# THE IMPACT OF MACROECONOMICS, MARKET RETURN, FINANCIAL PERFORMANCE, MARKET PERCEPTION, AND COVID-19 ON STOCK RETURNS ON TELECOMMUNICATION TOWER COMPANIES IN INDONESIA

Teguh Fredyansyah Roy Sembel Melinda Malau

#### **ABSTRACT**

Along with the rise in internet users, digital penetration is getting stronger in Indonesia. Even though the COVID-19 pandemic is more manageable, connecting to the internet is still necessary. This heightens the appeal of the telecommunications infrastructure industry, including tower ownership and operation. Previous research on fundamental factors and stock returns in the tower telecommunication sector has shown limited exploration. The COVID-19 pandemic may impact market reactions, with overreaction causing perceived risk and optimistic investors valuing tower telecommunication companies' prospects. This study aimed to analyze and evaluate whether there was a difference in stock performance and the effect of fundamental factors on stock returns in the telecommunications tower companies listed on the Indonesia Stock Exchange from the third quarterly 2017 to the fourth quarterly 2020. This study used Industrial Production Index (IPI), Inflation rates, Exchange Rate, Market Returns, Return on Equity (ROE), Current Ratio (CR), Total Asset Turnover (TATO), Debt-to-Equity Ratio (DER), Price-to-Earnings Ratio (PER), COVID-19. This study used stock returns and stock risks as the dependent variable. This study used the Wilcoxon test, F-test, and panel data regression to test all the hypotheses. This study found that the inflation and PER is proven to influence stock returns highly significant. In contrast, other independent variables IPI, Exchange Rate, Market Return, ROE, CR, TATO, DER, and COVID-19, have no significant effect on stock returns of telecommunication tower companies. The result of this study supports the efficient market hypothesis, which states that stock prices reflect all available information, including fundamental information. Telecommunication tower companies should be able to deliver information regarding company performance to investors so that they are well informed, get comprehensive input, and be confident about their investment. Management who run the telecommunication tower companies are encouraged to analyze, maintain, and improve the company's financial performance that affect to company's stocks returns Based on this research, the inflation and PER is very important to observe because they have a significant effect to stock return on the telecommunication tower in Indonesia.

Keywords: Macroeconomics, Market Return, Financial Ratios, Stock Returns, COVID-19.

# INTRODUCTION

Along with the rise in internet users, digital penetration is getting stronger in Indonesia. Even though the COVID-19 pandemic is more manageable, connecting to the internet is still necessary. This heightens the appeal of the telecommunications infrastructure industry, including tower ownership and operation. A robust and extensive telecommunications infrastructure is undoubtedly needed to sustain the trend of increasing internet usage. Even more significant is the telecommunication tower industry. The telecom tower businesses provide infrastructure suppliers for mobile network carriers (MNO) such as Telkomsel, Indosat Ooredoo Hutchison, XL Axiata, Fren, and others.

Indonesia's 5G signal is still not evenly distributed throughout the country, the requirement for tower communication is solid, according to the phenomenon above. The businesses want additional funding to construct the infrastructure, and for the investor, it will be an opportunity to ensure that their investment is appropriate and has promising prospects. Previous research conducted by other researchers showed different results in the research gap regarding the effect of fundamental factors on the stock returns of companies under another industry sector that has not been profoundly explored, the tower telecommunication sector in Indonesia.

However, there is still limited study exploring fundamental factors and stock returns in the tower telecommunication sector in Indonesia. The type of reaction will convey how the market sees after the COVID-19 pandemic, if there is any overreaction that results in stock performance going up, there is a perceived risk, and investors will behave more optimistically regarding prospects of the tower telecommunication companies in Indonesia and vice versa.

# RESEARCH OBJECTIVES

- 1. To analyze and evaluate the effect of industrial production index on stock returns.
- 2. To analyze and evaluate the effect of the exchange rate on stock returns.
- 3. To analyze and evaluate the effect of the inflation rate on stock returns.
- 4. To analyze and evaluate the effect of market return on stock returns.
- 5. To analyze and evaluate the effect of return on equity (ROE) on stock returns.
- 6. To analyze and evaluate the effect of the current ratio (CR.) on stock returns.
- 7. To analyze and evaluate the effect of total asset turnover (TATO) on stock returns.
- 8. To analyze and evaluate the effect of debt-to-equity ratio (DER) on stock returns.
- 9. To analyze and evaluate the effect of the price-to-earnings ratio (PER) on stock returns.

10. To analyze and evaluate the effect of COVID-19 on stock returns.

#### RESEARCH METHOD

This study only focused on the telecommunication tower companies listed on the Indonesia Stock Exchange, using secondary report data from the third quarterly 2017 to the fourth quarterly 2020. This research focuses on the impact of fundamental factors with moderating variable sustainability reporting on stock returns.

The scope and limitations of the study are as follows:

- This study only covers the Industrial Production Index (IPI), Inflation rates and percentage change in the currency exchange
  rate of Indonesian Rupiah (IDR) versus United States Dollar (USD) starting from the third quarterly 2017 to the second
  quarterly 2022, as representatives of macroeconomics variables.
- 2. This study uses IDX Composite Index (JKSE) or Indeks Harga Saham Gabungan (IHSG) as the variable for market return. The analysis of changes in market return starts from the third quarterly 2017 to the second quarterly 2022.
- 3. This study only covers telecommunication tower companies listed on Indonesia Stock Exchange; they are PT Solusi Tunas Pratama Tbk (SUPR), PT Centratama Telekomunikasi Indonesia Tbk (CENT), PT Tower Bersama Infrastructure Tbk (TBIG), PT Sarana Menara Nusantara Tbk (TOWR), and PT Bali Towerindo Sentra Tbk (BALI) from the third quarterly 2017 to the second quarterly 2022.
- 4. This study used COVID-19, the macroeconomics variables, market return, industry subsectors, and financial ratios as the independent. For the dependent variable, this study used the stock returns.
- 5. The financial ratios used to measure the profitability, liquidity, efficiency or activity, leverage, and market perception of value are: Return on equity to measure profitability; Current ratio to measure liquidity; Total Asset Turnover Ratio to measure efficiency or activity; Debt-to-Equity ratio to measure leverage; Price-to-Earnings ratio to measure market perception of value.

#### LITERATURE REVIEW

#### **Markowitz Portfolio Theory**

The process of choosing a portfolio can be separated into two stages, according to Markowitz (1952). The first stage begins with observation and experience and finishes with beliefs about the potential future performance of the securities now being offered. A portfolio selection concludes the second stage, which begins with pertinent thoughts about likely performances. The second step is the focus of this research.

# **Capital Asset Pricing Model (CAPM)**

Theoretical Aspects of Capital Markets (CAPM) in 1970 calculates systematic risk. Systematic risk is one of the two types of hazards that come with an individual investment. Systematic risk is a type of risk that is influenced by market factors linked to economic developments, particularly macroeconomic data, and natural disasters. Systemic risk affects both the market as a whole and businesses or organizations. Diversification is unable to reduce systemic risk. But the systemic danger may be anticipated and controlled. Aside from systematic risk, an individual investment also entails un-systematic risk.

# **Arbitrage Pricing Theory (APT)**

According to the research by Roll and Ross (1980), a variety of factors affect return rates, such as inflation, risk premiums (the difference between high- and low-rated bonds), and changes in yield curve slope. Unexpected changes in industrial production are another factor. According to these conclusions, the APT model can be described as a balance model for calculating predicted returns affected by macroeconomic conditions.

#### Macroeconomics

Macroeconomics is the branch of economics that focuses on the broader alterations in the economy, according to dKrugman a Wells, (2017). According to Davis et al., (2012), macroeconomics can be viewed as situations or forces outside a corporation that affect daily business operations. According to a study by Bodie et al. (2014), the Gross Domestic Product (GDP), employment rate, inflation rate, interest rate, budget deficit, and sentiment are significant factors that affect investment in a country.

# **Industrial Production Index (IPI)**

As defined by the OECD, industrial production is the output of industrial establishments and includes industries like mining, manufacturing, electricity, gas, and steam, as well as air conditioning. This indicator expresses the change in the production output volume in an index based on a reference period. According to Jareño and Negrut, (2016) analysis, The Industrial Production Index (IPI), which measures the industrial sector's productive activity (apart from construction), is a cyclical indicator, according to the National Statistics Institute.

## **Exchange Rate**

According to Krugman and Wells, (2017) analysis, the exchange rate is the price at which currencies are traded. Furthermore, the worth of one country's currency compared to another is what Thobarry (2009) defines as the exchange rate. According to Gunarto and Sembel (2019), a strong exchange rate may be a sign of stability and viability, while a weak exchange rate may be a symptom of a fragile and shaky economy.

#### **Inflation Rates**

Another method to describe inflation, according to Singh T. et al., (2011), is the decline in purchasing power of the monetary unit of account, which acts as the medium of exchange. When the general price level rises, a given currency unit may be used to purchase fewer goods and services. One of the most significant indicators of price inflation is the inflation rate, which is the percentage change in a price index over time.

#### **Market Return**

When a company's stock offers a higher return, more investors will be interested in buying it. Instead, when a stock market offers a lower return, investors lose interest in buying shares of the companies listed there and resort to alternative investment options, including commodities, fine art and antiques, real estate, and life insurance. According to Thamrin, (2019), the return on investments made in the capital market is known as the market return.

# **Financial Performance**

According to Endria et al., (2019), the financial ratio compares two elements in the accounting records of a company's financial statements. Financial ratios are employed to evaluate the company's financial position after the completion of the financial statements. The findings of a financial ratio analysis can determine a company's financial health. Some of the financial ratios utilized in this analysis include the ones listed below:

#### **Profitability**

The goal of fundamental analysis is to determine or analyze the value of a stock by looking at a company's financial situation. The business's performance and growth potential are then assessed using the analysis findings. A company's performance or economic status can be examined using a variety of financial ratios in fundamental analysis Kurniawan, (2021). Another measure that was used in the study was return on equity.

#### Liquidity

According to Gitman and Zutter (2012), the liquidity ratios emphasize a company's ability to fulfill its short-term financial commitments as they become due. The liquidity ratios (CR) can be computed using the current ratio. The current ratio (CR), according to Endria et al., (2019), is a measure of financial performance that can show how much in current assets a business has available to pay off short-term loans that must be repaid immediately.

## Activity

The activity ratios are measures that gauge the capacity of a company's management to use its resources or assets inefficiently to produce sales and profits Arkan (2016). The activity ratios (TATO) can be measured using total asset turnover. Total Asset Turnover (TATO) measures how well Asmirantho and Somantri (2017) use all their assets to produce sales.

## Leverage

The debt or leverage ratios assist in assessing a company's ability to repay its long-term debt obligations and the proportion of burden to third parties that make up its capital structure. Arkan (2016). The debt or leverage ratios (DER) can be calculated using the debt-to-equity ratio.

## **Market Perception of Value**

The ratios from the research by Carlson, (2019) are used to determine whether equities of publicly traded companies are fairly valued, undervalued, or overvalued in the market. Based on the research of Gitman and Zutter (2012), the market ratios can be used to compare the market perception of a company's worth to its accounting values and demonstrate how investors assess a company's performance in terms of risk and returns.

#### COVID-19

According to Ashraf, (2021), the COVID-19 pandemic has raised previously unheard-of levels of uncertainty about the scope of the illness, the accessibility of the vaccine, the duration of the required economic shutdown, how governments will respond, the impact of government policies, and how people will behave.

#### Stock Returns

The stock returns can be calculated using the actual profit or loss investors would experience on a particular investment or portfolio. According to research, absolute return is essential when assessing an investment's success Kenton (2020).

# **Hypothesis Development**

Based on the literature review described above, the following hypotheses were proposed for this research:

#### H1: Industrial production index Positively Affects Stock Returns

Indicators of economic growth include an increase in industrial production (Maysami et al., 2004). In earlier research, IIP and stock prices were found to be positively correlated by Chen et al., (1986), Maysami et al., (2004), Rahman et al., (2009), and Ratanapakorn and Sharma, (2007).

#### **H2:** Exchange Rate Negatively Affects Stock Returns

Saputra and Dharmadiaksa (2016) demonstrate, based on the findings of Amrillah (2016), that the rupiah exchange rate (exchange rate) significantly adversely affects the return of shares in the firm. This statement shows that if the rupiah weakens, it will reduce

the stock's return rate since the company's costs as a corporate debtor would rise as a result.

#### **H3: Inflation Negatively Affects Stock Returns**

In research from Tripathi and Kumar (2014), there is a large positive link between inflation and stock returns in India and China, there is a significant negative relationship in Russia and Brazil, according to their research.

# **H4:** Market Return Positively Effects on Stock Returns

Theoretically, a strong market return will have an impact on strong stock returns since it will spur investor interest in purchasing a company's stock on the stock market. According to studies by Daniswara et al., (2019), Yuswandy (2012), Kasman et al., (2011), and Defrizal et al., (2015), market returns have a beneficial impact on stock returns.

#### **H5:** Return on Equity (ROE) Positively Affects Stock Returns

Karlina and Widanaputra (2016) shown how ROE positively impacts stock returns. Bertuah and Sakti, (2019) demonstrate that ROE has no impact on stock returns, in contrary to the findings of Chritianto and Firnanti, (2019).

#### H6: Current Ratio (CR) Positively Affects Stock Returns

The findings of this study are consistent with earlier research by Srbinoska, (2018), which shown that CR significantly influences stock returns. It contradicts research by Tarau et al., (2020), Razak et al., (2020), and Chritianto and Firnanti, (2019) that demonstrated the current ratio (CR) had no bearing on stock returns.

#### H7: Total Asset Turnover (TATO) Positively Affects Stock Returns

The increasing TATO results in higher firm revenue and efficiency, which increases interest in the stock among investors Salim & Simatupang, (2016), Laksono, (2017), and Zulkarnaen et al., (2016) found that TATO proxies had a favorable impact on stock returns.

#### H8: Debt-to-Equity Ratio (DER) Negatively Affects Stock Returns

The higher the TATO leads to higher the company's revenue and efficiency, which makes investors more interested in the stock. At the other researchers, Zulkarnaen et al., (2016), Laksono, (2017), and Salim and Simatupang (2016) found that TATO proxies had a positive effect on stock returns.

# H9: Price-to-Earnings Ratio positively affects the Stock Returns

Signaling Theory is also the foundation for the market value impact on stock returns. Previous studies on the impact of market value on stock prices, including those by Menike and Prabath (2014) in Sri Lanka, Mgbame and Ikhatua (2013) in Nigeria, and Menaje (2012) in the Philippines, indicated a positive relationship between market value and stock prices and returns.

# H10: COVID-19 Negatively Affects the Stock Returns

Pandemic COVID-19 has had a negative impact on the company's performance and stock returns, according to Fu and Shen (2020). Investor interest in purchasing the company's shares will be low if the company's performance declines. As a result, both the stock price and the rate of return on the stock decline.

## METHODOLOGY

# Population and Sample

Population could be interpreted as the complete collection of individuals, occasions, or interesting objects. All the companies with telecommunication tower activities that are listed on the Indonesia Stock Exchange make up the study's population. The following 5 (five) organizations having Tower Telecommunication as their primary business were chosen by the author as examples: 1) PT Solusi Tunas Pratama Tbk (SUPR), 2) PT Centratama Telekomunikasi Indonesia Tbk (CENT), 3) PT Tower Bersama Infrastructure Tbk (TBIG), 4) PT Sarana Menara Nusantara Tbk (TOWR), 5) and, PT. Bali Towerindo Sentra, Tbk (BALI). Some of the criteria set as the basis for sample selection are:

# Research Framework

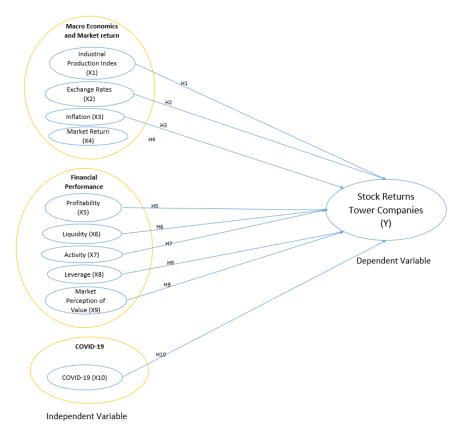


Figure 3. Research Hypotheses Framework

# **Data Analysis**

The data analysis approach is a method for transforming acquired data into information that can solve problems. Data analysis can be broken down into four steps: (1) preparing the data for analysis, (2) making sense of the data, (3) determining the data's accuracy, and (4) testing the created hypotheses (Sekaran and Bougie, 2013). The data in this study were analyzed using Microsoft Excel, EViews, and SPSS Statistics. Cross-sectional, time series and panel data can all be examined using the tools offered by EViews, including statistical and econometric ones.

# Research Process

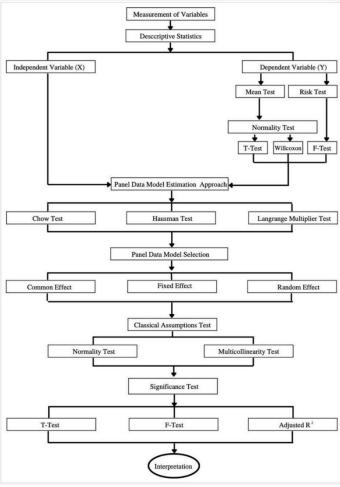


Figure 4. Research Process

# RESULT AND DISCUSSION

# **Descriptive Statistical Analysis**

COVID

The number of observations in this study is obtained from 5 (five) companies observed from 3rd Quarter of 2017 till 2nd Quarter of 2022. Furthermore, the processing of this research data uses panel regression data. Table 2 above also shows that the study used one dependent variable, ten independent variables.

	Table 2. Descriptive Statistical Analysis Result										
	SR	IP	ER	IF	MR	ROE	CR	TATO	DER	PER	COVID
Mean	0.0344	2.1498	0.0045	0.0265	-0.0085	0.0163	1.0368	0.0433	2.9505	37.2423	0.4948
Maximum	0.56	2.18	0.05	0.04	0.06	0.47	11.88	0.11	17.50	457.60	1.00
Minimum	-0.42	2.09	-0.05	0.01	-0.20	-0.52	0.08	0.01	0.40	-255.30	0.00
Std Deviation	0.17732	0.02427	0.02231	0.00821	0.05837	0.11421	1.53163	0.01166	2.89868	77.65151	0.50257
Observation	97	97	97	97	97	97	97	97	97	97	97
Dependet Variable											
SR (Y)	Stock Return										
Independent Variable											
IP		Industrial Production Index									
ER		Exchange Rate									
IF		Inflation									
MR					M	arket Retur	n				
ROE					Ref	turn on Equi	ity				
CR		Current Ratio									
TATO					Total	Assets Turr	nover				
DER		Debt to Equity Ratio									
PER		Price Earning Ratio									

Covid 19

# **Normality Test**

Figure 5 shows the results of the panel data normality test in this study. The probability value obtained is 0.0253, greater than the significance threshold of 0.05 so it can be concluded that the panel data is normally distributed.

# NORMALITY

One-Sample Kolmogorov-Smirnov Test

			Unstandardiz ed Residual
П	N		97
- 11	Normal Parameters a,b	Mean	.0000000
- 1		Std. Deviation	.16066193
- 11	Most Extreme	Absolute	.103
-   1	Differences	Positive	.103
- 1		Negative	047
-   1	Kolmogorov-Smirnov Z		1.016
$\triangleleft$	Asymp. Sig. (2-tailed)		.253

a. Test distribution is Normal.

Figure 5. Normality Test

# **Multicollinearity Test**

The multicollinearity test is used to determine if regression models identify correlations between different independent variables. There shouldn't be any correlations between the independent variables in a suitable regression model. (2013) Ghozali. To get the values of the variance inflation factor (VIF) values, a multicollinearity test was performed on a correlation study between independent variables. If the VIF value is more significant than 10, multicollinearity will arise, in this case, the independent variable included in the model will not be multicollinear.

**Table 4. Multicollinearity Test Result** 

		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity Statistics	
Model		В	Std. Error				Tolerance	VIF
1	(Constant)	.265	1.839		.144	.886		
	X1	.029	.832	.004	.034	.973	.736	1.358
	X2	.233	.858	.029	.271	.787	.820	1.219
	Х3	-8.349	3.672	386	-2.274	.025	.330	3.027
	X4	052	.329	017	159	.874	.815	1.227
	X5	.017	.182	.011	.095	.925	.697	1.434
	X6	.005	.014	.041	.339	.735	.646	1.549
	X7	758	1.734	050	437	.663	.734	1.363
	X8	003	.007	047	409	.683	.717	1.395
	X9	001	.000	235	-2.227	.029	.856	1.168
	X10	033	.059	094	562	.575	.341	2.933

b. Calculated from data.

# **Heteroskedasticity Test**

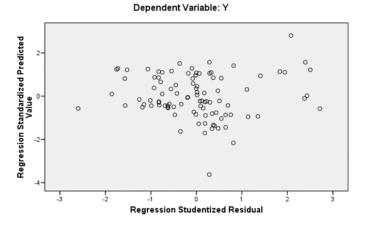


Figure 6. Heteroskedasticity Test

The result above showed that plots are spread out in all areas. according to Ghozali, (2013) the data has no heteroskedasticity problem.

# **Autocorrelation Test**

#### Model Summaryb

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin- Watson
1	.423ª	.179	.084	.16975	.179	1.876	10	86	.060	1.516

a. Predictors: (Constant), X10, X2, X8, X4, X7, X5, X9, X1, X6, X3

b. Dependent Variable: Y

CRITERIA	DL	DW	Du	RESULT
CRITERIA	1.449	1.516	1.901	Non Autokorelation

Based on the table above, we knew that the DW score is 1.516, and Du is 1.901, then DL is 1.449. According to Ghozali, (2013) those score (DU, DW, and DL) is match with the criteria. Then we can conclude that data in this research is not infected by autocorrelation problems.

# Significance Test

Var	Name	Coefficient	t-statistic	Prob.			
X1	IPI	0.0290	0.0340	0.4865			
X2	Exchange Rates	0.2330	0.7870	0.3935			
Х3	Inflation	-8.3490	-2.2740	0.0125***			
X4	MR	-0.0520	-0.1590	0.4370			
X5	ROE	0.0170	-0.9500	0.4625			
Х6	CR	0.0500	0.3390	0.3675			
X7	TATO	-0.7580	-0.4370	0.3315			
X8	DER	-0.0030	-0.4090	0.3415			
Х9	PER	-0.0010	-2.2270	0.0145***			
X10	COVID 19	-0.0330	-0.5620	0.2875			
Adjusted R	-squared	0.0840	Notes:				
F-statistic		1.8760	Dependent variable: Stock return				
Prob (F-sta	tistic)	0.0600					
Highly significant: p-value < 0.01 (***)							
Significant: 0.01< p-value < 0.05 (**)							
Marginal S	Marginal Significant: <0.05 p-value < 0.1 (*)						

The results of partial hypothesis testing for the dependent variable stock return indicated that inflation and PER variables are stated to have highly significant influence on the stock return because the test results show that the probability values for those variables are lower than Alpha (0.05). The anticipated stock returns of firms listed on the IDX, such as mobile operator

companies, can therefore be determined by the market returns reflected by IDX returns. Investors will stay away from the stock market when market conditions are unfavorable since a fall in stock returns will prohibit them from getting the return they are looking for. Previous studies by, Daniswara et al., (2019) demonstrated the beneficial effects of market return.

The inflationary pressures might endanger future corporate earnings and nominal discount rates rise because of inflationary pressures, lowering the current worth of future profits and consequently having a negative impact on the stock market. China, the US, and Malaysia should all alter their monetary policies to be more in line with low inflation and low inflation expectations According to Geetha et al., (2011). Tripathi and Kumar (2014), there is a large positive link between inflation and stock returns in India and China, there is a significant negative relationship in Russia and Brazil, according to their research. The research of Arslan et al., (2014), which demonstrated that the Price-to-Earnings ratio has a favorable impact on stock returns, lends support to the notion. Signaling Theory is also the foundation for the market value impact on stock returns. Previous studies on the impact of market value on stock prices, including those by Menike and Prabath (2014) in Sri Lanka, Mgbame and Ikhatua (2013) in Nigeria, and Menaje (2012) in the Philippines, indicated a positive relationship between market value and stock prices and returns.

#### CONCLUSION AND RECOMMENDATION

#### Conclusion

Based on the description of the research results and discussion, the researcher can conclude several things. First, the inflation and PER is proven to influence stock returns highly significant. In contrast, other independent variables IPI, Exchange Rate, Market Return, ROE, CR, TATO, DER and COVID-19, have no significant effect on stock returns of telecommunication tower companies.

#### Recommendation

This research has several limitations so that it can be used as a consideration for future research to obtain better results, this research is limited to the telecommunication tower companies listed on the IDX throughout 2017-2022. This study has not included predictor variables related to government policy. The object of this research is a company located in Indonesia, so it cannot be generalized for cross-country conditions.

#### **Theoretical Implication and Practical Implication**

Based on the results of the study, the related theoretical implication as follows, the results showed that fundamental variables affect stock prices; following the Efficient Market Hypothesis, stock prices will be responsive to fundamental information. The results showed that in addition to the market influencing the stock price according to CAPM theory, other factors affect the stock price; follows Arbitrage Pricing Theory (APT) states that some variables affect the stock price.

Investors can take lessons from the description provided by the results of this study, especially on the aspect of the inflation and PER which is proven to have a significant effect on stock returns. Telecommunication tower companies should be able to deliver information regarding company performance to investors so that they are well informed, get comprehensive input, and be confident about their investment. Management who run the telecommunication tower companies are encouraged to analyze, maintain, and improve the company's financial performance that affect to company's stocks returns. Based on this research, the inflation and PER are very important to observe because they have a significant effect to stock return.

## **Recommendations for Further Research**

Based on the limitations of this study, there are several suggestions for researchers who want to continue and develop this study. Future research is expected to broaden the scope of the study by expanding the sample, namely companies in other sectors listed on the IDX. Future research is also expected to be able to include predictor variables from government policies, such as GDP for specific sectors. Future research may add Mitratel as the new telecommunication tower company that made Initial Public Offering in 2021.

# REFERENCES

- Amrillah, M. F. (2016). Pengaruh Nilai Tukar Rupiah (Kurs), Inflasi dan Pertumbuhan Ekonomi Terhadap Return Saham Pada Perusahaan Perbankan Yang Terdaftar di Bursa Efek Indonesia (Bei) Periode 2008-2014. *Jurnal Valuta*, 2(2), 232–250.
- Arkan, T. (2016). The importance of financial ratios in predicting stock price trends: A case study in emerging markets. Finanse, Rynki Finansowe, Ubezpieczenia, 79, 13–26.
- Arslan, M., and Zaman, R. (2014). Impact of dividend yield and price-earnings ratio on stock return: A study non-financial listed firms of Pakistan. Research Journal of Finance and Accounting, 5(19), 68–74.
- Ashraf, B. N. (2021). Stockmarkets' reaction to COVID-19: Moderating role of national culture. Finance Research Letters, 41, 1–20.
- Asmirantho, E., and Somantri, O. K. (2017). The effect of financial performance on the stock price at pharmaceutical sub-sector companies listed in the Indonesia stock exchange. Jurnal Ilmiah Akuntansi Fakultas Ekonomi, 3(2), 94–107.
- Bertuah, E., and Sakti, I. (2019). The Financial Performance and Macroeconomic Factors in Forming Stock Return. *Jurnal Riset Manajemen Dan Bisnis Fakultas Ekonomi UNIAT*, 4(S1).
- Bodie, Z., Kane, A., and Marcus, A. J. (2014). Manajemen Portofolio Dan Investasi (9 ed.). Jakarta: Salemba Empat.
- Carlson, R. (2019). What Market Value Ratios Can Tell You About a Company. The Small Balance Business.
  - Retrieved on September 9, 2021. https://www.thebalancesmb.com/what-are-market-value-ratios-and-how-are- they-used-393224.
- Chen, N., Roll, R., and Ross, A. S. (1986). Economic forces and the stock market. Journal of Business, 59, 383-403.

- Chritianto, H. Y., and Firnanti, F. (2019). Faktor-faktor yang Mempengaruhi Return Saham. Jurnal Bisnis Dan Akuntansi, 21(1a-1), 27–38.
- Daniswara, H. P., and Daryanto, W., M. (2019). Earnings Per Share (EPS), Price Book Value (PBV), Return On Asset (ROA), Return On Equity (ROE), And Indeks Harga Saham Gabungan (ISG) Effect On Stock Return. South-East Asia Journal of Contemporary Business, Economics and Law, 20(1), 11–27.
- Daniswara, H. P., and Daryanto, W., M. (2019). Earnings Per Share (EPS), Price Book Value (PBV), Return On Asset (ROA), Return On Equity (ROE), And Indeks Harga Saham Gabungan (ISG) Effect On Stock Return. South-East Asia Journal of Contemporary Business, Economics and Law, 20(1), 11–27.
- Davis, G., F., and Powell, W., W. (2012), "Organization-environment relations", in Dunnette, M.D. and Hough, L.M. (Eds), Handbook of Industrial Organizational Psychology, 2nd ed., Consulting Psychologists Press, Palo Alto, CA.
- Defrizal, S., Wirasasmita, Y., and Nidar, S. R. (2015). The Determinant Factors of Sectoral Stock Return in Bullish and Bearish Condition at Indonesia Capital Market. International Journal of Scientific and Technology Research, 4(7), 209–214.
- Endria, E., Dermawan, D., Abidin, Z., and Riyanto, S. (2019). Effect of Financial Performance on Stock Return: Evidence from the Food and Beverages Sector. International Journal of Innovation, Creativity and Change, 9(10), 335–350.
- Endria, E., Dermawan, D., Abidin, Z., and Riyanto, S. (2019). Effect of Financial Performance on Stock Return: Evidence from the Food and Beverages Sector. International Journal of Innovation, Creativity and Change, 9(10), 335–350.
- Fama, E. F., (1970). Efficient Capital Markets: A Review of Theory and Empirical Work, Journal of Finance, Vol. 25, No. 2.
- Fu, M., and Shen, H. (2020). COVID-19 and corporate performance in the energy industry. Energy Research Letters, 1(1), 1-5.
- Geetha, C., Mohidin, R., Chandran, V., V., and Chong, V. (2011). The Relationship between Inflation and Stock Market: Evidence from Malaysia, United States and China. International Journal of Economics and Management Sciences. Vol. 1, No. 2, 2011, pp. 01-16.
- Ghozali, I. (2013). Aplikasi Analisis Multivariate dengan Program IBM SPSS 21 Update PLS Regresi. Badan Penerbit Universitas Diponegoro.
- Gitman, L. J., and Zutter, C. J. (2012). Principles of Managerial Finance (13th Editi). Boston: Pearson Education.
- Gunarto, A. G., and Sembel, H. M. R. (2019). The Effect of Macroeconomy on Stock Performance of LQ45 Companies at IDX. International Journal of Business, Economics and Law, 19(1), 22–29.
- Jareño, F., and Negrut, L. (2016). US Stock Market and Macroeconomic Factors. The Journal of Applied Business Research January/February 2016. Volume 32, Number 1.
- Karlina, N. W. S., and Widanaputra, A. A. G. P. (2016). Pengaruh Devidend Per Share, Return on Equity, dan Price To Book Value pada Return Saham. E-Jurnal Akuntansi Universitas Udayana, 15(3), 2082–2106.
- Kasman, S., Vardar, G., and Tunç, G. (2011). The Impact of Interest Rate and Exchange Rate Volatility on Banks' Stock Returns and Volatility: EvidenceFromTurkey. Economic Modelling, 28(3), 1328–1334.
- Kenton, W. (2020). Capital Asset Pricing Model (CAPM). Retrieved from Investopedia. https://www.investopedia.com/terms/c/capm.asp.
- Krugman, P. R., and Wells, R. (2017). Essentials of economics. New York Worth Publishers: Macmillan Learning.
- Kurniawan, A. (2021). Analysis of the effect of return on asset, Debt-to-Equity ratio, and total asset turnover on share return. Journal of Industrial Engineering and Management Research, 2(1), 64–72.
- Laksono, D. C. (2017). Pengaruh Rasio Keuangan Terhadap Return Saham Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia. Yogyakarta, Universitas Negeri Yogyakarta.

  Markowitz, H. (1952). *The Journal of Finance*, Vol. 7, No. 1. American Finance Association.
- Maysami, R.C., Howe, L.C. and Hamaz, M.A. (2004), Relationship between Macroeconomic Variables and Stock Market Indices: Cointegration Evidence from Stock Exchange of Singapore's All-S Sector Indices, Jurnal Penguruson, 24: 47-77.
- Menaje, P. M. (2012). Impact of selected financial variables on the share price of Publicly Listed Firms In The Philippines. American International Journal of Contemporary Research, 2(9), 98–104.
- Menike, M. G. P. D., and Prabath, U. S. (2014). The Impact of Accounting Variables on StockPrice: Evidence from the Colombo Stock Exchange, Srilanka. International Journal of Business and Management, 9(5), 125–138.
- Menike, M. G. P. D., and Prabath, U. S. (2014). The Impact of Accounting Variables on StockPrice: Evidence from the Colombo Stock Exchange, Srilanka. International Journal of Business and Management, 9(5), 125–138.
- Mgbame, C. O., and Ikhatua, O. J. (2013). Accounting Information Stock Volatility in the Nigerian Capital Markets: a Garch Analysis Approach. International Review of Management and Business Research, 2(1), 265–281.
- Rahman, A. Abdul, Noor, Z. Mohd Sidek and Fauziah H. T. (2009). Macroeconomic Determinants of Malaysian Stock Market, African Journal of Business Management, 3 (3): 95-106.
- Ratanapakorn, O. and Sharma, S. C. (2007). Dynamics analysis between the US Stock Return and the Macroeconomics Variables, Applied Financial Economics, 17 (4): 369-377.
- Razak, A., Nurfitriana, F. V, Wana, D., Ramli, R., Umar, I., and Endri, E. (2020). The Effects of Financial Performance on Stock Returns: Evidence of Machine and Heavy Equipment Companies in Indonesia. Research in World Economy, 11(6), 131–138
- Roll, R., and Ross, S. A. (1980). An Empirical Investigation of the Arbitrage Pricing Theory. The Journal of Finance, 33(5), 1073–1103
- Salim, F. S., and Simatupang, A. (2016). Kinerja Keuangan dan Kondisi Ekonomi Makro Terhadap Pengembalian Saham Perusahaan Property dan Real Estate yang Terdaftar di Bursa Efek Indonesia Periode Tahun 2011-2014. Jurnal Administrasi Kantor, 4(1), 47–67.
- Saputra, I. G. A. A., and Dharmadiaksa, I. B. (2016). Pengaruh Tingkat Suku Bunga, Nilai Tukar Rupiah, Leverage dan Profitabilitas pada Return Saham. E-Jurnal Akuntansi Universitas Udayana, 16(2), 1007–1033.
- Singh. T., Mehta, S., and Varsha, M. S. (2010). Macroeconomic factors and stock returns: Evidence from Taiwan. Journal of Economics and International Finance Vol. 2(4), pp.217-227, April 2011.

- Srbinoska, D. S. (2018). Liquidity and Profitability Analysis of Non Financial Entities Listed on the Macedonian Stock Exchange. Business and Management Horizons, 6(2), 34–46.
- Tarau, M. F., Rasjid, H., and Dungga, M. F. (2020). Analisis Pengaruh Kinerja Keuangan Terhadap Return Saham Pada Perusahaan Sektor Industri Makanan dan Minuman di Bursa Efek Indonesia Periode 2014-2018. Jurnal Ilmiah Manajemen Dan Bisnis, 3(1), 29–44.
- Thamrin, J. (2019). The Effect of Company's Fundamental, Market Return and Macroeconomic to Stock Return (a Case Study of Consumer Goods Companies Listed In BEI Period 2008-2018. Doctoral dissertation, Sekolah Tinggi Bisnis IPMI.
- Thobarry, A. A. (2009). Analisis pengaruh nilai tukar, suku bunga, laju inflasi dan pertumbuhan GDP terhadap indeks harga saham sektor properti (kajian empiris pada Bursa Efek Indonesia periode pengamatan tahun 2000-2008). Doctoral dissertation, Program Pasca Sarjana Universitas Diponegoro.
- Tripathi, V., and Kumar, A. (2014). Relationship between Inflation and Stock Returns Evidence from BRICS markets using Panel Co integration Test. International Journal of Accounting and Financial Reporting. ISSN 2162-3082 2014, Vol. 4, No. 2.
- Tripathi, V., and Kumar, A. (2014). Relationship between Inflation and Stock Returns Evidence from BRICS markets using Panel Co integration Test. International Journal of Accounting and Financial Reporting. ISSN 2162-3082 2014, Vol. 4, No. 2.
- Yuswandy, Y. (2012). Analisis Pengaruh Harga Minyak Dunia, Harga Emas Dunia, Nilai Tukar Rupiah, dan Indeks IHSG terhadap Return Saham (Studi Kasus Saham-Saham Sinarmas Group). Jurnal Pasar Modal Dan Perbankan, 1(1), 39–61.
- Zulkarnaen, A. H., Syamsun, M., and Maulana, T. N. A. (2016). Analysis of fundamental and technical factors to stock price on residential property sector companies listed in Indonesia stock exchange. International Journal of Scientific and Research Publications, 6(12), 315–319.

Teguh Fredyansyah

Sekolah Tinggi Manajemen IPMI, Jakarta, Indonesia

Email: teguh.fredyansyah@ipmi.ac.id

Roy Sembel

Sekolah Tinggi Manajemen IPMI, Jakarta, Indonesia

Email: roy.sembel@ipmi.ac.id

Melinda Malau

Universitas Kristen Indonesia, Jakarta, Indonesia

Email: melinda.malau@uki.ac.id