Report on
STOCK PERFORMANCE OF LQ45 INDEX

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1 Introduction

In the wake of the COVID-19 pandemic, Indonesia is witnessing a compelling economic resurgence marked by a resurgence in foreign investment inflows into its capital market. Intrigued by the shifting tides of economic fortune, our analysis delves into the comparative landscape of stock returns before and during the pandemic era. Focusing on the esteemed LQ45 index, a curated selection of blue-chip stocks reflective of Indonesia's market pulse, we traverse the years 2017 to 2021 to uncover nuanced insights. In this journey, we zoom in on the financial sector, a cornerstone of market capitalization, chosen for its inherent dynamism and resilience. By juxtaposing pre-pandemic performance with the pandemic era, we aim to unveil the intricate dance of risk and reward that shapes investor sentiment and market trajectories. Stock investing is a popular method for building wealth over the long term. One of the primary reasons investors choose to invest in stocks is the potential for attractive returns. In this report, we will explore the concept of stock investing returns, including what they are, how they are calculated, factors influencing returns, and strategies for maximizing returns while managing risks.

1.1 Objectives

1. To analyze the difference in stock investing returns in the pre-pandemic (2017- 2019) and during the pandemic (2020-2021) on LQ45 stocks.

2. To analyze the difference in stock investing risks in the pre-pandemic (2017- 2019) and during the pandemic (2020-2021) on LQ45 stocks.

2 Mechanics

2.1 Qualitative Data

In the dynamic landscape of stock markets, fundamental analysis plays a pivotal role in understanding the nuances of stock performance. This report delves into the qualitative aspects of the LQ45 index companies, focusing on the categorization of these entities into state-owned and private-owned enterprises from 2017 to 2021.

Table 1: Type of the company listed in LQ45 2017 - 2021

Company	2017	2018	2019	2020	2021
BBCA	Private-owned	Private-owned	Private-owned	Private-owned	Private-owned
BBNI	State-owned	State-owned	State-owned	State-owned	State-owned
BBRI	State-owned	State-owned	State-owned	State-owned	State-owned
BBTN	State-owned	State-owned	State-owned	State-owned	State-owned
BMRI	State-owned	State-owned	State-owned	State-owned	State-owned

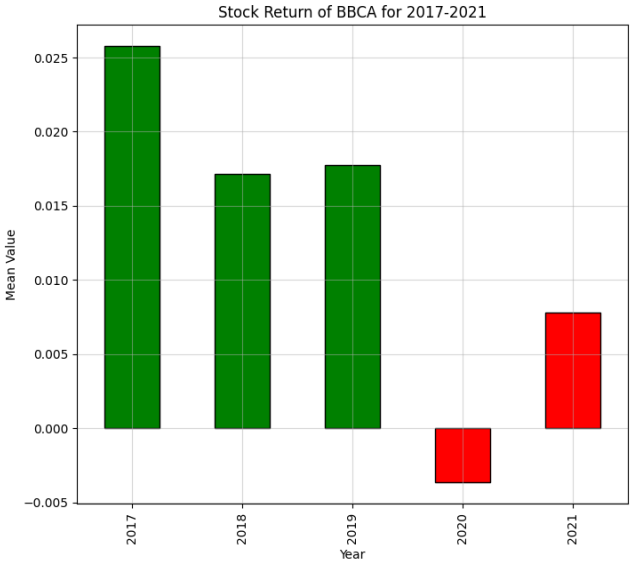
Conclusion: The qualitative analysis of the LQ45 index companies underscores the enduring dominance of state-owned enterprises and the consequential implications for stock performance. By delving into ownership structures and profitability dynamics, this report provides valuable insights for investors, policymakers, and stakeholders navigating the complexities of the stock market.

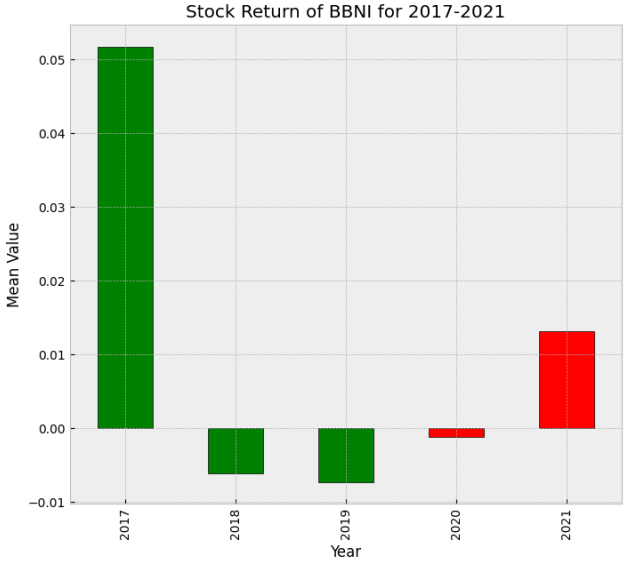
2.2 Quantitative Data

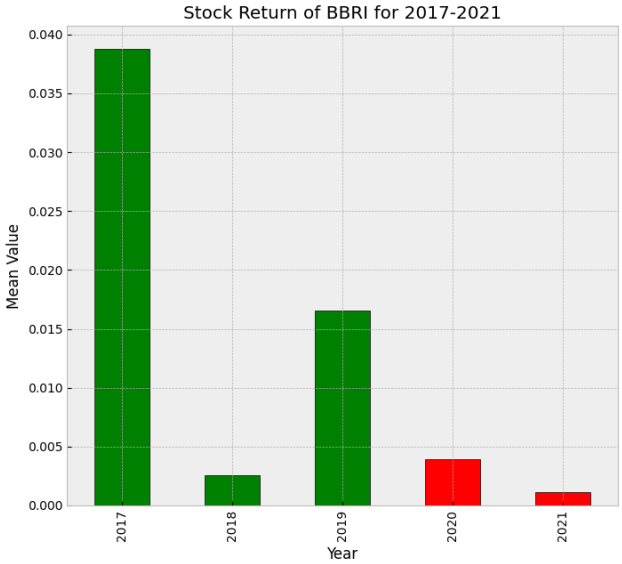
This section delves into the quantitative data derived from monthly closing stock prices of prominent companies within the LQ45 index, namely BBCA, BBNI, BBRI, BBTN, and BMRI. Through the calculation of monthly stock returns, we unravel the patterns and trends shaping the investment landscape.

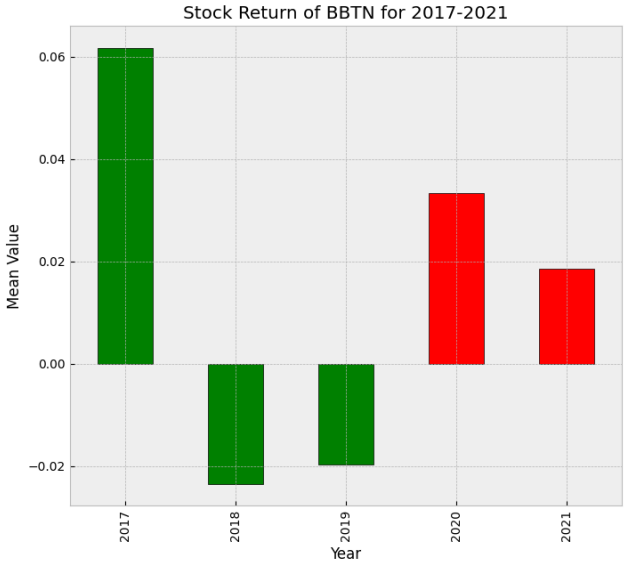
Data used in this report is in the form of monthly closing stock prices which are then processed to obtain the monthly stock returns of BBCA, BBNI, BBRI, BBTN, and BMRI using the formula:

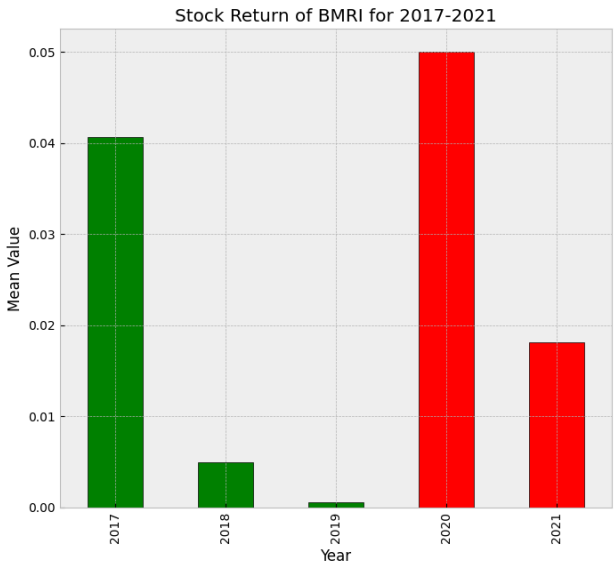
$$\text{Return}_t = \frac{\text{Closing Price}_t - \text{Closing Price}_{t-1}}{\text{Closing Price}_{t-1}}$$


Stock Return of BBCA for 2017-2021
Mean Value
0.025
0.020
0.015
0.010
0.005
0.000
−0.005
2017
2018
2019
2020
2021
Year


Stock Return of BBNI for 2017-2021
Mean Value
0.05
0.04
0.03
0.02
0.01
0.00
−0.01
2017
2018
2019
2020
2021
Year


Stock Return of BBRI for 2017-2021
Mean Value
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
2017
2018
2019
2020
2021
Year


Stock Return of BBTN for 2017-2021
Mean Value
0.06
0.04
0.02
0.00
−0.02
2017
2018
2019
2020
2021
Year



Conclusion: The quantitative analysis of monthly stock returns provides valuable insights into the performance dynamics of selected companies within the LQ45 index. By leveraging quantitative data, investors can make informed decisions, optimize investment strategies, and navigate the complexities of the stock market with confidence.

[4]

3 Stock Investing Returns

3.1 What are Stock Investing Returns?

Stock investing returns refer to the profits or losses generated by investing in stocks over a specific period. These returns are typically expressed as a percentage and reflect the performance of an investment relative to its initial cost.

3.2 Calculating Stock Returns

The formula for calculating stock returns is:

$$\text{Stock Return} = \left(\frac{\text{Current Stock Price} - \text{Initial Stock Price} + \text{Dividends}}{\text{Initial Stock Price}} \right) \times 100\%$$

3.3 Factors Influencing Stock Returns

Several factors influence stock returns, including:

- Market Conditions
- Company Performance
- Industry Trends
- Dividends
- Market Sentiment

3.4 Strategies for Maximizing Returns [2]

Investors employ various strategies to maximize stock investing returns, including:

- Diversification
- Long-Term Investing
- Research and Analysis
- Risk Management
- Reinvestment of Dividends

3.5 Conclusion

Stock investing returns are a key consideration for investors seeking to grow their wealth in the financial markets. By understanding the factors influencing returns and employing effective investment strategies, investors can potentially achieve attractive long-term returns while managing risks effectively.

3.6 Data from pre-pandemic time 2017-2019

Table 2: Stock Price Data from 2017-2019

Date	Price	Open	High	Low	Volume	Change (%)
12-01-2019	1,014.47	960.71	1,025.84	959.93	20.73B	6.03%
11-01-2019	956.82	984.16	1,001.87	942.48	23.44B	-2.85%
10-01-2019	984.84	967.05	1,012.65	928.34	26.61B	1.72%
09-01-2019	968.15	996.31	1,009.35	948.00	24.41B	-2.77%
08-01-2019	995.76	1,020.95	1,022.89	944.55	28.96B	-2.61%
07-01-2019	1,022.43	1,019.71	1,035.59	1,003.47	46.77B	0.84%
06-01-2019	1,013.96	1,000.35	1,016.99	980.29	18.53B	3.16%
05-01-2019	982.88	1,019.91	1,021.48	888.02	26.71B	-3.58%
04-01-2019	1,019.33	1,023.13	1,059.65	994.88	22.08B	0.03%
03-01-2019	1,019.03	1,012.25	1,027.64	989.34	21.86B	1.29%
02-01-2019	1,006.10	1,043.63	1,048.92	991.00	34.43B	-3.16%
01-01-2019	1,038.97	983.58	1,039.54	980.21	41.75B	5.72%
12-01-2018	982.73	981.91	994.22	954.91	29.03B	1.68%
11-01-2018	966.46	928.59	979.04	900.64	36.70B	4.74%
10-01-2018	922.72	939.77	950.06	871.05	41.58B	-2.48%
09-01-2018	946.15	953.61	953.61	880.17	23.43B	-0.60%
08-01-2018	951.88	937.98	973.20	887.04	29.01B	1.93%
07-01-2018	933.89	916.35	953.54	871.91	51.04B	2.74
06-01-2017	977.62	960.53	981.81	948.77	23.89B	2.08%
05-01-2017	957.70	945.42	989.03	925.74	46.52B	1.80

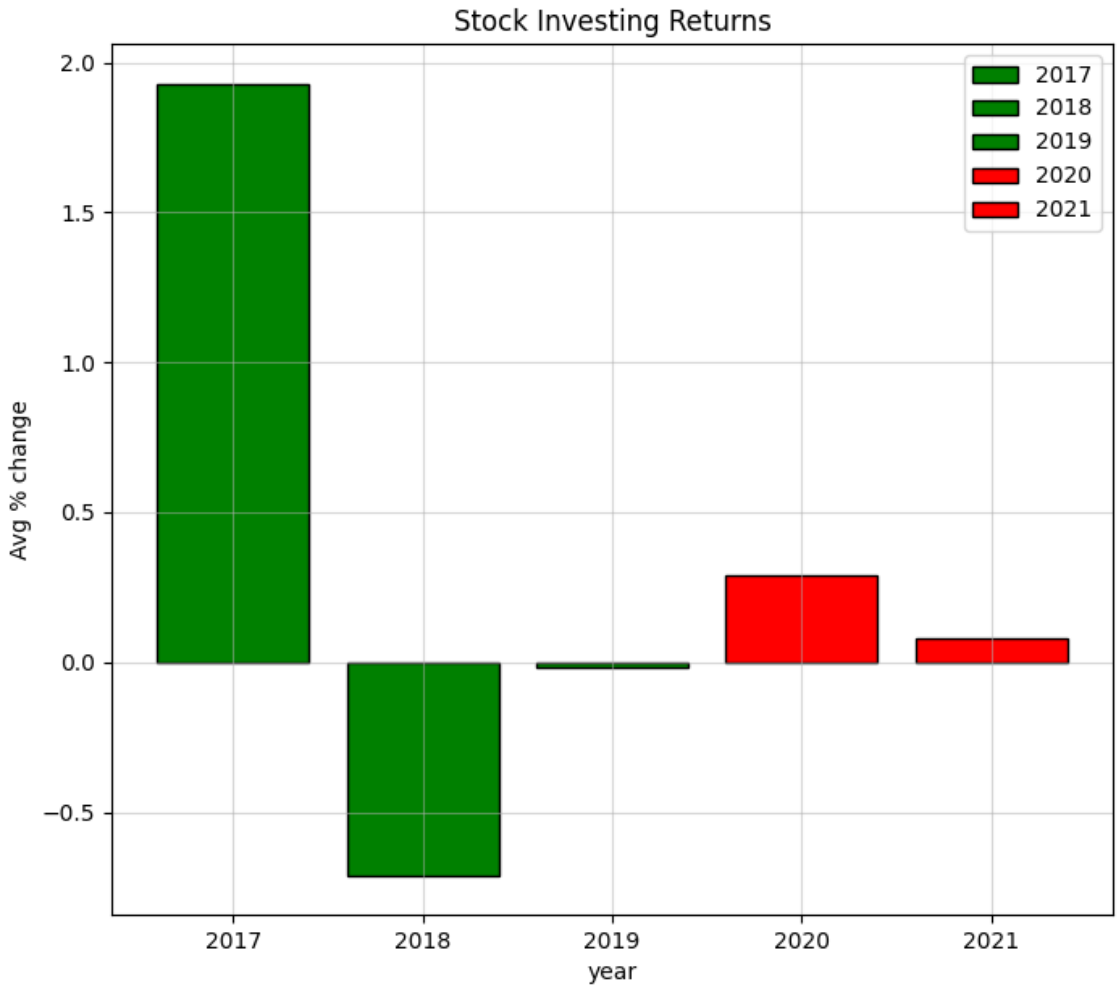
[3]

3.7 Data during pandemic time 2020-2022

Table 3: Stock Price Data from 2020-2022

Date	Price	Open	High	Low	Volume	Change (%)
12-01-2021	931.41	933.86	953.79	926.93	37.84B	0.05%
11-01-2021	930.97	958.80	972.98	927.39	37.73B	-2.27%
10-01-2021	952.59	891.03	982.16	881.91	52.74B	6.47%
09-01-2021	894.68	868.22	894.68	840.96	39.43B	3.25%
08-01-2021	866.49	830.24	872.09	821.45	30.92B	5.28%
07-01-2021	823.04	848.90	860.44	823.04	30.81B	-2.58%
06-01-2021	844.85	902.82	919.11	835.50	37.60B	-4.93%
05-01-2021	888.65	894.07	897.11	852.13	29.27B	-0.57%
04-01-2021	893.72	903.07	915.84	873.29	31.43B	-1.00%
03-01-2021	902.79	955.63	977.18	886.27	41.33B	-4.44%
02-01-2021	944.75	910.46	972.27	885.93	54.97B	3.59%
01-01-2021	911.98	939.01	1,030.11	907.11	75.97B	-2.45%
12-01-2020	934.89	890.15	977.38	879.50	68.92B	5.87%
11-01-2020	883.06	784.61	926.37	777.54	68.70B	11.71%
10-01-2020	790.50	745.17	798.47	741.51	38.91B	7.24%
09-01-2020	737.15	824.19	847.71	727.91	38.92B	-10.56%
08-01-2020	824.19	803.01	854.79	760.47	44.58B	2.64%
07-01-2020	803.01	756.20	811.28	753.49	44.66B	6.19%
06-01-2020	756.20	725.83	808.98	715.90	60.20B	4.18%
05-01-2020	725.83	713.64	725.83	648.65	38.62B	1.71
04-01-2020	713.64	691.13	771.21	654.86	43.53B	3.26%
03-01-2020	691.13	880.22	935.48	566.05	41.72B	-21.42%
02-01-2020	879.53	956.39	984.61	846.02	23.26B	-8.57%

[1]


Stock Investing Returns
2017
2018
2019
2020
2021
Avg % change
2.0
1.5
1.0
0.5
0.0
−0.5
2017
2018
2019
2020
2021
year

4 Stock Investing Risks

4.1 What are Stock Investing Risks?

Stock investing risks include market volatility, company-specific risks such as poor management or industry downturns, and economic factors like inflation or interest rate changes.

4.2 Calculating Stock Risks

There isn't a single formula for calculating all stock investing risks, but there are various methods and models such as standard deviation for volatility, beta for market risk, and fundamental analysis for company-specific risks.

4.3 Factors Influencing Stock Risks

Several factors influence stock risks, including:

- Market Volatility
- Company-specific management
- Economic Conditions
- Industry Trends
- Global Events

4.4 Strategies for Minimizing Risks

Strategies for minimizing stock investment risks include diversification by spreading investments across different assets or sectors, conducting thorough research before investing, setting stop-loss orders to limit losses, and employing risk management techniques like dollar-cost averaging or investing in low-cost index funds.

List of Tables

References

[1] Jakarta lq45 historical data. [Online; accessed 25-March-2024].

[2] Stock return. [Online; accessed 25-March-2024].

[3] Idx annual statistics, 2018. [Online; accessed 25-March-2024].

[4] Yulita F Susanti Dety Nurfadilah. *Case Study for Descriptive Statistics*. Ipmi Press, Ipmi International Business School Jl. Rawajati Timur I No.1, RT.3/RW.2, Rawajati, Kec. Pancoran, Kota Jakarta Selatan, Daerah Khusus Ibukota Jakarta 12750 Gedung Ipmi Jakarta Selatan, 2022.

Table 4: Contribution of Authors

Name	**Roll No.**	**Contribution in Report Writing**	**Contribution in analysis**	**Details of use of web resources/ Codes/AI tools etc.**	**Overall contribution to the work done.**
Bhavik Ostwal	B23395	Qualitative and Quantitative Data, generated graphs via python, created the body of report	Monthly closing stock prices of top 5 companies index	reference link and ChatGPT	16.67
Yadnyit Panchbhai	B23477	Calcluted Stock returns of companies within LQ45 Index	Patterns and trends shaping the investment landscape in index	repository link	16.67
Gaurav Yadav	B23398	Stock risks section	Market Analysis,Index Composition, Risk Management	ChatGPT and Google web pages	16.67
Dheeraj Jha	B23369	Strategies for Maximizing returns	Seasonal Trends, Cost Management	Maximising stock returns	16.67
Hardeep Gupta	B23015	Strategies for Minimizing risks	Correlation Analysis, Volatility Analysis	ChatGPT and websites	16.67
Lalit Kishore	B23352	Data Collection	Long-Term Perspective and geopolitical events	LQ45 index link	16.67