.	4,450.00	3,020.00	-32,13%
41	TPIA	Chandra Asri Petrochemical Tbk.	8,825.00	7,050.00	-20,11%
42	UNTR	United Tractors Tbk.	20,925.00	23,250.00	11,11%
43	UNVR	Unilever Indonesia Tbk.	9,770.00	8,200.00	-16,07%
44	WIKA	Wijaya Karya (Persero) Tbk.	2,210.00	1,285.00	-41,86%
45	WSKT	Waskita Karya (Persero) Tbk.	1,745.00	685.00	-60,74%

Results

The results of the LQ45 analysis show that the total stock prices before and after the COVID-19 pandemic were IDR 286,946.46 and IDR 231,382.48. Meanwhile, before and after the COVID-19 pandemic, the average stock price was IDR 6,377 and IDR 5,142. This also shows that stock prices have decreased by -19.36% after the COVID-19 pandemic. Thirty-eight companies experienced a decline in stock prices, and as many as seven companies experienced an increase in stock prices after the COVID-19 pandemic. Companies that have successfully experienced an increase in share prices after the COVID-19 pandemic are INKP (37.59%), CPIN (21.40%), BTPS (20.81%), ERAA (12.58%), UNTR (11.11%), INCO (7.08%), and BBCA (3.36%).

Statistical Analysis and Hypothesis Testing

Descriptive statistics are statistical analyzes that provide a general description of the characteristics of each research variable as seen from the average (mean), maximum, and minimum values, Joanne (2020). This study aims to analyze the comparison of LQ45 stock prices before and after the Covid-19 Pandemic. This study uses IBM SPSS Version 22 with a paired sample difference test model (compare means paired samples t-test).

Table 2. Paired Samples Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Before	6376,5880	45	10848,15702	1617,14777
	After	5141,8329	45	8467,51078	1262,26198

Table 2 presents descriptive statistics on LQ45 stock prices before and after introducing COVID-19 cases in Indonesia. From table 2, the average stock price of LQ45 before the announcement of the COVID-19 case in Indonesia was Rp 6,376.59. Meanwhile, the average stock price of LQ45 after the COVID-19 case was IDR 5,141.83.

Table 3. Paired Samples Correlations

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Before & After	45	,983	,000

Output results in Table. 3 shows the results of the correlation or relationship between the two data showing the situation before and after the COVID-19 pandemic. The correlation coefficient is 0.983 with a significance value (Sig.) of 0.000 or <0.05. This shows that there is a significant relationship between the two periods. Furthermore, the results of the paired different sample test on the stock price of the LQ45 Index in the situation before and after the COVID-19 pandemic are shown in Table 4 as follows:

Table 4. Paired Samples Tests

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Before – After	1234,75511	2969,89770	442,72621	342,49906	2127,01116	2,789	44	,008

Table 4 shows the results of the paired sample t-test processed with the help of SPSS statistical software version 22. The data used in this test is the stock price of LQ45 before and after the announcement of the first COVID-19 case in Indonesia. The significance value (sig.) of comparing stock prices before and after announcing the first confirmed case of COVID-19 in Indonesia was 0.008, much smaller than 0.05. Based on the paired-sample t-test, it can be

concluded that there is a significant difference in stock prices in the period before and after the event. Thus, H1 is accepted, and H0 is rejected.

CONCLUSION

This study aims to compare LQ45 stock prices before and after the COVID-19 pandemic in Indonesia. Based on the research results that have been described, it can be concluded that there is a significant difference between the average LQ45 stock price before and after the COVID-19 pandemic. From the Paired Sample Test results, it can be seen that there is a significant decrease of Rp. 1,234.76. The average stock price before the COVID-19 case was IDR 6,376.59, and after the COVID-19 case, it fell to IDR 5,141.83. Thus, this study is evidence of the negative impact of the COVID-19 case on the stock price of LQ45.

REFERENCE

https://finance.yahoo.com/ (Accessed November 21, 2021).

Joanne., Hendrik Manossoh. (2020). Analisis Perbandingan Harga Saham PT Garuda Indonesia Persero (Tbk.) Sebelum dan Sesudah Pandemi Covid-19. Jurnal Administrasi Bisnis (JIB), Vo. 10 (2).

Mujib, Barrul., Ica Rika. (2021). Capital Market Reaction To Covid-19 Pandemic On LQ45 Shares At Indonesia Stock Exchange (IDX). American Journal of Humanities and Social Sciences Research (AJHSSR), Vol. 5 (3). (hal 74-80).

Murtadho, Muis., Abdul Fattah. (2021). Studi Pengukuran Ketahanan Indeks Harga Saham Akibat Dampak Pandemi Covid-19 (Studi Kasus Di Bursa Tiga Negara Asean). E-Jurnal Kewirausahaan, Vol. 4 (1).

Risman, A., Mulyana, B., Silvatika, B., & Sulaeman, A. (2021). The Effect of Digital Finance on Financial Stability. Management Science Letters, 11(7), 1979-1984.

Risman, Asep. (2014). The Influence of Macro-Economic Variables, Stock Index and Commodity Prices to The Exchange Rates. Journal of Managerial Issues. 1

Risman, A., Subhani, M., & Ushakov, D. (2021). Nexus between Financial Fundamentals and Automotive (Car) Industry. ARDL approach. E3S Web of Conferences, 244.

Sandria, Ferry. (2021). 7 Saham yang Jadi Pemicu Indeks LQ45 Babak Belur Tahun Ini. Dari https://www.cnbcindonesia.com/market/20210928161306-17-279848/7-saham-yang-jadi-pemicu-indeks-lq45-babak-belur-tahun-ini/amp.

Waryati., Nining, Suwarni. (2020). The Impact Of The Covid-19 Pandemic On Share Prices And Trade Volume Of Shares In Indonesia Stock Exchange. Advances in Economics, Business and Management Research, Vol. 169.

Yolanda, Agizka and Asfar Hasryningsih, Andi (2021). Perbandingan Harga Saham PT Bank Indonesia (PERSERO) TBK Sebelum dan Susudah Pandemi Covid-19 di Indonesia. P-ISNN: 2808-4594.