## JOURNAL OF PROCEEDINGS SOCIAL SCIENCE AND POLITICAL SCIENCE DHARMAWANGSA UNIVERSITY

# THE EFFECT OF INFLATION, INTEREST RATES, AND EXCHANGE RATES ON THE COMPOSITE STOCK PRICE INDEX ON THE INDONESIA STOCK EXCHANGE

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#### **Abstract**

This study aims to investigate the potential influence of Inflation, Interest Rates, and Exchange Rates on the Composite Stock Price Index in the Indonesia Stock Exchange, both individually and collectively. The research approach employed is a positivist one. The study's population encompasses all the companies listed on the Indonesia Stock Exchange, and the sample is derived through purposive sampling. The analytical method applied is multiple linear regression analysis, classical assumption tests, hypothesis testing, and the determination of coefficients, using SPSS software. Based on the research findings, several conclusions can be drawn: (1) Inflation exhibits a positive and statistically significant influence on the composite stock price index. (2) Interest rates also have a positive and statistically significant impact on the composite stock price index. (3) Conversely, exchange rates have a negative and statistically significant effect on the composite stock price index. (4) Simultaneously, it is evident that inflation, interest rates, and exchange rates collectively exert a statistically significant influence on the composite stock price index within the Indonesia Stock Exchange.

Keywords: Inflation; Interest Rates; Exchange Rates; Composite Stock Price Index.

### Introduction

The capital market is a place for trading securities issued by institutions and professionals related to securities (Nasution, 2015). In other words, the capital market serves as a platform for companies to raise funds directly by offering shares to the public, a process commonly known as "going public." It also serves as a means for investors to make investments (Batubara, 2020). Investment through the capital market is highly sought after because it offers one of the most attractive investment options, providing the potential for optimal profit for investors (Thobarry, 2009). Indonesia's capital market is known as the Indonesian Stock Exchange or Bursa Efek Indonesia.

Similar to any other market, the capital market is a platform for trading various long-term financial instruments. One of the primary instruments traded in the capital market is stock shares.

According to Putri (2015), stock share prices represent the value of the company issuing the shares, reflecting its overall financial health. Changes and fluctuations in stock share prices are primarily determined by the interplay of supply and demand forces in the stock market (the secondary market). Therefore, prior to investing, it is imperative for investors to gather information related to the dynamics of stock share prices to make well-informed decisions about which stocks are suitable for investment. This is due to the fact that stock share prices can fluctuate at any given moment, rendering them characterized by high risk and high return potential.

Stock trading consistently goes through cycles of ups and downs, leading to fluctuations in stock share prices (Andiantyo et al., 2018). The movement of stock share prices is of paramount importance and should be carefully considered by investors before making any investment decisions, as it signifies the performance and accomplishments of the issuing company (Sadikin, 2016).

The information mentioned above can be effectively monitored through the Composite Stock Price Index (CSPI) (Kusuma & Badjra, 2016). The CSPI accurately reflects the overall movement of stock share prices listed on the Indonesia Stock Exchange, as it functions as a composite index comprising all the stocks listed on the exchange. Consequently, by closely monitoring the fluctuations in the Composite Stock Price Index, investors can assess whether the market is currently experiencing an upward or downward trend (Witjaksono, 2010). However, it is critical to acknowledge that the movements in the Composite Stock Price Index are also influenced by several factors, including macroeconomic factors. Therefore, investors who possess the ability to comprehend and forecast future macroeconomic conditions can significantly enhance their decision-making processes regarding profitable investments (Nofiatin, 2013). This is because the macroeconomic environment notably affects a company's daily operations, and any alterations or advancements in various economic variables can exert substantial influence on the capital market (Halisa & Annisa, 2020).

The Composite Stock Price Index (CSPI) is highly sensitive to changes in economic fundamentals and expectations regarding future prospects (Astuti, 2016). Stock price activity is influenced by macroeconomic factors, including inflation, interest rates, foreign exchange rates, economic growth rates, international oil prices, and major regional stock indices (Utama & Artini, 2015). The activities of stock prices can be observed and measured through the CSPI indicator.

Inflation, as one of the macroeconomic factors, can have a significant impact on stock price activity and the movement of the Composite Stock Price Index in the capital market. Inflation is the continuous increase in the prices of common goods (Lawrence, 2013). According to Sunardi and Ula (2017), low inflation can lead to sluggish economic growth. Slow economic growth, in turn, results in a slow-moving stock market, and ultimately, a sluggish Composite Stock Price

Index.

Interest rates are also a part of the macroeconomy that can influence stock price activity and the movement of the Composite Stock Price Index. Bank Indonesia states that the BI Rate, or interest rate, reflects the stance of monetary policy set by Bank Indonesia and announced to the public. Interest rates have an inverse relationship with the Composite Stock Price Index. In other words, when interest rates rise, investors tend to withdraw their stock investments and opt for safer investment options such as bank savings, deposits, gold investments, and the like. This leads to reduced investment in the capital market and, consequently, a weakening of the Composite Stock Price Index (Budiantara, 2012).

Another macroeconomic factor that can affect stock price activity and influence the movement of the Composite Stock Price Index is the exchange rate, also known as the foreign exchange rate. Hawiwika (2021) defines the exchange rate as the value of a foreign currency against another country's currency. A weakening of the rupiah exchange rate can affect the return on investment for companies, especially those with high levels of imports and foreign debt. A weaker rupiah exchange rate increases a company's costs, which can lead to lower profits and, ultimately, lower stock prices. If this happens across most stocks, the Composite Stock Price Index is likely to experience a decline (Ilmi, 2017).

The various macroeconomic factors discussed, namely inflation, interest rates, and exchange rates, can have both positive and negative impacts on stock activity and the Composite Stock Price Index. These fluctuations occur based on the demand and supply by investors in the capital market.

#### Research methods

The research approach employed in this study is the associative research approach. Associative research is conducted to analyze the relationships or influences among two or more variables. This research is empirical in nature and does not involve direct research on the specific companies under investigation (Timotius, 2017).

The population encompasses the entirety of all elements within the research area (Zed, 2008). Based on this definition, the population used in this study includes the Composite Stock Price Index, inflation, interest rates, and exchange rates. The authors obtained a sample consisting of 192 data points for this study, comprising 48 data points for inflation, 48 data points for interest rates, 48 data points for exchange rates, and 48 data points for the Composite Stock Price Index.

This research was conducted through document analysis by collecting supporting data from literature, journals, the internet, and reference books to gain insight into the researched issues. Relevant secondary data were gathered from reports published by Bank Indonesia (BI)

through its website www.bi.go.id, the Central Statistics Agency through its website www.bps.go.id, and the Indonesia Stock Exchange through its website www.idx.co.id.

The analytical method employed to estimate the effects between the independent variables (X) and the dependent variable (Y) is multiple linear regression analysis. The multiple linear regression equation used in this study is as follows:

$$Y = a + b1 X1 + b2X2 + b3X3 + e$$

#### Where:

Y = Composite Stock Price Index

a = Constant

b (1, 2, 3) = Regression Coefficients

X1 = Inflation

X2 = Interest Rates

X3 = Exchange Rates

e = Error

## Results Hypothesis Test

T Test

Table 1. Partial t-test Results.

## Coefficientsa

Standardized

				o controlor on a con-		
		<b>Unstandardized Coefficients</b>		Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	2833,991	1099,756		2,577	0,015
	X1	152,763	77,801	0,295	7,964	0,009
	X2	0,438	0,099	0,470	4,422	0,000
	X3	-686,290	112,718	0,890	-6,089	0,000

a. Dependent Variable: Y

## The effect of inflation (X1) on the Composite Stock Price Index (Y)

The influence of inflation (X1) on the Composite Stock Price Index (Y) was examined in this study. Inflation was found to have a positive and significant effect on the movement of the composite stock price index. This is evident from the significance level, which is 0.009, smaller than  $\alpha$  = 0.05, indicating that the first hypothesis can be accepted. This result can be attributed to the negative impact of inflation on companies, preventing stock prices from decreasing, and consequently, the stock price index from declining. These findings align with previous research conducted by Hismendi and Musnadi (2013) as well as Kewal (2012).

#### The effect of Interest Rates (X2) on the Composite Stock Price Index (Y).

Interest rates have a positive and significant influence on the movements of the composite stock price index. This is evident from the significance level, which is 0.000, smaller than the predetermined significance level ( $\alpha = 0.05$ ), indicating that the second hypothesis can be

accepted. This phenomenon occurs because some export-oriented companies tend to experience a positive impact when interest rates increase, leading to an increase in the composite stock price index. These research findings align with the study conducted by Krisna and Wirawati (2013).

## The effect of Exchange Rates (X3) on the Composite Stock Price Index (Y)

The exchange rates exert a negative and highly significant influence on the movements of the composite stock price index. This is evident from the level of significance, which is remarkably low at 0.000, significantly below the predetermined threshold of significance ( $\alpha$  = 0.05). Consequently, the third hypothesis is decisively rejected. This phenomenon unfolds because a high exchange rate tends to lure investors into reallocating their funds into deposits. These research findings corroborate the results of the study conducted by Hismendi and Musnadi (2013).

F Test

Table 2. F-test Results (Simultaneous Test).

$ANUVA^a$											
Model		Sum of Squares	df	Mean Square	F	Sig.					
1	Regression	7027879.579	3	2342626.526	25.854	$.000^{\rm b}$					
	Residual	3986854.900	44	90610.339							
	Total	1.101E7	47								

a. Dependent Variable: Y

Based on the results of the F-test in the table above, we can conclude that the F-statistic of 25.854 is greater than the critical F-value of 2.82. Furthermore, considering the significance level of 0.000, which is less than 0.05, we accept the alternative hypothesis (Ha) and reject the null hypothesis (H0). The critical F-value, with degrees of freedom (df) = n-k-1 = 44, at a 5% significance level, is 2.82. The SPSS calculations indicate a significant simultaneous influence of inflation, interest rates, and exchange rates on the Composite Stock Price Index on the Indonesia Stock Exchange.

#### **Discussion**

#### The Influence of Inflation on the Composite Stock Price Index.

Based on the research findings regarding the impact of inflation on the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange, it is evident that inflation exhibits a probability value of 0.009 (0.009 < 0.05) and a t-statistic of 7.964. Additionally, the t-table value is 2.014, with the t-statistic surpassing the t-table value. Consequently, this leads to the rejection of the null hypothesis (H0), allowing us to conclude that inflation has a positive and statistically significant effect on the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange.

The results of this study affirm that inflation indeed exerts a positive and significant influence on the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange. This

b. Predictors: (Constant), X3, X1, X2

positive impact can be elucidated through the theoretical framework proposed by Ningsih and Waspada (2018), which posits that low inflation rates lead to sluggish economic growth. This subdued economic growth, in turn, affects stock prices, ultimately influencing the movements of the Composite Stock Price Index. These findings are consistent with prior research conducted by Arif (2014) but diverge from the earlier study by Sudarsana and Candraningrat (2014), which argued that inflation had a negative and significant effect on the Composite Stock Price Index.

#### The Influence of Interest Rates on the Composite Stock Price Index

Based on the findings of the research regarding the impact of interest rates on the Composite Stock Price Index on the Indonesia Stock Exchange, it is evident that interest rates exhibit a probability value of 0.000 (0.000 < 0.05) and a t-statistic of 4.422. Comparatively, the t-table value stands at 2.014, with the t-statistic exceeding the t-table value. Consequently, this leads to the rejection of the null hypothesis (H0). Thus, it can be conclusively inferred from this study that interest rates exert a positive and statistically significant influence on the Composite Stock Price Index on the Indonesia Stock Exchange.

Interest rates, in this context, represent the price paid by banks or customers in exchange for services in transactions between banks and customers (Harsono & Worokinasih, 2018). Interest rates constitute a facet of macroeconomics that can sway stock market activities and the trajectory of the Composite Stock Price Index. In this regard, interest rates impact the Composite Stock Price Index inversely. In simpler terms, when interest rates ascend, investors tend to withdraw their investments from stocks and opt for safer investment avenues such as bank savings, deposits, gold investments, and the like. This, in turn, results in a reduction of investments in the capital market, culminating in a dip in the Composite Stock Price Index (Gumilang, 2014).

## The Influence of Exchange Rates on the Composite Stock Price Index.

Based on the research findings regarding the influence of exchange rates on the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange, it is evident that exchange rates have a probability value of  $0.000 \, (0.000 < 0.05)$  and a t-statistic of -6.089. Additionally, the t-table value is -2.014, with the t-statistic being less than the t-table value. Consequently, this leads to the rejection of the null hypothesis (H0), allowing us to conclude that exchange rates have a negative and statistically significant impact on the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange.

Examining certain aspects in alignment with the study conducted by Dewi (2020), it is stated that exchange rates represent the value of foreign currency relative to another country's currency. In this research, the exchange rate in question specifically pertains to the Indonesian Rupiah (IDR) against the United States Dollar (USD).

Unstable fluctuations in exchange rates can have adverse effects on stock market activities and the movements of the Composite Stock Price Index (CSPI). This is because when the Indonesian Rupiah weakens against the USD, it can increase the cost of importing raw materials. Consequently, this impacts a company's capital, leading to decreased profits and higher stock prices, but reduced dividends. When the exchange rate between the Rupiah and USD is depreciating, investors are more inclined to invest in assets denominated in US Dollars. In such a scenario, when the Dollar depreciates, investors benefit more from Dollar-denominated investments compared to investments in the stock market. This inevitably results in reduced stock purchasing power and ultimately weakens the Composite Stock Price Index (CSPI) (Devi, 2021).

#### Conclusion

Based on the research findings and discussions presented earlier, the study examined the influence of inflation, interest rates, and exchange rates on the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange, using a sample of all companies listed on the Indonesia Stock Exchange. The conclusions drawn from this research are as follows:

Firstly, when analyzed individually, the research results demonstrate that inflation has a positive and significant impact on the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange. This suggests that increases in inflation are associated with positive movements in the CSPI. Similarly, when considering interest rates in isolation, the research findings indicate that interest rates have a positive and significant effect on the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange. This implies that higher interest rates are linked to positive changes in the CSPI.

Conversely, when examined individually, the research results show that exchange rates have a negative and significant influence on the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange. This implies that depreciation in exchange rates is associated with negative movements in the CSPI.

Lastly, when taken into account simultaneously, the research findings confirm that inflation, interest rates, and exchange rates collectively have a positive and significant influence on the Composite Stock Price Index (CSPI) on the Indonesia Stock Exchange. This means that these three economic factors, when considered together, contribute positively to changes in the CSPI.

In light of these conclusions and the limitations mentioned earlier, the researcher provides the following recommendations:

Firstly, individuals who intend to invest in the stock market should prioritize building a strong grasp of stock market dynamics. This includes closely monitoring key indicators such as the Composite Stock Price Index (CSPI). Having this knowledge will empower investors to make

well-informed decisions when navigating the complexities of the stock market.

Secondly, future researchers in this field are encouraged to consider extending the duration of their research periods. Doing so would enable them to gather more comprehensive and robust data, facilitating a deeper and more thorough analysis of the subject matter. Additionally, researchers should explore the possibility of incorporating additional variables into their studies. These variables could potentially have significant impacts on the Composite Stock Price Index (CSPI). Expanding the scope of research in this manner can yield valuable insights and a more holistic understanding of market dynamics.

Lastly, to enhance trust and confidence among the public and stakeholders in the Indonesia Stock Exchange, it is advisable for the exchange to actively consider research findings conducted by external parties. Such external research provides an objective perspective and reflects real-world market dynamics. Embracing these findings can contribute to greater transparency and credibility within the market.

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