

The Effect of the BI Rate, Inflation and Exchange Rates on Consumer Goods Stock Prices

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ABSTRACT

Purpose – Portfolio is a combination of several securities with a certain rate of return with several risks that are minimized through several different alternatives, forming a portfolio of a number of securities. Assessment of stock portfolio performance is important for investors in investing..

Methodology/approach – The research sample used a purposive sampling technique. With 10 companies out of 75 consumer goods companies listed on the Indonesia Stock Exchange, which provide complete price information, publish financial reports and are included in the LQ45 index for 2017 – 2022. **Findings** – It can be seen that share prices for consumer goods have increased, positive sentiment on a macro basis was caused by an increase in the Consumer Confidence Index from 113.4% to 118.5% in November 2021. Increased consumer confidence in facing the economic situation, driven by improved consumer perceptions, availability employment and increased income.

Novelty/value – The BI Rate affects the capital market, because changes in the BI rate have an impact on the Rupiah exchange rate against the Dollar. Rising inflation is a negative signal for issuers in the consumption sector. The Fed's high sentiment on financial markets has had an impact on the transportation and logistics sector causing operational costs to increase, potential profit margins to decline, causing losses due to rising production costs and declining public purchasing power.

Keywords: Stock prices, BI Rate, Inflation and Rupiah Exchange

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INTRODUCTION

Availability of good infrastructure can create efficiency and effectiveness in various sectors, improve societal productivity and economic growth ie long-term per capita output (Boediono, 1985). The increase in fuel prices had an impact on inflation and the Rupiah exchange rate and suppressed domestic growth. Inflation is a general increase in prices over a certain period and money depreciation (Nopirin:1995). Investors must understand developments in making the right decisions, so that the funds invested can be profitable. Stock prices are influenced by supply and demand factors, micro (internal) and macro (external). Interest rates have a strong influence on the capital market (Antasari and Akbar: 2019). The capital market is a place where various parties, especially companies, sell shares and bonds, with the aim that the proceeds from the sale are used as additional funds for strengthen the company's capital (Fahmi, 2012). This study analyzes macroeconomic variables, namely the BI Rate, Inflation and the Rupiah Exchange Rate for consumer goods stock prices for the 2017 – 2022 period. The formulation of the problem, because the portfolio is a combination of several securities with a certain rate of return, the risk can be minimized by spreading

several alternative portfolios of a number of securities. External factors that influence each other will have an impact on stock prices. The variables used in this study are the BI Rate, inflation, and the Rupiah exchange rate because they affect economic conditions and stock prices.

Research on the effect of macroeconomics on stock prices has various conclusions, including Wandu Sanyota (2019), Tri Wisnu (2020) concluding that the BI Rate has a significant effect on stock prices, in contrast to Ringga Samsurufika's research (2020).) and Ni Wayan (2016) where BI has no significant effect on stock prices. Inflation does not have a significant effect on stock prices according to Wandu Sanyota, et al (2019), Tri Wisnu (2020) and Ringga Samsurufika (2020), in contrast to the research of Ni Wayan (2016) and Dini Yulianti (2017). which states that inflation has a significant effect on stock prices. According to Wandu Sanyota (2019) and Dini Yulianti (2017), the rupiah exchange rate has a significant effect on stock prices, but Tri Wisnu (2020), Ringga Samsurufika (2020), Ni Wayan (2016) and Zefanya Liliana (2022) state that the exchange rate Rupiah has no significant effect on stock prices. From the existing research there are still differences in results (research gap) regarding the effect of macroeconomic variables on stock prices, where the consumption sector is strongly influenced by economic conditions, especially people's purchasing power because it is a sector for fulfilling people's basic needs.

Testing the hypothesis to determine the significant influence between the independent variables, namely the BI Rate, inflation and exchange rates in increasing the share price of the consumption sector. The data used is monthly data for the 2017 – 2022 period from the websites of Bank Indonesia, the Central Bureau of Statistics and the Indonesia Stock Exchange. Test the hypothesis with the t test to determine the partial effect of all variables, the F test to determine the simultaneous effect and test the coefficient of determination to determine how much the dependent variable can be explained by the independent variables.

LITERATURE REVIEW

BI Rate

Interest rates are set by the Central Bank, namely Bank Indonesia as a reference for credit or deposit rates for banks and financial institutions, as well as monetary policy by Bank Indonesia (Sudarsana, 2014). Interest rates have a very strong influence on the capital market (Antasari, 2019). Changes in interest rates can affect a person's desire to invest.

Inflation

The condition of weakening people's purchasing power is accompanied by a decrease in the real value of a country's currency (Restiawan, 2020). High inflation is a negative signal for issuers, especially the consumption sector, because if raw material prices rise, production costs will also rise followed by an increase in final product prices.

Exchange rate

Interaction is generated by the forces of demand and supply in the foreign exchange market (Yuniarti, 2017). The exchange rate is very influential on the amount of costs that must be incurred in stock transactions. The volatility of the rupiah exchange rate can affect foreign investor confidence in the Indonesian economic sector.

Stock price

The capital market is a market where buying and selling transactions occur in the form of financial instruments (securities) in the form of debt or capital, both issued by the government and private companies (Husnan, 2003). The stock price index is an index that compares stock prices, whether they have decreased or increased compared to time.

Effect of the BI Rate on Consumer Goods Stocks

When the BI Rate rises, stock prices fall, high interest rates will affect the present value and cash flow of the company so that stock investment is not attractive, has a negative impact on the capital market, demand for shares decreases, stock prices weaken (Asih Masitah, 2016), (Hermawan Purwohandoko, 2020) and (Anggriana, R A Sista, 2020).

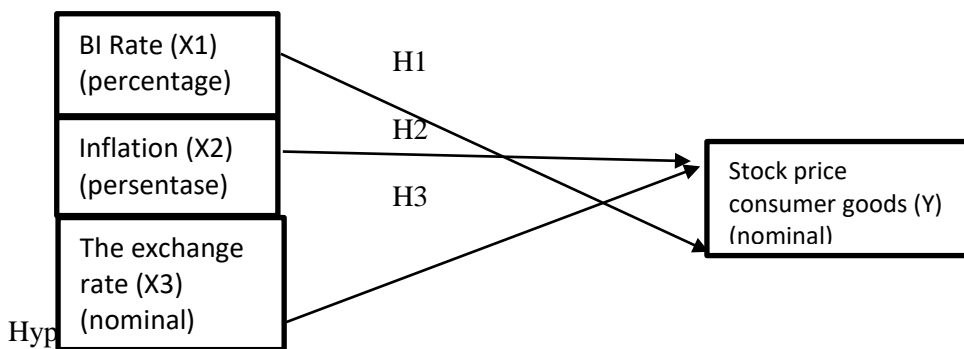
Effect of Inflation on Consumer Goods Stocks

Increased inflation causes stock prices to fall (Yuniarti, Erdah, 2016) rising inflation affects risks in stock investment, increases in consumer goods stock prices, investors are pessimistic about the ability of capital to generate profits in the present and the future.

Effect of the exchange rate on Consumer Goods Shares

Exchange rates or exchange rates are comparisons of prices or values in terms of exchanging goods or different currencies (Nopirin, 1995). Exchange rates greatly affect the total costs that must be incurred, as well as the costs that will arise in stock and bond transactions. A weaker exchange rate will increase the cost of importing raw materials, making companies tend to export. If the export volume is more productive then the stock price will also increase, and vice versa.

Frame work



The influence of the BI Rate on consumer goods stock prices

- Ha : there is an influence of the BI Rate on consumer goods stock prices.
- H0 : there is no influence of the BI Rate on consumer goods stock prices.

Effect of Inflation on the stock price of consumer goods

- Ha: there is an effect of inflation on consumer goods stock prices
- H0 : there is no effect of inflation on consumer goods stock prices

Effect of the Rupiah exchange rate on consumer goods stock prices

- Ha : there is an effect of the rupiah exchange rate on consumer goods stock prices
- H0 : there is no effect of the Rupiah exchange rate on consumer goods stock prices

METHOD

This study uses a quantitative approach with concrete data, in the form of numbers or numbers. The purpose of this research is to retest the hypothesis, so that the influence between variables can be identified. The object of research is the share price of consumer goods listed on the Indonesia Stock Exchange for 6 years from 2017 – 2022 obtained from the Indonesia Stock Exchange (www.idx.co.id). Statistical test analysis panel data regression method, with Microsoft Excel 2013 and SPSS version 25. The limitations of the research object are companies listed on the IDX, have complete financial reports and have stock price information for the period 2017 to 2022.

Population and Research Techniques

This study uses the closing price of the stock position at the end of each month. The data obtained is secondary publication data originating from the Indonesia Stock Exchange (www.idx.co.id), Bank Indonesia (www.bi.go.id), the Central Bureau of Statistics (www.bps.go.id), industry indexes IDX consumers (www.investing.com), Response Strategy to Interventions (www.rti.co.id) and other supporting websites. BI Rate and inflation data were obtained from the BI website (www.bi.go.id) in percentages for the period 2017-2022.

Sampling used a purposive sampling technique for consumer goods companies listed on the Indonesia Stock Exchange in 2017 – 2022 as many as 75 companies, but only 57 companies published their financial reports. Of the 57 companies, 10 companies were selected to be included in the LQ45 index which can represent the consumer goods sector during 2017 – 2022. The Partial Significance Test (t test) shows the significance of the BI Rate of $0.000 < \alpha = 0.05$ indicating the effect of the BI Rate on prices share. The significance value of inflation is $0.065 > \alpha = 0.05$, there is no effect of inflation on stock prices. The significance of the exchange rate is $0.000 < \alpha = 0.05$, there is an effect of the Rupiah exchange rate on the increase in stock prices. F count is 96.279 and F table is 2.74 indicating that F count > F table, the strengthening of the BI Rate, inflation and the Rupiah exchange rate can affect stock prices. The coefficient of determination is 90%, it is concluded that the BI Rate, inflation and the Rupiah exchange rate have jointly contributed to the increase in stock prices for the 2017-2022 period, while the remaining 10% is explained by other variables outside of being studied.

RESULT AND DISCUSSION

Table 1. Realibility Test
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.791	.883	3

Source: Data processed in 2022

Reliability indicates the extent to which measurement results can be trusted and relied upon, must have a level of consistency and stability Sumadi Suryabrata (2004:28). Obtained an alpha value of 0.791 meaning that the data used is reliable as a whole, where r count > r table is 0.2287, so the data can be trusted and consistent.

Table 2. Validity Test
Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BI Rate	7.5722	2.362	.839	.712	.771
Inflasi	13.4819	7.375	.789	.632	.705
Kurs	15.3333	7.163	.732	.537	.709

Source: Data processed in 2022

From the validity calculation, it can be seen that r count > r table where the BI Rate is $0.771 > 0.2287$, inflation is $0.705 > 0.2287$ and the exchange rate is $0.709 > 0.2287$. Because the r count (Cronbach's Alpha) as a whole and clarified from the BI Rate, Inflation and Exchange Rate > r table with a significance level of $\alpha = 0.05$, all three can be trusted as data in research.

Table 3. Normality Test
One-Sample Kolmogorov-Smirnov Test

		BI Rate	Inflasi	Kurs
N		72	72	72
Normal Parameters ^{a,b}	Mean	4.7118	2.9322	1.4106
	Std. Deviation	.80564	1.07213	.05261
Most Extreme Differences	Absolute	.092	.101	.100
	Positive	.092	.101	.100

	Negative	-.088	-.083	-.100
Test Statistic		.092	.101	.100
Asymp. Sig. (2-tailed)		.200 ^{c,d}	.066 ^c	.071 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: Data processed in 2022

From the table above it can be seen that the Kolmogorov Smirnov BI Rate test is $0.200 > 0.05$, inflation is $0.066 > 0.005$ and the exchange rate is $0.071 > 0.05$, so that the data distribution meets the assumption of normality.

Multiple Regression Analysis

Table 4. Multiple Regression Coefficient

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	14.421	.332		43.488	.000
	BI Rate	-.138	.050	-.464	-2.750	.008
	Inflasi	.459	.110	.625	4.192	.000
	Kurs	-.398	.088	-.603	-4.535	.000

a. Dependent Variable: Stock Price

Source: Data processed in 2022

The table above shows the multiple regression equation as follows:

$$Y = 14.421 + (0.138) X_1 + 0.459 X_2 + (0.398) X_3 + \varepsilon$$

A constant value of 14.421 indicates that the BI Rate, Inflation and Rupiah Exchange Rate are constant (0), then the stock price is 14.421. The coefficient β_1 of (0.138) indicates that the BI Rate has a negative effect on stock prices of 0.138. The β_2 coefficient of 0.459 indicates that inflation has a positive effect on stock prices of 0.459. The coefficient β_3 (0.398) indicates that an increase in the Rupiah exchange rate has a negative effect on stock prices of (0.398).

Partial Significance Test (t-test)

The significance of the BI Rate is $0.008 < \alpha = 0.05$, H_a is accepted, H_0 is rejected, there is an influence of the BI Rate on stock prices. The significance of inflation is $0.000 < \alpha = 0.05$, H_a is accepted, H_0 is rejected, there is an effect of inflation on stock prices. The significance of the rupiah exchange rate is $0.000 < \alpha = 0.05$, H_a is accepted, H_0 is rejected, there is an effect of the Rupiah exchange rate on stock prices.

Simultaneous Significance Test (F-test)

Table 5. F-test ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.003	3	3.668	18.018	.000 ^b
	Residual	13.842	68	.204		
	Total	24.845	71			

a. Dependent Variable: Harga Saham

b. Predictors: (Constant), Kurs, Inflasi, BI Rate

Source: Data processed in 2022

Obtained F count 18.018 and F table 2.74, showing the value of F count $>$ F table, H_a is accepted, meaning that the BI Rate, inflation and the Rupiah exchange rate can increase stock prices. The simultaneous results are different from the partial results on each variable, only inflation has a significant effect on stock prices, while the BI Rate and the Rupiah exchange rate have a negative effect on consumer goods stock prices.

**Table 6. The coefficient of determination
Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.900 ^a	.809	.801	1.09680	.809	96.279	3	68	.000

a. Predictors: (Constant), Kurs, BI Rate, Inflasi

b. Dependent Variable: Harga Saham

Source: Data processed in 2022

The coefficient of determination is 90%, that the BI Rate, inflation and the Rupiah exchange rate all contribute to the increase in stock prices for the 2017 – 2022 period, the remaining 10% is explained by other variables.

Descriptive statistics

Table 7. Descriptive Statistics

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	
Harga Saham	72	5.71	13.86	9.8468	2.45885	
BI Rate	72	3.50	6.00	4.5208	.85862	
Inflasi	72	1.32	5.95	2.9729	1.12957	
Kurs	72	13.30	16.30	14.2491	.61229	
Valid N (listwise)	72					

Source: Data processed in 2022

The highest BI Rate is 6% in November 2018 to June 2019, the lowest is 3.50% in February 2021 to July 2022, the average March to May 2020 is 4.52%, the standard deviation is 0.858% from the average value of the research year which tends to stable and changes that occur are not too significant.

The highest inflation was 5.95% in September 2022, the lowest was 1.32% in August 2020, the average in February 2020 was 2.973%, a standard deviation of 1.129% from the average value of the research year, which was caused by the increase in prices for most of the spending sector. such as consumption products which include food, beverage, cigarette and tobacco products, then the health sector, and the education sector (Central Bureau of Statistics).

The highest Rupiah exchange rate is Rp. 16,300, occurred in March 2020, the lowest was Rp. 13,300 in September 2017, the average in December 2021 is Rp. 12,249, a standard deviation of Rp. 612,290 which is less than the average Rupiah exchange rate. This made foreign investors withdraw investment funds invested in Indonesia, and the export-import gates stagnated which resulted in the USD exchange rate strengthening against the rupiah.

The highest share price for the consumer goods sector was IDR 13,862 in January 2019, the lowest was IDR 5,710 in December 2022, the average for February 2020 was IDR 9,846, the standard deviation of IDR 2,458.85 is smaller than the average share price, due to cases found firstly the SARS Cov-2 virus in Indonesian citizens and the imposition of Restrictions on Community Activities (PPKM) which caused many business activities to be hampered and workers who were laid off no longer earned income which had an impact on buying power in the consumption sector.

CONCLUSION

The conclusion from the above analysis is that the BI Rate has a positive and significant effect on stock prices. The reduction in the BI Rate made investors place their funds in stocks. The increase in

inflation affects the stock price of consumer goods, high inflation does not affect stock prices, because consumer goods dominate. An increase in the exchange rate affects the share price of companies that have costs denominated in dollars. The F test shows that this research is feasible to explain consumer goods stock prices for the 2017-2022 period. The R square result is 90%, the remaining 10% is influenced by other variables.

Based on the discussion and conclusions from this study, there are several recommendations for other researchers, namely that it is hoped that consumer goods companies will continue to improve their performance by implementing cost efficiency and increasing current assets, using domestic raw materials to anticipate an economic downturn. the Rupiah exchange rate against the US Dollar and the instability of macroeconomic factors. For other researchers to be able to expand their research variables, to other consumer goods companies and add years of research (> 6 years). Investors can use this research as a consideration in making investment decisions on the Indonesia Stock Exchange by considering economic conditions from a macroeconomic perspective, in order to obtain appropriate profits.

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