Jurnal Muara Ilmu Ekonomi dan Bisnis
Vol. 7, No. 2, Oktober 2023 : hlm 487-499

ISSN 2579-6224 (Versi Cetak)
ISSN-L 2579-6232 (Versi Elektronik)

DO MACROECONOMIC FACTORS AFFECT THE IDX COMPOSITE PRICE INDEX IN THE PERIOD 2017-2021?

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Masuk : 10-05-2023, revisi: 22-09-2023, diterima untuk diterbitkan : 31-10-2023

ABSTRAK

Penelitian ini menginvestigasi pengaruh beberapa variabel makroekonomi pada indeks harga saham gabungan (IHSG). Variabel yang diduga menjadi determinan adalah tingkat suku bunga, inflasi, nilai tukar, dan harga minyak dunia. Periode observasi yang digunakan adalah tahun 2017-2021. IHSG memainkan peran penting pada pasar modal, dimana menjadi barometer perekonomian sebuah negara. Selain itu, IHSG juga dapat menjadi acuan kinerja saham bagi investor yang kemudian dapat memberikan gambaran tentang keuntungan portofolionya. Faktor makroekonomi seperti suku bunga, inflasi, nilai tukar, dan harga minyak dunia mempengaruhi volatilitas dari IHSG pada pasar modal. Penelitian memiliki kontribusi terhadap literatur terkait dengan menginvestigasi peran dari faktor ekonomi pada IHSG di Indonesia sebagai salah satu negara berkembang. Ini menjadi penting karena volatilitas dari IHSG berdampak pada pertumbuhan ekonomi. Sampel pada penelitian ini adalah data bulanan IHSG dari tahun 2017-2021 dengan total 60 observasi. Analisis regresi linier berganda digunakan untuk menguji hipotesis penelitian. Hasil penelitian menunjukkan bahwa terdapat beberapa faktor yang tidak memengaruhi IHSG, antara lain tingkat suku bunga dan inflasi. Sementara itu, nilai tukar dan harga minyak dunia ditemukan memiliki pengaruh terhadap IHSG. Pengaruh kedua variabel ini berbeda terhadap IHSG. Nilai Tukar memengaruhi IHSG secara negatif, namun harga minyak dunia memengaruhi secara positif. Secara simultan ditemukan bahwa variabel-variabel independent dalam model berpengaruh terhadap IHSG pada tahun 2017-2021.

Kata Kunci: Suku Bunga; Inflasi; Nilai Tukar; Harga Minyak Dunia; Indeks Harga Saham Gabungan.

ABSTRACT

This research investigated the effects of some macroeconomy variables to IDX Composite Price Index (IHSG). The variables which included in this study, namely interest rate (IR), inflation (IF), exchange rate (ER), and world crude oil price (COP) on the. Observation period of this research is from 2017–2021. The Composite Price Index (CPI) plays a crucial role in the capital market as it serves as a barometer of the economic health of the state. Moreover, through the IHSG, investors can see stock portfolio performance and can use it to measure profits. Macroeconomic factors as tested in this study can influence the volatility of the CPI in the capital market. The contribution of this research to the body of knowledge is by investigating the role of economic factors in determining the CPI in the emerging market such as Indonesia. This is crucial because composite stock price index volatility impacts economic growth. The sample in this study is monthly data from 2017-2021 with a total of 60 observations. The data obtained was then tested using multiple linear regression analysis. The research results showed that there are a few variables which did not affect the CPI, such as interest rate (IR) and inflation (IF). On the other hand, exchange rate (ER) and world crude oil price (COP) affect the index differently. Indonesian rupiah exchange rate negatively influenced the IDX Composite Index. Meanwhile, world crude oil price positively influenced the composite stock price index. Based on the research results, it is concluded that independent variables in the model had a significant simultaneous effect on the IDX Composite Index in the period 2017–2021.

Keywords: *Interest Rate; Inflation; Exchange Rate; Crude Oil Price; IDX Composite Index.*

1. INTRODUCTION

Background

The capital market is one of the most rapidly growing economic instruments today as well as having two critical roles in economics. The first would be as a means for the company in obtaining funds from the public financing or investor. And the second is to become a place for the public in investing in shares, bonds, mutual funds, and other financial instruments (Istinganah & Hartiyah , 2021). Furthermore, it has become one of the strategic roles for developing the country, so that it can represent Indonesia's macroeconomic condition (Pinem et al., 2023). Capital market is one of the alternative investment options available to investors to generate profits optimally. Firms choose to issue their shares in capital markets to expand their productive capabilities (Didier et al., 2021). In numerous countries, particularly those pursuing the market economic system, the capital market has become one of the most vital resources for economic advancements as it can serve as an alternative source of funding for companies. The Chinese capital market has expanded exceptionally and is now the world's second-largest (Hu et al., 2021). In India, post-globalization reforms resulted in a significant improvement in stock market development and then resulted in economic growth in India (Raval, 2020). In Indonesia, the capital market has succeeded in contributing to the economic development of society. The development of the Indonesian capital market, seen from several indicators, has shown rapid progress in recent years. In January 2021, Indonesian Central Securities Depository or Kustodian Sentral Efek Indonesia (KSEI) released statistical data which shows a consequential increase in the number of investors in capital market, especially in Indonesia. The development of capital markets will prompt the economic advancement of the state.

The IDX Composite Index (IHSG) is a index figure of all stocks listed on the Indonesian Capital Market. A composite exchange is a starting point for an investment. In addition, it can be used to portray the condition of the market and show the fluctuation of the stock price (Ekadjaja & Dianasari, 2017). The IDX Composite Index refers to stock price index numbers that are set and calculated and that are generative of a trend, in which case the index numbers are numbers that are processed in such a way for them to be applicable in comparing events, which such as changes in stock prices overtime. Currently, the economic conditions in Indonesia are still unstable in the wake of a global pandemic that has yet to be completely over. The lockdown situation has weakened the state's economics, leading to companies suffering from a slump in revenue and making layoff decisions. Other impacts left by this situation include dwindling people's purchasing power, fluctuations in interest rates, inflation, and changes in the consumer price index. The aforementioned conditions may influence stock prices then sequentially IDX CI.n The factors that can determined the trend of the index may be both external and internal (Murti, 2017). The examples of external factors such as crude oil price, gold price, and another international price index including Nikkei 225 and Dow Jones. Meanwhile interest rate, inflation rate, exchange rate, or consumer price index can be considered as the internal factors. Unstable conditions of these factors may influence the Indonesia Composite Index and in turn the national economics. Therefore, the main purpose of this study is to examine the role of these macroeconomic indicators in determining the Indonesia Composite Index or IHSG (Murti, 2017).

There are several studies which have explored the similar topic. As noted in Nugraha et al. (2020) revealed that the exchange rate had a significant influence on the Indonesia Composite Index (IDX CI). On the other hand, inflation had no influence on the volatility of the IDX CI (Desfiandi et al. (2017); Triyono & Robiyanto (2017); Ullah et al. (2017); Bassar et al. (2021)). Other previous research found that Inflation have a negative influence on the index (Endri et al.

 https://doi.org/10.24912/jmieb.v7i2.27299

ISSN 2579-6224 (Versi Cetak)
ISSN-L 2579-6232 (Versi Elektronik)

(2020); Wahyudi et al. (2017); Fuad & Yuliadi (2021)). It was also reported that the exchange rate affect the IDX CI (Suhadak & Suciany, (2020); Nugraha et al. (2020); Ekadjaja & Dianasari, (2017); Ullah et al. (2017); Nurwulandari et al. (2021); Fuad & Yuliadi (2021); Bassar et al. (2021)) and vice versa Handayani & Oktavia (2018) found that exchange rate did not affect on the IDX CI. Other researches revealed that there is a causative relationship between stock market performance, and interest rate (Pinem et al. (2023); Ullah et al., (2017); Wahyudi et al. (2017); Fahlevi (2019); Fuad & Yuliadi (2021)). On the contrary, other researches found that the interest rates do not have an impact toward IDX CI (Triyono & Robiyanto, (2017); Pinem (2019); Bassar et al. (2021)). Prawirosaputro & Hapsari (2017);Wahyudi et al. (2017); Fuad & Yuliadi (2021) revealed that crude oil prices have positive relation with Composite Index, on the other hand, when the crude oil price increasing, it occurs depreciation on the stock price (Ajala et al., 2021)**.**

The theoretical contribution of this study is to enrich the body of knowledge by investigating the role of economic factors in determining the composite price in emerging market, especially in Indonesia. This is crucial because the volatility of it has an impact on economic growth. In addition, changes in stock prices can result in changes in consumption behaviour and investment by investors. The changes also reflect various information that occurs in the capital market. It can be an indicator that describes the ratio of changes in share prices, thus influencing the rise and fall of the rate of return in Indonesia stock exchange (Sari, 2019). To this end, the present study selects four economic indicators to conduct the analysis using multiple regression. This research paper is divided into four sections. The second section examines relevant literature to this study. The methodology is discussed in the third section. On the section four the empirical findings and discussion of the study will be presented. Lastly, the results will be concluded on Section five.

LITERATURE REVIEW

Stock price index volatility can be determined by macroeconomic variables (Fuad & Yuliadi, 2021). The IDX Composite Price or IDX CI (IHSG) is one of the indices traded on the stock exchange through the capital market. It is an overall picture of the capital market activities in Indonesia. It also provides investors with historical information regarding the stock price trend within a certain period. The closing price of the stocks is used as a benchmark of the daily IDX Composite trend. Besides, the IDX CI reflects the performance of all the issuers listed on the IDX. The IDX CI trend is influenced by several factors, which derive either from macroeconomic or home affairs (internally) or from abroad (externally). Home-based (internal) factors may take the form of the exchange rate of a state to that of another state, the interest and inflation rates of the state, the sociopolitical conditions of the state, the amount of cash outstanding, and so forth. Meanwhile, global-based (external) factors may take the forms of foreign stock exchange indices, such as the Dow Jones Industrial Average (DJIA), trends of world crude oil prices, trends of world gold prices, global market sentiments, and so forth (Murti, 2017).

Inflation is an event depicting a situation or a condition in which the prices of goods rise, and currencies are weakened. The rise in interest rate will increase the expense of a company, particularly interest expense. The increasing number in interest expense can reduced the company's profit, which can be one of the causes of the company's stock price to fall. The fall in stock price will lead to a falling IDX Composite Index trend. Fluctuations in the exchange rate of Indonesian rupiah to the US dollar, as well as fluctuations in world crude oil price, are strong determinant of the economic stability in Indonesia.

The Effect of Interest Rate (IR) on the IDX Composite Index (IDX CI)

Interest rate (IR) can be defined as the number in a monetary policy transmission that signals a current economic situation. It also shows the overview of a challenge in attaining an inflation target. It is fair to make a statement that an interest rate refers to the cost a bank frequently incurs to allow clients to make a savings deposit. IR is also aligned with capital market for investments. The surge in interest rate will increase the company's interest expense. The increase then will lower company's profits; as a result, the company's stock price will drop. Additionaly, high interest rate affects the value the company's cash flow. It will make available investment opportunities seem less attractive to the investors. Higher IR will cause the rise in the company's cost of capital and the return required by investors of an investment (Sari, 2019).

The increase of interest rate will result in the dowturn in stock price. It will then cause a decline in the IDX CI. Previous researches found that there is relationship between stock performance and interest rate (Pinem et al. (2023); Ullah et al. (2017);Wahyudi et al. (2017); Fahlevi (2019); Fuad & Yuliadi (2021)). Furthermore, the research by Fahlevi (2019) found that interest rate negatively influenced the index. In other words, when IR rose, the IDX CI experienced a downward trend. Thus, the first hypothesis is:

H_1 = Interest rate has a negative effect on the IDX Composite Index

The Effect of Inflation Rate (IF) on the IDX Composite Index

Inflation (IF) is one of the variables that influence the variability of the IDX CI trends in certain periods. The rise in inflation rate will have an impact on investors in the negative manners, especially in the capital market and money market (Sari, 2019). Moreover, the rising inflation rate will rise product prices and production costs sequentially. The rising cost especially in production will reduce the profits generated by the company. The declining in profit will result in the lower company's stock price. The inflation-driven decline in stock price will cause a decline in the IDX CI. Previous studies found that the inflation affect the IDX CI negatively (Endri et al. (2020); Wahyudi et al. (2017); Fuad & Yuliadi (2021)). In other words, there will be a falling trend in IDX CI when there is the higher rate of inflation. Hence, the second hypothesis is:

H_2 = Inflation has a negative effect on the IDX Composite Index

The Effect of Indonesian Rupiah Exchange Rate (ER) on the IDX Composite Index (IDX CI)

Muhamad & Henny (2021) found that exchange rates (ER) contributed to the volatility of IDX CI. Moreover, Ekadjaja & Dianasari (2017); Rohmawati et al. (2022); Ullah et al.(2017); Fahlevi (2019); Nugraha et al (2020); Hasanudin (2021); Fuad & Yuliadi (2021) proved that foregin exchange can influence the IDX CI. A foreign currency exchange rate indicates the price or value of the currency of a state in another state. It is also defined as the amount of domestic money, in this case in rupiahs, needed to obtain a foreign currency unit. The decline in exchange rate of rupiah to a foreign currency may leave a negative effect on economics and capital market. It will cause the import fees of raw materials that are to be used for production, as well as interest rates, to surge, although it may also drive companies to do exportations. Additionally, in the traditional perspective, the exchange rate can affect the competitiveness of a company (Ratnasari, Muljaningsih, & Asmara, 2021). Previous studies also showed Indonesian rupiah exchange rate negatively affect on the IDX CI (Triyono & Robiyanto, (2017); Fuad & Yuliadi (2021)). Therefore, the third hypothesis is:

H_3 = Exchange rate has a negative effect on the IDX Composite Index

 https://doi.org/10.24912/jmieb.v7i2.27299

ISSN 2579-6224 (Versi Cetak)
ISSN-L 2579-6232 (Versi Elektronik)

The Effect of World Crude Oil Price (COP) on the IDX Composite Index (IDX CI)

World crude oil (WOP) is one of the most crucial resources today as it can be processed into such sources of energy as liquefied petroleum gas (LPG), petroleum, diesel oil, lubricants, and other kinds of oil. Its current price is calculated from the spot price following the West Texas Intermediate standard. Fluctuations in the price may influence the capital market of a state. Most of trades in stock in the mining sector especially in Indonesia. In general, higher crude oil prices will drive up the prices of other mined materials; therefore, higher crude oil prices cause the stock prices in the mining sector to be high too. This gives an opportunity for mining companies to increase their profits. The rise in stock price in mining companies will sequentially increase the stock prices in the capital market in Indonesia. Previous studies showed that COP significantly and positively influenced the IDX CI trend (Prawirosaputro & Hapsari (2017); Wahyudi et al. (2017); Fuad & Yuliadi (2021)). And the fourth hypothesis is:

H_4 = Crude oil price has a positive effect on the IDX Composite Index.

The following is the conceptual framework used in this research.

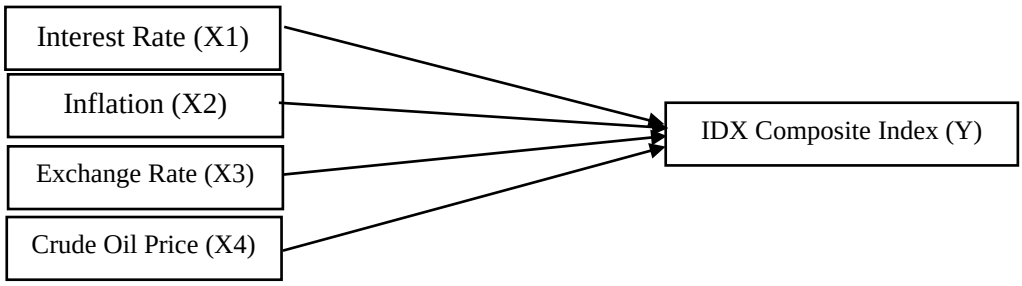

Figure 1. Conceptual Framework

2. RESEARCH METHOD

This study is a quantitative research to explain the factors that can affect the Indonesian Composite Index. The object of this study was IDX Composite Index. There are four independent variables which tested in this study, namely namely Interest Rate (IR), inflation (IF), exchange rate (ER), and crude oil price (COP). The sample in this research was monthly data on the aforementioned variables from 2017 to 2021.

The data was collected with a non-participatory observation method. Non-observatory observation is observation that is carried out without self-involvement, in which the observer acts as independent observer. In this research, data were collected through documentation, observation, news information, and other information from appropriate Internet sites. Monthly IR, IF, ER, COP, and IDX CI were collected to test the adorementioned hypotheses.

Secondary data from Indonesian Stock Exchange website were used in this research. The observation period of this study is from January 2017 to December 2021. The data were also taken from other websites, such as www.finance.yahoo.com, www.bi.go.id, and www.investing.com. The data then were analyzed by using multiple regression analysis technique, using the Eviews 9 computer program. Multiple linear regression (MLR) is a statistical technique that uses several explanatory variables to predict the outcome of a response variable. The test is used to model the linear relationship between the independent variable, in this case, IDX CI, and dependent variables, in this case IR, IF, ER, and COP.

3. RESULT AND DISCUSSION

Descriptive Analysis

From the research data analysis conducted, the statistical descriptive data presented in the Table 1 below were obtained:

Table 1. Result of Descriptive Statistics
Source: E-Views Output Result

	X1	X2	X3	X4	Y
Mean	0,046167	0,027263	14,12158	52,83900	5916,933
Median	0,045000	0,029900	14,18000	52,41500	5985,500
Maximum	0,060000	0,043700	16,30000	71,33000	6606,000
Minimum	0,035000	0,013200	13,32100	37,83000	4539,000
Std. Dev.	0,008393	0,008953	0,542771	6,775237	502,5839
Skewness	0,269699	-0,232826	0,876467	0,437000	-0,961204
Kurtosis	1,931339	1,806575	5,794454	3,739553	3,414291
Jarque-Bera	3,582469	4,102735	27,20438	3,277034	9,668228
Probability	0,166754	0,128559	0,000001	0,194268	0,007954
Sum	2,77000	1,635800	847,2950	3170,340	355106,0
Sum Sq. Dev	0,004156	0,004730	17,38145	2708,327	14902842
Observation	60	60	60	60	60

A total of 60 observations were carried out. The data was monthly data from each variable from 2017 to 2021. Based on the table 1 above, the average interest rate was 0.046 or 4.6 percent, it was averagely lower than previous year. It is possible to lower the interest rate to mantain the stability and growth of the economy in Indonesia. The average inflation rate was 0.027 or 2.7 percent during observation period, meaning that during the period of the research is conducted the inflation rate was low.

The average exchange rate during the research period from 2017 to 2021 was Rp14,122 which is relatively higher than previous years. The higher the exchange rate bound to increase prices of raw materials used for imported products for domestic products. Then, it will increase the price of goods and will reduce economic growth. The average oil price during the research period from 2017 to 2021 was US$52.84/barrel which also is higher than previous years. The increase of the crude oil price can increase domestic production costs, especially for the industrial sector. The average IDX Composite Index in the research period from 2017 to 2021 was Rp5,916.93. It is relatively higher than previous year which means than it gives a sign of investors' optimism regarding the country's economic prospects.

Results of assumption test

Normality Test

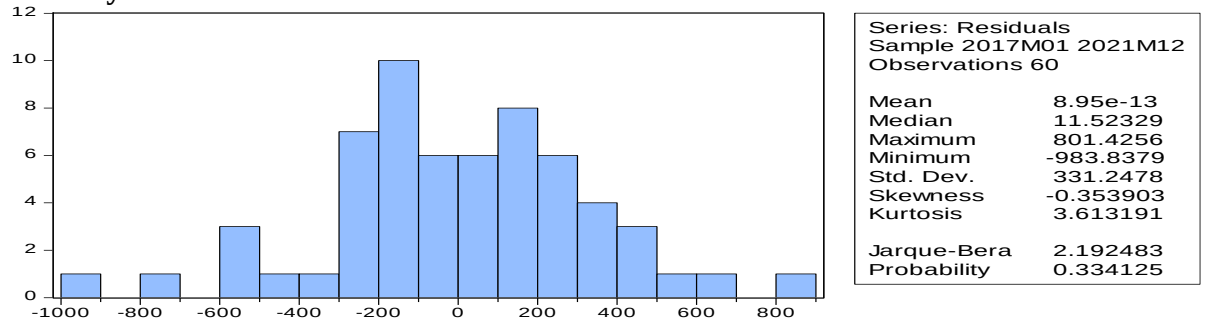

Figure 2. Normality Test Data
Source: E-views Output Result

 https://doi.org/10.24912/jmieb.v7i2.27299

ISSN 2579-6224 (Versi Cetak)
ISSN-L 2579-6232 (Versi Elektronik)

According to the data above, the probability value was **0.3341 (> 0.05)**. In other words, the normality assumption was met, meaning that the data were normally distributed and applicable to the research.

Heteroscedasticity Test

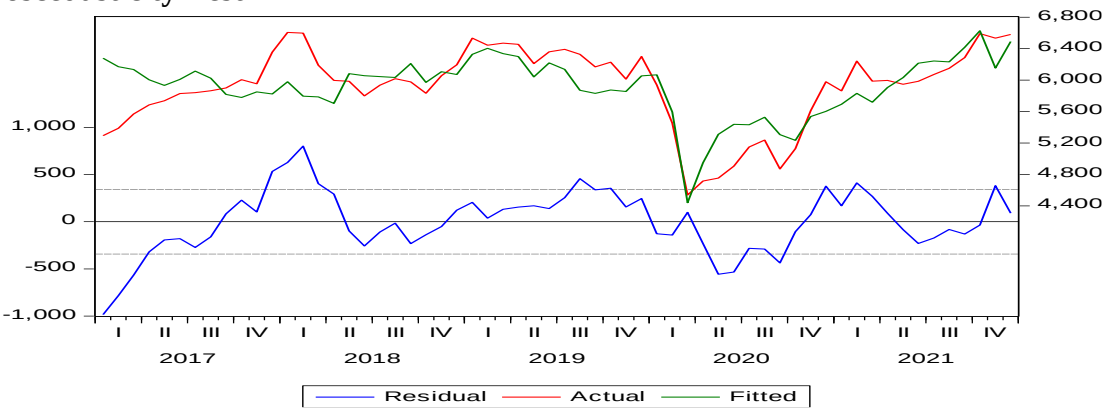

Figure 3. Heteroscedasticity Test Data
Source: E-views Output Result

As shown in the figure above, the curve did not form any pattern, or it was unorderly. In conclusion, no heteroscedasticity problem was present.

Multicollinearity Test

Table 2. Results of Multicolinearity Test
Source: E-Views Output Result

	X1	**X2**	**X3**	**X4**
IR (X1)	1,000000	0,588946	0,001690	-0,137822
IF (X2)	0,588946	1,000000	-0,505240	-0,099399
ER (X3)	0,001690	-0,505240	1,000000	-0,119310
COP (X4)	-0,137822	-0,099399	-0,119310	1,000000

Based on Table 2, the coefficient of correlation was lower than 0.8. It can be substantiated that the data were free from multicollinearity problem and were applicable to the research.

Autocorrelation Test

Table 3. Result of Autocorrelation Test
Source: E-views Output Result

	Value
DW	1,7521
dL	1,4443
dU	1,7274
dU < DW < 4 – dU	1.7274 < 1.7521 < 2.2726.

Based on Table 3, the Durbin-Watson (DW) value obtained was **1.7521**. Then it was compared to the dL and dU values in the DW table. For k =4 and n = 60, dl = 1.4443 and dU = 1.7274. Based the table 3 above, it can be determined that no autocorrelation problem was present.

Vector Autoregresson Estimation (VAR)

In this research the GARCH model was used to solve the heteroscedasticity problems with residuals distribution. When using the regular ARCH GARCH method, the results obtained

when testing the IDX CI variable are that the variable has passed the stationary test, by differencing at a significance level of 1%, 5%, or 10%. However, in these stationary conditions, an optimum lag was not found that was sufficient to proceed to the ARCH GARCH modeling Therefore, the test was continued by using Vector Autoregression (VAR) Estimation.
The first step of VAR estimation is heterroscedasticity test.

```
. hettest

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of D.lihsg

H0: Constant variance

         chi2(1) =  22.09
Prob > chi2 = 0.0000
```

Figure 4. Heteroscedasticity Test by Using VAR Model

The chi-square probability from the test is less than the significance level which is 0,05. From the test result, it can be derived that there is still a heteroscedasticity problem.
The next step is stationarity test with ADF. The optimal lag for the model was determined by using pre-estimation and post-estimation test. The smallest lag and simple model were used to determine the result.

Sample: 2017m6 thru 2021m12 Number of obs = 55

Lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	345.227				4.8e-11*	-12.4082*	-12.3518*	-12.2623*
1	355.112	19.771	16	0.231	6.0e-11	-12.1859	-11.9036	-11.456
2	363.103	15.982	16	0.454	8.1e-11	-11.8947	-11.3866	-10.5808
3	373.981	21.755	16	0.151	1.0e-10	-11.7084	-10.9745	-9.81054
4	385.912	23.862	16	0.093	1.2e-10	-11.5604	-10.6007	-9.07863

* optimal lag
Endogenous: D.lihsg D.lbirate D.linf D.lminyak
Exogenous: _cons

Figure 5. Pre-estimation Test

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varsoc

Lag-order selection criteria
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Sample: 2017m10 thru 2021m12 Number of obs = 51

Lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	315.878				5.7e-11*	-12.2305*	-12.1726*	-12.079*
1	324.638	17.52	16	0.353	7.6e-11	-11.9466	-11.6571	-11.189
2	332.02	14.764	16	0.542	1.1e-10	-11.6086	-11.0875	-10.245
3	342.605	21.17	16	0.172	1.4e-10	-11.3963	-10.6436	-9.42658
4	354.077	22.944	16	0.115	1.8e-10	-11.2187	-10.2344	-8.64295
5	378.263	48.372	16	0.000	1.4e-10	-11.5397	-10.3239	-8.35791
6	392.554	28.581	16	0.027	1.8e-10	-11.4727	-10.0252	-7.68479
7	415.988	46.87	16	0.000	1.7e-10	-11.7642	-10.0852	-7.37029
8	430.429	28.882*	16	0.025	2.6e-10	-11.7031	-9.79245	-6.70309

* optimal lag
Endogenous: D.lihsg D.lbirate D.linf D.lminyak
Exogenous: _cons

Figure 6. Post-estimation Test

After testing the lag optimum test for VAR model with pre-estimation and post-estimation test, it is found that the lag optimum is at the lag 1. However, exchange rate must be excluded because it is still not stationary after the testing. After that, the linier equation was formed based on the result

 https://doi.org/10.24912/jmieb.v7i2.27299

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	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
D_lihsg						
lihsg						
LD.	.2567661	.1455066	1.76	0.078	-.0284216	.5419539
lbirate						
LD.	.0243455	.1584657	0.15	0.878	-.2862416	.3349326
linf						
LD.	-.0082839	.0627406	-0.13	0.895	-.1312532	.1146855
lminyak						
LD.	-.1615562	.1233732	-1.31	0.190	-.4033632	.0802508
_cons	.0028371	.0055573	0.51	0.610	-.0080549	.0137291

Figure 7. Linier Equation Test

And the equation is written as follows:

$$d.lihsg_t = 0.0028371 + 0.0243455 d.lbirate_{t-1} - 0.0082839 d.linf_{t-1} - 0.1615562 d.lminyak_{t-1} + [\varepsilon_{it}]$$

The interpretation of this equation is written as follows:
BI Rate: If there is an increase in the BI Rate of 1% in the previous period (t-1), then the IHSG will increase significantly by 0.024%
Inflation: If there is an increase in inflation of 1% in the previous period (t-1), then the JCI will decrease significantly by 0.008%
Crude Oil Price: If there is an increase in COP of 1% in the previous period (t-1), then the JCI will decrease significantly by 0.161%
The next step is testing the stability of the model. The results show that the model is stable because the eigenvalue is between -1<= e <= 1 or the eigenvalue in the graphic below is in the circle

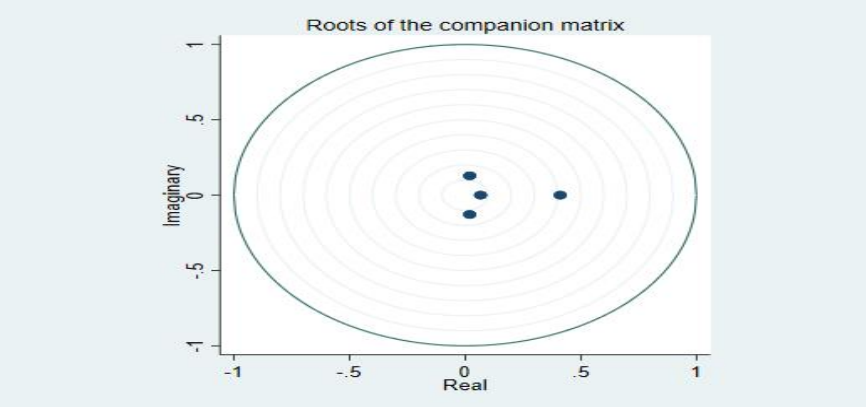

Figure 8. Figure for Model Stability

Eigenvalue	Modulus
.4110052	.411005
.01983536 + .1285508i	.130072
.01983536 - .1285508i	.130072
.06673289	.066733

Figure 9. Eigenvalue from Model Stability Test

Equation	Excluded	chi2	df	Prob > chi2
D_lihsg	D.lbirate	.0236	1	0.878
D_lihsg	D.linf	.01743	1	0.895
D_lihsg	D.lminyak	1.7148	1	0.190
D_lihsg	ALL	1.7736	3	0.621
D_lbirate	D.lihsg	.0059	1	0.939
D_lbirate	D.linf	1.1209	1	0.290
D_lbirate	D.lminyak	.17299	1	0.677
D_lbirate	ALL	1.1386	3	0.768
D_linf	D.lihsg	.07652	1	0.782
D_linf	D.lbirate	.8982	1	0.343
D_linf	D.lminyak	.1803	1	0.671
D_linf	ALL	1.1779	3	0.758
D_lminyak	D.lihsg	5.6275	1	0.018
D_lminyak	D.lbirate	1.7776	1	0.182
D_lminyak	D.linf	1.409	1	0.235
D_lminyak	ALL	8.5609	3	0.036

Figure 10. Hypotheses Test Results

From the results above, it can be determined Inflation and BI Rate do not affect IDX Composite Index. On the other hand, Crude Oil Price affects the IDX CI. The probability is 0,018 which is lower than 0,05.

Discussion

The results demonstrate that the variable interest rate did not affect IDX CI. Investors would keep investing despite increases in interest rates. It is fair to say that high interest rates would not influence IDX CI fluctuations. It also could show that investors are not interested in switching their portfolios to deposits because of the small number of interest rate fluctuations (Febriyanto & Ratnawati, 2016). This finding is consistent with the studies by Triyono & Robiyanto (2017) and Nurwulandari et al. (2021) which stated that the interest rate did not affect the IDX CI. In this research, it is also found that the inflation had no influence to IDX CI. The average inflation rate in the period 2017 to 2021 was 2.7%. Since it was less than 10%, this inflation rate was categorized as low, indicating no real effect on IDX Composite Index fluctuations (Febriyanto & Ratnawati, 2016). This finding is in accordance with some previous studies by Desfiandi et al. (2017); Triyono & Robiyanto (2017); Ullah et al. (2017); Pinem (2019); and Nugraha et al. (2020). Since the variable ER was excluded from the equation, the hypotheses could not be tested and the result could not be interpreted in this research.

The results demonstrated that the world crude oil price (COP) affect on IDX CI in a positive manner. In other words, it would increase the IDX CI. This was because the rises of crude oil prices would affect mined materials' prices in general. They will also increase the stock prices of mining companies, which will eventually cause the IDX Composite Index to soar. The companies will need additional resources to respond to this situation. Company's need for additional capital could be a signal to invest in the companies because they expect higher returns. This finding is consistent with the studies by (Prawirosaputro & Hapsari (2017); Wahyudi et al. (2017); Fuad & Yuliadi (2021)), which stated that world crude oil price significantly and positively affected the IDX Composite.

4. CONCLUSION AND SUGGESTION

Based on the results, it can be concluded that the IDX CI was not affected by BI interest rate (IR) and inflation rate (IF). Furthermore, Indonesian rupiah exchange rate is excluded from the model

 https://doi.org/10.24912/jmieb.v7i2.27299

ISSN 2579-6224 (Versi Cetak)
ISSN-L 2579-6232 (Versi Elektronik)

due to the stationary problem. Meanwhile world crude oil price (COP) positively affects it. As much as 47.22% of the effect on the IDX CI was explained by the independent variables in this research. On the other hand, the remaining 51.78% was by other variables unexplored in this research.

As a practical contribution, this research could be one of the means of information for investors before making investment decisions. Investors also must consider other indicators that strongly influence stock market conditions, whether they be external indicators, such as the DJIA, The Hang Seng Index, world gold price trends, and cryptocurrencies, or internal ones, such as financial statements, GDP, and prices of commodities, for the research results to be truly illustrative of actual conditions. It is strongly suggested to look at other indicators prior to placing an investment to maximize profits. Additionally, it is also important for the investors to acknowledge the macroeconomic environment as it influences compay operation. In this case the investor's capability to understand and predict the prospective macroeconomic conditions will be helpful in making effective investment decisions.

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