Influence of Rate of Exchange of Rupiah & USD, Rate of Exchange of Rupiah Yuan on JCI in 2018

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The JCI performance in 2018 was poor. Indonesian trade with other countries, especially China, increased so that the rupiah rate of exchange with the yuan needs to be considered. The explanatory research method is used with a multiple regression analysis. The object of the research is the daily stock price index in 2018 as well as the dollar rate of exchange and yuan rate of exchange. The USD / IDR Rate of exchange has a negative effect on the value of the movement of the Jakarta composite index. While the CNY / IDR Rate of exchange has a positive effect on the movement value of the Composite Stock Price Index.

Key words: *JCI, USD / IDR rate of exchange, rate of exchange CNY / IDR.*

Background

One indicator of a country's financial performance is the performance of a composite stock price index. The performance of the index is good where it increases. This indicates that there is interest in investing in companies incorporated in the stock exchange. The combined stock price index in Indonesia (known as the abbreviation IHSG) in 2016, 2017 and 2018 had a performance of 19.99%, 15.32% and -2.54%. The JCI performance in 2018 was the year of the JCI worst performance(www.cnbcindonesia.com).

One factor that affects the performance of the JCI is the rupiah rate of exchange against foreign currencies. The foreign currency used to conduct foreign trade transactions is the United States dollar (USD).

Indonesian trade with other countries, especially China, increased so the rupiah rate of exchange against the yuan also needs to be considered. Currently the world economic situation is affected by a trade war between the US and China (Abdul Hadi, Zainudin,

Hussain, & Rehan, 2019). This is because most countries in the world use the US dollar for trade transactions.

A discourse on the use of other currencies in foreign trade transactions submitted by APINDO to the Minister of Finance, has been submitted to use the renminbi or yuan to reduce dependence on the US dollar. Data from the Central Statistics Agency (BPS) in July 2018, shows that the share of Indonesia's total exports to China amounted to 15.38%. Meanwhile, for imports from China the portion reaches 27% of total imports. (market.bisnis.com).

Graph 1. The movement of the joint stock price index in 2018
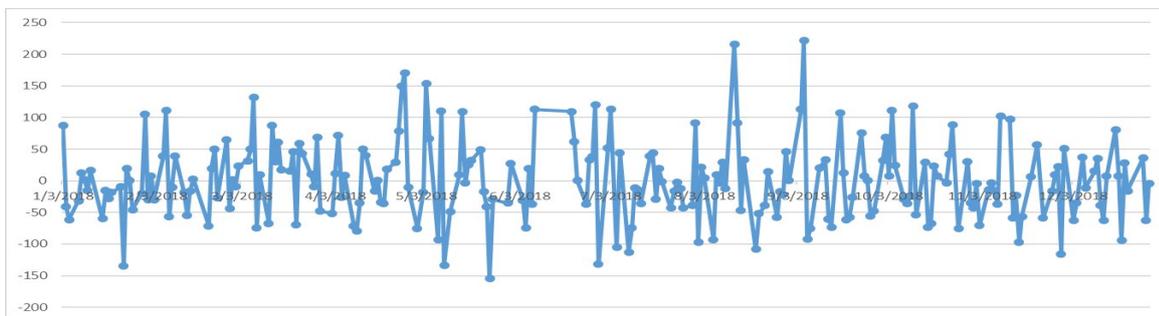
Graph 1 illustrates the fluctuations in stock price movements in 2018. In 2018 the performance of the stock price index combined was negative -2.54%. Seeing this, the researcher intends to conduct research on stock price movements. The research this time is the influence of the USD rate of exchange and the rupiah rate of exchange on the movement of the Jakarta composite index.

Literature Review

The JCI stands for the composite stock price index and is a calculated stock price index that produces a *trend*, where index numbers are processed so that they can be used to compare the incidence of a stock price change from time to time. The calculation of the index number is a comparison of the base *(base period)* and the running time *(given/ parent* period), (Jogiyanto, 2000). The Composite Stock Price Index (CSPI) describes a series of historical information regarding the movement of the combined stock price of all shares, up to a certain date. The movement of the stock price is presented every day, based on the closing price of the exchange on that day (Meyer, 2018).

The composite share price index changes every day due to changes in oil prices and changes in the rate of exchange (Tabor, 2018; Nobanee, 2018). The composite stock price index is highly influenced by the USD / IDR rate of exchange, oil prices and world gold prices

(Handiani S. 2014). This result also emphasizes that the USD / IDR rate of exchange has a negative effect on the joint stock price index (Ria Astuti, Apriatni EP & Susanta Days). While the CNY / IDR rate of exchange has a significant effect on other stock price indices such as index JII, Pefindo 25 index and IDX 30 index. Yuan rate of exchange has a negative and significant effect on the Pefindo index, while the JII index and IDX 30 index Yuan rate of exchange has an influence not significant. (Jaka Ardiansyah.2015)

Object and Research Methods

The object of this research is everything related to people, objects, or activities that have certain variations set by researchers to be studied (Sugiyono, 2017). Whereas what is meant by population is a general area consisting of objects and subjects that have certain quantities and characteristics determined by researchers to be studied (Sugiyono, 2015). The population of this study is the composite stock price index of the Indonesia Stock Exchange period in 2018 from daily data.

The data analysis used is multiple regression data analysis. To see the effect of independent variables on the dependent variable. By paying attention to the F test and t test. T statistical test shows how far the influence of the independent variables go to explaining the dependent variable data. Used as the sample in this study is the rate of exchange (currency) of the USD and the Yuan in 2018, and the movement of the stock price index in 2018.

The data used is secondary data, namely the movement of the Jakarta composite index in 2018, *historical* data in the form of closing price movements, data on the rate of exchange of the rupiah against the US dollar and the rate of exchange of the rupiah against the Chinese yuan.

The definition of operas variable is the definition of each variable used in the study and shows how to measure each of these variables. On each indicator secondary data is generated and a calculation of formulations is based on theoretical concepts.

Table 1: Operational

Variable	Concept	Indicator	Scale
Rate of exchange USD / IDR	The rate of exchange of the rupiah against foreign currencies or the rate of exchange is the value of the rupiah against the currencies of other countries that are relative.	Value Middle Rate	Rate

Variable	Concept	Indicator	Scale
	(Ekananda.2014)		
Rate of exchanges CNY / IDR	The rate of exchange of the rupiah against foreign currencies or the rate of exchange is the value of the rupiah against the currencies of other countries that are relative. (Ekananda.2014)	Value Middle Rate	Rate
MovementStock Price Index	JCI is a measure that is based on statistical calculations to determine the share price changes throughout the enterprise capital market participants at any time against the base year. (Muhammad Zuhdi Amin And Tuban Drijah Herawati.2012)	Price Movement Stock Closure	Ratio

Source: Processed by the Author (2019)

Results and Discussion

Descriptive statistics are the presentation of data which includes calculation of mean, mode, median, average calculation, calculation of maximum values, calculation of minimum values and standard deviations used to analyse data by describing or describing data that has been collected without making conclusions that apply in general. (Sugiyono, 2014)

Table 2: Statistic Description

	MOVEMENT IHSG	USD	CNY
Mean	0.626579	14248.84	2154.112
Median	-3.335938	14332.00	2166.210
Maximum	221.7998	15253.00	2225,935
Minimum	-154.5371	13290.00	2052,685
Std. Dev.	62.21949	550.2334	40.40725

The results of descriptive statistics in table 2 above can be explained as follows: the movement of the stock price index. The average value of the stock price index is 0, 6265, the average stock price index movement can be said to be 'good' because it is smaller than the

value standard deviation which is equal to 62.21949. The minimum value of the stock price index movement is equal to -154.5371 on May 24, 2018 which is the lowest stock price index. The maximum value is 221,7998 on September 5, 2018.

In this study, multiple linear regression analysis is used to prove how much influence the USD / IDR rate of exchange and CNY / IDR rate of exchange have on the movement of the Jakarta composite index.

The multiple linear regression equation is as follows:
$$Y = \alpha + \beta 1 X1 + \beta 2 X2 + \varepsilon$$

Description:
Y	= Movement of the joint stock price index
α	= constant
β	= regression line coefficient
X1	= USD / IDR
X2	= value exchange CNY / IDR
ε	= standard error

Table 2: The results of processing multiple regression analysis

Dependent Variable: PERGERAKAN
Method: Least Squares
Date: 06/24/19   Time: 04:28
Sample: 1/03/2018 12/28/2018
Included observations: 231

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-375.7664	225.8063	-1.664110	0.0975
USD	-0.004879	0.007607	-0.641407	0.5219
YUAN	0.207007	0.103588	1.998376	0.0469

R-squared	0.017400	Mean dependent var	0.626579
Adjusted R-squared	0.008781	S.D. dependent var	62.21949
S.E. of regression	61.94571	Akaike info criterion	11.10330
Sum squared resid	874897.7	Schwarz criterion	11.14800
Log likelihood	-1279.431	Hannan-Quinn criter.	11.12133
F-statistic	2.018778	Durbin-Watson stat	1.994118
Prob(F-statistic)	0.135185		

By looking at the data from the results of the t-Statistic Test (Partial), we can obtain the constant parameter values and estimator parameter values to complete the regression model that has been formulated previously.

The equation of the Multiple Linear Regression is:

$$Y = -375.7664 - 0.004879X1 + 0.207007X2 + \varepsilon$$

Description:

Y	=	Movement of the stock price index
α	=	constant
β	=	regression line coefficient
X1	=	rate of exchange of USD / IDR
X2	=	rate of exchange of CNY / IDR
ε	=	standard error

Based on the multiple linier regression above, information can be obtained as follows:
- The coefficient on the independent variable describes the magnitude of the change in the dependent variable if the independent variable changes by one unit with the other variable constant (*ceteris paribus*).
- From the constant value of -375.7664, it can be interpreted that if there is no effect of USD / IDR Rate of exchange and CNY / IDR rate of exchange then the value of the movement of the Jakarta composite index in the year is -375.7664.
- The value of the variable X1 of -0.004879 can be interpreted that the variable Rate of exchange USD / IDR negatively affects the value of the movement of the Jakarta composite index.
- The value of the variable X2 is + 0.207007. It can be interpreted that the CNY / IDR Rate of exchange variable has a positive effect on the value of the movement of the Jakarta composite index.

Conclusion

The stock price index is one indicator of financial performance that describes corporate funding originating from the stock exchange. The rate of exchange with foreign currencies affects the stock price index.

The USD / IDR Rate of exchange has a negative effect on the value of the movement of the Jakarta composite index. While the CNY / IDR Rate of exchange has a positive effect on the value of the movement of the Jakarta composite index.

REFERENCE

Abdul Hadi, A.R., Zainudin, Z., Hussain, H.I. & Rehan, R., (2019) Interaction of Short-Term and Long-Term Interest Rates in Malaysian Debt Markets – Application of Error Correction Model and Wavelet Analysis, Asian Academy of Management Journal, 24 (Supp. 1), 19 – 31.

Amin M. Z dan Herawati T. D. 2012. Pengaruh Tingkat Inflasi, Suku Bunga Sbi, Nilai Kurs Dollar (USD/IDR), Dan Indeks Dow Jones (DJIA) Terhadap Pergerakan Indeks Harga Saham Gabungan Di Bursa Efek Indonesia (BEI) (Periode 2008-2011). Jurnal FEB UB 2012 Ekananda, M. (2014). Ekonomi Internasional. Erlangga.

Mailangkay, J.2013.Integrasi Pasar Modal Indonesia Dan Beberapa Bursa Di Dunia (Periode Januari 2013 - Maret 2013). Jurnal EMBA Vol.1 No.3 September 2013, Hal. 722-731

Meyer, D. F. (2018). Predictors of good governance and effective government management: the case of Poland. Polish Journal of Management Studies, 18 (1), 206-217.

Nobanee, H. (2018). Efficiency of working capital management and profitability of UAE construction companies: size and crisis effects. Polish Journal of Management Studies, 18 (2), 209-215.

Ria Astuti, Apriatni E.P & Hari Susanta.2013. Analisis Pengaruh Tingkat Suku Bunga (Sbi), Nilai Tukar (Kurs) Rupiah, Inflasi, Dan Indeks Bursa Internasional Terhadap Ihsg (Studi Pada Ihsg Di Bei Periode 2008-2012).Diponegoro Journal Of Social And Politic Of Science, Hal. 1-8 http://ejournal-s1.undip.ac.id/index.php/

Sugiyono. (2014). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R&D. Bandung: Alfabeta.

Sugiyono. (2015). Metode Penelitian Manajemen. Bandung: Alfabeta.

Sugiyono. (2017). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung: CV Alfabeta

Sylvia Handiani. 2014. Pengaruh Harga Emas Dunia, Harga Minyak Dunia dan Nilai Tukar Dolar Amerika/Rupiah Terhadap Indeks Harga Saham Gabungan Pada Periode 2008-2013. E-Journal Graduate Unpar Part A - Economics Vol. 1, No. 1 (2014)   ISSN: 2355-4304.

Tabor, J. (2018). A grey-based decision-making approach to the improvement of OHS management system. Polish Journal of Management Studies, 18 (1), 389-402.

Webside:

https://market.bisnis.com

https://www.cnbcindonesia.com

https://www.idx.co.id

https://www.yahoo.finance.com