Analysis of Exchange Rate, Inflation, and Benchmark Interest Rate Impacts on the IDX Composite Index Before and After the COVID-19 Pandemic in the Years of 2019-2021

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ABSTRACT

This research examines the impact of inflation, exchange rate, and Bank Indonesia (BI) interest rate on the IDX Composite Index before and during COVID-19. This research's subjects include companies listed on the IDX Composite Index on the Indonesia Stock Exchange (IDX) from 2019 to 2021, spanning a 36-month sample period. This research employs quantitative methods such as multiple linear regression, correlation, multicollinearity, and heteroscedasticity as the classical assumption testing. The coefficient determination test, t-test, and F-test are all part of hypothesis testing. The findings of this research show that inflation and the BI rate have a simultaneous effect due to the influence of the currency rate. All three variables: inflation, currency rate, and BI rate could all have an impact on the IDX Composite Index before and during COVID-19 between 2019 and 2021.

Keywords: COVID-19; JCI Index; Inflation; Exchange rate; and Interest Rates

INTRODUCTION

Indonesia holds the fourth position on the list of countries with the largest populations worldwide. This demographic advantage has a beneficial influence on Indonesia's economic development. For instance, Japan during the period from 1960 to 1970 demonstrated a strong correlation between population growth and Gross Domestic Product (GDP) growth (Kitov, 2008). A similar trend is observed in Indonesia, which also possesses the fourth largest population globally. The population growth rate of Indonesia fluctuated between 2.5 to 1 percent from 1970 to 2020. Despite a decline of 2.1 percent in Indonesia's GDP growth in 2020, the GDP per capita has continued to rise since 1970 (Datacommons).

Considering these factors, it is anticipated that by 2027, Indonesia will be ranked 14th in the world in terms of economic strength based on GDP. At that point, Indonesia's GDP is projected to reach 1.868 trillion USD. Predictions also suggest that Indonesia's Purchasing Power Parity (PPP) value will reach around 5.854 trillion USD by 2027 (IMF). These facts underscore a promising economic future for Indonesia and positive economic sentiment. This optimism has the potential to boost Foreign Direct Investment (FDI) in Indonesia, as a nation's economic condition significantly influences FDI value (Li et al., 2019).

However, in 2019 and 2020, the world faced a pandemic induced by the Coronavirus Disease 2019 (COVID-19). Originating in December 2019 in Wuhan, China, this pandemic disrupted global economic stability, resulting in a global economic crisis. The impact extended to the Asia-Pacific region, triggering recessions as predicted by S&P. China's economic growth was estimated to decrease from 5.7 percent to 4.8 percent in 2020. Countries such as Hong Kong, Singapore, Thailand, and Vietnam also experienced declines in Gross Domestic Product (GDP) due to the tourism industry's contribution of 10 percent to GDP (Burhanuddin & Abdi, 2020).

Indonesia also encountered a "patient zero" case, marking the first COVID-19 transmission on March 2, 2020, according to DJKN Kemenkeu's report. Two weeks later, on March 15, 2020, the number of transmission cases had reached 117 individuals. President Joko Widodo subsequently enacted Government Regulation No. 21 of 2020 on March 31, 2020, as a response to the situation (The Jakarta Post, 2020). This policy formed the legal basis for Large-Scale Social Restrictions (PSBB). Hadiwardoyo (2020) argued that the implementation of PSBB significantly hindered the economy by halting office operations and industrial activities for an extended period. These economic disruptions also impacted national economic growth slowdown.

Referring to the report from the Indonesian House of Representatives Commission XI, on March 2, 2020, the rupiah's value, previously at Rp 14,318 per US dollar, depreciated by 13.87 percent. This depreciation led to an exchange rate of Rp 16,305 per US dollar by March 26, 2020. The Central Statistics Agency (BPS) report also stated a slight inflation rate increase of 0.1 percent, resulting in a Consumer Price Index (CPI) value of 104.72. The year-on-year inflation rate for March 2020 was recorded at 2.96 percent, while the BI-Rate stood at 4.5 percent in the same month (Bank Indonesia). Moreover, in March, the Indonesia Stock Exchange (IDX) Composite Index recorded a two-week consecutive decline of 14 percent during trading days from March 16 to 20, due to large-scale selling in the international stock market (Bisnis.com).

In the context of the COVID-19 pandemic's impact on Indonesia's national economy, the government, as the competent authority, has taken significant measures to respond. These efforts materialized in the form of the National Economic Recovery Program or *Pemulihan Ekonomi Nasional* (PEN), conceived as a strategy for Indonesia's economic revival (DJKN Kemenkeu). Bank Indonesia, as the central bank responsible for monetary policy, also played a role in facing the domestic economic and banking crises. According to Handayani et al. (2021), Bank Indonesia implemented strategic steps, including providing liquidity support through the Bank Indonesia Liquidity Assistance to aid emergency financing (LOLR). Additionally, the benchmark interest rate was lowered throughout 2020 and 2021. These policies were planned and executed as part of the efforts to prevent a national economic crisis and facilitate post-pandemic economic recovery in Indonesia and globally.

Remarkably, these recovery endeavors succeeded in rejuvenating economic activity sentiment in Indonesia after March 2020. The decline of the IDX Composite

Index during that month triggered interest, particularly among the millennial generation, to invest in the stock market during the epidemic. The stock exchange experienced significant price declines. According to data from Tradingview.com, in December 2020, the IDX Composite Index strengthened to 5979 points at market close, compared to the 4538 points recorded in March 2020. This indicated a 31.7 percent increase in IDX Composite Index over a span of 9 months. This IDX Composite Index rise stands as evidence of the national economic resurgence following the pandemic's impact. Certainly, this achievement was also influenced by the benchmark interest rate strategy set by Bank Indonesia, along with fiscal policies from the Indonesian government, which concurrently contributed to the recovery of exchange rates and the control of inflation levels in Indonesia during the pandemic period.

RESEARCH METHODS

The approach employed in this research is descriptive approach. The method utilized in this research is a quantitative method, aimed at analyzing the movement of the IDX Composite Index during the period of 2019-2021, particularly throughout the pandemic. The research was focused on Indonesia Stock Exchange (IDX), encompassing an analysis of the IDX Composite Index movement across various companies in Indonesia whose stocks are listed on the IDX. The data used in this study were obtained from monthly data sourced from Tradingview.com within the time range of 2019 to 2021.

This study employs a data collection of utilizing the technique of secondary data documentation, obtained through relevant institutions providing pertinent data. The extracted data encompasses a time span of 36 months from 2019 to 2021. Data sources utilized originate from various official sources, including TradingView.com, the Central Statistics Agency of Indonesia or Badan Pusat Statistik (BPS), and Bank Indonesia (BI). The utilization of secondary data from these reputable sources ensures the accuracy and validity of the required data for analysis in this research.

This study employs a quantitative data collection method involving the Rupiah Exchange Rate, Inflation, Benchmark Interest Rate, and the IDX Composite Index. The data sources used are secondary data encompassing literature such as documents, articles, notes, and archives. Subsequently, this data is recorded and computed by gathering relevant information to address the research questions. Statistical data sources are derived from external sources, namely TradingView.com and the Bank Indonesia (BI) website. The use of secondary and external data ensures accuracy and credibility for the analysis of this research. With this approach, the study can generate valid and dependable findings to address the proposed research questions.

RESULTS AND DISCUSSION

IDX Composite Index Movement

Table 1. IDX Composite Index Movement

Period	IDX Composite Index (Rp)	Change (%)
January 2019	6.532	
February 2019	6.443	-1,36%
March 2019	6.468	0,39%
April 2019	6.455	-0,2%
May 2019	6.209	-3,81%
June 2019	6.358	2,4%
July 2019	6.390	0,5%
August 2019	6.328	-0,97%
September 2019	6.169	-2,51%
October 2019	6.228	0,96%
November 2019	6.011	-3,48%
December 2019	6.299	4,79%
June 2021	5.985	0,64%
July 2021	6.070	1,42%
August 2021	6.150	1,32%
September 2021	6.286	2,21%
October 2021	6.591	4,85%
November 2021	6.533	-0,88%
December 2021	6.581	0,73%
July 2020	5.149	4,97%
August 2020	5.238	1,73%
September 2020	4.870	-7,03%
October 2020	5.128	5,3%
November 2020	5.612	9,44%
December 2020	5.979	6,54%
January 2021	5.862	-1,96%
February 2021	6.241	6,47%
March 2021	5.985	-4,1%
April 2021	5.995	0,17%
May 2021	5.947	-0,8%

Source: TradingView.com, 2022

Based on the data presented in the table regarding the movement of the IDX Composite Index above, it can be concluded that the index has experienced significant volatility fluctuations. From the data in Table 1, it can also be inferred that the index experienced the highest price increase in November 2020, amounting to 9.44 percent, and the most significant price decrease in March 2020, reaching -

16.76 percent. Additionally, the average growth rate of the index from January 2019 to December 2021 is approximately 0.14 percent, indicating that while the growth of the index tends to be slow, it remains stable during this period.

However, it is noteworthy that despite the stability of the index during the years 2019-2021, there was a very significant decrease of -16.76 percent in March 2020. This percentage decline falls within the category of being quite substantial, particularly when compared to the decreases in the periods before and after, which generally stayed below -10 percent.

The magnitude of the percentage decrease in prices in March 2020 coincided with the emergence of the first confirmed cases or "patient zero" of the COVID-19 pandemic in Indonesia in the same month. The presence of these cases likely impacted market sentiment on the Indonesia Stock Exchange (IDX) as well as the overall economic situation in Indonesia, ultimately contributing to a large-scale sell-off in the stock market and an increase in market volatility.

Rupiah Exchange Rate

Table 2. Rupiah Exchange Rate

Period	IDR Rate per USD (Rp)	Change (%)
January 2019	13.970	
February 2019	14.060	0,64%
March 2019	14.235	1,24%
April 2019	14.212	-0,16%
May 2019	14.270	0,41%
June 2019	14.125	-1,02%
July 2019	14.012	-0,8%
August 2019	14.180	1,2%
September 2019	14.171	-0,06%
October 2019	14.003	-1,19%
November 2019	14.100	0,69%
December 2019	14.002	-0,7%
January 2020	13.640	-2,59%
February 2020	14.229	4,32%
March 2020	16.365	15,01%
April 2020	15.156	-7,39%
May 2020	14.732	-2,8%
June 2020	14.365	-2,49%
July 2020	14.648	1,97%
August 2020	14.550	-0,67%
September 2020	14.912	2,49%
October 2020	14.685	-1,52%
November 2020	14.125	-3,81%
December 2020	14.279	1,09%

January 2021	14.080	-1,39%
February 2021	14.225	1,03%
March 2021	14.443	1,53%
April 2021	14.450	0,05%
May 2021	14.290	-1,11%
June 2021	14.540	1,75%
July 2021	14.460	-0,55%
August 2021	14.302	-1,09%
September 2021	14.265	-0,26%
October 2021	14.168	-0,68%
November 2021	14.315	1,04%
December 2021	14.275	-0,28%

Source: TradingView.com, 2022

Based on the data presented in the table regarding the changes in the value of the Indonesian Rupiah from January 2019 to December 2021, it can be generally concluded that the average change in the value of the Rupiah against the US Dollar during that period is approximately 0.11 percent. The Rupiah experienced the most significant decline in May 2020, reaching a value of Rp 16,365 per US Dollar, while in January 2020, the Rupiah experienced its greatest strengthening with an exchange rate of Rp 13,640 per US Dollar.

The most drastic depreciation of the Rupiah occurred in March 2020. Similar to the previous decline in the IDX Composite Index, this depreciation also took place in March 2020, coinciding with the emergence of the "patient zero" cases of the COVID-19 pandemic in Indonesia, which impacted the economic stability of the country. The slow rate of change in the Rupiah's value can also be attributed to the negative effects of the COVID-19 pandemic on the economy.

Inflation Rate

Table 3. Inflation Rate

Period	Inflation Rate	Change (%)
January 2019	2,82%	
February 2019	2,57%	-0,09%
March 2019	2,48%	-0,04%
April 2019	2,83%	0,14%
May 2019	3,32%	0,17%
June 2019	3,28%	-0,01%
July 2019	3,32%	0,01%
August 2019	3,49%	0,05%
September 2019	3,39%	-0,03%
October 2019	3,13%	-0,08%
November 2019	3%	-0,04%

December 2019	2,72%	-0,09%
January 2020	2,68%	-0,01%
February 2020	2,98%	0,11%
March 2020	2,96%	-0,01%
April 2020	2,67%	-0,10%
May 2020	2,19%	-0,18%
June 2020	1,96%	-0,11%
July 2020	1,54%	-0,21%
August 2020	1,32%	-0,14%
September 2020	1,42%	0,08%
October 2020	1,44%	0,01%
November 2020	1,59%	0,1%
December 2020	1,68%	0,06%
January 2021	1,55%	-0,08%
February 2021	1,38%	-0,11%
March 2021	1,37%	-0,01%
April 2021	1,42%	0,04%
May 2021	1,68%	0,18%
June 2021	1,33%	-0,21%
July 2021	1,52%	0,14%
August 2021	1,59%	0,05%
September 2021	1,6%	0,01%
October 2021	1,66%	0,04%
November 2021	1,75%	0,05%
December 2021	1,87%	0,07%

Source: Bank Indonesia, 2022

Based on the data presented above, reporting the inflation rate movements in Indonesia during the time span from January 2019 to December 2021, it can be concluded that in 2019, the inflation rate ranged from 2.48 percent to 3.49 percent. In that year, there was a steady increase in the inflation rate from January to August, reaching its peak in August with an increase of 3.49 percent. However, thereafter, inflation in 2019 experienced consecutive declines, reaching a figure of 2.72 percent in December.

When compared to other variables that exhibited unstable value fluctuations in the first half of 2020, the inflation rate remained within a relatively low range, between 2.19 percent and 2.98 percent. Even in March 2020, when the first case or "patient zero" of COVID-19 emerged, the inflation rate stood at 2.96 percent. This figure was significantly lower than the previous year's inflation peak of 3.49 percent. In the subsequent year, 2021, the inflation rate remained relatively stable within the range of 1.33 percent to 1.87 percent without significant changes. Thus, it can be inferred that over the observed 36 months, inflation remained low and consistent, with a low average growth of around 0.01 percent.

Bank Indonesia's Interest Rate

Table 4. Bank Indonesia's Interest Rate

Period	BI Interest Rate	Change (%)
17 January 2019	6%	
21 February 2019	6%	0%
21 March 2019	6%	0%
25 April 2019	6%	0%
16 May 2019	6%	0%
20 June 2019	6%	0%
18 July 2019	5,75%	-0,04%
22 August 2019	5,50%	-0,04%
19 September 2019	5,25%	-0,05%
24 October 2019	5%	-0,05%
21 November 2019	5%	0%
19 December 2019	5%	0%
23 January 2020	5%	0%
20 February 2020	4,75%	-0,05%
19 March 2020	4,50%	-0,05%
14 April 2020	4,50%	0%
19 May 2020	4,50%	0%
18 June 2020	4,25%	-0,06%
16 July 2020	4%	-0,06%
19 August 2020	4%	0%
17 September 2020	4%	0%
13 October 2020	4%	0%
19 November 2020	3,75%	-0,06%
17 December 2020	3,75%	0%
21 January 2021	3,75%	0%
18 February 2021	3,5%	-0,07%
18 March 2021	3,5%	0%
20 April 2021	3,5%	0%
25 May 2021	3,5%	0%
17 June 2021	3,5%	0%
22 July 2021	3,5%	0%
19 August 2021	3,5%	0%
21 September 2021	3,5%	0%
19 October 2021	3,5%	0%
18 November 2021	3,5%	0%
16 December 2021	3,5%	0%

Source: Bank Indonesia, 2022

It can be inferred from the information regarding the movement of the BI reference interest rate that there is a gradual downward trend over the past 36 months. The average decrease in the reference interest rate during this period is only about 0.01 percent. In the initial timeframe, the reference interest rate remained constant at 6 percent from January 2019 to June 2019. Entering July 2019, there was a gradual decrease in the reference interest rate, and by December 2019, the value of a reference interest rate reached 5 percent. This downward trend continued into the year 2020, with the reference interest rate experiencing its lowest point at 4.25 percent in June 2020. Moving into the year 2021, the reference interest rate consistently remained at the level of 3.5 percent.

One of the monetary policy efforts undertaken by the central bank to stimulate economic growth in response to the negative impact of the COVID-19 pandemic on the economy is to adjust the level of the interest rate. The impact of the COVID-19 pandemic necessitates measures to promote positive economic growth. This is sought through the stabilization of the interest rate level, which is expected to boost consumption and investment levels. Therefore, these steps of reducing the reference interest rate are anticipated to contribute to economic recovery and provide incentives for the consumption and investment sectors affected by the pandemic.

Multiple Linear Regression

Multiple Linear Regression Analysis is an analytical approach conducted using IBM SPSS software version 26. This method relies on mathematical equations as a tool to form a model that explains the relationship between the variables under investigation and also evaluates the strength and direction of the relationship through regression coefficients. By considering the impact of independent variables on the dependent variable, this analysis is capable of providing an overview of how much the changes in the independent variables collectively influence the dependent variable. Referring to the explanation above, the following are the results that emerged from the applied multiple linear regression analysis using IBM SPSS software version 26. These results have been organized in the form of a table for presentation purposes:

Table 5. Multiple Linear Regression Test Result

Coefficient						
		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
Model		B	Std. Error	Beta		
1	(Const.)	19490,067	2598,536		7,500	,000
	Exchange Rate (X_1)	-,953	,171	-,709	-5,564	,000
	Inflation (X_2)	115,455	195,271	,143	,591	,559
	Benchmark Interest Rate (X_3)	-35,742	156,991	-,056	-,228	,821
a. Dependent Variable: IDX Composite Index (Y)						

Source: IBM SPSS Version 26, 2023

From the results of the multiple regression testing displayed in the table above, a regression equation has been successfully derived as follows:

IDX Composite Index = (19490,067) – 0,953 Exchange Rate + 115,455 Inflation – 35,742 Benchmark Interest Rate

With reference to the regression equation derived above, the following conclusions can be drawn:

a. **Constant = 19490,067**

    The constant value indicates the estimated value of the dependent variable Y, which is the IDX Composite Index, when all the values of the independent variables X1, X2, and X3 are zero. From this result, it can be concluded that when all independent variables have a value of zero, the estimated value of variable Y will reach 19490,067. Concluded that when all independent variables have a value of zero, the estimated value of variable Y will reach 19490,067.

b. **Regression Coefficient of Exchange Rate (X1) = -0,953**

    From the regression coefficient value of -0.953 for X1, it can be suggested that there is a negative correlation between variable X1, which is the exchange rate value, and variable Y, which is the IDX Composite Index. This means that when the rupiah exchange rate weakens by one US dollar (USD), the variable Y IDX Composite Index tends to decrease by around 0.953 units.

c. **Regression Coefficient of Inflation (X2) = 115,455**

    From the regression coefficient value of 115.455 for X2, it can be concluded that there is a positive correlation between variable X2, which is Inflation, and variable Y, which is the IDX Composite Index. This implies that if variable X2 inflation increases by one-unit, variable Y IDX Composite Index tends to increase by approximately 115.455 units.

d. **Regression Coefficient of Benchmark Interest Rate (X3) = -35,742**

    Referring to the regression coefficient of -35.742 for X3, it can be stated that there is a negative correlation between variable X3, which is the reference interest rate, and variable Y, which is the IDX Composite Index. In this context, it can be concluded that if variable X3, the reference interest rate, increases by one unit, variable Y IDX Composite Index tends to decrease by approximately 35.742 units.

Determination Coefficient Test *(R²)*

One method used in regression analysis to assess how effectively the independent variables in a model can account for variation or changes in the dependent variable is the coefficient of determination test. The percentage of variation in the dependent variable that can be explained by the independent variables included in the model is shown by the coefficient of determination, often known as R-squared (R^2). If R^2 approaches 0, it means that the independent variables in the model almost do not explain the variation in the dependent variable,

making the model unsuitable or inadequate for explaining the data. If R^2 approaches 1, it means that the independent variables in the model are capable of explaining most of the variation in the dependent variable, making the model very effective in explaining the data.

Table 6. **Determination Coefficient Test Result**

Model Summary				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	,957[c]	,915	,907	355,24618
a. Dependent Variable: Lag Y				
b. Linear Regression through the Origin				
c. Predictors: Lag X^3, Lag X^2, Lag X^1				

Source: IBM SPSS Version 26, 2023

Based on the results of the coefficient of determination analysis above, a conclusion can be drawn from the value shown in the R Square column, which is an R^2 value of 0.915. This R^2 value indicates that approximately 91.5 percent of the variation in IDX Composite Index can be explained by the variables of exchange rate, inflation, and reference interest rate present in the regression model. Meanwhile, the remaining approximately 8.5 percent is influenced by other factors that were not included in the regression analysis in this study.

Simultaneous Test (F)

In assessing the combined effect of independent variables on the dependent variable, researchers employ the simultaneous test, sometimes referred to as the F-test. The alternative hypothesis (H1) will be accepted if the estimated F-test result above the critical F-value and the null hypothesis (H0) is rejected. When H1 is accepted, it indicates that all independent variables collectively have a significant impact on the dependent variable. Conversely, if the calculated F-test result is smaller than the critical F-value, H0 will be accepted and H1 will be rejected. If H0 is accepted, it indicates that there is no significant collective impact of all independent variables on the dependent variable.

Table 7. **Simultaneous Test Result**

ANOVA						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6585861,233	3	2195287,078	11,596	,000[b]
	Residual	6057944,323	32	189310,760		
	Total	12643805,556	35			
a. Dependent Variable: IDX Composite Index (Y)						
b. Predictors: (Const.), Benchmark Interest Rate (X^3), Exchange Rate (X^1), Inflation (X^2)						

Source: IBM SPSS Version 26, 2023

From the data presented in the table above, the results of the simultaneous test (F-test) indicate that the calculated F value listed in the F column is 11.596. The critical F value in the context of this study has been estimated as 2.89, given that the study involves 3 independent variables and 36 samples for each variable, according to the formula F table = (k ; n-k), where k is the number of independent variables and n is the sample size. Therefore, by comparing the value of 11.596 with the critical value of 2.89, it can be concluded that 11.596 > 2.89. As a result, the alternative hypothesis (H1) is accepted, and the null hypothesis (H0) is rejected. This result indicates that all independent variables collectively have a simultaneous influence on the dependent variable.

Partial Test (t)

The t-test, also known as the partial test, is the final stage of hypothesis testing in this study. The t-test is conducted with the aim of identifying the impact of each independent variable on the dependent variable. The results of the t-test are analyzed with reference to specific parameters. If the calculated t value recorded in the t-value column exceeds the threshold of 2.037 or the Significance (Sig.) value is smaller than 0.05, it can be concluded that the independent variable significantly affects the dependent variable. Conversely, if the calculated t value is smaller than 2.037 or the Sig. value exceeds 0.05, it can be interpreted that the independent variable does not have a significant impact on the dependent variable.

Table 8. **Partial Test Result**

Coefficient						
Model		Unstandardized Coefficient		Standardized Coefficient	t	Sig.
		B	Std. Error	Beta		
1	Const.	19490,067	2598,536		7,500	,000
	Exchange Rate (X_1)	-,953	,171	-,709	-5,564	,000
	Inflation (X_2)	115,455	195,271	,143	,591	,559
	Benchmark Interest Rate (X_3)	-35,742	156,991	-,056	-,228	,821
a. Dependent Variable: IDX Composite Index (Y)						

Source: IBM SPSS Version 26, 2023

Based on the results of the partial test (t-test) on the three independent variables, several conclusions can be drawn from the t column or the calculated t-value indicated in the table above:

a. **Exchange Rate (X1)**

The results of the partial test (t-test) that have been conducted yielded a calculated t-value of -5.564, which is smaller than the critical threshold of 2.037, and a Sig. value of 0, which is smaller than 0.05. This indicates that the variable "exchange rate" has a partial influence on the IDX Composite Index.

b. **Inflation (X2)**

The results of the partial test (t-test) that has been conducted yielded a calculated t-value of 0.591, which is smaller than the critical threshold of 2.037, and also found a Sig. value of 0.559, which is greater than 0.05. From these results, it can be concluded that the "inflation" variable does not have a significant partial influence on the IDX Composite Index.

c. **Benchmark Interest Rate (X3)**

Based on the analysis of the partial test (t-test) that has been conducted, the obtained calculated t-value is -0.228, which falls below the critical threshold of 2.037. Furthermore, the Sig. value is also 0.821, exceeding the significance level of 0.05. Thus, it can be concluded that the "reference interest rate" variable does not have a significant partial influence on the IDX Composite Index.

Exchange Rate (X1) Impact on IDX Composite Index (Y)

By applying data analysis using IBM SPSS version 26, it can be concluded that the independent variable X1 (exchange rate) has a partial influence on the dependent variable Y IDX Composite Index based on the results of the partial t-test with a Sig. value of 0, which exceeds the significance level of 0.05. The regression analysis also indicates a negative relationship between the X1 variable (exchange rate) and the Y variable (IDX Composite Index). Specifically, when the Indonesian rupiah weakens against the US dollar, the Y variable (IDX Composite Index) tends to decrease by approximately 0.953 units, and vice versa. Therefore, it can be summarized that the hypothesis H1 regarding the influence of the exchange rate on the IDX Composite Index during the period before and during the COVID-19 pandemic in 2019-2021 can be accepted and proven.

Through this analysis, it becomes clear that foreign exchange rates, particularly the US dollar, play a significant role as an indicator in assessing a country's investment climate. In the context of this study, the depreciation of the rupiah against the US dollar during the COVID-19 pandemic had a negative impact on domestic capital investment activities. The pandemic also triggered economic speculation and investor activities. Fluctuations in exchange rates can affect the investment climate due to changes in exchange values. Unstable fluctuations, as observed during the COVID-19 pandemic, can increase volatility in exchange rates, which in turn may make investors more cautious when deciding to invest domestically.

In conclusion, the high volatility in the rupiah exchange rate during the COVID-19 pandemic resulted in its depreciation. This had an impact on the invested capital in the Indonesia Stock Exchange (IDX), subsequently leading to higher volatility levels in the stock market and causing a decrease in the IDX Composite Index value. However, the situation can reverse when the rupiah exchange rate recovers after the pandemic, which in turn will support an improved investment climate in the capital market and strengthen the IDX Composite Index value once again.

Inflation (X2) Impact on IDX Composite Index (Y)

The results of data analysis using IBM SPSS version 26 reveal that the independent variable X2 (inflation) does not have a partial influence on the dependent variable Y (IDX Composite Index), as indicated by the results of the partial t-test showing a Sig. value of 0.559, which exceeds the significance level of 0.05. However, in the overall context, the inflation variable, along with the exchange rate and reference interest rate variables, collectively have a simultaneous influence on the IDX Composite Index variable, as indicated by the simultaneous F-test with an F value of 11.596, exceeding the critical F value of 2.89. Furthermore, the regression analysis also portrays a positive relationship between the inflation variable and the IDX Composite Index variable. Thus, if the X2 inflation variable increases by one unit, the Y IDX Composite Index variable is estimated to increase by approximately 115.455 units. Based on these findings, it can be concluded that hypothesis H2, stating that inflation rate has an influence on the IDX Composite Index during the period before and during the COVID-19 pandemic in 2019-2021, is accepted and proven.

As defined by Budiman (2013), inflation is an economic phenomenon referring to a general and sustained increase in the price levels of goods and services within a particular country or region. In inflation conditions, the purchasing power of money generally decreases due to an overall increase in the prices of goods and services. This means that each unit of money has the ability to purchase a smaller amount of goods or services compared to before. In general, low and stable inflation tends to support healthy economic growth and IDX Composite Index stability. This factor plays a role because low inflation rates provide confidence for investors and companies to engage in long-term investments and plan for business growth, resulting in an increase or stability of the IDX Composite Index. This serves as a positive consideration from the regression analysis results.

However, in the context of the COVID-19 pandemic, the situation is different as inflation experiences a rapid increase, compounded by the depreciation of the rupiah and economic uncertainty. This has a negative impact on the investment climate in the capital market and the IDX Composite Index value. Nevertheless, this situation changes after the end of the COVID-19 pandemic, where inflation conditions become more stable and contribute to the increase in IDX Composite Index stability.

Benchmark Interest Rate (X3) Impact on IDX Composite Index (Y)

The data analysis using IBM SPSS version 26 yields findings that the independent variable X3 (reference interest rate) does not have a significant partial influence on the dependent variable Y (IDX Composite Index), as the Sig. value of 0.821 exceeds the significance level of 0.05. Nevertheless, the results of the simultaneous F-test reveal a simultaneous influence of the reference interest rate variable along with the exchange rate and inflation variables on the IDX Composite Index variable. The simultaneous F value of 11.596 is greater than the critical F value of 2.89, indicating that these variables collectively have an influence on the IDX Composite Index variable. However, the regression analysis presents a negative

relationship between the reference interest rate variable and the IDX Composite Index variable.

Taking this information as a basis, it can be inferred that hypothesis H3, claiming an influence between the reference interest rate level and the IDX Composite Index during the period before and during the COVID-19 pandemic in 2019-2021, is accepted and supported by evidence. In this context, the conclusion can be drawn that a low reference interest rate can stimulate an increase in the IDX Composite Index value. This mechanism is triggered by the fact that a low reference interest rate encourages investors and companies to borrow for investment purposes, as borrowing costs become more affordable. The combination of low borrowing costs and the growth of investment values, due to the substantial investment borrowing, will impact the increase in the IDX Composite Index value. Additionally, a low reference interest rate can prompt individuals to choose investing in the stock market over opting for deposits.

This phenomenon is clearer during the COVID-19 pandemic in March 2020, where the reference interest rate was 4.5 percent. During that time, the IDX Composite Index value experienced a drastic decline in a short period, alongside other factors such as high inflation and a weakening exchange rate. This combination of factors negatively affected the interest of individuals and companies to invest in the capital market, consequently leading to a decline in the IDX Composite Index value. However, the situation is different when entering 2021, after the end of the COVID-19 pandemic, as the reference interest rate dropped below 4 percent. This reduction in the reference interest rate, along with stable exchange rate and inflation conditions, resulted in the balance of the IDX Composite Index value in the post-COVID-19 era. This analysis is crucial to be supported by relevant references and comparisons with previous research. Furthermore, the results and discussions can be presented in the form of tables and figures to enhance clarity and information comprehensiveness.

CONCLUSION AND SUGGESTION

The purpose of this research is to investigate the impact of exchange rate, inflation, and reference interest rate on the IDX Composite Index during the period before and after the COVID-19 pandemic (2019-2021). The data testing process was conducted using the IBM SPSS version 26 software. The data used were obtained from official sources such as Bank Indonesia and TradingView.com, and then analyzed using IBM SPSS version 26. Based on the testing results and discussions previously explained, several conclusions can be drawn as follows:

1. Based on the previous partial t-test results, the variable X1 (exchange rate) has a significance value of 0 > 0.05 and an F value of 11.596 > 2.89. It can be concluded that based on these significance and F values, the exchange rate variable has both partial and simultaneous influence on the IDX variable, thus H1 can be accepted.

2. Based on the previous partial t-test results, the variable X2 (inflation) has a significance value of 0.559 < 0.05 and an F value of 11.596 > 2.89. It can be concluded that based on these significance and F values, the inflation variable does not have a partial influence but has a simultaneous influence on the IDX variable, thus H2 can be accepted.

3. Based on the previous partial t-test results, the variable X3 (reference interest rate) has a significance value of 0.821 < 0.05 and an F value of 11.596 > 2.89. It can be concluded that based on these significance and F values, the reference interest rate variable does not have a partial influence but has a simultaneous influence on the IDX variable, thus H3 can be accepted.

Considering the aspects that have been explained, it can be concluded that in the context of this research, only the exchange rate variable (X1) has a significant partial influence on the IDX variable. Meanwhile, the other two variables, inflation (X2) and reference interest rate (X3), do not show significant partial influence on the IDX variable. However, the inflation (X2) and reference interest rate (X3) variables still have a significant simultaneous influence on the IDX variable due to the influence of the exchange rate variable (X1). Therefore, it can be concluded that the exchange rate (X1), inflation (X2), and reference interest rate (X3) variables collectively have a significant impact on the IDX variable during the period before and after the COVID-19 pandemic in 2019-2021.

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