

THE EFFECT OF INTEREST RATE, EXCHANGE RATE, INFLATION, AND RETURN ON ASSETS (ROA) ON STOCK PRICE IN THE BANKING SUB SECTOR LISTED ON THE IDX

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Abstract

Study This own objective for know The Effect of Interest Rates, Inflation, Exchange Rates, and Return On Assets (ROA) on Stock Prices in the Banking Sub-Sector on the Indonesia Stock Exchange for the 2018-21 period. Data that used sourced from financial data on the Indonesia Stock Exchange via the website www.idx.co.id and has made selections based on criteria that have been determined. The population used in the study is Bank companies totaling 47 companies, using a purposive sample, then a sample obtained from as many as 25 companies. With study, This expected agar can become something knowledge To help researchers next, and also the students or public general need something source information. From research, can is known that the Return On Assets (ROA). Partial effect and experience significant to price stock. Interest Rates, Exchange Rates, Inflation in a manner partial No effect and not experience significant to price shares in Sub - Sectoral Banking. However, all variables have an effect simultaneously. Election sector in research This because the moment is because Indonesia already enter an era of more globalization forward, and of course, will There is Lots comer foreign or definite locals will need various type need trees, so many businesses or built companies on the basis that makes us intend To research it.

Keywords: Total Assets Turn Over; Debt to Assets Ratio; Debt To Equity Ratio; Return On Assets; Stock Price

1. Introduction

By and large, the development and growth of a successful economic company should do the management better For facing competition between companies and seeking domestic and international funding outside the country. The company will improve and expedite business. For development efforts, increasingly a development activity company, so business people naturally need more capital big. Capital that obtained company of investors who invest in the company. Because an investor should truly understand the stock price and see How to level a company's profit so as not to invest wrongly, affecting things rise price share. A company is level Interest Rates, Exchange Rates, Inflation, and Returns On Assets.

PT. Bank BRI found tribal data flowered in 2018 by 6%, declining in 2019, i.e., to 5%. Meanwhile, on-price data, shares in 2018 amounted to 0.18892 and experienced an increase in 2019 to 0.19134. From the table phenomenon, it can see that if ethnic group flower experiences a decline, so price share will experience a rise.

PT. Bank Central Asia tbk inflation data found in 2019 of 2.7 % and decreased in 2020 to 1.7 %. Meanwhile, on-price data, shares in 2019 amounted to 0.5393 and experienced a decrease in 2020 of 0.28409. From the table phenomenon, it can see that If inflation experiences a decline so price share will experience a decline.

PT. Indonesian State Bank found that the Exchange Rate in 2020 was 14,105 and experienced an increase in 2021 of 14,269. Meanwhile, ROA in 2020 was 3 % and experienced a decrease by year by 2021 by 11%. From the table above phenomenon is that if the mark trades up, then ROA will increase.

PT. Bank of the Republic of Indonesia can see that the ROA data in 2020 was 11 % and experienced an increase 2021 of 18%. Meanwhile, on price data share in 2020 of 0.2894 experienced a decrease in 2021 by 0.21008. From the table above, the phenomenon can see. If ROA is experiencing an increase, so price share will experience a decline.

2. Theoretical Background

Interest Rates can be used to collect and distribute funds in various forms with objective trees to produce income, so the distribution of these funds can be profitable for the bank (Kasmir, 2015, p. 134). There is an increase in ethnic group flowers, which is No reasonable, and will complicate the business world. For pay burdens and obligations, because ethnic groups' high interest will add burden for the company, so in a manner, direct will influence the price of the stock.

The exchange rate (exchange rate) is used as earning currency interaction second demand and supply that occurs in the foreign exchange market. Setyaningrum , Muljono (2016). This leads investors to buy stock, saying that change mark swap relates negatively to stock returns. In making it easy or conditioning, mark exchange currency within specified limits as a response to obstacle characteristic temporary for influence variables macro for example inflation. Inflation Rate, according to Murni (2013:202), states, inflation is something event that shows an increased level of price in a manner common and ongoing manner. Keep going continuously.

Return On Assets (ROA) is used to measure the ability company to produce a profit from the total assets used by every company so that the value of ROA increases. The more the large ROA means, the better companies use the assets to get profit. So that investors become interested in buying share company Dendawijaya (2013:120)

3. Methods

Study This applies a type of quantitative study. Quantitative data research Emphasizes analyzing the data j form number (numeric), which is then processed with method matching statistics. Study quantitative research. This uses secondary data in the form of

report finances published on the IDX. The population is unity from whole object characteristic research specific. Population in study This totaled 103 consumer non-cyclical sector companies listed on the Stock Exchange Indonesia period 2019-2021. Sugiyono (2017: 81) revealed that the sample is shared and owned by the population, corresponding number, and specific characteristics. Withdrawal sample in study This is based on the technique of purposive sampling. According to Sugiyono (2017: 85), purposive sampling is a technique that determines the sample with several considerations.

Methods and Research Data Analysis

Normality Test

According to Ghozali's (2019:154) aims, the test is in the regression model, variables bully, or residue own normal distribution.

Multicollinearity Test

Ghozali (2019:103) aims to test what the regression model found exists in the correlation between variable free. Testing multicollinearity with a low tolerance value ($VIF = 1 / \text{Tolerance}$). Cut value general off worn for show exists multicollinearity is tolerance value ≤ 0.10 or $VIF \geq 10$

Autocorrelation Test

Ghozali (2019:107) aims to test whether the linear regression model. There is a correlation between error disturbance in period t with error bully in the previous t period. The Darbin - Watson test was used For level autocorrelation one and required existing intercept (constants) in the regression model, and not there is a lag variable between variable independent. The DW test was used as positive or negative if $du < d < 4-du$.

Heteroscedasticity Test

According to Ghozali's (2019:134) aims, the test is in regression mode, with variance inequality of residual one observation other.

Data Analysis Techniques

In a study, this thinking analysis is used by a researcher analyzing multiple linear regression to evaluate the influence between more than one independent variable and the dependent variable for variables Independent used in the study, namely Investment Decision (X1), Capital Structure (X2), Policy Dividends (X3), and Profitability (X4). Meanwhile, the variable dependent on research is Firm Value (Y). Equality regression in study This is as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Description:

Y = Variable dependent (Company Value)

a = Constant

b1- b4 = Coefficient regression from variable independent

X1 – X4 = Independent variables (Investment Decision, Capital Structure, Policy Dividend & Profitability)

e = Error/rate error

4. Results and Discussion

Analysis descriptive

Analysis descriptive 1 is data view with minimum, maximum, mean, and standard variances deviation from variable Ethnic group interest, exchange rates, inflation, return on assets (ROA), and prices Share.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Means	std. Deviation
Ln X1	100	1.25	1.79	1.4939	.21896
Ln X2	100	2.63	2.67	2.6524	.01509
Ln X3	100	.53	1.31	.8685	.30754
Ln X4	100	-8.60	-2.40	-4.7853	1.17149
Ln Y	100	-3.02	5.84	.8790	2.00726
Valid N (listwise)	100				

Assumption Test Classic

Normality Test

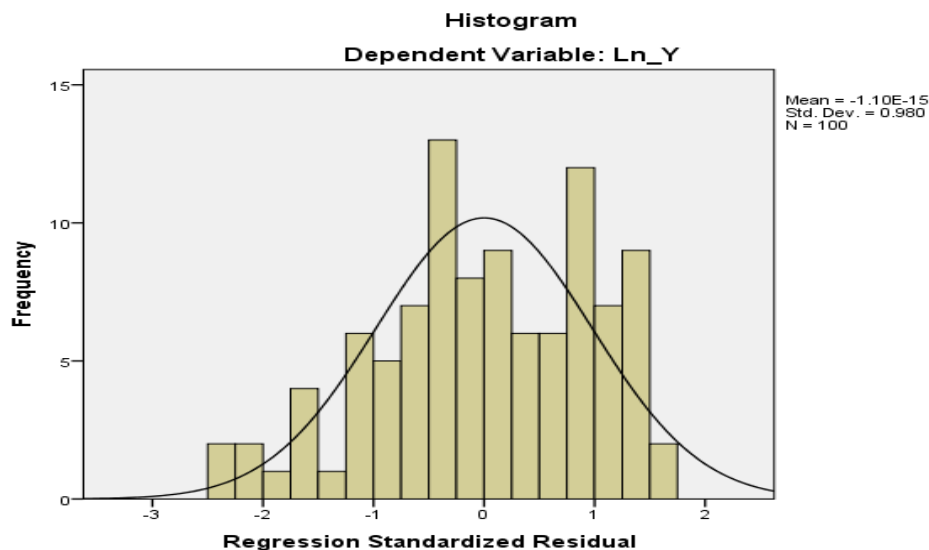


Figure 1. Histogram Graph

The graphic above shows that the data is distributed normally where curve-shaped bells are not tilted to the right or the left.

Multicollinearity Test

Table 2. Multicollinearity Test Results

Model		Unstandardize		Standardized	t	Sig.	Collinearit	
		B	std. Error	Beta			tolerance	VIF
	(Constant)	-1,876	28,131		-.495	.622		
	Ln X1	.879	2,594	.096	.339	.735	.754	1,598
1	Ln X2	2,555	10.182	.020	.260	.796	.622	1,608
	Ln X3	-.122	1938	-.034	-.114	.909	.845	1,274
	Ln X4	-1,394	.105	-.814	-13,334	.000	.979	1021

From the results, it is known that all variables produce tolerance values > 0.1 and VIF < 10; then, with This, all variables stated get away from the multicollinearity test.

Autocorrelation Test

Table 3. Test Autocorrelation
 Summary Model ^b

Model	R	R Square	Adjusted R Square	std. The error in the Estimate	Durbin - Watson
1	.842 ^a	.710	.697	.81216	1.927

a. Predictors: (Constant), Ln X1, Ln X, Ln X3, Ln X4

b. Dependent Variables: Ln Y

Test Figures Dw must be in dl and 4 - du, namely $1.5922 < 1.927 < 2.2418$, so said No happen symptom autocorrelation.

Heteroscedasticity Test

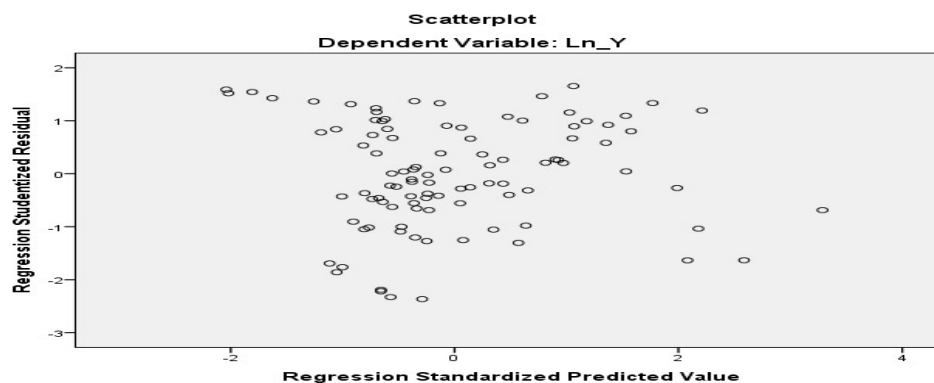


Figure 1.
 Scatterplot test

From pictures, one can see the data you have spread randomly and whole. No form pattern is specific and not collective on one point, so there is no symptom of heteroscedasticity.

Analysis Results in Multiple Linear Regression

Table 3. Analysis Multiple Linear Regression

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	std. Error	Beta		
	(Constant)	-13,926	28,131		-.495	.622
	Ln X1	.879	2,594	.096	.339	.735
1	Ln X2	2,644	10.182	.020	.260	.796
	Ln X3	-.222	1938	-.034	-.114	.909
	Ln X4	-1,394	.105	-.814	-13,334	.000

a. Dependent Variable: Ln Y

The result results of the table are as follows:

$$Y = -13.926 + 0.879 (X1) + 2.644 (X2) - 0.222 (X3) - 1.394 (X4)$$

1. There is a mark constant of -13,926 where variable X1 (Interest Rate), X2 (Exchange Rate), X3 (Inflation), X4 (ROA), and Y (Share Price) has 0 or the Y value is -13.926
2. Coefficient variable X1 (Interest Rate) is worth positive, i.e., 0.879 means if x1 increases by 1%, y will increase by 0.735. With variable others in a manner constant.
3. The coefficient variable X2 (Exchange Rate) has a positive value, i.e., 2644 means if x2 increases by 1%, y will increase by 0.796. With variable other in a manner constant.
4. Coefficient variable X3 (inflation) has a negative value, i.e., -0.222 means if x3 increases by 1%, y will decrease by 0.909. With variable other in a manner constant.
5. Coefficient variable X4 (ROA) has a value negative, i.e., -1.394 means if x4 increases by 1%, y will decrease as well. With variable other in a manner constant.

Coefficient Determination

Table 4. Coefficient Determination

Summary models

Model	R	R Square	Adjusted R Square	std. An error in the Estimate
1	.808 ^a	.654	.639	1.20604

a. Predictors: (Constant), Ln X1, Ln X2, Ln X3, Ln X4

The value of Adjusted R Square is 0.639 with 63.9% influence on Y (Share Price), and the remaining 36.1% is influenced by variable other.

Hypothesis Test Kindly Partial (T-Test)

Table 5. Hypothesis Testing Kindly PARTIAL (T-TEST)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	std. Error	Betas		
	(Constant)	-13,926	28,131		-.495	.622
	Ln X1	.879	2,594	.096	.339	.735
1	Ln X2	2,644	10.182	.020	.260	.796
	Ln X3	-.222	1938	-.034	-.114	.909
	Ln X4	-1,394	.105	-.814	-13,334	.000

a. Dependent Variable: Ln Y

If the value of t count $> t$ table, so own connection effect. on the table on getting t tables and values 0.05 with degrees free $100-4-1 = 95$, which is 1.661

1. The variable X_1 produces mark count 0339, t table 1.661 with significant 0.735, then results in comparison count $0.339 < t$ table 1.661 and $0.735 > 0.05$ with conclusion variable X_1 effect but No significance to Y .
2. The variable X_2 returns t count value 0.260, t table 1.661 with a significant 0.796, then results from comparison t count $0.260 < t$ table 1.661 and $0.796 > 0.05$ with conclusion variable X_2 has an effect but No significance to Y .
3. The variable X_3 returns mark count -0.114, t table 1.661 with significant 0.909, then results in comparison t count $-0.114 < t$ table 1.661 and $0.909 > 0.05$ with conclusion variable X_3 has an effect but No significance to Y .
4. The variable X_3 returns t value count -0.114, t table 1.661 with a significant 0.909, then results from comparison t count $-0.114 < t$ table 1.661 and $0.909 > 0.05$ with conclusion variable X_3 has an effect but No significance to Y .
5. The variable X_4 returns t count value -13,334, t table 1,661 with significant 0.909, then results from comparison t count $-13.334 < t$ table 1.661 and $0.000 < 0.05$ with conclusion variable X_4 effect in a manner significant and partial against Y .

Hypothesis Test Kindly Simultaneous (Test F)

Table 6. Hypothesis Test Kindly Simultaneous (Test F)

ANOVA^a

Model		Sum of Squares	df	MeanSquare	F	Sig.
	Regression	260,699	4	65,175	44,808	.000 ^b
1	residual	138,181	95	1,455		
	Total	398,880	99			

a. Dependent Variables: Ln Y

b. Predictors: (Constant), Ln X_1 , Ln X_2 , Ln X_3 , Ln X_4

Values compared from f count and f table with $(df_1) = 4$ and $(df_2) = 95$ with results f table 2.467 and significant 0.05. So, in conclusion, f count = 44,808 $> f$ table = 2.467 and significant $0.05 < 0.000$ then result from whole variable X_1 (tribe interest), X_2 (value exchange rate), X_3 (inflation), X_4 (ROA) effect in a manner simultaneous against Y (price stock).

Influence Interest Rates Against Stock Prices

On testing in a manner Partially known, sig $0.735 > 0.05$ means that ethnic group flowers do not influence price stock. Research results in This are in line with the results (Umi et al., 2013), which stated that ethnic group flower No own influence on price stock; on the other hand, the study This No is in line with the results (Maria et al., 2016) stated ethnic group flower own influence to price stock.

Value Influence Swap Against Share Prices

On testing in a manner Partial, it is known that $\text{sig } 0.796 > 0.05$ means that ethnic group flower No own influence on price stock. Observation results in This are in line with research (Maria et al., 2016), which states mark swap has No own influence on price share on the contrary study This No in line with the results (Umi et al., 2013) stated mark exchange own influence to price stock.

Influence Infalse Against Share Prices

On testing in a manner Partial is known sig value $0.909 > 0.05$ indicates that inflation has No own influence on price stock. Test results This is in line with research conducted by (Indah et al., 2020), which states that inflation has no influence on price stock, and vice versa test in line with results (Dini et al.) stated inflation influential price stock.

The Effect of ROA on Stock Prices

On testing in a manner Partial is known sig value $0.000 < 0.05$ indicates that ROA influences price stock. Research test This is in line with the study This is what (Rosdian et al., 2016), which stated that ROA influences price stock, but the test this No in line with the results (Bayu et al., 2021) stating that ROA is not own influence to price stock.

Influence Interest Rates, Exchange Rates, Inflation, and ROA on Stock Prices

Based on the value obtained with f count value $44.808 > f \text{ table } 2.467$ and $\text{sig } 0.000 < 0.05$. It can conclude that the H_0 value is rejected, and H_a is accepted. Observation results concluded that variable Interest Rates, Exchange Rates, Inflation, and ROA have an effect in a manner simultaneous to Banking Company Share Prices listed on the IDX for the 2018-2021 period.

5. Conclusion

Based on the results of the study, the researcher can conclude:

1. Ethnic group flower known $0.796 > 0.05$ declared No influential in a manner significant to mark companies in sub-sector companies banks listed on the stock exchange Indonesia period 2018-2021.
2. The exchange rate, known as $0.796 > 0.05$, stated No influence in a manner significant to mark companies in sub-sector companies banking, which is listed on the stock exchange Indonesia period 2018-2021.
3. Inflation It is known that $0.909 > 0.05$ is stated as not influencing in a manner significant to mark companies in sub-sector banks listed on the stock exchange Indonesia period 2018-2021.
4. Return On Assets (ROA) $0.000 < 0.05$ is not influential in a manner significant to mark companies in sub-sector banks listed on the stock exchange Indonesia period 2018-2021.
5. Based on the value obtained with f count value $44,808 > f \text{ table } 2,467$ and $\text{sig } < 0.05$. It can conclude that the value of H_0 is rejected, and H_a is accepted. Observation

results concluded that variable Interest Rates, Exchange Rates, Inflation, and ROA have an effect in a manner simultaneous to the Banking Company's Share Price registered on the IDX for the 2018-2021 period.

Based on the results of research that have been done and results discussion obtained by researchers, suggestions that can give that are for researchers we are furthermore expected To use more studies, many again and the latest, to make more references complex. Besides That expected, For adding variables, others can be made as independent variables that affect the independent variable in a study.

References

- Atik, Yopi Atul Imrpoh. 2012. Pengaruh Inflasi, Nilai Tukar, dan Tingkat Suku Bunga SBI terhadap Harga Saham Perbankan yang Terdaftar di Bursa Efek Indonesia. Fakultas Ekonomi, Universitas Gunadarma, Jakarta
- Putu Eka Pujawati, I Gusti Bagus Wiksuana, dan Luh Gede Sri Artini. (2015). Pengaruh Nilai Tukar Rupiah Terhadap Return Saham dengan Profitabilitas Sebagai Variabel Intervening. E - Jurnal Ekonomi dan Bisnis Udayana 4.04.
- Umi Mardiyati, dan Ayi Rosalina. (2013). Analisis Pengaruh Nilai Tukar, Tingkat Suku Bunga, dan Inflasi Terhadap Indeks Harga Saham (Studi Kasus Pada Perusahaan Properti yang Terdaftar di Bursa Efek Indonesia). Jurnal Riset Manajemen Sains Indonesia (JRMSI). Vol. 4, No. 1
- Novianto, A. (2011). Analisis pengaruh Nilai Tukar (kurs US\$), Tingkat Suku Bunga SBI, Inflasi terhadap Indeks Harga Saham Gabungan di Bursa Efek Indoneisa tahun 1999 - 2010. Tesis master, tidak diterbitkan, Universitas Diponegoro, Semarang, Indonesia.
- Akbar, Kausar (2018). Pengaruh nilai tukar dan inflasi terhadap harga saham di Jakarta Islamic Index (JII) (studi kasus Perusahaan Tambang periode 2010-2017). Universitas Islam Negeri Ar-Raniry Banda Aceh.
- Andriana, Denny (2015). Pengaruh nilai tukar terhadap harga saham setelah initial public offering (IPO). Universitas Pendidikan Indonesia.
- Tandelilin, E. (2010). Analisis Investasi dan Manajemen Portofolio. 1st. ed. BPFEUGM. Yogyakarta.
- Sugiyono. (2012). Metode Penelitian Bisnis. Cetakan ke delapan belas. CV ALFABETA. Bandung
- Cahya, P. F. P., I. W. Suwendra, dan F. Yudiaatmaja. 2015. Pengaruh Nilai Tukar Rupiah dan Inflasi Terhadap Indeks Harga Saham Sektor Properti dan Real Estate yang Tercatat di Bursa Efek Indonesia Tahun 2011–2013. E - Journal Bisma Universitas Pendidikan.

Jessica, J., Michelle, M., & Lilia, W. (2021). Pengaruh Tingkat Suku Bunga, Nilai Tukar, Inflasi dan Return on Assets (ROA) terhadap Harga Saham pada Sub - Sektor Perbankan Di Bursa Efek Indonesia Tahun 2016 - 2019. Jurnal Ilmiah Universitas Batanghari Jambi, 21(1), 317-326.