

## **Analysis of Strong Performance Listed Companies at Undervalued Prices and Correlation of Financial Indicators with Stock Price Growth during the Covid-19 Pandemic in Indonesia Stock Exchange**

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**ABSTRACT** : *The objectives of this research are to analyze the listed companies with strong performance and undervalued prices during the COVID-19 pandemic, including their financial performance and growth driver, as well as to analyze the correlation between the chosen financial indicators and stock price growth. The financial indicators used in this study are growth performance, financial ratio performance, and valuation ratio. This research results aims to assist individual and institutional investors in identifying potential winning stocks, particularly during economic crisis occurs and to increase the level of capital market financial literacy in Indonesia. The analysis from this study concludes that growth performance had the strongest correlation with stock price growth during COVID-19 Pandemic. Nevertheless, companies having strong growth performance, strong financial ratio performance and undervalued prices yielded even higher average returns, reaching by 956.6%. Additionally, there were six listed companies that had strong growth performance, strong financial ratio performance and undervalued prices during COVID-19 pandemic, which are ADES, ADRO, ITMG, MBAP, PSSI, and TMAS.*

**KEYWORDS** - *COVID-19 Pandemic, Financial Indicators, Indonesia Stock Exchange, Strong Performance, Stock Price Growth*

### **I. INTRODUCTION**

In 2020, the world faced a health crisis due to the COVID-19 pandemic. This infectious disease led many countries to announce restriction of public activities and some even implemented lockdown policy. This restriction resulted in a drop of global economic activity, including consumption, trade in goods and investment activity. The fear of an economic crisis caused by the COVID-19 pandemic had made many investors panic. This panic was evident in Indonesia, which was shown by the sharp declining of IDX Composite index in Indonesia Stock Exchange (IDX). IDX composite index declined sharply by 27.9% year-to-date to 4,538.93 on March, 31 2020. Nevertheless, on March 31, 2023, three years after the first implementation of the first large-scale social restrictions in Indonesia, the IDX composite index has increased significantly by 49.93%, from 4,538.93 to 6,805.27, due to the recovery from the Covid-19 pandemic and economy activity.

Considering the significant increase in the IDX composite index, investors who bought stocks on March 31, 2020, have a high probability of obtaining a substantial return until March 31, 2023. This significant decline in stock prices on March 31, 2020, due to Covid-19 pandemic, can also be seen as an opportunity for investors to purchase stocks at lower prices and potentially gain higher returns in the coming years. Nevertheless, some mutual funds of assets managements in Indonesia still underperformed compared to the increase of IDX composite index, despite the significant increase in many stock prices. Therefore, individual investors and institutional investors including asset management, pension fund, insurance companies and others, need to enhance their capabilities in projecting stocks that have potential for higher return, especially during an economic crisis that offers the higher opportunities.

The publication from Indonesian Financial Services Authority, ‘2023-2027 Indonesian Capital Market Roadmap’, shows significant growth in the number of capital market investors, increasing by 37.68% from 7.49 million in 2021 to 10.31 million in 2022. However, the financial literacy of capital market, as indicated by ‘The Results of the National Survey on Literacy and Financial Inclusion 2022’ publication, published by the Indonesia Financial Services Authority, was only 4.11% in 2022, marking a decline from 4.92% in 2019. This level was far below the level of national financial literacy in Indonesia.

The objectives of this research are to analyze the listed companies with the strong performance and undervalued prices during the COVID-19 pandemic, including their financial performance and growth driver, as well as to analyze the correlation between the chosen financial indicators and stock price growth. This research aims to assist individual and institutional investors in identifying potential winning stocks, particularly during economic crisis occurs and to increase the level of capital market financial literacy in Indonesia.

**II. THEORETICAL FRAMEWORK**

Fundamental analysis involves aggregate market analysis, industry analysis, company analysis, and portfolio management (Reilly and Brown, 2012). Investors who use fundamental analysis believe that the intrinsic value of company depends on its business performance. They also believe that the market price and intrinsic value of a company may differ, but eventually the market will recognize the disparity and correct it. In company analysis, there are four major elements, that investors have to analyze, which are the type of business itself, the financial performance, the management capability and integrity, and the valuation of the business (Hagstrom,2014).

In financial performance analysis, investors examine the company’s financial statement including the income statement, balance sheet and cash flow statement. Some financial indicators that investors frequently use include return on equity (ROE), return on assets (ROA), return on invested capital (ROIC), gross profit margin (GPM), net profit margin (NPM), free cash flow to revenue (FCF/Revenue) and debt to equity ratio (DER). Investors also assess the company’s growth performance by examining the revenue growth and earnings per share (EPS) growth. In terms of valuation, common method used by investors include price to earnings ratio (PER), price to book value ratio (PBV), price to sales ratio (PSR), price to cash flow ratio (PCF) and EV/EBITDA ratio.

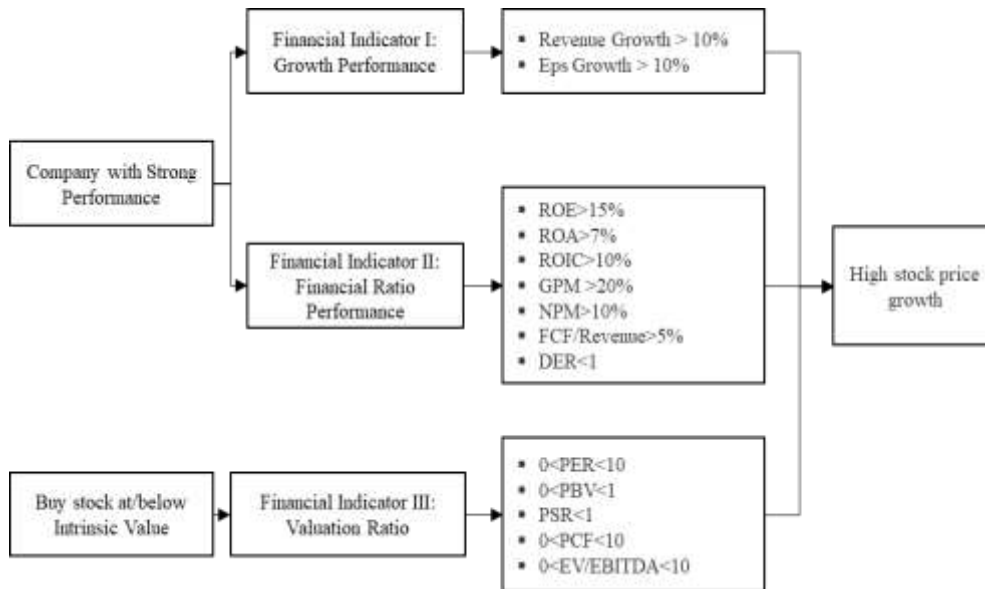
There are six general categories for companies, which are slow growers, stalwarts, fast growers, cyclicals, asset plays, and turnarounds company (Lynch, 2000). Peter Lynch, a well-known portfolio managers and investor in United States, believed that by categorizing companies into these six groups, investors can gain better understanding of the potential rewards, the risks and the strategies associated with the different types of companies. This classification can lead to better investment decisions. The explanation, the strategy of investing, and risk and rewards of each type of stocks is shown in Table II.1.

**Table II. 1 Peter Lynch's Stock Classification**

No.	Type of Stocks	Explanation	The Strategy of Investing	Risk Classification	Rewards Classification
1	Slow Growers	<ul style="list-style-type: none"> <li>- Big Companies that has slow and steady growth in earnings (earning growth is lower than GNP or about three percent)</li> <li>- Previously this company was a fast grower company.</li> <li>- Mature companies that now has limitation in expansion</li> <li>- Pays a generous and regular dividend</li> </ul>	<ul style="list-style-type: none"> <li>- Get high dividend from the companies by seeing the dividend yield</li> <li>- Check the dividend payout ratio</li> </ul>	Low Risk	Low Reward
2	The Stalwarts	<ul style="list-style-type: none"> <li>- Well-established companies with a long track of stability and growth</li> <li>- Not have high growth, but the growth is higher than slow growers ( around 10 to 12 percent annually)</li> </ul>	<ul style="list-style-type: none"> <li>- Buy at low price to get huge profit</li> <li>- Use PER to check the valuation</li> <li>- Buy a company that has consistent long term growth and has resistance within recession</li> <li>- Avoid company that has diworsfication</li> </ul>	Moderate Risk	Moderate Reward
3	Fast Growers	<ul style="list-style-type: none"> <li>- Small, aggressive new enterprises that has 20 to 25 percent a year</li> <li>- Doesn't necessarily have to belong to a fast -growing industry</li> </ul>	<ul style="list-style-type: none"> <li>- Find a young company that has consistent 20 to 25 percent growth rate</li> <li>- Find the company that has duplicated its success in one more city and still has room to grow</li> <li>- Find the company that the expansion is speeding up</li> <li>- Buy the fast grower that is selling at PER at or near the growth rate</li> </ul>	High Risk	High Reward
4	Cyclicals	<ul style="list-style-type: none"> <li>- Companies whose sales and profit rise and fall regularly depend on the business cycle</li> <li>- Typically in industries such as commodity, automotive, steel, chemical,airlines and retail companies</li> </ul>	<ul style="list-style-type: none"> <li>- The timing is everything in cyclicals.</li> <li>- Buy when there is early signs that busieness is picking up</li> <li>- Sell when there is early signs that business is falling off</li> <li>- Anticipate the shrinking PER over time as business recovers and investor look ahead to the end of cycle which is when peak earning are achieved</li> <li>- Keep a close watch on inventories and the supply-demand relationship</li> </ul>	High Risk	High Reward
5	Turnarounds	<ul style="list-style-type: none"> <li>- Companies that try to turn its business around and improve their performance</li> </ul>	<ul style="list-style-type: none"> <li>- Find the companies that can survive a raid by creditors</li> <li>- Find the companies that have good debt structure and have much cash compare to its debt</li> <li>- Find the companies that has a strategy to be turning around</li> </ul>	High Risk	High Reward
6	The Asset Plays	<ul style="list-style-type: none"> <li>- Companies which have hidden valuable asset that market doesn't know</li> </ul>	<ul style="list-style-type: none"> <li>- Find the companies that have hidden asset compare to their market price</li> <li>- Find the companies that have high asset after detracted by their debt</li> </ul>	High Risk	High Reward

Based on Warren Buffett’s investment strategies, achieving high stock investment return requires investors to select company with strong performance, shown by its strong growth performance and strong financial ratio performance, and buy it at or below its intrinsic value (Hagstrom, 2005). From the description of theoretical concepts, the researcher proposed conceptual framework, as follow:

**Figure II. 1 Conceptual Framework**

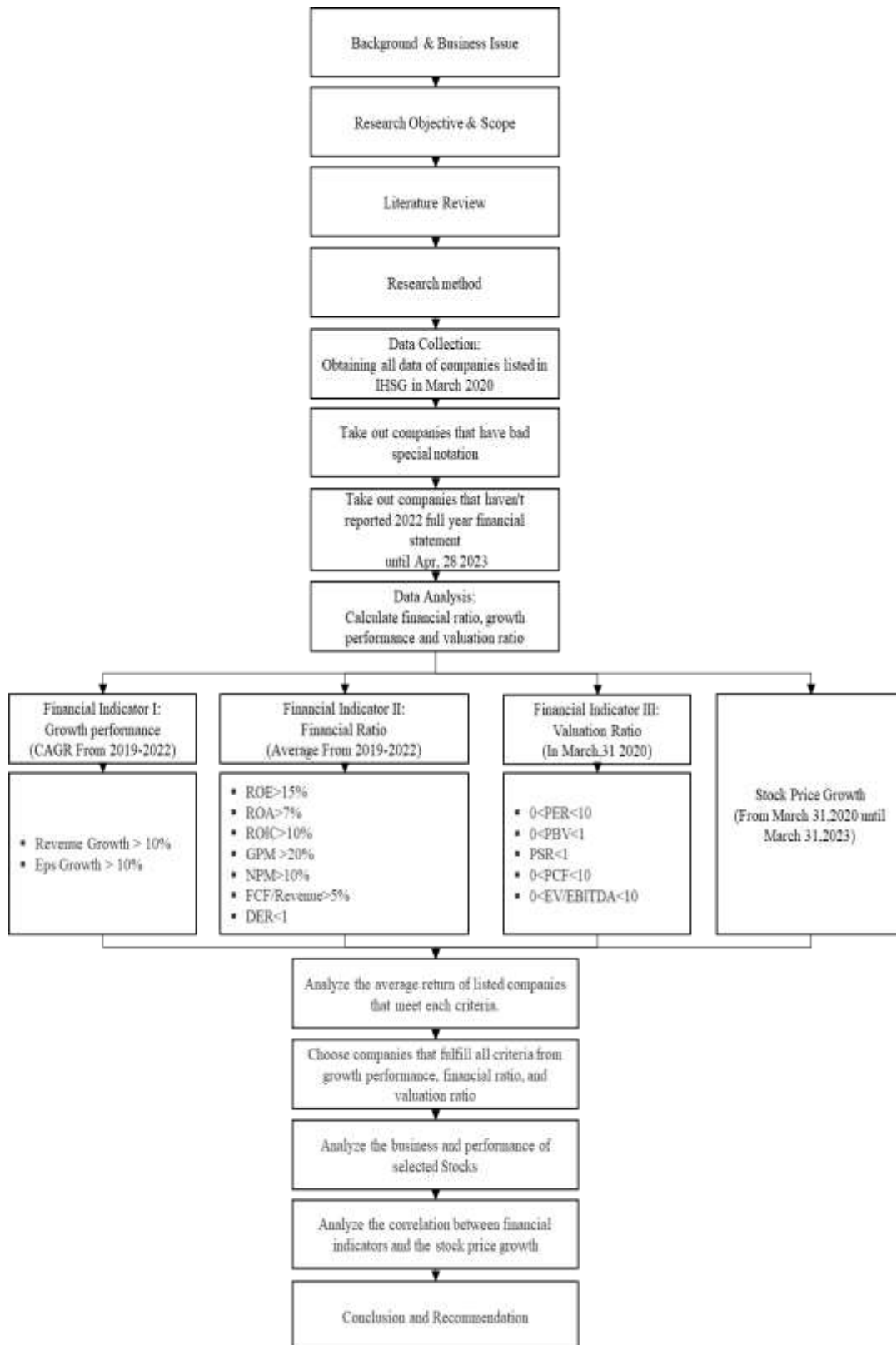


### III. RESEARCH METHODOLOGY

#### 3.1 Research Design

This research is conducted using quantitative data, obtained from the secondary data from Indonesia stock exchange and companies listed in IDX. The quantitative research is carried out by collecting financial statements data from IDX official website and companies’ official website, followed by an analysis of the results to draw meaningful conclusions. Figure III.1 shows the research design used in this study.

Figure III. 1 Research Design



The research period is between March 31, 2020 and March 31, 2023. The author utilizes the financial indicator data of companies from 2019 to 2022. For measuring stock price growth, the author compares the stock price at the beginning of COVID-19 pandemic (March 31, 2020) with the stock price on March 31, 2023, which mark the deadline time for reporting the 2022 full-year financial statements in Indonesia stock exchange.

After obtaining all the financial data of the companies, researcher calculates all various financial indicators including financial ratio, growth performance, valuation ratios, and stock price growth, as mentioned in the conceptual framework. The researcher analyzes the companies with the strong performances at undervalued prices, specifically those that meet the requirements of growth performance, financial ratio performance and valuation ratio. The researcher also calculates the average stock price growth of companies with strong growth performance, companies with strong financial ratio performance and companies with undervalued ratio.

### **3.2 Data Collection Methods**

The data used in the quantitative analysis is derived from secondary data references. This following are the data sources used in this research:

1. Financial statements and annual reports of companies listed on IDX that have been audited from 2019 to 2022 period. These financial statements and annual reports were obtained from IDX official website and companies' official website.
2. List of special notations of companies listed on IDX, obtained from IDX official website
3. Historical price of companies listed on IDX, obtained from IDX official website.
4. Previous research that supported this research

### **3.3 Data Analysis Method**

In this research, two data analysis methods are used, which are financial analysis and partial least square statistical method. The researcher conducts financial analysis to calculate growth performance of revenue and earnings per share, financial ratio including ROE, ROA, ROIC, GPM, NPM, FCF/Revenue, and DER, and valuation ratio including PER, PBV, PSR, PCF, and EV/EBITDA. Growth performance is measured by calculating the compound annual growth rate (CAGR) and percentage growth of revenue and earnings per share from 2019 to 2022. Financial ratio performance is measured by calculating the average values for each ratio from 2019 to 2022. Valuation Ratios are measured by calculating the values of valuation ratios in March 31, 2020.

The correlation between growth performance, financial ratio performance and valuation ratio towards the stock price growth is analyzed using the partial least squares (PLS) method. Partial least squares (PLS) is multivariate statistical method commonly used for modelling relationship between a set of independent variables and dependent variables. This method combines features of principal component analysis and multiple linear regression (Wold,1975). When employing partial least square analysis, several model validity tests are conducted including convergent test, discriminant validity, collinearity statistics of principal component analysis and construct reliability and validity test.

## **IV. RESULT & DISCUSSION**

### **4.1 Analysis of Strong Performance Listed Companies at Undervalued Prices**

As of March 31,2020, there were 688 listed companies in Indonesia stock exchange. Nevertheless, as of Apr 28,2022, there are 117 companies that have negative special notation. These 117 companies are excluded from further analysis to avoid unreliable analysis due to good corporate governance concerns. After, removing the 117 companies that have negative special notations, there are 571 remaining companies. The Average stock price growth from these 571 stocks is 157% with the highest stock price growth of 23,828% and the lowest stock price growth of -98.5%.

There are 71 companies that fulfil the financial indicator requirements as strong growth performance companies. The Average stock price growth from these 71 companies reaches 521% with the highest stock price growth of 23,828% and the lowest stock price growth of -96.6%.

There are 37 companies that fulfil the financial indicator requirements as companies that have strong financial ratio performance. The average stock price growth from these 37 companies reaches 271% with the highest stock price growth of 3,591.4% and the lowest stock price growth of -63.2%.

There are 73 companies that fulfil the financial indicator requirements as undervalued companies. Average stock price growth from these 73 companies reaches 206.4% with the highest stock price growth of 3,591.4% and the lowest stock growth of -25.7%.

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Strong performance listed companies define as companies that have strong growth performance and strong financial performance. From the analysis, there are 14 companies that meets these financial indicators requirements. The average stock price growth from all 14 companies reached 634.8% with the highest stock price growth of 3,591.4% and the lowest stock price growth of 72.2%.

To get high return in stock investment, investors have to buy companies with strong performance and at undervalued prices. From the analysis, there are 6 companies that have strong performance growth, strong financial ratio performance and undervalued prices as of March, 31 2020, shown in Table IV.1. The average stock price growth from all 6 companies reached 956.6%, with the highest stock price growth by 3,591.4% and the lowest stock price growth of 192.9%.

**Table IV. 1 Listed companies with strong growth performance and strong financial ratio performance at undervalued price**

No	Ticker	Company	Sector	Price as of 31 Mar 2020	Price as of 31 Mar 2023	Price Growth	Growth Performance (CAGR From 2019-2022)		Financial Ratio Performance (Average from 2019 to 2022)							Valuation Ratio (as of 31 March 2020)				
							Revenue Growth	EPS Growth	ROE	ROA	ROIC	GPM	NPM	FCF/Revenue	DER	PER	PBV	PSR	PCF	EV/EBI TDA
1	ADES	Akasha Wira International Tbk.	Consumer Non-Cyclicals	700	7.375	953,6%	15,7%	63,4%	22,2%	16,7%	22,0%	51,6%	21,7%	17,0%	1,6%	4,92	0,73	0,49	2,24	1,88
2	ADRO	Adaro Energy Indonesia Tbk.	Energy	990	2.900	192,9%	32,8%	85,2%	19,7%	10,8%	14,7%	38,1%	17,9%	27,4%	39,5%	5,54	0,61	0,65	2,48	2,62
3	ITMG	Indo Tambangraya Megah Tbk.	Energy	8.100	39.400	386,4%	28,5%	107,4%	30,0%	22,0%	29,1%	32,3%	16,7%	19,2%	3,9%	5,00	0,74	0,38	7,36	2,16
4	MBAP	Mitrabara Adiperdana Tbk.	Energy	1.550	6.325	308,1%	19,9%	71,4%	41,6%	32,7%	40,5%	45,4%	24,9%	29,5%	4,3%	3,81	0,94	0,52	2,64	2,06
5	PSSI	IMC Pelita Logistic Tbk.	Energy	156	635	307,1%	16,6%	47,1%	18,8%	13,5%	15,4%	28,0%	22,1%	5,9%	28,6%	4,50	0,69	0,79	2,44	3,46
6	TMAS	Temas Tbk.	Transportation & Logistic	81	2.990	3591,4%	24,8%	146,3%	30,2%	13,2%	16,6%	22,0%	13,7%	10,4%	89,0%	4,97	0,40	0,18	1,62	3,09
Average						956,6%	23,0%	86,8%	27,1%	18,2%	23,1%	36,2%	19,5%	18,2%	27,8%	4,79	0,69	0,50	3,13	2,55
Maximum						3591,4%	32,8%	146,3%	41,6%	32,7%	40,5%	51,6%	24,9%	29,5%	89,0%	5,54	0,94	0,79	7,36	3,46
Minimum						192,9%	15,7%	47,1%	18,8%	10,8%	14,7%	22,0%	13,7%	5,9%	1,6%	3,81	0,40	0,18	1,62	1,88

Based on this analysis, summarized in Table IV.2, companies with strong growth performance had a higher average return (521%) compared to companies with strong financial performance or with undervalued conditions. The undervalued companies had the average lowest return among them by 206.4%. Nevertheless, buying the undervalued stock could minimize the risk of investment, as the lowest return/loss from undervalued stock was -25.7%. It was lower compared to the lowest return/loss of strong growth performance companies and strong financial ratio companies by -96.6% and -63.2%, respectively.

**Table IV. 2 Average return analysis**

	Number of Stocks	Average Return	Highest Return	Lowest Return/Loss
All Listed Stocks with no negative special notation (as of March, 31 2020)	571 Stocks	157.0%	23828.0%	-98.5%
Strong Growth Performance	122 Stocks	521.0%	23828.0%	-96.6%
Strong Financial Performance Ratio	37 Stocks	271.0%	3591.4%	-63.2%
Undervalued Stock	73 Stocks	206.4%	3591.4%	-25.7%
Strong Growth Performance and Financial Ratio	13 Stocks	634.8%	3591.4%	72.2%
Strong Growth Performance and Financial Ratio at Undervalue Price	6 Stocks	956.6%	3591.4%	192.9%

Companies that demonstrate both strong growth performance and also strong financial ratio performance have shown an average return of 634.8%. Nevertheless, companies with strong growth performance and strong financial ratio performance and undervalued prices have yielded even higher average returns, reaching by 956.6% compared to the companies with both strong growth performance and strong

financial ratio performance. Even the lowest stock price growth of companies which have strong growth performance and strong financial ratio performance, at undervalued price still offered a substantial high return of 192.9%. Therefore, individual or institutional investors have to buy stocks of the companies that have prospective growth performance and strong financial ratio in the near future at undervalued price, in order to maximize its stock portfolio performance while minimize the risk.

Five out of six companies, which were classified as companies with strong growth performance and strong financial ratio performance and at undervalued price, were cyclicals companies based on Peter Lynch's stock classification. These five companies (ADRO, ITMG, MBAP, PSSI and TMAS) have shown strong performance because of the increase of average selling price of the product or service, affected by increasing in its commodity prices. ADRO, ITMG and MBAP, as coal mining and trading companies, experienced strong performance due to the increase of the coal commodity price that led to higher average selling price for these companies. Meanwhile, PSSI's growth was supported by an increase of freight rates while TMAS's growth was supported by the increase of cargo shipping rates.

ADES was classified as the fast grower company due to its strong performance growth of over 20% annually. The growth factor of ADES's performance was company's strategy that offered new products and expanded distribution expansion. Therefore, in order to achieve high return, both individual and institutional investors can consider investing in cyclicals companies, especially when there is driving factor of average selling price increases. Additionally, investing in fast grower companies can be beneficial when there is a new strategy initiative from company that can boost its revenue growth. The summary is shown in Table IV.3.

**Table IV. 3 Stock classification of selected companies**

Ticker	Company's Name	Market Capitalization (as of March, 31 2023)	Stock Price Growth	Peter Lynch's Stock Classification	Growth Factor
ADES	Akasha Wira International Tbk.	4,350,488,900,000	954%	Fast Growers	New Product and distribution expansion
ADRO	Adaro Energy Indonesia Tbk.	92,759,289,800,000	193%	Cyclicals	Increase of coal price
ITMG	Indo Tambangraya Megah Tbk.	44,519,045,000,000	386%	Cyclicals	Increase of coal price
MBAP	Mitrabara Adiperdana Tbk.	7,762,495,096,400	308%	Cyclicals	Increase of coal price
PSSI	Mitrabara Adiperdana Tbk.	3,439,835,102,155	307%	Cyclicals	Increase of freight rate
TMAS	Temas Tbk.	17,058,398,500,000	3591%	Cyclicals	Increase of cargo shipping rate

**4.2 Analysis of Correlation of Financial Indicators with Stock Price Growth**

In this research, the correlation between financial indicator and stock price growth is investigated using partial least squares (PLS) analysis method with the assistance of SmartPLS 3.0 software. The initial path model is shown in Figure IV.1. After doing the iteration, to fulfil the all-validity test, the path model is changed as shown in Figure IV.2.

Figure IV. 1 Initial Path Model

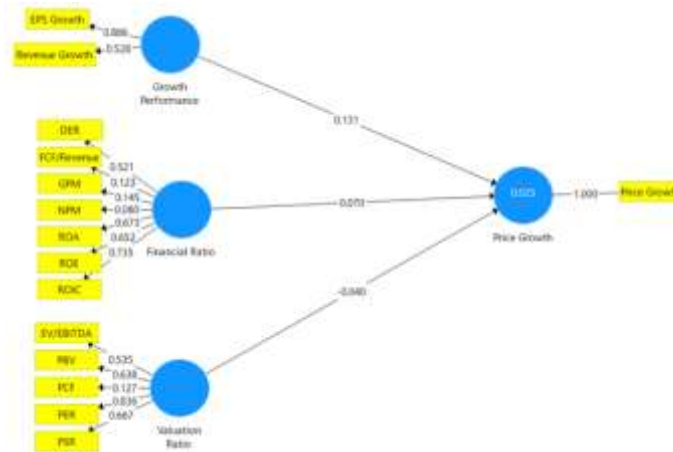
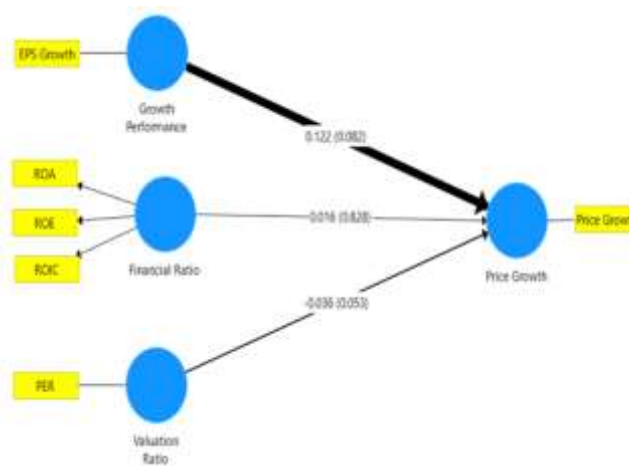


Figure IV. 2 Final path model



The bootstrapping analysis is conducted in SmartPLS 3.0 to show the correlation significance among the financial indicators. The result of bootstrapping analysis is shown in Table IV.4. The coefficient of growth performances towards price growth is 0.122, indicating the positive correlation. The coefficient of financial ratio performance towards price growth is 0.016, indicating the positive correlation. The coefficient of valuation ratio towards price growth is -0.036, indicating the negative correlation. Among these financial indicators, growth performance towards stock price growth has the lowest P-Values of 0.082, indicating the growth performance has the most significant correlation with stock price growth.

Table IV. 4 Bootstrapping results

Bootstrapping Analysis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T- Statistics	P-Values
Growth Performance -> Price Growth	0.122	0.128	0.070	1.742	0.082
Financial Ratio -> Price Growth	0.016	0.047	0.075	0.218	0.828
Valuation Ratio -> Price Growth	-0.036	-0.046	0.019	1.936	0.053

Based on correlation analysis, growth performance has the strongest correlation towards stock price growth. This aligns with the previous analysis, which conclude companies with strong growth performance provided higher average returns compared to companies with strong financial performance and undervalued



companies. In order to get high return, individual and institutional investors should primarily focus on finding companies with strong growth performance in the future rather than companies with strong financial performance or undervalued prices. However, in order to optimize the potential return, it would be more advantageous if investors could find the companies that meet all three financial indicators including strong growth performance, strong financial ratio performance and undervaluation.

## V. CONCLUSION

### 5.1 Conclusion

1. Companies with strong growth performance gave the higher average stock price growth of 521% compared to companies with strong financial ratio performance (average stock price growth of 271%) and undervalued companies (average stock price growth of 206%) during covid-19 pandemic.
2. There were six companies that met financial indicator requirements to be classified as listed companies having strong growth performance, strong financial ratio performance and an undervalued price from the beginning of COVID-19 pandemic until the end of 2022, which are ADES, ADRO, ITMG, MBAP, PSSI and TMAS.
3. The average stock price growth of the listed companies with strong performance and undervalued price is 956.6%. This average stock price growth is higher than the average stock price growth of listed companies with both strong growth performance and strong financial ratio performance
4. The drivers behind ADES's strong performance were company's strategy that offering new products and initiating distribution expansion. ADRO, ITMG and MBAP, as coal mining and trading companies, experienced strong performance due to the increase of the coal commodity price that led to higher average selling price for these companies. Meanwhile, PSSI's growth was supported by an increase of freight rates while TMAS's growth was supported by the increase of cargo shipping rates.
5. Based on correlation analysis, growth performance has the positive correlation with stock price growth with coefficient of 0.122. It also exhibited the strongest correlation with stock price growth with the P-Values of 0.082.
6. Related to this research analysis, the best strategy for investing in Indonesia stock exchange, especially during crisis, is by purchasing stocks with prospective strong growth performance and strong financial ratio performance in the future at undervalued price. Additionally, investors have to give more focus to growth performance indicators as it has the strongest correlation with stock price growth.

### 5.2 Recommendation

In stock investment, both individual and institutional investors should focus more on stock that have prospective growth performance in the future. This is because growth performance indicator has stronger correlation with the stock price growth rather than financial ratio performance and valuation ratio, especially during times of crisis. However, in order to maximize its stock portfolio performance and minimize risk, investors must seek companies that have prospective growth performance and strong financial ratios in the near future and buy it at undervalued price.

To find stocks that meets all three financial indicators in the future, investors have to understand the business landscape and the growth driver of the company. The growth driver for each company will be different depend on the industry. Therefore, investors also have to understand the opportunity and challenge in the industry.

As of April 28, 2023 IDX composite index is valued at 6.915,76, fell by 4.33% year-on-year. This value is also lower by 5.5% compared to the highest value IDX Composite index of all time which is 7.318,02. Therefore, from now (April 28, 2023), both individual and institutional investors should start to find the companies that meet three financial indicators in the future.

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