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THE INFLUENCE OF DER, INFLATION ON STOCK PRICES (CASE STUDY ON MINING SECTOR COMPANIES LISTED IN INDONESIA STOCK EXCHANGE (PERIOD 2014-2018)

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ABSTRACT

The objective of this study is to obtain a descriptive description and to obtain data on the extent of the influence of the Debt to Equity Ratio (DER), and Inflation to the Stock Price (Stock Price), in mining companies listed on the IDX. 2008-2017, jointly and partially. The study will examine two variables, namely DER, and inflation as an independent variable, and stock price as an independent variable. This study uses a descriptive approach and quantitative verification, therefore this study uses a descriptive survey method and an explanatory survey method. The research object in this study uses a population frame. The technique used is a purposive sampling technique. Then regarding the data that has been clustered in the form of primary data and secondary data. Data collection techniques in this study use library research (library research) and field research (field research). From the results of the Views data test, it is concluded that DER and inflation have a simultaneous effect on stock prices, whereas through partial, DER does have a significant and significant effect on stock prices, but the inflation variable has no and insignificant effect on stock prices. In the implementation of this study, the limitations of the sample studied were only for companies listed in the mining sector, thus it is necessary to conduct research outside those used as samples of this research, which of course is not the same as the duration of the observation which has a longer time, so that the results will be expected later there will be results that can be generalized.

INTRODUCTION

Entering the 4.0 generation, the role and position and development of the Capital Market in Indonesia actually illustrates an increasing trend from year to year, both in terms of the volume of shares traded, and the frequency of

transactions that occur. This condition illustrates that the economy in this country is progressing, so that it is not wrong to say that the development of the capital market is an indication of economic progress in a country. This is inseparable from the role of investors in making investment decisions in the capital market, and this depends on the success of companies listed on the Indonesia Stock Exchange, to present transparent and accountable financial report information. In line with the aforementioned capital market developments, according to Robert Ang (2007), the capital market is an indicator of a country's economic progress and supports the country's economy.

What is expected by investors in making transactions in the capital market, among others, is being able to have accurate data on the development of company performance, which in turn has implications for public confidence in the company's profile, especially performance-based ones. Good company performance will result in the company's profit value increasing, and this will provide a picture of prosperity for investors, both in terms of returns on the development of attractive stock price speculation, as well as the distribution of returns in the form of dividends for its stakeholders. Obtaining a company description and analysis used by its shareholders, using a fundamental analysis approach, through analysis of capital market ratios, which will provide a comprehensive picture of the strengths and limitations of the company's financial performance, both in terms of operations, investment, and funding in analyzing financial statements whole.

Mining sector issuers listed on the Indonesia Stock Exchange have considerable appeal to investors' interest in owning their shares, so that mining stock investors seem to have a bright enough interest in owning these mining shares. This is evidenced by the development of share prices in the mining sector, during the period studied from 2008 to 2017, which provides a promising speculation picture. Public confidence in transparency and performance accountability, as well as identification of risks, which is reflected in the quarterly and annual interim financial reports required by the Indonesia Stock Exchange.

As the Indonesian Capital Market Law No. 8 of 1995, issuers that have obtained the status of going public, can print, sell, and buy back their shares on the stock exchange floor, in order to obtain additional mogal for the continuity of their business. In aggregate, mining stocks experienced a steep decline in 2015, but increased again in 2016, even the share price increased quite sharply in 2017 and continued into 2018. As a result of fluctuations, the authors are very interested in taking data on specific mining issuers for the period. 2014 to 2018

Table 1 Trend of Average Sector Stock Prices Mining on the IDX (2014-2018)

Year	Stock Price (Rp)
2014	1.459

2015	1.074
2016	1.092
2017	1.492
2018	1.905

Source: finance.yahoo.com

The ups and downs of share prices can be identified with the dynamics of investor interest in prices traded by the issuer on the stock exchange, furthermore this is a logical consequence of the development of company performance, through the issuance of annual interim and annual financial reports, which are influenced by internal micro and macro conditions outside the company. There is a clear flow between the trend of company ratios both in the form of micro in the form of DER. As well as macro inflation factors outside the company. Investors' analysis of micro companies is not sufficient to decide to invest in stocks, but also observes macro technical factors, including inflation. Every market price fluctuation will be responded differently by company users, to avoid high risk by investors, it can be found that the stock market price is also low, and vice versa. The dynamic movement of stock prices is very interesting to examine in this study.

FRAMEWORK

Debt to Equity Ratio (DER) is the ratio of total short-term and long-term debt to own capital. According to Agus Sartono (2010) suggests that leverage is the use of assets and sources of funds by companies that have fixed costs when the DER value on the balance sheet increases, it means that the issuer's dependence on banks or obligors who provide debt to the issuer is getting stronger, thus impacting on the company's cash flow. decreasing, and this will imply that the availability of funds for operational, investment and funding activities is decreasing, so that efforts to make profits are also getting weaker, which ultimately results in the return expected by investors to be unattractive, both price developments and dividend value to be obtained. , so that the market price that occurs when the DER is high, then the stock market price on the trading floor also decreases, and vice versa, if the DER is getting smaller in the company's financial position, the interest expense on creditors is controlled and relatively cheap, so that the company can increase its profitability in form of retained earnings not divided, making it attractive for investors to get returns on promising price developments and dividends, and this is reflected in stronger market prices, So, it is recognized that dividend and capital gain are investors' expectations. According to Brigham and Houston (2011) that he put forward the Dividend Theory, Bird in the Hand Theory, and Tax differential theory, according to Gordon and Lintner's Bird in the Hand Theory, that investors prefer dividends over capital gains. DER is a fundamental factor and inflation is a macro factor. The results of the study show that DER and inflation have a simultaneous effect on stock prices. Previous research from Eka Bertuah and Indra Sakti (2019) shows simultaneous financial performance and macroeconomic factors affect stock returns. The inflation factor often does not affect stock market prices, in line with Yunita and Robiyanto (2018) which states that Inflation and BI rate have

no significant effect to the financial sector stock price index. However, according to Nailul Chasanah and Agus Sucipto (2019), the results also show the ratio of liquidity, profitability, and solvency partially no effect on stock returns. While, the research results from Peter Muriu (2014) that The results of the study reveal a positive impact of inflation (CPI) on stock market returns for the ten-year period investigated, this imply. La Rahmad Hidayat et al. (2017) states that the influence of inflation and interest rates and the rupiah exchange rate and the money supply on stock returns that the rate of inflation is significant and negative effect on share returns. The following is a picture of the framework in this study.

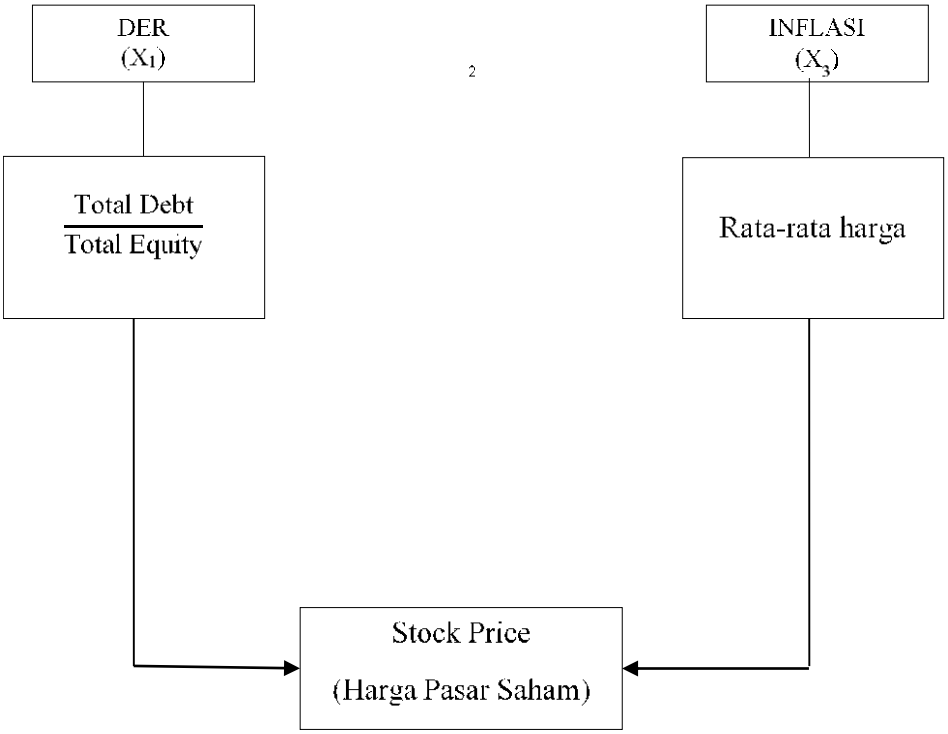

Figure 1 Framework

RESEARCH METHODOLOGY

This study uses a population of mining sector issuers listed on the IDX through PIPM (Capital Market Information Center) by taking 22 issuers. The research technique used is purposive sampling technique. The research sample used the following criteria:

1. Issuer is a mining company in 2014-2018
2. Issuer has never been interrupted and listed on the IDX in the 2014-2018 period
3. Constantly publishing financial reports for the 2014-2018 period
4. Issuer has a record of market prices listed shares have price stock data (closing Price) During 2014-2018

So that, the sample of mining issuers taken based on these four criteria, in the period 2014-2018, became 12 issuers.

DATA ANALYSIS AND DISCUSSION

Descriptive analysis test

The research method approach that describes the conditions and phenomena which is a descriptive description of the period under study shows the database illustrated in Table 2, where the results of statistical data test descriptively on the independent variables are illustrated below.

Table 2 Descriptive Statistical Test Results

	HARGA_SAHAM	DER	INFLASI
Mean	2893.467	1.429050	0.046680
Median	527	0.720000	0.038100
Maximum	25873	11.91000	0.064200
Minimum	50	-7.170000	0.032000
Std. Dev.	5682.112	2.697351	0.014394
Skewness	2.729631	1.332131	0.352585
Kurtosis	9.972841	8.228681	1.198606
Jarque-Bera	196.0604	86.09353	9.355747
Probability	0.000000	0.000000	0.009299
Sum	173608.0	85.74300	2.800800
Sum Sq. Dev.	1.90E+09	429.2666	0.012224
Observations	36	36	36

The lowest value is -7,170; and the highest value is 11.91; while the standard deviation is 2.321531. The inflation variable (X2) has a minimum value by 0.0320; the maximum value is 0.0642 and the standard deviation is 0.014394. While the free variable share price (Y) has the smallest value of Rp. 50; as for the largest share price, namely Rp. 25,873 with a standard deviation of 5682,112.

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In this research, the classical assumption test is used so that the results obtained are not biased. The classical assumption test used in the research consists of the normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test.

Normality test

In order to obtain information that each variable is normally distributed or not, it is utilized by using the normality test, as can be seen in Figure 2.

Classic assumption test

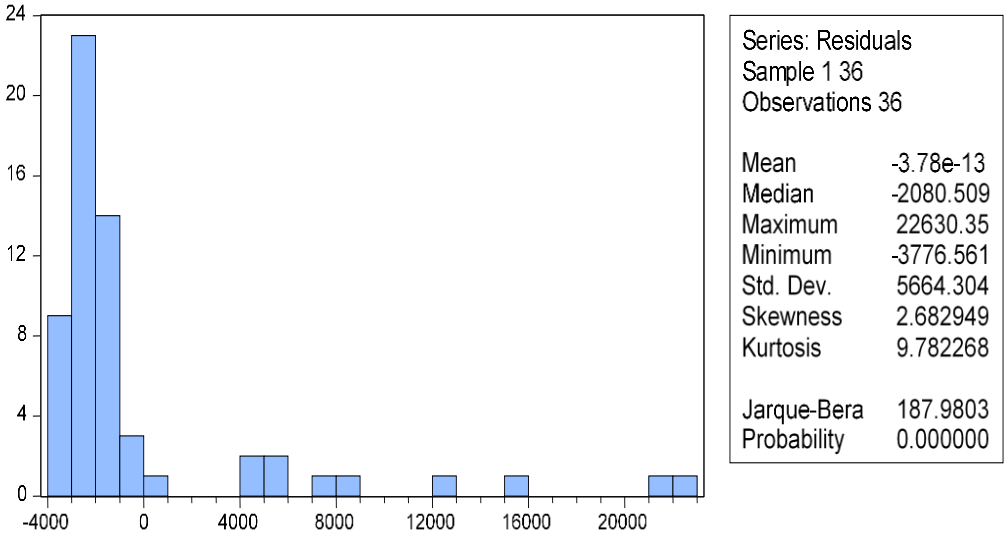

Figure 2 Normality Test Results

Jarqu-Bera prob. value is 0.0000000. The probability value is 0.000000 <0.05, providing information if the variable data is not normally distributed, but even though the variable does not have normal distribution data, it can still be used for this study.

Looking at Figure 2, it is illustrated that the Jarqu-Bera prob. value is 0.0000000. The probability value is 0.000000 <0.05, providing information if the variable data is not normally distributed, but even though the variable does not have normal distribution data, it can still be used for this study, this is conveyed by the opinion of McClave (2011) that according to the law of the limit theory the center illustrates that if most of the samples with the observed size population (n)> 30, it can be said to have been normally distributed, and this study uses a sample data of 60 observations.

Heteroscedasticity Test

The heteroscedasticity test is used to obtain data in the regression model, there are variants of the residuals that are not the same from time to time from one study to another, if there is no difference in variance from one observation residual to another, then this condition is called homoscedasticity. Table 4 below describes the results of the following heteroscedasticity test:

Table 3 Heteroscedasticity Test Results
Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.334669	Prob. F(2,57)	0.7170
Obs*R-squared	0.696388	Prob. Chi-Square(2)	0.7060
Scaled explained SS	2.759789	Prob. Chi-Square(2)	0.2516
Test Equation:			
Dependent Variable: RESID^2			

Method: Least Squares				
Date: 12/27/20 Time: 02:04				
Sample: 1 36				
Included observations: 36				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	47849834	43305795	1.135890	0.2607
DER	-3574126.	4609632.	-0.775365	0.4413
INFLASI	-2.62E+08	8.64E+08	-0.302373	0.7634
R-squared	0.011606	Mean dependent var.		31549604
Adjusted R-squared	-0.023074	S.D. dependent var.		94285970
S.E. of regression	95367544	Akaike info criterion		39.63308
Sum squared resid.	5.18E+17	Schwarz criterion		39.73780
Log likelihood	-1185.992	Hannan-Quinn criter.		39.67404
F-statistic	0.334669	Durbin-Watson stat		2.090105
Prob. (F-statistic)	0.716969			

R-squared or the prob. value Chi-Square 0.7060> 0.05. This provides an indication that there are symptoms of homoscedasticity in the regression of this study.
Table 4 shows that the probability value Obs * R-squared or the prob. value. Chi-Square (20) of 0.2851> 0.05. This provides an indication that there are symptoms of homoscedasticity in the regression of this study.

Autocorrelation test

The autocorrelation test aims to determine whether there is a relationship with confounding errors at the various periods studied. The multicollinearity test is described in Table 5.

Table 4 Autocorrelation Test Results

Dependent Variable: HARGA_SAHAM				
Method: Least Squares				
Date: 12/27/20 Time: 02:04				
Sample: 1 36				
Included observations: 36				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DER	-153.6215	278.5484	-0.551508	0.5834
INFLASI	-13750.27	52198.41	-0.263423	0.7932
C	3754.862	2598.732	1.444882	0.1540
R-squared	0.006256	Mean dependent var.		2893.467
Adjusted R-squared	-0.028610	S.D. dependent var.		5682.112
S.E. of regression	5762.821	Akaike info criterion		20.20495
Sum squared resid.	1.89E+09	Schwarz criterion		20.30967
Log likelihood	-603.1485	Hannan-Quinn criter.		20.24591
F-statistic	0.179482	Durbin-Watson stat		2.362405
Prob(F-statistic)	0.836164			

There is a Durbin Watson value of 2.362405, this value will be compared with the DW table where the observation (n) amounts to 36and the number of variables (k) = 3 then obtained the value of dL = 1.28373 and the value of dU = 1.56661. Where the formula is dU <dW <3-dU, meaning that there is no autocorrelation, so it can be obtained that, dU (1.56661) <dW (2.362405) <3-dU (1.43339).

The basic limit of table 5 turns out that from the results of the autocorrelation test, there is a Durbin Watson value of 0.717354, this value will be compared with the DW table where the observation (n) amounts to 60 and the number of independent or independent variables (k) = 3 and a significance level of 5%, then obtained the value of dL = 1.4797 and the value of dU = 1.6889. Where the formula is dU <dW <4-dU, meaning that there is no autocorrelation, so it can be obtained that, dU (1.6889) <dW (0.717354) <4-dU (2.3111) does not match the formula which means there is a problem autocorrelation. However, this autocorrelation test can still be used, because the data used in this study is panel data, while the effectiveness of the autocorrelation test is on the vtime series data (from time to time for single data), Basuki and Yuliadi (2015) argue that the test autocorrelation is meaningless for panel data, because it is only performed on time series data.

Multicollinearity test

The classical assumption test by utilizing the Multicollinearity Test, is to have the objective to test that the regression model is found or there is no correlation between independent variables. The multicollinearity h test is illustrated in Table 6.

Table 5 Multicollinearity Test Results

Variance Inflation Factors			
Date: 12/27/20 Time: 02:05			
Sample: 1 36			
Included observations: 36			
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
DER	77589.21	1.289175	1.002901
INFLASI	2.72E+09	11.72938	1.002901
C	6753411.	12.20124	NA

Looking at the data as shown in the table above, the VIF (Variance Inflation Factors) data shows that each variable has a value less than 10, while the Tolerance results explain that each variable has a value greater than 0.10, so it can be described that there are no symptoms of multicollinearity among the three independent variables.

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Model Test

F test

Test that all independent variables, both DER and inflation, contained in the model are linearly related to the dependent variable, namely Stock Price. The F test is the first step to ensure that the estimated regression model is fix or not feasible, it means that the estimated model is feasible to use to describe the effect of the two independent variables on the dependent variable. The results of the F test in Table 7 explain the following.

Table 6 Random Test Results F, t test results, Coefficient Determination Test Result

Dependent Variable: HARGA_SAHAM				
Method: Panel EGLS (Period random effects)				
Date: 12/27/20 Time: 02:09				
Sample: 1 36				
Periods included: 12				
Cross-sections included: 3				
Total panel (balanced) observations: 36				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DER	-63.95294	142.0825	-0.450111	0.6543
INFLASI	-12846.52	21456.39	-0.598727	0.5517
C	3584.534	1945.714	1.842272	0.0706
Effects Specification				
			S.D.	Rho
Period random			5608.083	0.8488
Idiosyncratic random			2366.978	0.1512
Weighted Statistics				
R-squared	0.009320	Mean dependent var		536.6750
Adjusted R-squared	-0.025440	S.D. dependent var		2318.150
S.E. of regression	2347.452	Sum squared resid		3.14E+08
F-statistic	0.268531	Durbin-Watson stat		2.149984
Prob(F-statistic)	0.765767			
Unweighted Statistics				
R-squared	0.004452	Mean dependent var		2893.467
Sum squared resid	1.90E+09	Durbin-Watson stat		2.555536

From Table 7, it can be concluded that the value of the significance level, which amounts to 0.765767>0.05 (level of significant), illustrates that the DER variable and inflation have no significant effect on stock prices. From the results mentioned above, it can be translated as follows.

T test for DER

The t test analysis illustrates that the DER variable has a significance value of (0.6543>0.05) which means that DER has no significant influence on the stock price, besides that, it can be seen that the t value is higher than the t table where (-0.450111< 1688). This implies that the DER variable has effect on stock prices.

T test for inflation

According to the t-test analysis, it explains that the Inflation variable has no significant value (0.5517>0.05), this means that inflation has no significant affect to Stock Price, that it can be seen where t count is smaller than t table, namely (-0.598727<1.688), which means that inflation has no significant effect on stock prices.

Hypothesis testing

The t test

Determining that to find out how the influence of the independent variable on the dependent variable is real, a partial t-test can be performed.

Determination Coefficient Test

This test provides an illustration, how much influence the independent variable DER (X1) and Inflation (X2) towards the Stock Price variable (Y), by calculating the square value of the correlation coefficient value, whose magnitude ranges from 0 - 1 (0% - 100%), with an explanation that if the coefficient of determination is close to one, it can be said that this coefficient is increasingly having a strong influence.

CONCLUSION

Based on empirical research on 12 samples of Mining Sector issuers on the IDX for the 2014-2018 period, as well as the results of the analysis and testing carried out, conclusions can be obtained, including:

1. Description of the issuer with the highest DER, namely PT. Bumi Resource, Tbk with a DER of 11.91 in 2017, while the company with the lowest DER was also PT. Bumi Resource, Tbk with DER -7.17 in 2014.
2. Description of the inflation value in the Mining Sector for the 2014-2018 period, the largest inflation data obtained is in 2014 with a magnitude of 0.0642, as for inflation the smallest is to fall in 2018 with a value of 0.0320.
2. Description of the share price of the Mining Sector issuers with the 2014-2018 period, then the highest share price is controlled by PT. Indo Tambangraya Megah, Tbk, namely in 2018 amounted to 25,873, and the lowest share price was suffered by PT. Darma Henwa in 2014-2018 with the number 50.
3. DER has no significant effect on the stock price of Mining Companies on the IDX during 2014-2018.

4. Inflation has no significant effect on stock prices in mining sector companies listed on the Indonesia Stock Exchange for the 2014-2018 period.

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