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The Effect of Share Transaction Determinants and its Impact on JCI on IDX 2010-2020

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Abstract

The purpose of this study was to determine the effect of inflation, the dollar exchange rate, the yuan exchange rate and the Chinese index partially and simultaneously on the JCI. To determine the effect of inflation, the dollar exchange rate, the yuan exchange rate and the Chinese index partially and simultaneously on the volume of transactions. To determine the effect of inflation, the dollar exchange rate, the yuan exchange rate and the Chinese index on the JCI with transaction volume as an intervening variable. The results of the JCI data analysis show that the dollar exchange rate, inflation and the Chinese index have an effect on the JCI and the yuan exchange rate does not affect the JCI, but simultaneously inflation, dollar exchange rate, yuan exchange rate and the Chinese index have an effect on the JCI. The results of the transaction volume data analysis show that the dollar exchange rate, the yuan exchange rate and the Chinese index have an effect on the volume of transactions, while inflation has no effect on the volume of transactions. Simultaneously, inflation, dollar exchange rate, yuan exchange rate and Chinese index have an effect on transaction volume. The results of the transaction volume data analysis as an intervening variable indicate an influence.
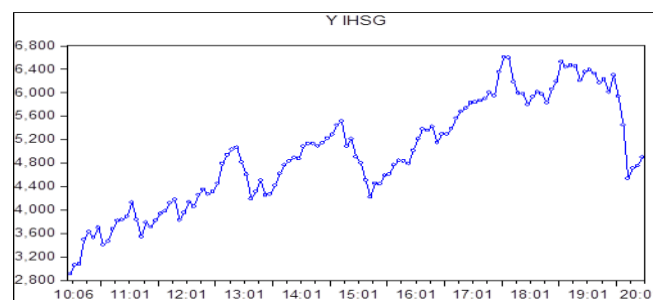
Keywords: Inflation, Dollar Exchange Rate, Yuan Exchange Rate, Chinese Index, JCI and Transaction Volume

1. Introduction

In Indonesia, the economy is currently developing rapidly and there is business economic competition which globally encourages business actors to strive to increase their corporate activities. Economic development in a country can be measured in various ways, one of which is knowing the level of development of the world capital market and securities industries in that country (Marlina and Danica, 2009).

The JCI in every year tends to increase gradually and consistently. For example, at the end of 2015 the JCI was at 4,592 with a transaction volume of 2,805,804,100 and at the end of 2019 the JCI was at 6,299 with a volume of 884,041,200. It can be seen that the volume of transactions at the end of 2015 was greater than in 2016. In general, stock exchanges that have a strong influence on the performance of other stock exchanges are

classified as advanced stock exchanges such as the US, Japanese, British, and so on. In addition, stock exchanges that are in one region can also influence because of their geographic proximity such as the STI Index in Singapore, the Nikkei 225 Index in Japan, the Hang Seng Index in Hong Kong, the KOSPI Index in Korea, the KLSE Index in Malaysia and the SSEC Index in China. In 2020 the world will experience a shock with a new disease for which a vaccine has not been found, namely Covid 19, because of this virus, many countries in the world are experiencing an economic slowdown, including Indonesia. As soon as the Covid 19 virus entered Indonesia, the Indonesian stock market experienced a deep correction, namely more than 5% in 1 day. Many foreign investors withdraw their funds from the Indonesian stock market. This situation prompted the capital market regulators and supervisors to take action. On March 10, 2020 the Indonesia Stock Exchange (IDX) announced the implementation of the trading stop or trading halt policy. Based on that decision, if there is a very sharp decline in the same trading day, then a 30-minute halt trading is applied if it has decreased by 5% and another 30 minutes if it has decreased by 10%. In addition, trading suspends are also applied if the JCI drops by 15%. Sure enough, on trading on March 12, 2020, the JCI had experienced a decline of more than 5%, which means halt trading was carried out for 30 minutes. At that time, the JCI was corrected by 258 points or 5.01% to the level of 4,895 at 15:33 WIB. Since the policy was enacted, at least 6 times stock trading has been subject to halt trading, because it has plunged more than 5%. It happened on March 12, 2020, March 13, 2020, March 17, 2020, March 19, 2020, March 22, 2020 and March 30, 2020. Apart from halt trading, the IDX and OJK also implemented various policies to withstand market panic. Such as changing the lower limit of the stock auto rejection from 10% to 7%. That means a stock that has dropped 7% in a day cannot be traded anymore.

Based on the description above, the title of this research is "THE EFFECT OF SHARE TRANSACTION DETERMINANTS AND ITS IMPACT ON IHSG ON IDX PERIOD 2010 - 2020".

2. Problem Formulation and Research Objectives

From the background that has been described above, the author takes the problem that he wants to know further, namely:
  a) How is the effect of inflation on the JCI
  b) How does the dollar exchange rate affect the JCI
  c) How is the effect of the yuan exchange rate on the JCI
  d) How does the Chinese index affect the JCI
  e) How are the effects of inflation, dollar exchange rate, yuan exchange rate and Chinese index simultaneously on the JCI
  f) How does inflation affect the volume of transactions
  g) How does the dollar exchange rate affect the volume of transactions
  h) How the yuan exchange rate affects the transaction volume
  i) How does the Chinese index affect the volume of transactions
  j) How do inflation, dollar exchange rate, yuan exchange rate and Chinese index simultaneously affect the volume of transactions
  k) How are the effects of inflation, dollar exchange rate, yuan exchange rate, and Chinese index on the JCI with transaction volume as an intervening variable simultaneously

As for the research objectives, namely:
  a) This is to determine the effect of inflation on the JCI
  b) This is to determine the effect of the dollar exchange rate on the JCI
  c) This is to determine the effect of the yuan exchange rate on the JCI
  d) This is to determine the effect of the Chinese index on the JCI
  e) To determine the effect of inflation, the dollar exchange rate, the yuan exchange rate, and the Chinese index simultaneously on the JCI
  f) This is to determine the effect of inflation on transaction volume
  g) This is to determine the effect of the dollar exchange rate on the volume of transactions
  h) This is to determine the effect of the yuan exchange rate on the volume of transactions
  i) This is to determine the effect of the Chinese index on transaction volume
  j) To determine the effect of inflation, the dollar exchange rate, the yuan exchange rate, and the Chinese index simultaneously on the volume of transactions
  k) To determine the effect of inflation, the dollar exchange rate, the yuan exchange rate, and the Chinese index on the JCI with transaction volume as an intervening variable.

3. Literature review

3.1 Inflation

In Hisar Pangaribuan research that changes in the rate of inflation that occur increase or increase in food will affect the volume of trade to decrease. Matters that must be considered related to inflation include factors such as the frequency of payment of wages and salaries, the economic structure, and the habits of saving and spending. As long as it remains constant, the price level will be directly proportional to the money supply and inversely proportional to the physical volume of production (Encyclopedia Brittanica, 2012). Inflation calculated based on the Consumer Price Index is an indicator of the development of prices for goods and services consumed by the public. The number of goods and services is very large, but the "basket" of goods and services used to calculate household consumption totals 711 commodities (Central Statistics Agency, 2018).

3.2 Dollar exchange rate

The exchange rate (Currency Exchange) is the price of one currency against another or the value of one currency against the value of another currency (Salvatore 1997: 9). An increase in the exchange rate of a domestic currency is called an appreciation of a foreign currency. A decrease in the domestic exchange rate is called depreciation of foreign currency. The rupiah exchange rate affects company sales (especially for export-oriented issuers). Besides that, it also affects the Cost of Good Sold (for issuers that import raw materials), so that foreign exchange losses can occur. Exchange losses are affected by the depreciation and appreciation of the rupiah.

3.3 Yuan exchange rate

The yuan exchange rate is not the currency used for international trade, but Indonesia often makes transactions with China where transactions between the two countries sometimes use their respective currencies. Therefore, it will affect the value of the transactions that occur. The yuan exchange rate will affect companies that cooperate with China in terms of trading. Therefore, this increase in currency will reduce the company's profits and discourage investors from conducting transactions on the stock exchange.

3.4 Index of China

The Shanghai Stock Exchange Composite Index represents the Shanghai stock exchange in China, which is one of the foreign stock price indices that becomes a reference for investors in making investment decisions. This is because China is one of the countries with an established economic condition in the world. The relationship between China and Indonesia is also growing with the existence of the ASEAN-China Free Trade Agreement which underlies trade liberalization between ASEAN countries, including Indonesia, and China. The increase in

international trade activities in the two countries is expected to be able to bring fresh air to international investment activities between Indonesia and China (David, Indarto and Aprih, 2016).

3.5 Composite Stock Price Index

Every investor wants every money he invests to be in a safe place and provide the best possible return. However, it cannot be denied that behind the return on each investment is inherent risk, to reduce this risk, one of the efforts made is to place the investment in various variations of the character of the investment itself. The state of investing in various stocks like this is called portfolio investment, by placing an investment in one portfolio means spreading investment risk, conditions and theories like this provide new insights into modern portfolios that are often associated with the efficient frontier (Pangaribuan 2010).

3.6 Transaction Volume

Stock trading volume, which is an illustration of the number of transactions that occur in the stock market, both buying and selling transactions. The large volume of transactions that occur illustrates that the existing market is aggressive, and vice versa. This is in line with what Husnan (1998) said that trading volume can be used as a sign of strengthening and weakening of the existing stock market, because it is a function of the market supply and demand. Although Fuadi (2009) found that trading volume showed positive results, it was not significant for stock returns on the Indonesian stock market. Shobriati et al. (2012) found that stock trading volume has a significant effect on the bid and ask spread.

4. Previous Research

Suramaya, Suci Kewal (2012) conducted a study on the effect of inflation, interest rates, exchange rates, and GDP growth on the JCI with the results of the exchange rate having a significant effect. Inflation, Interest Rates, GDP have no effect.

David Triyono, Indarto, and Aprih Santoso (2015) conducted research on the Analysis of the Effect of the Foreign Stock Price Index with Indonesian Macroeconomic Variables on the Composite Stock Price Index (IHSG) on the Indonesia Stock Exchange (Period January 2013 August 2015) with the results of the Dow Jones Index, Shanghai, Straits Times Influential (+) on the JCI. Meanwhile, Exchange Rate, Interest Rate, and Inflation have an effect (-) on the JCI.

Mie Mie and Agustina (2014) conducted research on the Analysis of the Effect of the Foreign Composite Stock Price Index on the Indonesian Composite Stock Price Index with the results simultaneously that the ASX Index, FTSE 100 Index, N225 Index, SSEC Index, NYA Index have a significant effect. Partially it can be seen that the ASX Index, FTSE 100 Index, N225 Index, SSEC Index and NYA Index do not have a significant effect on the JKSE Index.

Alfin Desfiandi & Hapzi Ali (2017) conducted research on the Composite Stock Price Index (IHSG) Macro Factor in Investment In Stock (Equity Funds) with the result that the exchange rate has a significant negative effect on the JCI, the STI Index has a significant positive effect on the JCI, Inflation has no effect significantly to the JCI, the DJIA Index has no effect on the JCI.

Widodo (2017) conducted a study on the Analysis of the Effect of the Asian Regional Composite Stock Price Index on the Indonesian Composite Stock Price Index with the results of the Nikkei 225 Index, KOSPI KSII, KLSE variables which are positive and affect the IHSG partially and simultaneously while the Hangseng index variables and Straits times do not. influence parisally but both simultaneously influence the JCI.

5. Framework

Based on a review of the capital structure theory and previous research, it was found that the conclusions and predictions of the influence between the dependent and independent variables and the framework to be studied were as follows:
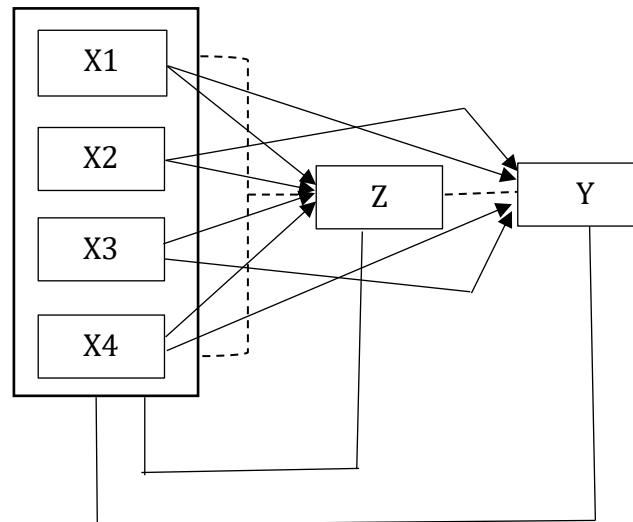

Figure 1: Schematic Research Framework

6. Hypothesis

H1 : It is suspected that there is an effect of inflation on the JCI.
H2 : It is suspected that there is an effect of the dollar exchange rate on the JCI
H3 : It is suspected that there is an effect of the yuan exchange rate on the JCI
H4 : It is suspected that there is an effect of the Chinese index on the JCI
H5 : It is suspected that there are simultaneous effects of inflation, dollar exchange rate, yuan exchange rate and Chinese index on the JCI
H6 : It is suspected that there is an effect of inflation on the volume of transactions
H7 : It is suspected that there is an effect of the dollar exchange rate on the volume of transactions
H8 : It is suspected that there is an effect of the yuan exchange rate on the volume of transactions
H9 : It is suspected that there is an effect of the Chinese index on the volume of transactions
H10 : It is suspected that there are simultaneous effects of inflation, dollar exchange rate, yuan exchange rate and Chinese index on transaction volume
H11 : It is suspected that there is an effect of inflation, dollar exchange rate, yuan exchange rate and Chinese index on the JCI with transaction volume as an intervening variable simultaneously

7. RESEARCH METHODOLOGY

Types of research

This research uses descriptive research type with a quantitative approach. Quantitative research methods are methods that are based on the philosophy of positivism and are used to study specific populations or samples (Sugiyono, 2012). Quantitative data analysis aims to test the proposed hypothesis. The study was conducted to determine the fluctuation of the JCI caused by macroeconomic factors (inflation, dollar exchange rate and yuan exchange rate) and the SSEC index.

Research Data and Variables

This study uses secondary data. The research data starts from June 2010 to June 2020 where in the data there is an influence from the covid 19 pandemic which is currently ongoing. Sources of research data are the official BI website, the yahoo finance site and the idx website.

Variable operations display the size of a variable. In this study, three types of variables were used, namely the independent variable, the intervening variable and the dependent variable. The independent variables of the dollar exchange rate and the yuan exchange rate use the middle exchange rate by Bank Indonesia. Inflation is measured by consumer price index (CPI) data which is obtained from statistical data centers which are monthly data. The SSEC index variable is measured by data for the period January 2010 to June 2020. The transaction volume is used the volume of stock transactions per month for 10 years. The dependent variable data for the IHSG (Composite Stock Price Index) is taken from the IHSG closing price.

Table 1: Operational Variables

Definisi Operasional Variabel		
Variabel	Pengukuran	Skala
IHSG (Y)	$JKSE = \dfrac{\Sigma Kapitalisasi\ Pasar}{\Sigma Nilai\ Dasar}\ x\ 100$	Rasio
Volume Transaksi (Z)	Volume transaksi perdagangan yang digunakan dalam penelitian ini yaitu nilai transaksi perdagangan saham di BEI yag tercatat secara bulanan selama juni 2010 sampai dengan juni 2020	Rasio
Indeks Cina	$SSEC = \dfrac{\Sigma Kapitalisasi\ Pasar}{\Sigma Nilai\ Dasar}\ x\ 100$	Rasio
Inflasi	$Inflasi = \dfrac{IHK_{(t)} - IHK_{(t-1)}}{IHK_{(t-1)}}\ x\ 100\%$	Rasio
Kurs Dollar	$\dfrac{Kurs\ Jual + Kurs\ Beli}{2}$	Rasio
Kurs Yuan	$\dfrac{Kurs\ Jual + Kurs\ Beli}{2}$	Rasio

Source: Developed for 2020 analysis

Data Analysis Methods

Data analysis was performed on secondary data in the form of inflation, dollar exchange rate, yuan exchange rate and Shanghai composite index and used time series data. The research test consisted of: classic assumption test (normality test, multicollinearity test, heteroscedasticity and autocorrelation), multiple linear regression analysis and hypothesis testing (t test, F test). Performed using the Eviews software.

8. RESULTS AND DISCUSSION

8.1. Descriptive statistics

The explanation of the data is accompanied by the minimum value, maximum value, mean, variance and standard deviation. The following is a descriptive statistic of research data consisting of the dependent variable, namely IHSG and independent variables, namely: Inflation, Dollar Exchange Rate, Yuan Exchange Rate, Chinese Index, Transaction Volume and JCI.

Table 2: Statistic Descriptive

	X1_KURS_DOLLAR	X2_KURS_YUAN	X3_INFLASI	X4_INDEKS_CINA	Z_VOLUME_TRANSAKSI	Y_IHSG
Mean	11991.07	1848.727	0.047423	2891.732	156.9308	4961.636
Median	13118.24	1966.073	0.043300	2876.401	128.2634	4905.392
Maximum	15178.87	2260.694	0.087900	5940.048	415.0740	6605.631
Minimum	8225.743	1316.732	0.019600	1979.206	55.61621	2913.600
Observations	121	121	121	121	121	121

Source: Data processed 2020

The average value of the Dollar Exchange Rate is IDR 11,991.07. This shows that the middle exchange rate from June 2010 - June 2020 was Rp. 11,991.07, the lowest value was Rp. 8,225 and the highest value was Rp. 15,178. The average value at the Yuan Exchange rate was 1,848,727. This shows that the middle rate from June 2010 - June 2020 was 1,848,727, the lowest value was IDR 1,316,732 and the highest value was IDR 2,260,694. The average value on inflation is 0.047. This shows that the inflation from June 2010 - June 2020 is 0.047, the lowest value is 0.019 and the highest value is 0.087. The average value on the Chinese Index is IDR 2,891. This shows that the Chinese index from June 2010 - June 2020 was Rp. 2,891, the lowest value was Rp. 1,979 and the highest value was Rp. 5,940. The average value of the Transaction Volume is 156.93 billion. This shows that the transaction volume from June 2010 - June 2020 was 156.93 billion, the lowest value was 55.61 billion and the highest value was 415.07 billion. Average value on the Stock Price IndexCombined (JCI) of Rp 4,961. This shows that the JCI from June 2010 - June 2020 was Rp. 4,961, the lowest value was Rp. 2,913 and the highest value was Rp. 6,605.

8.2. Test Data

Classical Assumption Testing Equation 1

Multicollinearity Test Results:

Table 3: Multicollinearity Test Results

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	317.8990	1.047098	NA
D(X1_KURS_DOLLAR)	0.011596	2.260227	2.189178
D(X2_KURS_YUAN)	0.665845	2.397444	2.312923
D(X3_INFLASI)	9481787.	1.017853	1.015782
D(X4_INDEKS_CINA)	0.003142	1.168907	1.164389

Source: Data processed 2020

By observing the results of the analysis, there is a VIF value that does not exceed the number 10, it can be concluded that the model does not experience multicollinearity. The results of the Hesteroscedasticity Test can be seen from the following table:

Table 4: Heteroskedasticity Test Results

Heteroskedasticity Test: White

F-statistic	1.457848	Prob. F(14,105)	0.1403
Obs*R-squared	19.52944	Prob. Chi-Square(14)	0.1457
Scaled explained SS	47.19761	Prob. Chi-Square(14)	0.0000

Source: Data processed 2020

Based on the results of the above analysis, the Prob value. Chi-Square on the Obs * R-Squared line shows 0.1457 this value is above the significance level (0.05), so it is concluded that there is no heteroscedasticity in the model. Autocorrelation test results can be seen in the table below:

Table 5: Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.379410	Prob. F(2,113)	0.6851
Obs*R-squared	0.800451	Prob. Chi-Square(2)	0.6702

Source: Data processed 2020

Based on the results of the above analysis, the Prob value. Chi-Square on the Obs * R-Squared line shows 0.6702 this value is above the significance level (0.05), so it is concluded that there is no autocorrelation in the model.

Classical Assumption Test for Equation 2

Multicollinearity test results can be seen from the table:

Table 6: Multicollinearity Test Results

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.000489	1.059335	NA
D(X1_KURS_DOLLAR)	1.948815	2.022207	1.963274
D(X2_KURS_YUAN)	3.278669	2.105769	2.009595
D(X3_INFLASI)	0.038726	1.021000	1.015782
D(X4_INDEKS_CINA)	0.067272	1.132899	1.127718

Source: Data processed 2020

By observing the results of the analysis, there is a VIF value that does not exceed the number 10, it can be concluded that there is no multicollinearity in the model. The results of the Hesteroscedasticity Test can be seen in the table:

Table 7: Hesteroscedasticity Test Results

Heteroskedasticity Test: White

F-statistic	0.836601	Prob. F(14,105)	0.6284
Obs*R-squared	12.04234	Prob. Chi-Square(14)	0.6029
Scaled explained SS	9.080305	Prob. Chi-Square(14)	0.8259

Source: Data processed 2020

Based on the results of the above analysis, the Prob value. Chi-Square on the Obs * R-Squared line shows 0.6029, this value is above the significance level (0.05), so it is concluded that there is no heteroscedasticity in the model. Autocorrelation test results can be seen in the table below:

Table 8: Autocorrelation Test Results

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	6.801907	Prob. F(2,113)	0.0016
Obs*R-squared	12.89422	Prob. Chi-Square(2)	0.0016

Source: Data processed 2020

Based on the results of the above analysis, the Prob value. Chi-Square on the Obs * R-Squared line shows 0.0016, this value is below the significance level (0.05), so it is concluded that there is no autocorrelation in the

model.

8.3. Multiple Linear Regression Analysis

The JCI equation

JCI = 2000.322 + 0.236334 * Dollar + 0.803519 * Yuan - 13694.12 * Inflation - 0.245062 * SSEC

Table 9: The results of the regression analysis of the IHSG hypothesis

```
Dependent Variable: Y_IHSG
Method: Least Squares
Date: 09/05/20   Time: 12:08
Sample: 2010M06 2020M06
Included observations: 121
```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1_KURS_DOLLAR	0.236334	0.109096	2.166293	0.0323
X2_KURS_YUAN	0.803519	0.714548	1.124514	0.2631
X3_INFLASI	-13694.12	3739.787	-3.661739	0.0004
X4_INDEKS_CINA	-0.245062	0.074971	-3.268760	0.0014
C	2000.322	379.0124	5.277723	0.0000

R-squared	0.722109	Mean dependent var		4961.636
Adjusted R-squared	0.712526	S.D. dependent var		920.1399
S.E. of regression	493.3476	Akaike info criterion		15.28075
Sum squared resid	28233458	Schwarz criterion		15.39628
Log likelihood	-919.4853	Hannan-Quinn criter.		15.32767
F-statistic	75.35732	Durbin-Watson stat		0.267845
Prob(F-statistic)	0.000000			

Source: Data processed 2020

To determine the significance of the JCI function model suitability, the F test is used. From the calculation results show that the calculated F value is 75.35732 with a sig F of (0.000), which is smaller than the sig a value of 5%. This shows that the dollar exchange rate, the yuan exchange rate, inflation and the Chinese index simultaneously influence the JCI.

Based on the sig t value (table 4.9), the dollar exchange rate, inflation and the Chinese index have an effect on the JCI because the sig t value is smaller than sig ∞ (5%), while the yuan exchange rate has no effect on the JCI because the sig t value is greater than sig ∞ (5%).

The R2 obtained is 0.712 or 71.2%, meaning that the proportion of JCI variation can be explained by the exchange rate (exchange rate), inflation and the Chinese index of 71.2% and the rest is other factors.

Transaction Volume Equation

VT = 32.64911 + 0.077244 * Dollar - 0.401024 * Yuan - 286.7059 * Inflation - 0.016245 * SSEC

Table 10: The results of the regression analysis of the transaction volume hypothesis

```
Dependent Variable: Z_VOLUME_TRANSAKSI
Method: Least Squares
Date: 09/28/20   Time: 13:26
Sample: 2010M06 2020M06
Included observations: 121
```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1_KURS_DOLLAR	0.077244	0.011763	6.566601	0.0000
X2_KURS_YUAN	-0.401024	0.077045	-5.205048	0.0000
X3_INFLASI	-286.7059	403.2376	-0.711010	0.4785
X4_INDEKS_CINA	-0.016245	0.008084	-2.009555	0.0468
C	32.64911	40.86651	0.798921	0.4260

R-squared	0.552400	Mean dependent var		156.9308
Adjusted R-squared	0.536965	S.D. dependent var		78.17364
S.E. of regression	53.19456	Akaike info criterion		10.82623
Sum squared resid	328240.7	Schwarz criterion		10.94176
Log likelihood	-649.9871	Hannan-Quinn criter.		10.87315
F-statistic	35.78993	Durbin-Watson stat		0.745618
Prob(F-statistic)	0.000000			

Source: Data processed 2020

To determine the significance of the suitability of the VT function model, the F test was used. The results of the calculations show that the calculated F value is 35.78993 with a sig F of (0.000), which means it is smaller than the sig ∞ value of 5%. This shows that the dollar exchange rate, the yuan exchange rate, inflation and the Chinese index simultaneously affect the volume of transactions.

Based on the sig t value (Table 4.10), the dollar exchange rate, the yuan exchange rate and the Chinese index affect the volume of stock transactions because the t value is smaller than sig ∞ (5%). Meanwhile, inflation has no effect on the volume of stock transactions because the value of t is greater than sig ∞ (5%).

The R^2 obtained is 0.536 or 53.6%, meaning that the proportion of variations in the volume of transactions can be explained by the exchange rate (exchange rate), inflation and the Chinese index of 53.6% and the rest is other factors.

Equation of Transaction Volume to the JCI

JCI = 35888,829 + 8,747846

Table 11: The results of the regression analysis of the transaction volume hypothesis

```
Dependent Variable: Y_IHSG
Method: Least Squares
Date: 10/26/20   Time: 20:00
Sample: 2010M06 2020M06
Included observations: 121
```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Z_VOLUME_TRANSAKSI	8.747846	0.721920	12.11748	0.0000
C	3588.829	126.4656	28.37790	0.0000

R-squared	0.552351	Mean dependent var	4961.636
Adjusted R-squared	0.548589	S.D. dependent var	920.1399
S.E. of regression	618.2154	Akaike info criterion	15.70794
Sum squared resid	45480643	Schwarz criterion	15.75415
Log likelihood	-948.3305	Hannan-Quinn criter.	15.72671
F-statistic	146.8333	Durbin-Watson stat	0.391148
Prob(F-statistic)	0.000000		

Source: Data processed 2020

Based on the calculated F value of 146.8333 with a sig F of 0.0000 being smaller than the sig ∞ of 5%, the transaction volume simultaneously affects the JCI. Based on the sig t value, the transaction volume has an effect on the JCI. Based on the adjusted R square test is 0.548589 and the sig t value (0.0000) which is less than 5% sig ∞, there is an influence between the volume of transactions on the JCI. This condition reflects that if there is an increase in transaction volume in the market, it will be followed by an increase in the JCI.

Determination Coefficient R2

The coefficient of determination (R-squared) is a tool used to measure the model's ability to explain variations in the dependent variable. The coefficient of determination has a range of values between 0 and 1. The coefficient of determination is close to 1 indicating that the model can explain variations in the dependent variable. Meanwhile, the coefficient of determination (close to 0) indicates that the model's ability to explain the variation in the dependent variable is limited.

Table 12: The results of the R-squared value of multiple linear regression analysis

No	Persamaan Regresi	R-Square	Koefisien Determinasi
1	IHSG = a + b1X1 + b2X2 + b3X3 + b4X4 + e	R1	0,712526
2	V = a + b1X1 + b2X2 + b3X3 + b4X4 + e	R2	0,536965
3	I = α3 + b1VT + e	R3	0,548589

Source: Data processed 2020

(R2 + R3)> R1
(0.536965 + 0.548589)> 0.712526
1.085554> 0.712526

The above inequality shows that the role of transaction volume as an intervening variable is very important in increasing the influence of the independent variables (inflation, dollar exchange rate, yuan exchange rate, SSE index) on variable Y. When compared to the R-Squared value from direct regression equation analysis (without intervening variables) and by means of intervening, the value of R-Squared which indicates the ability of the independent variables in explaining the dependent variable is greater in value by means of the intervening variable.

9. CONCLUSIONS AND SUGGESTIONS

Conclusions

1. Simultaneously there is an effect of the dollar exchange rate, the yuan exchange rate, inflation and the Chinese index on the JCI. However, partially the dollar exchange rate, inflation and the Chinese index have a significant effect on the JCI, while the yuan exchange rate has no effect on the JCI.
2. Simultaneously there is an effect of the dollar exchange rate, the yuan exchange rate, inflation and the Chinese index on the volume of transactions. However, partially the dollar exchange rate, the yuan exchange rate and the Chinese index have a significant effect on transaction volume, while inflation does not affect the volume of transactions.
3. Transaction volume has a significant effect on the LQ45 index. Based on the coefficient of determination of direct and indirect effects, transaction volume can be an intervening variable between the independent variables (inflation, dollar exchange rate, yuan exchange rate and Chinese index) and the dependent variable on the JCI stock index.

Suggestion

Based on the conclusions described by the author, the suggestions that can be put forward by the author are:
1. Indicators of inflation, dollar exchange rate, yuan exchange rate and stock transaction volume are considered by investors in investing in stocks. This is indicated by the influence of these indicators on the composite stock price index for the period June 2010 to June 2020.
2. Further research should be carried out using other independent variables with a period, especially during the Covid 19 pandemic.
3. Further research should use various other economic indicators such as the Singapore stock index, interest rates and various other indicators in predicting fluctuations in the composite stock price index and the volume of stock transactions.

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