EFFECT OF INFLATION, EXCHANGE RATE, INTEREST RATE, TOTAL ASSET TURNOVER ON SHARE PRICES IN PROPERTY COMPANIES, REAL ESTATE, AND CONSTRUCTION BUILDING

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Abstract

Information of the cycles share prices up and down at a certain company they can be used as a model before making investment transactions in the stock market as an inflation, interest rate, exchange rate, etc. Shares are bonds that prove a person's ownership of a company. In recent years the price share of property, real estate, and building construction had prices increase and decrease. Share prices switch the result of the macroeconomic is inflation, interest rate, exchange rate, and total asset turnover. This research is purposeful to find out how much significant effect of inflation, exchange rate, interest rate, total asset turnover on share prices in property companies, real estate, construction building listed on the IDX 2018-2020 period. The study conducted with a data measurement of the annual financial statements obtained from IDX. Results showing inflation, interest rate, and exchange rate having a significant low value in affecting share prices. while the total asset turnover having a significant high value in share prices.

Keywords: Inflation, Exchange Rate, Interest Rate, Total Asset Turnover, Share Prices
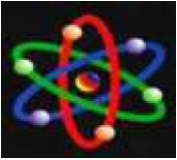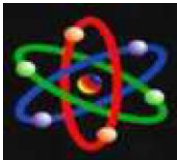
INTRODUCTION

As an investor we must know the cycle of ups and downs of a stock price in a company. This data can be used as a source of perspective before making speculation exchanges in the capital market, expansion, borrowing costs, trading rates, and others[1][2][3][4][5]. Based on previous research entitled "The Effect of Inflation, Interest Rates, and Exchange Rates on Stock Prices in Property & Real Estate Companies Listed on the IDX in 2012-2014" [6][7] states that property and real estate prices (especially houses) in in 2012-2014 there was an increase of 10% -20%, where the price increase was influenced by one of the macroeconomic factors namely inflation. Stock is one of the investment tools in the stock exchange. Shares are securities that a person owns in a company. Inventory costs, especially in the field of property and land, have recently experienced different costs. The rise and fall of prices is caused by macroeconomic factors, namely inflation and interest rates which often fluctuate. This affects the movement of stock [8][9][20]. The theory of money demand discusses the factors that cause the demand for money, while the theory of money supply discusses the available money supply and efforts to control it so as not to cause inflation or deflation. The forces of supply and demand for money in financial markets shape interest rates. Interest rates are a percentage of the principal paid as a commission (interest) for a loan within a certain period of time. Interest rates experienced increases and decreases in 2012-2014 with interest rates of 5.77% and 7.53 % respectively[11][12][13][14]. Such changes may affect the offering costs of organizations listed on the Indonesia Stock Exchange. [15][16]

The exchange rate is the price of the Indonesian rupiah against foreign currencies. The exchange rate in 2012-2014 fluctuated, each value was IDR 9,380 .39 , IDR 10,451.37 and IDR 11,878.67. Fluctuations that occur can cause changes in the value of investment in a company. (www.bi.go.id) . Total assets turnover is a form of activity ratio and is used to measure the capacity of funds embedded in all rotating assets during a period or capital capacity.[17][18] Total assets turnover is considered important for creditors and company owners, because it will show whether or not the efficient use of all assets in a company. The level of inflation and interest rates sufficiently affect the stock price of a company. If inflation rises and interest rates increase, the stock prices of several companies tend to decrease and vice versa. Excessive inflation figures will be a sentiment for stock investors.[19][20][21][22]

No	Issuer Code	Year	Inflation	Exchange rate	Interest rate	TAT		Stock price
						Sale	Total Assets	
1	MT	20	Rp. 3.1	Rp. 14,	Rp. .	Rp. 1,378,8	Rp.	Rp.

No	Code	Year						
	L A	18	3	481	6.00	62	0.27	448
		2019	Rp. 2.27	Rp. 13,901	Rp. 5.00	Rp. 1,403,758	Rp. 0.23	Rp. 555
		2020	Rp. 1.68	Rp. 14.105	Rp. 3.75	Rp. 1,110,650	Rp. 0.19	Rp. 440
2	M K PI	2018	Rp. 3.13	Rp. 14,481	Rp. 6.00	Rp. 2,217,086,119,506	Rp. 0.32	Rp. 22,500
		2019	Rp. 2.27	Rp. 13,901	Rp. 5.00	Rp. 1,872,934,497,082	Rp. 0.26	Rp. 16,200
		2020	Rp. 1.68	Rp. 14.105	Rp. 3.75	Rp. 1,219,793,949,348	Rp. 0.16	Rp. 28,000
3	P LI N	2018	Rp. 3.13	Rp. 14,481	Rp. 6.00	Rp. 1,443,832,427	Rp. 0.10	Rp. 2,880
		2019	Rp. 2.27	Rp. 13,901	Rp. 5.00	Rp. 1,477,975,543	Rp. 0.12	Rp. 3,150
		2020	Rp. 1.68	Rp. 14.105	Rp. 3.75	Rp. 927,495,382	Rp. 0.08	Rp. 2,550
4	L P C K	2018	Rp. 3.13	Rp. 14,481	Rp. 6.00	Rp. 2,209,581	Rp. 0.24	Rp. 1,600
		2019	Rp. 2.27	Rp. 13,901	Rp. 5.00	Rp. 438,561,853,293	Rp. 0.19	Rp. 1.015
		2020	Rp. 1.68	Rp. 14.105	Rp. 3.75	Rp. 1,844,373	Rp. 0.19	Rp. 1,420

Table 1. Data Sources

Population is the subject of research. This study uses annual financial reports uploaded by each Property, Real Estate and Building Construction company listed on the Indonesia Stock Exchange (IDX) for the 2018-2020 period[24][25]. The sampling technique uses purposive sampling technique. The criteria used as research samples are as follows:

1. Property, Real Estate and Building Construction companies listed on the IDX for the period 2018 - 2020.

2. Property, Real Estate and Building Construction companies that do not publish regular and complete financial reports for the period 2018 – 2020.

3. Property, Real Estate and Building Construction Companies that experienced losses in the 2018 – 2020 period.

RESEARCH METHODS

The Indonesia Stock Exchange (IDX) or also known as the Stock Exchange Index (IDX) is a market for buying and selling securities of a company with the aim of trading securities between them in an orderly, fair and efficient manner. The Indonesia Stock Exchange has a Head Office located in South Jakarta.

IDX is the result of a merger of the Surabaya Stock Exchange (BES) and the Jakarta Stock Exchange (BEJ) which merged on November 30, 2007. Implemented trading suspension in 2008 and Indonesian Stock Price Assessment (PHEI) in 2009. The IDX also created a campaign called Yuk Nabung Saham which was aimed at all
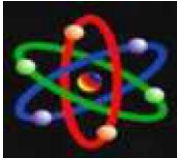
Indonesian people to want to start investing in the capital market and was first introduced on 12 November 2015 and is still being implemented today.

Descriptive Statistics

	N	Minimum	Maximum	Means	std. Deviation
Ln_inflation	129	.52	1.14	.8868	.26751
Ln_Kurs	129	2.63	2.67	2.6504	.01698
Ln_SB	129	1.32	1.79	1.5743	.19423
Ln_TAT	129	-5.45	1.33	-1.8034	1.01646
Ln_HS	127	3.91	10.24	6.1909	1.39745
Valid N (listwise)	127				

Table 3. Descriptive Statistics

1. Inflation at a *minimum value* **0.52** _ in 2018 ; *maximum* **1.14** in 2020 ; *mean* **0.8868** ; *standard deviation* **0.26751** occurs in every company listed on the Indonesia Stock Exchange.
2. Exchange rate with a *minimum value* **2 ,63** in 2018 ; *maximum* **2.67** in 2019 ; *mean* **2.6504** ; *standard deviation* **0.01698** _ occurs in every company listed on the Indonesia Stock Exchange.
3. Interest rate with a *minimum value* **1.32** in 2018 ; *maximum* **1.79** in 2020 ; *mean* **1.5743** ; *standard deviation* **0.19423** _

occurs in every company listed on the Indonesia Stock Exchange.
4. Total Asset Turnover with *minimum value* **-5.45** at PT Greenwood Sejahtera Tbk in 2018 ; *maximum* **1.33** at PT Bima Sakti Pertiwi Tbk in 2020; *mean* **-1.8034** ; *standard deviation* **1.01646**
5. Share Price with a *minimum value* **3.91** at PT Bima Sakti Pertiwi Tbk in 2018; *maximum* **10.24** at PT Metropolitan Kentjana Tbk in 2020; *mean* **6.1909** ; *standard deviation* **1.39745**

To find out whether the dependent and independent variables normally distributed or not, the researcher needs to do a Normality test using the *Kolmogorov_Smirnov* test table. With the provision that if the significant value < 0.05 then it is said to be not normally distributed, if the significant value is > 0.05 then it is said to be normally distributed.
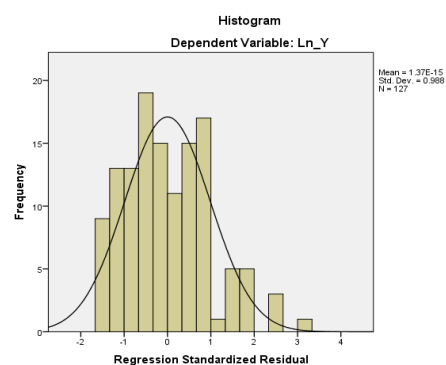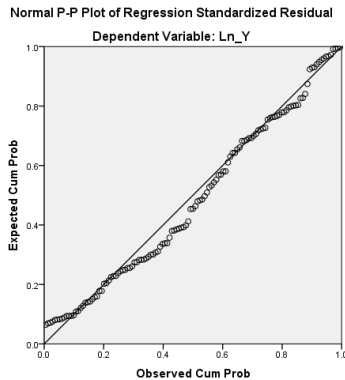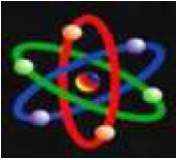

Figure 1. Histograms

LLDIKTI Region X

Figure 2. PP Plots

From the results of *the Probability Plot* above, it shows that each *plot* or points approaches the diagonal line and follows it. This shows that *the Probability Plot* is normally distributed.

The multicollinearity test functions to evaluate whether there is a relationship between the independent variables in the regression. If there is a relationship, it is said that there is a problem in the multicollinearity test. To determine the existence of multicollinearity in this study using the *Tolerance value* or *Variance Inflation Factor* (VIF). The general conditions used are VIF < 10 and *Tolerance* > 0.10 .

Summary Model [b]				
Model	R	R Square	Adjusted R Square	std. Error of the Estimate	Durbin-Watson
1	.295 a	087	.065	1.35139	1975

Table 4. Multicollinearity Test

shows a *Durbin Watson* value of **1.975** . From the *DW table* , "k = 4" (total independent variables) with a sample size of 129. From the results of the *Durbin Watson table,* the upper limit value (du) **is 1.7769** the lower limit value (dl) **is 1.6492. From the provisions of the** *Durbin Watson* rule , the value du < dw < 4-du (4-1.7769) or 1.7769 < 1.975 < 2.2231 means that it can be concluded that autocorrelation does not occur.
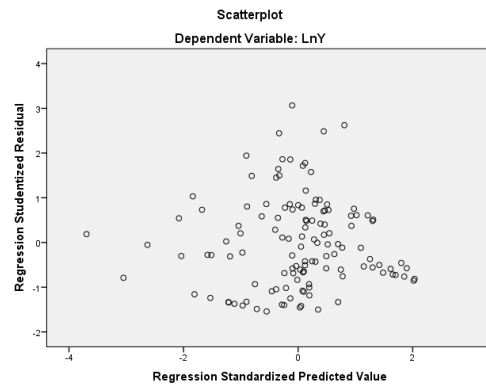

Figure 3. Heteroscedasticity Test Results

The heteroscedasticity test is used to test whether or not there is an equal variance of the residuals for all observations in the regression model. If there is a deviation , it is said that there is heteroscedasticity, the research is said to be good if it can maintain its homoscedasticity.

Coefficients [a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	std. Error	Betas		
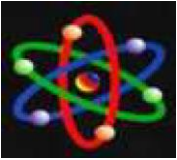
(Constant)	3,653	20114		.182	.856
LnX1	.105	.492	.020	.212	.832
LnX2	1.205	7,645	.015	.158	.875
LnX4	.409	.125	.288	3,261	001

Source: SPSS 20

Table 5. Results of Data Processing

Based on the table above, the results of data processing for the t test can be described as follows:

1. The significant value for inflation (X1) against Y is $0.832 > 0.05$ and the value of $T_{count} = 0.212 < T_{table} = 1.979$. So it can be concluded that Ha is rejected , which means that there is no influence of X1 on Y.
2. The significant value for the exchange rate (X2) against Y is $0.875 > 0.05$ and the value of $T_{count} = 0.158 < T_{table} = 1.979$. So it can be concluded that Ha is rejected, which means that there is no effect of X2 on Y.
3. The significant value for total asset turnover (X4) to Y is $0.001 < 0.05$ and the value of $T_{count} = 3.261 > T_{table} = 1.979$. So it can be concluded that Ha is accepted, which means that there is an influence of X4 on Y

CONCLUSION

1. Inflation does not affect share prices and has a low significant value to share prices in Property, Real Estate and Construction Building companies listed on the Indonesia Stock Exchange during the 2018-2020 period.

2. Exchange rates do not affect share prices and have a low significant value to share prices in Property, Real Estate and Construction Building companies listed on the Indonesia Stock Exchange during the 2018-2020 period.

3. Total Asset Turnover affects share prices and has a significant value to share prices in Property, Real Estate and Construction Building companies listed on the Indonesia Stock Exchange during the 2018-2020 period.

4. The influence of the independent variable on the dependent variable has an effect of 65% and 35% can be influenced by other factors
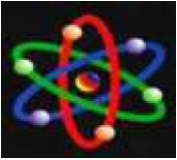
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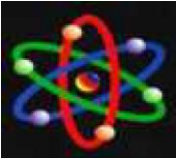
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