

# *The Effect of Inflation, Interest Rates and Rupiah Exchange Rates on Stock Prices in the Covid-19 Era*

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**Abstract** – The purpose of this study was to determine the Effect of Inflation, Interest Rates and Rupiah Exchange Rates on Stock Prices in the Covid-19 Era (Study of Import-Export Companies Listed on the Indonesia Stock Exchange). The type of research used in this research is *Explanatory Research* with a *Descriptive Quantitative* approach. The data analysis technique used is the *Classical Assumption Test* and *Hypothesis Test Partially (T Test)* and *Simultaneously (F Test)* with the help of the *SPSS 25 Program*. The results showed that partially based on the T Test Inflation had a Positive and significant effect on Stock Prices in the Covid Era-19 Interest rates have a positive and insignificant effect on stock prices in the Covid-19 era, the Rupiah exchange rate has no effect and is not significant to stock prices in the Covid-19 era and simultaneously based on the F test inflation, interest rates and the Rupiah exchange rate simultaneously have a positive and significant effect on stock prices.

**Keywords** – Inflation, Interest Rate, Rupiah Exchange Rate, Stock Price, Covid-19

## I. INTRODUCTION

Covid -19 does not only affect the world of health. However, it has an impact on all lines of life, including Indonesia's economic growth. This is in line with the determination of the global emergency status for the Covid-19 outbreak by the World Health Organization, with an appeal not only to health but also to the global economy. According to the Managing Director of the IMF, Kristelina Georgieva, with the emergence of this pandemic, a global economic slowdown is assumed to occur in the short term (Agustiyanti, 2020)[1]. One of them is by investing in the capital market, the capital market has a great influence in line with the country's economic development. The capital market performs two functions, the first is as a means for companies to obtain funds from the public, then the funds obtained from the capital market can be used for business development, expansion and additional working capital. The second function is as a means for people to invest in financial instruments such as stocks, mutual fund bonds and others (Indriani, 2020) [4]. Shares in the capital market are very sensitive to internal and external factors, one of the external factors that affect stock price movements is the Covid-19 outbreak. In addition, errors in predicting stock prices will affect investors' decisions to make investment decisions (Pradita, Haliah, Habbe & Rura, 2020)[10].

Since the official announcement from the president in March 2020 stating that covid-19 entered Indonesia for the first time, it has greatly affected the movement of stock prices on the IDX. The JCI experienced a drastic decline from the previous level of 5,000 to 4000 (Alfira et al., 2021)[2]. The IDX even closed stock trading temporarily. This temporary suspension of stock trading was carried out after the JCI fell 5%. One proof is at the close of stock trading on March 18, 2020. JCI closed down 138.78 points

or 3.11% to 4,317.96. If calculated in the last month, the JCI has decreased by 26.96% (Linda et al., 2021)[7]. Stocks in 2020 experienced fluctuations from January-December due to the covid-19 pandemic, so that in March the JCI fell to 4538.93 which was previously still at 6,000 in early 2020.

Inflation is defined as a decrease in the purchasing power of currency. The higher the price of a product circulating in the community, the more the value of the currency decreases (Purnamasari, 2020)[9]. Stock prices fell dramatically, affecting inflation. In March 2020 inflation was at a fairly low figure of 0.10%, so it affected the stock price index by 4539.93 or 0.17%. Month to month deflation continues to occur in July-December. The inflation rate rose again reaching 0.45% in December. One of the indicators in determining whether someone will invest is the interest rate. Interest rates that are too high will affect the company's cash flow so that investment opportunities will not attract the attention of investors to invest.

The BI benchmark interest rate throughout 2020 has continued to decline (Wismantara & Damayanti, 2017)[11]. Interest rates at the beginning of 2020 were at the level of 5%, then February 20, fell 25 bps to 4.75%, June 18, 2020 was again reduced by 25 bps to 4.5%, Interest rates are rumored to have fallen several times, the decline in the *BI Rate* at the level of 3.75% is the lowest level in history and ended 2020. This decision was made as an effort made to maintain stability and economic recovery during the Covid-19 pandemic (Laucereno, 2020)[6].

Apart from inflation and interest rates, the rupiah exchange rate can also affect investment returns. The rupiah exchange rate is a procedure that determines the level of value of a currency when exchanged for another country's currency (Neldi et al., 2021)[8]. The rupiah exchange rate against the US dollar experienced weakness in March amounting to 16,267.01. Starting to strengthen in June 2020, the exchange rate began to strengthen by 1.7%, namely 14,484 and until December the exchange rate was still quite strong even though it was still at the point of the exchange rate 14,000. all companies listed on the IDX feel this including companies engaged in the Import Export sector.

According to the Head of BPS Suhariyanto stated Cumulatively, the value of Indonesian exports from January to November 2020 reached USD 146.78 billion or decreased by 4.22% compared to 2019 and also Imports during the pandemic decreased Imports fell 17, 46% during the pandemic (Kurnia, 2020)[5]. During the pandemic Food and beverage exports increased during the pandemic by USD 1.63 billion. Exports of processed food do have the potential to increase during the pandemic, because it is the main need during quarantine or during the period of adapting to the Covid 19 pandemic. But there are many challenges in exporting goods during the pandemic such as social restrictions or quarantine in certain areas. one of them is PT Indofood Makmur experiencing binding product demand both domestically and in the export market, but with the existence of several handling protocols during the pandemic such as quarantine in several countries, limited access to transportation which has an impact on reducing production capacity and increasing production costs (Herman, 2020) [3]. This research is more focused on examining companies engaged in import and export, especially during the Covid-19 pandemic which had a very large effect on economic development. took the initiative to conduct a study entitled The Effect of Inflation, Interest Rates and Exchange Rates on Stock Prices in Import and Export Companies in the Covid-19 Era with the Study Focus of Food and Beverage Sub-Sector Companies Listed on the IDX.

The purpose of the study was to find out whether inflation, interest rates and rupiah exchange rates affect the price of Import Export Companies in the Covid-19 Era (Study of Food and Beverage Sub-Sector companies listed on the IDX) simultaneously and partially. The hypotheses in this study are, Inflation affects the Share Price of Import Export Companies in the Covid-19 Era, Interest Rates affect Import Export Companies in the Covid-19 Era, Rupiah exchange rates affect Import Export Companies in the Covid-19 Era and Inflation, interest rates and rupiah exchange rates affect the Price of Import Export Companies in the Covid-19 Era (Study of Food and Beverage Sub-Sector companies listed on the IDX).

## II. RESEARCH METHODS

The type of research used in this research is Explanatory Research, namely research that explains the causal relationship between the independent variable and the dependent variable with a Descriptive quantitative approach. the subject of this research is the composite stock price index in companies engaged in export and import listed on the Indonesia Stock Exchange during the Covid-19 pandemic. The object of this research is macroeconomic factors (Inflation, Interest Rates and Rupiah Exchange Rates) that affect Stock Prices, especially Import-Export Companies in the Covid-19 Era (Study of Food and Beverage Sub-Sector companies listed on the IDX) This research was conducted in Makassar City, through the Indonesia Stock Exchange Website for Stock Price data. Inflation data and Bank Indonesia Website to get interest rates and rupiah exchange rates or other official

websites that support this research with data input January-December 2020.

The population in this study covers companies listed on the Indonesia Stock Exchange which are engaged in export and import. Sampling using purposive sampling Based on these criteria, export companies listed on the IDX are 40 companies, companies listed in 2020 are 40 companies and closing prices every month in the 2020 period and companies that are Stock split as many as 2 companies, so that the research sample is 38 companies and Import Export companies engaged in the Food and Beverage Industry as many as 5 companies and the data used is monthly data in 2020 so that the total data is 60 data.

### III. RESULT

Based on the results of data analysis on the Effect of Inflation, Interest Rates and Exchange Rates on Stock Prices in Import-Export Companies in the Covid-19 Era with the focus of the Study of Food and Beverage Sub-Sector Companies Listed on the IDX, it can be seen that

#### 1. Descriptive Statistical Analysis

Fig.1 Descriptive Statistical Analysis

#### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
INFLATION	60	-.10	.45	.1417	.17078
INTEREST RATES	60	3.75	5.00	4.2083	.38280
RUPIAH EXCHANGE RATE	60	13662	16367	14625.25	659.170
STOCK PRICES	60	1800	12125	6483.75	2710.913
Valid N (listwise)	60				

The dependent variable Stock Price has a minimum value of 1800 and a maximum value of 1225, while the standard deviation is 2710 and the average value is 6.48. The Independent Variable Inflation has a minimum value of -0.10 and a maximum value of 0.45, while the standard deviation value is 0.176 and an average value of 0.1417. Interest rates have a minimum value of 3.75 and a maximum value of 5.00, while the standard deviation value is 0.39648 and the average value is 4.2083. The Exchange Rate has a minimum value of 13662 and a maximum value of 16367, while the standard deviation value is 659.170 and the average value is 14625.

2. Classical Assumption Test

a. Normality Test

Fig. 2 Normality Test

One-Sample Kolmogorov-Smirnov Test

	Unstandardized Residual
Asymp. Sig. (2-tailed)	.245

The result of the Normality Test based on the *One Sample Komolgrov-smirmov Test* is 0.245 greater than 0.05. So the data is normally distributed.

3. Hypothesis Test

a. Determination Coefficient Test  $R^2$

Fig. 3 Determination Coefficient Test  $R^2$

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.590 <sup>a</sup>	.349	.314	.03642	1.788

Based on the table above, the correlation value (R) is 0.590, which indicates that the relationship between the independent variable and the dependent variable has a relationship that is included in the moderate category so that it can be concluded that Inflation, Interest Rates and Rupiah Exchange Rates have a moderate influence on Stock Prices. Then the  $R^2$  value is 0.349 which indicates that the independent variables, namely Inflation, Interest Rates and Rupiah Exchange Rates, are able to explain changes of 34.9% in the dependent variable, namely Stock Prices. While 65.1% is influenced by other factors.

b. Partial Test

Fig. 4 Partial Test

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	9.442	.115		81.853	.000		
INFLATION	.184	.034	.594	5.428	.000	.970	1.031
INTEREST RATES	.084	.054	.169	1.538	.130	.965	1.036
RUPIAH EXCHANGE RATE	-.001	.009	-.016	-.152	.880	.994	1.006

a. Dependent Variable: STOCK PRICES

1) The Effect of Inflation on Stock Prices

The T Statistical Test has a T value of 5.428 > T table 0.678 indicating a positive direction and has a Significance Value of 0.000 < 0.05 so it can be concluded that Inflation has a positive and significant effect on Stock Prices.

2) The Effect of Interest Rates on Stock Prices

The T Statistical Test has a T value of 1.538 > T table 0.678 indicating a positive direction and has a Significance Value of 0.130 > 0.05 so it can be concluded that Interest Rates have a Positive and insignificant effect on Stock Prices.

3) The Effect of Rupiah Exchange Rate on Stock Price

The T Statistical Test has a calculated T value of -0.152 < T table 0.678 indicating a negative direction and has a Significance Value of 0.880 > 0.05 so it can be concluded that the Rupiah Exchange Rate has no effect and is not significant on Stock Prices.

4. Simultaneous Test

Fig. 5 Simultaneous Test

ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.040	3	.013	9.987	.000 <sup>a</sup>
	Residual	.074	56	.001		
	Total	.114	59			

The F test has a calculated F value of 9.987 > F table 2.77 indicating a positive direction and has a significance value of 0.000 < 0.05 so it can be concluded that Inflation, Interest Rates and Rupiah Exchange Rates have a Positive and significant effect on Stock Prices.

IV. DISCUSSION

High inflation can harm the economy as a whole and reduce stock prices. Inflation has a positive and significant effect on stock prices in import-export companies listed on the Indonesia Stock Exchange because during the pandemic inflation was at a fairly low level of 0, 10% and even in July-December there was deflation which caused slow economic growth and caused slow stock movements or declining stock prices, which is why during this pandemic inflation has a positive effect on stock prices.

During the Covid-19 pandemic, interest rates were lowered several times, even down to 3.75%, which was the lowest level in history. This policy was carried out to maintain economic stability during the Covid-19 pandemic so that the capital market could run and stock prices could stabilize. However, falling interest rates can be utilized by companies to obtain loans at low interest rates, thus affecting the share price of a company. So according to researchers, interest rates have a positive and insignificant effect on stock prices in import-export companies listed on the IDX. Because during the pandemic one of the efforts made by the government to maintain economic stability, interest rates fell to stabilize stock prices but were still in the low category so that it had a positive impact on stock price movements.

This research focuses on examining import and export companies in processed food and beverage companies because these products are very much needed during the pandemic. one of the companies pocketing large export profits is Indofood Sukses Makmur Tbk which became a *food solution* during the pandemic, but what is an obstacle is the difficulty in getting imported raw materials automatically when the material is imported, spending on production and profit is balanced. So, according to researchers, the Exchange Rate has no effect and is insignificant on Stock Prices because it is influenced by Pandemic conditions and economic stability according to export data has increased but many things have caused stock prices to fall so that the Rupiah exchange rate has no effect on stock prices, namely increasing production costs, and during a pandemic there are many challenges to exporting goods including restrictions on certain countries that have an impact on reducing production capacity and

increasing production costs and many other internal and external factors.

The results of the coefficient of determination of the contribution of the influence of inflation factors, interest rates and the Rupiah Exchange Rate on stock prices are in the medium category, therefore according to researchers who want to buy shares on the IDX in addition to calculating Inflation, Interest Rates and Exchange Rates must consider other things such as Financial Performance (Liquidity Level, Solvency etc.) must also consider other macro factors such as fuel prices, GDP, gold prices, foreign debt and other factors.

## V. CONCLUSION

This study aims to determine how the influence of Inflation, Interest Rates and Rupiah Exchange Rates on Stock Prices in the Covid-19 Era studies of Import Export companies listed on the Indonesia Stock Exchange. Based on the results of research conducted by researchers, the conclusions can be drawn in this study are as follows.

1. Inflation has a positive and significant effect on stock prices. This is because during the covid-19 pandemic inflation was at a fairly low level of 0, 10%. Low inflation causes economic stability which also causes stock prices to decline. This shows that inflation can be a benchmark for investors to invest.
2. Interest Rates Have a Positive and Insignificant Effect on Stock Prices. This is because during the Covid-19 pandemic the interest rate was lowered several times, even down to 3.75% and was the lowest level in history. Interest rates were lowered so that stock prices could remain stable during the pandemic.
3. Exchange rates have no effect and are not significant to stock prices. This is due to various factors due to conditions during the pandemic so that many causes occur in economic stability even though this study examines export-import companies listed on the IDX.
4. Inflation, Interest Rates and Rupiah Exchange Rates simultaneously have a Positive and Significant effect on stock prices by 34.9% in import-export companies listed on the Indonesia Stock Exchange. Simultaneously the coefficient of determination has a moderate influence. So that it can be a reference for investors to invest in the capital market but also still consider factors outside of this study.

## REFERENCE

- [1] Agustiyanti. (2020). Impact Virus Corona, S&P Cut Projections Growth Economy China. <https://katadata.co.id/agustiyanti/finansial/5e9a495d53b28/dampak-virus-corona-sp-pangkas-proyeksi-pertumbuhan-economy-china>. February 5, 2020 accessed July 7, 2021.
- [2] Alfira, N., Fasa, M. I., & Suharto, S. (2021). The Effect of Covid-19 on the Composite Stock Price Index (JCI) and the Rupiah Exchange Rate. *Al-Kharaj: Journal of Islamic Economics, Finance & Business*, 3(2), 313-323.
- [3] Herman. (2020). Export Products Food Processed increased at tangan pandemic. *Beritasatu.Com*. <http://m.merdeka.com/uang/ekspor-makanan-san-minuman-olahan-ri-naik-selama-pandemi.html>.
- [4] Indriani, R. S. (2020). The Effect of Inflation Rate, Interest Rate, Rupiah Exchange Rate and Gold Price on the Composite Stock Price Index on the Indonesia Stock Exchange. *Scientific Article. Management Study Program, Perbanas Surabaya College of Economics. Surabaya*.
- [5] Kurnia. (2020). Exports Up 63.6 percent, Imports Down 17.46 Percent During Pandemic. *Jawapost.Com*.
- [6] Laucereno, S. F. (2020). BI Rate Journey: Down to the Lowest Level. *Detikfinance*. <https://finance.detik.com/berita-ekonomi-bisnis/d-5311692/perjalanan-suku-bunga-bi-turun-terus-ke-level-terendah>. 28 December 2020 (10.38) accessed on September 15, 2020.
- [7] Linda, R., Razak, A., & Ainun, A. (2021). Event Study of the Impact of Covid 19 on Stock Price Movements in Indonesia. 4(01), 16-20.
- [8] Neldi, M., Syahira, N., Elfiswandi, Zefriyenni, & Yenni, F. (2021). Factors Affecting Ihsq On. 2(1), 347-359.
- [9] Purnamasari, D. N. I. (2020). The Effect of Inflation, Rupiah Exchange Rate, Interest Rate and Gross Domestic Product on

the Composite Stock Price Index on the Indonesia Stock Exchange. Scientific Article. Management Study Program, Perbanas Surabaya College of Economics. Surabaya.

- [10] Praditha, R., Haliah, H., Habbe, A. H., & Rura, Y (2020). Do Investors Experience Heuristics in Earnings Forecasting?. *Verslas: Teorija ir praktika/Business: Theory and Practice*, 21(2).
- [11] Wismantara, & Damayanti. (2017). The Effect of Rupiah Exchange Rate, Interest Rate and Inflation on the Composite Stock Price Index Listed on the IDX. *E-Journal Management Unud*, 5(8), 443-4421.