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Analysis of the influence internal and external factors on the performance of IDXV30

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ABSTRACT

In this research, authors examine the internal influence of BI7DRR, Inflation, Exchange Rate and JCI and external DJIA, the Fed, HSI and the contribution of factors that influence the performance of Index Value 30 (IDXV30) during the period September 2019 – December 2022. Type of data used is monthly time series data using the saturated sampling technique which is processed using the Eviews 12 application program using the VECM analysis method. The analysis phase is through the Stationarity Test, Optimal Lag Test, VAR Stability Test, Granger Causality Test, Cointegration Test, Impulse Response Function (IRF), and Forecast Error Variance Decomposition (FEVD). The results of the study prove that the Exchange Rate and DJIA together have a negative influence on the performance of the IDXV30 while the HSI and Inflation positively affect the IDXV30's performance. JCI, BI7DRR, FED have a negative influence on the performance of IDXV30. While the contributing factors are the IDXV30 itself while macroeconomics and global stock exchanges do not contribute.

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Introduction

Saving money for an extended period of time in the interest of making a profit or growing the value of the investment is known as investing. Stock investments on the Capital Market are one form of investment that is available. Long-term supply and demand for financial assets are met on the capital market (Ewah et al, 2009). The Indonesian Stock Exchange (IDX) is a party that coordinates and offers systems and/or facilities to collect offers from parties looking to trade securities to purchase and sell securities. The advantages of the capital market are gains from rising share prices (capital gains) and dividends for investors and the general public, and funds for additional capital, obligations, and operational expenses for businesses. The Capital Market also benefits the nation, serving as a source of tax income and supporting the functioning of the executive branch.

The IDX Value 30 and two new indicators were introduced on August 12th, 2019. To support the creation of capital market investment products, an additional reference for exchange mutual funds or exchange traded funds, the IDX Value 30 holds these two new indexes. An index called IDX Value 30 tracks the price movements of 30 stocks with cheap price valuations, excellent transactional liquidity, and strong financial performance. When compared to the JCI performance of 9.1% and the LQ45 performance of 9.8% in the same time, IDXV30 each saw growth of 21.1%. Compared to the Jakarta Composite Index (IHSG or JCI) and LQ45, the result of the IDXV30 is more favorable.

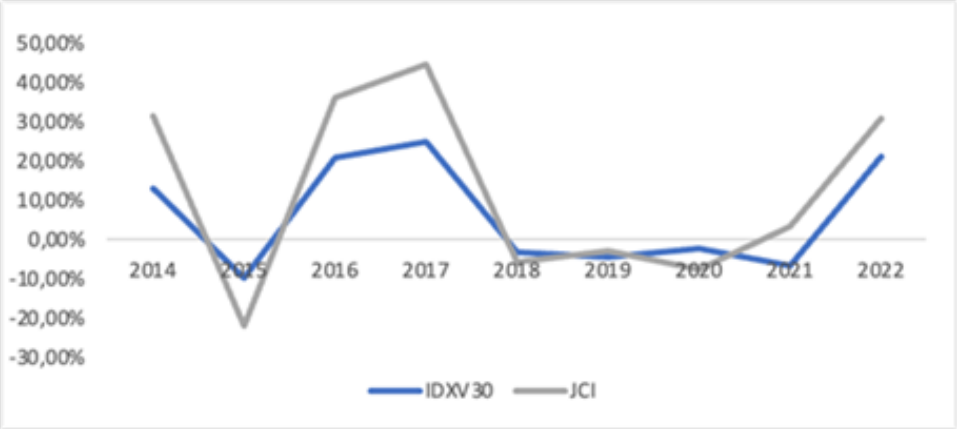

Figure 1. Historical Performance of IDXV30 and JCI During the Period January 30 2014 - August 31 2022
Source: Indonesia Stock Exchange (2022)

The Jakarta Composite Index is affected by global index and macroeconomic factors, claims Endri, Abidin, Simanjuntak, and Nurhayati (2020). Exchange rates, interest rates, inflation, and economic growth are examples of internal variables (macroeconomics). The Dow Jones Index, the Federal Reserve Interest Rate, and the Hang Seng Index are just a few examples of external (global) variables. According to Frensidy (2008), a number of variables affect how a country's stock index moves, including the macroeconomic situation of the nation, the buying and selling sentiment of overseas investors, and indexes from other nations.

Adnyana, Nurwulandari, and Suryadi and Efrinal and Putriani's studies from 2022 and 2020, respectively, discovered that the JCI significantly influenced the IDX30 and Net Asset Value (NAV) of Islamic Funds. The Jakarta Composite Index has a detrimental impact on Mixed Mutual Fund results, according to (Oemar & Susanti, 2019). Randi and Sagantha (2021) discovered different findings, including the fact that the Premier ETF JII Sharia Mutual Funds' Net Asset Value was not substantially impacted by the JCI.

One of the elements which can impact the index is BI-7day Repo Rate (BI7DRR). (Fuad & Yuliadi, 2021) discovered that the Jakarta Composite Index's performance was positively and significantly impacted by the BI-7day Repo Rate (BI7DRR). (Yubiharto, Mauliyah, & Rudianti, 2021) conducted research using interest rates as a variable and discovered that the performance of the JCI was negatively and significantly impacted by BI7DRR. Researchers (Indriyani & Utomo, 2021), (Paryudi, Wiyono, & Rinofah, 2021), and (Lusiana, 2020) found that the BI-7-day Repo Rate (BI7DRR) has no effect on the performance of the Jakarta Composite Index, in contrast to earlier studies that found the BI-7-day Repo Rate (BI7DRR) to have a significant positive and negative effect.

One of the elements influencing the success of the JCI is the exchange rate of the Rupiah relative to the United States Dollar (USD), which serves as a benchmark for market movements. According to Ramadhan and Simamora (2022), exchange rates significantly impacted the Jakarta Composite Index in a bad direction. According to (Yubiharto, Mauliyah, & Rudianti, 2021), the JCI was unaffected by the exchange rate. In contrast, research by Zakaria, Aminu, and Pattiasina (2018) showed that the performance of the Jakarta Composite Index was positively impacted by the Rupiah Exchange Rate against the US Dollar.

The propensity for prices to rise consistently over an extended period of time is known as inflation. Price increases have a negative effect on commerce. This is consistent with studies by (RPO, T, & Yazid, 2019), (Hawiwika, 2021), and (Slaihin, 2021) that found inflation has a detrimental effect on the Jakarta Composite Index's performance. According to (Miyanti & Wiagustini, 2018), the Jakarta Composite Index was unaffected by inflation.

The Dow Jones Index (DJIA) is the next external element influencing the performance of the JCI. The Dow Jones indicator is the country's first indicator. The success of indices in many nations, including Indonesia, is impacted by the Dow Jones Index. Researchers (Herlianto & Hafizh, 2020; Slaihin, 2021; Sejati & Wijaya, 2021) discovered that the Dow Jones index significantly influenced the JCI in the favor. The success of the IDX30 was not significantly impacted by the Dow Jones Index, in contrast to the studies by (Lusiana, 2020) and Adnyana, et al. (2022).

A moving indicator that serves as a standard for the world economy is the interest rate in the United States ot the Fed Fund Rate. The results of a research by Miyanti & Wiagustini (2018) showed the Composite Stock Price Index was significantly positively impacted by the Fed interest rate using multiple linear regression analysis. The interest rate of the United States (the Fed) negatively affect performance value of the JCI, according

to Silaen's study, which was discovered in 2019. The United States Interest Rate (Fed Fund Rate), on the other hand, was determined to have no bearing on the performance of the Jakarta Composite Index by (Nellawati & Isbanah, 2019).

The Hang Seng Index is another external element that affects the Jakarta Composite Index. In terms of both time and distance, the regional exchange with the Hang Seng Index is closest to the JCI. Researchers (Dewi & Suprajitno, 2021) and (Setiawan & Mulyani, 2020) discovered that the Jakarta Composite Index was significantly positively impacted by the HSCI (Hang Seng Composite Index). The performance of the Composite Stock Price Index is unaffected by the Hang Seng Index, in opposition to studies by Beureukat & Andriani and Nelawati & Isbanah published in 2021 and 2019 respectively.

Regarding the aforementioned occurrence, numerous studies have been conducted on the variables influencing the performance of the Jakarta Composite Index, Islamic Mutual Funds, IDX30, and Mixed Mutual Funds. There is, however, no study that examines how the IDXV30's performance is affected by variables both internal and external.

This study is the first to examine the variables that affect the performance of the IDXV30 using the Vector Auto Regression (VAR) and the Vector Error Correction Model (VECM). The performance of the IDXV30 was compared to the Dow Jones Index, Hang Seng Index, and the Fed Interest Rate as external variables, and to the JCI, the Rupiah Exchange Rate against the United States Dollar, the BI-7day Repo Rate (BI7DRR), and inflation as internal variables.

Arbitrage Pricing Theory (APT)

A hypothesis referred to as the Arbitrage Pricing hypothesis (APT) was developed by Ross in 1976. The APT and CAPM are similar in that they both explain the relationship between risk and anticipated returns using various presumptions and techniques. APT is a different model for figuring out the price of securities based on the idea of arbitrage, where the performance of securities is affected by a number of variables, according to Tyas, Dharmawan, & Asih (2014).

Jakarta Composite Index (JCI)

An indicator used to gauge the success of shares listed on a stock exchange is the Jakarta Composite Index. The performance of all stocks traded on the Main Board and Development Board of the Indonesia Stock Exchange is tracked by the JCI index. The success of the IDX30 is reportedly positively impacted by the Jakarta Composite Index, according to Adnyana et al. (2022). Accordingly, a rise in the JCI will result in an increase in the IDX30 as well. The NAV of Islamic Mutual Funds was significantly positively impacted by the Composite Stock Price Index (IHSG), according to Efrinal and Putriani's research in 2020.

H_1: The Jakarta Composite Index (JCI) variable positively affect IDXV30 performance

BI-7*day Repo Rate* (BI7DRR)

The cost of money that can be lent is represented by the interest rate; the amount is decided by the lending preferences and sources of different market participants. In addition to changes in economic actors' preferences for lending and borrowing, interest rates are also impacted by shifts in the money's purchasing ability, market rates of interest, or periodically fluctuating interest rates.

A high interest rate has an impact on the present worth of an investment, according to Bodie et al. (2009). According to Mirayanti and Wirama (2017), interest rates have a negative impact on stock performance, which implies that as rates rise, market performance will also decline.

H_2: The BI7DRR Interest Rate Variable has a negative effect on IDXV30 performance.

Exchange Rate against United States Dollar

Hadi's estimates for exchange prices (2015), Exchange rates, also known as exchange rates, are created when different transactions involving the buying and selling of goods and services with other nations compare the value or price between the two currencies. An exchange rate is then created that consists of a selling rate, a buying rate, and a middle rate. According to the signaling theory, stock values fluctuate based on the information that investors receive. Good or negative news can be considered to be information. The quantity and demand for a particular currency have an impact on the exchange rate of a nation.

When a currency's demand declines, the value of that money will decrease, and vice versa. A currency will grow in value when there is a rise in demand for it. According to Ramadhan and Simamora (2022), the Jakarta Composite Index was negatively and significantly impacted by the exchange rate. Similar to Hawiwika (2021), it was discovered that the Jakarta Composite Index's is negatively impacted by the exchange rate.

H_3: The Exchange Rate Variable has a negative effect on IDXV30 Performance.

Inflation

The propensity for prices to rise consistently over an extended period of time is known as inflation. Pressure on the supply side (cost push inflation), the demand side (demand full inflation), and inflation expectations all contribute to the increase of inflation. Making choices will be difficult for economic actors if inflation is not stable. This is in line with Hawiwika's study (2021), which claims that inflation has a detrimental impact on the JCI because it will decline as inflation rises. Inflation negatively affect The JCI's, based on a research by Hamzah et al (2019).

H_4: Inflation variable has a negative effect on IDXV30 performance.

Dow Jones

The editor of The Wall Street Journal and the creator of Dow Jones & Company, Charles Dow, established the Dow Jones Industrial Average (DJIA) as a financial market index. To gauge the performance of industrial components on the American stock market, Dow developed this index. The economic action in the US is represented by this index. This indicator can provide information about the state of the US economy. Herlianto and Hafizh, (2020) and Slaihin (2021) discovered that the Dow Jones Index had a favorable impact on the JCI.

H_5: The Dow Jones Index variable has a positive effect on IDXV30 performance.

The Fed Rate

The Fed, also known as the Federal Reserve, is the Central Bank of the United States and is in charge of overseeing finance and controlling the monetary quantity in the system. The United States Central Bank's interest rate (The Fed Rate) changes are one of the grounds for investing. According to Kontankas (2010), when there is a shock to the Fed Fund Rate (FFR), stock prices will rise considerably. This is due to the fact that when the Fed's interest rate declines, investors prefer to use their money to make transactions on the capital market rather than purchasing the Fed's assets, which results in an increase in capital market activity. According to Miyanti and Wiagustini (2018), the Fed Interest Rate significantly improved the JCI.

H_6: The Fed's Interest Rate Variable has a positive effect on the performance of IDXV30.

Hang Seng Index

A country's economy will be more dependent on the global economy as financial markets and several nations in nearby regions merge and become more integrated. The JCI is considered to be one of the growing capital markets, and it is believed that Asian and global stock market indices have a significant impact. The Hang Seng is the Asian market that has an impact on the JCI. Dewi and Suprajitno (2021) claim to have discovered that the JCI was positively impacted by the Hang Seng Index.

H_7: The Hang Seng Index variable has a positive effect on IDXV30 performance.

Method

The Vector Autoregressive (VAR) technique is a set of equations that depicts each variable as a linear function of the system's constants, the variables' individual lag values, and the variables' collective lag values. Here is the VAR model equation:

$$Y_t = A_0 + A_1 Y_{t-1} + A_2 Y_{t-2} + \ldots + A_p Y_{t-p} + e_t$$

Information:

Y_t : Vector size (n*1) which contains n variables contained in a VAR model

A_0 : Intercept vector of size (n*1)

A_1 : Coefficient/parameter matrix of size (n*n) for each i=1,2,…,p

e_t : Sized error vector (n*1)

The technique known as VECM (Vector Error Correction Model) is developed from VAR. Except for stationarity problems, the prerequisites are the same as for VAR. In opposition to VAR, VECM requires that all

variables have the same stationary, which is differentiated in the first derivative, and that it be stationary in the first differentiation. The VECM model equation is as follows:

$$\Delta y_t = m_{0x} + m_{1x}t + II_x y_{t-1} + \sum_{i=1}^{k-1} \tau_{ix} \Delta y_{t-1} + e_t$$

Information:

y_t : The vector that contains the variables analyzed in the study
m_{0x} : Interception vector
$m_{1x}t$: Regression coefficient vector
t : time trend
II_x : $\alpha_x \beta'$ Where β' contain long-term cointegration agreements
y_{t-1} : in-level variable
τ_{ix} : Regression coefficient matrix
k-1 : The VECM order of the VAR
e_t : error term

Data

This research makes use of monthly data for the period of September 2019 to December 2022 that are time series data gathered according to time within a specific time range. A data source that does not immediately provide data to data collectors is defined as secondary data by Sugiyono (2017). Reading literature reviews, doing research, analyzing articles, consulting prior research journals, and gathering information from official websites, https://www.idx.co.id/, served as the primary methods for gathering secondary data.

Table 1. Descriptive statistics

	JCI	BI7DRR	EX RATE	INFLATION	DJIA	FED	HSI
Mean	0,004	4,006	-0,002	2,626	0,007	1,012	-0,004
Median	0,007	3,75	-0,0006	2,06	0,012	0,25	-0,003
Maximum	0,094	5,5	0,064	5,95	0,129	4,5	0,266
Minimum	-0,167	3,5	-0,093	1,32	-0,137	0,25	-0,147
Std. Dev	0,047	0,619	0,025	1,396	0,058	1,178	0,071

Source: Eviews 12 (processed)

The JCI has a minimum value of -16.76% and a highest value of 9.40%, according to the above table. Throughout the research, 3.5% was the lowest and 5.5% was the highest value for BI7DRR. The greatest 6.4% appreciation and -9.3% depreciation in the Rupiah was against the USS. The largest and smallest decreases in inflation during the study time were 5.95% and 1.32%, respectively. The highest fluctuation for the DJIA movement during the study time was 12.9%, and the lowest was -13.7%. The Fed issued a number of policies to control inflation during the research era, with the Fed's increase being the highest at 4.5% and the lowest at 0.25%. The Hang Seng Index, on the other hand, saw increases of 26.6% and -14.7%, respectively.

Results and Discussions

Stages of VAR/VECM Analysis

Stationarity Test

The initial stage in this research is to test all variables whether they are stationary. The root test was carried out using the *Augmented Dickey-Fuller* (ADF) method with the decision criterion at a significance level (1 - α) 100%, H_0 rejected if the ADF statistic is less than the critical value at the time α, or the p *value* is less than the significance value α or in other words if it is H_0 rejected then the data is stationary.

Description: Unit Root Test Using *Augmented Dickey-Fuller* (ADF)

The stationarity test findings in Table 3 demonstrate that none of the variables examined are stationary at the level level. The null hypothesis that there is a unit root (the data are not stationary) is rejected when the IDXV30, JCI, EXCHANGE, INFLATION, DJIA, FED, and HSI variables are tested at the first difference stage. BI7DRR is tested at the second difference stage and is stationary there.

Table 2. Recapitulation of Research Variable Stationarity Test Results

Variable	Level		First Difference		Second Difference	
	P-*Value*	Information	P-*Value*	Information	P-*Value*	Information
IDXV30	0,2819	Not Stationary	0,0095	Stationary	-	-
JCI	0,7522	Not Stationary	0,0002	Stationary	-	-
BI7DRR	0,7206	Not Stationary	0,0855	Not Stationary	0,0000	Stationary
EXC RATE	0,2589	Not Stationary	0,0001	Stationary	-	-
INFLATION	0,9526	Not Stationary	0,0003	Stationary	-	-
DJIA	0,4929	Not Stationary	0,0000	Stationary	-	-
Fed	0,7409	Not Stationary	0,0409	Stationary	-	-
HSI	0,6561	Not Stationary	0,0000	Stationary	-	-

Source: Eviews 12 (processed)

Optimal Lag Test

Finding the ideal lag is the next stage after the data has reached a stationary state. Utilizing the Akaike Information Criterion (AIC), Schwarz Criterion (SC), and Hannan-Quinn Criterion can help with optimal lag duration testing. (HQ). The model parameters that provide the lowest AIC value are used to determine the ideal lag length. The accompanying table shows the findings from measuring the lag's length.

Table 3. IDXV30 Optimum Lag Test Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	261,8135	NA	1,52e-16	-13,71965	-13,37134	-13,59686
1	516,9644	386,1743	5,36e-21	-24,05213	-20,91737*	-22,94698
2	616,1119	107,1864*	1,34e-21	-25,95199	-20,03078	-23,86449
3	731,8562	75,07742	4,63e-22*	-28,74898*	-20,04132	-25,67913*

Source: Eviews 12 (processed)

Table 3 shows the outcomes of finding the ideal lag length for IDXV30, which are suggested to be 1 (based on SC criteria) and 3 (based on FPE, AIC, and HQ criteria). then a VAR/VECM model with order 1 will be chosen based on the outcomes of this ideal delayed selection.

Uji VAR Stability Test

The stable test, which is the next test, is a condition that the VAR/VECM modeling must satisfy. The criterion of a modulus number that is less than 1 or is within the unit circle establishes the stability requirement for this model. The Forecast Error Variance Decomposition (FEVD) and Impulse Response Function (IRF) analysis become invalid if an unstable VAR model is produced. The following chart illustrates that the VAR is stable because the results of the model stability test of the variables, performed by all moduli, are below the value of 1:

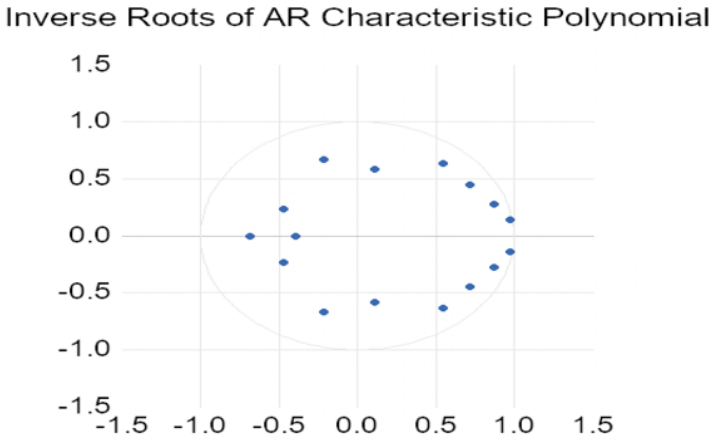

Figure 2. AR Lag 1 Characteristic Polymonial Inverse Roots for IDXV30

Table 4. Cointegration Test Results for IDXV30

Hypothesized No. of CE(s)	Eigenvalue	TraceStatistic	0,05 Critical Value	Prob.**	Information
None*	0,875767	251,1883	159,5297	0,0000	Cointegrated
At Most 1*	0,734530	171,9357	125,6154	0,0000	Cointegrated
At Most 2*	0,650285	121,5381	95,75366	0,0000	Cointegrated
At Most 3*	0,538722	81,61387	69,81889	0,0043	Cointegrated
At Most 4*	0,438069	52,21123	47,85613	0,0184	Cointegrated
At Most 5	0,329008	30,30895	29,79707	0,0436	Cointegrated
At Most 6	0,248014	15,14700	15,49471	0,0564	Not Cointegrated
At Most 7*	0,107356	4,315576	3,841465	0,0378	Cointegrated

Source: Processed data, 2023

According to the test findings, a cointegration relationship exists as evidenced by the existence of six cointegration equations at a significance level of 0.05 for the Trace-statistic value. Thus, the VECM model can be created from the VAR model mentioned above. The findings at most 6 showed that variables not cointegrated with IDXV30 because investors are more responsive to global market and domestic sentiment, for example the raise of oil price might raise the price of oil company.

VECM Estimation Results

Proceed with the VECM estimation model if the cointegration relationship between the study variables has been established. The outcomes of the VECM estimation were used to determine the short- and long-term connections between the JCI, BI7DRR, exchange rate, inflation, DJIA, Fed, and HSI independent variables and the dependent variables IDXV30 and IDXG30. The t-statistical value of the VECM estimation results was compared with the t-table at a significance threshold of 5% to perform the significance test. A t-table with an alpha of 5% in Microsoft Excel is equal to -1.6870936. The findings of the VECM IDXV30 estimation are displayed in table 5.

Table 5. Short and Long Term VECM Estimation Results for IDXV30

Variable	Short-term	
	Coefficient	**T Statistics**
CointEq1	-0,172119	[-0,42690]
D(IDXV30(-1))	0,344031	[0,93100]
D(JCI(-1))	0,181754	[0,35877]
D(BI7DRR(-1))	0,043154	[0,08788]
D(INFLATION(-1))	0,063602	[0,38132]
D(EXC RATE(-1))	-0,295723	[-0,35471]
D(DJIA(-1))	-0,154224	[-0,34423]
D(FED(-1))	0,031448	[-0,57195]
D(HSI(-1))	0.146294	[0.55343]
C	0,002538	[0,15641]
Variable	**Long-term**	
	Coefficient	**T Statistics**
D(JCI(-1))	-2,430677	[-17,5865]
D(BI7DRR(-1))	0,086866	[1,51461]
D(INFLATION (-1))	0,332804	[8,43558]
D(EXC RATE (-1))	1,312728	[3,79080]
D(DJIA(-1))	1,312728	[13,7507]
D(FED(-1))	-0,051174	[-4,05761]
D(HSI(-1))	-0,138358	[-2,55641]

Sumber: Processed data, 2023

Impulse Response Function

The effect on another variable will be explained by IRF analysis, which can also analyze the impact over a number of time horizons to provide long-term data. IRF analysis can determine how the independent factors JCI, BI7DRR, EXCHANGE RATE, INFLATION, DJIA, FED, and HSI respond to a specific shock of one standard error in each equation.

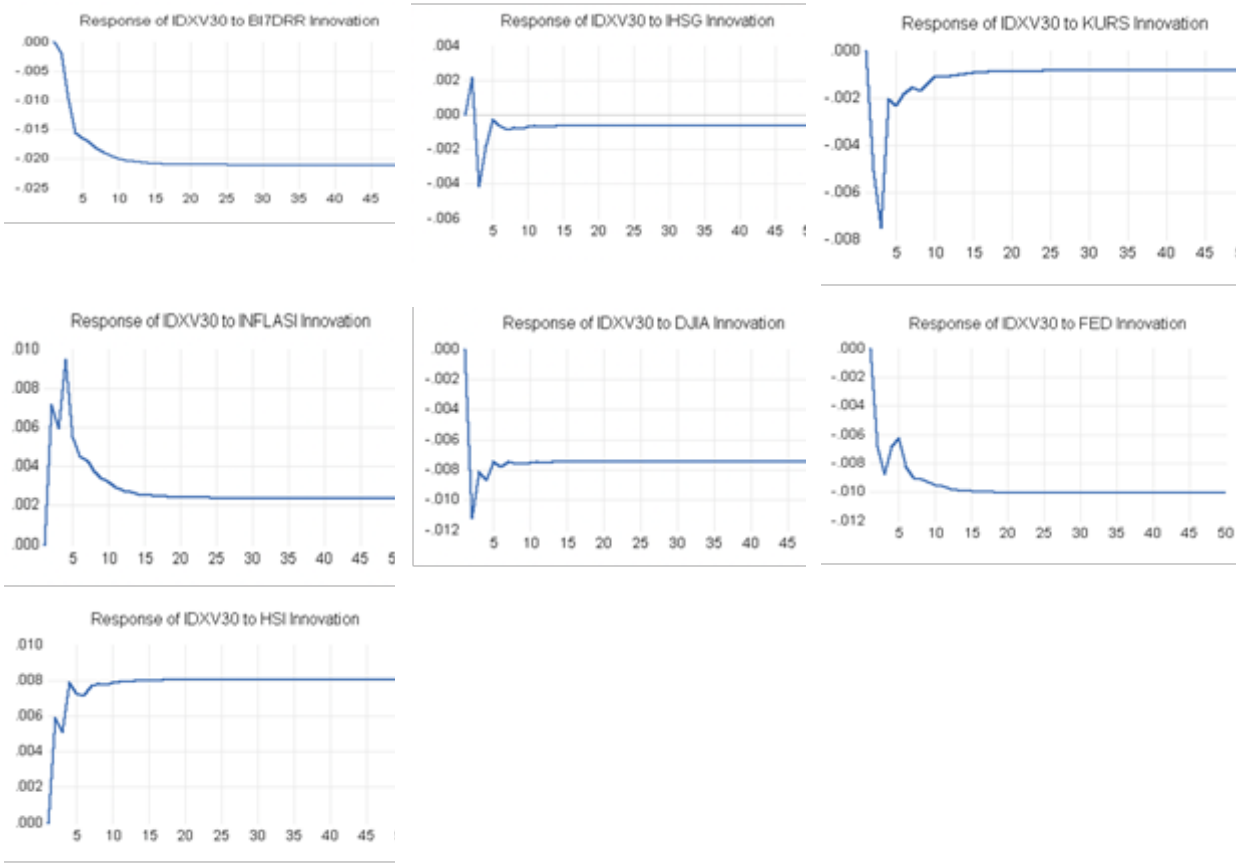

Figure 3. IDXV30 Impulse Response to JCI, BI7DRR, Exchange Rates, Inflation, DJIA, the Fed, and Hang Seng

IRF test findings show that the JCI has a detrimental impact on IDXV30 performance. The idea that the Composite Stock Price Index (JCI) variable significantly improves the performance of the IDXV30 is disproved. This is so because the JCI, of which the majority are the movers, includes IDXV30. As a result, the performance of the IDXV30 will also diminish when the JCI declines. Investors should stay away from IDXV30 if the JCI declines because IDXV30's success will also be negatively impacted by the JCI. This study supports that of Oemar (2019), who discovered that the Jakarta Composite Index has a detrimental impact on the results of mixed mutual funds.

The performance of the IDXV30 is negatively impacted by the findings of the IRF test, BI7DRR (BIRate). The claim that the performance of IDXV30 is significantly negatively impacted by the BI7DRR variable is acknowledged as true. This is due to the fact that changes or rises in interest rates will have an impact on investors' or institutions' desire to make investments. Investors will shift their investment funds to securities that are investments with minimal risk as a result of the increase in interest rates driving up the price of securities. Investors should steer clear of equities or IDXV30 if Bank Indonesia raises the BI7DRR in order to prevent losses. Innocent et al. (2018), Wahyudi et al. (2017), Endri et al. (2020), Pangondian et al. (2021), Innocent et al. (2018), and this study showed that interest rates (BI7DRR) have a negative impact on index performance.

The Rupiah Exchange Rate versus the United States Dollar has a detrimental impact on IDXV30 efficiency, according to the findings of the IRF test. It is acknowledged as true that the performance of the IDXV30 is significantly impacted negatively by the Rupiah Exchange Rate variable against the US Dollar. This is due to the fact that investors frequently withdraw funds from the Indonesian capital market when the Rupiah appreciates. In contrast, the company's finances will suffer when the Rupiah appreciates against the US dollar because the company will have to spend more money to carry out its activities. Companies that imported raw materials and machinery were severely impacted by the Rupiah's depreciation, which increased production costs and decreased profits and consequently reduced dividend payments to investors. This study is in line with studies

by Aditya, et al. (2017), Sejati and Wijaya (2021), Ramadhan and Simamora (2022), and The JCI suffers from the effects of exchange rates.

Inflation has a favorable impact on the IDXV30's performance, according to the findings of the IRF test. Therefore, the claim that the inflation variable has a detrimental impact on IDXV30 efficiency is disproved. This study supports research by Wibowo & Aminda (2021), which discovered that inflation has a favorable impact on the JCI's success. This is due to the fact that rising inflation will result in higher prices as well as higher business productivity, both of which will result in higher company profits. When inflation declines, producers or businesses do not automatically lower market product prices, generating profits for the business.

Investors will receive dividends from the company's earnings as well as capital gains from an increase in share prices. Low inflation, also known as creeping inflation, is the inflation rate from September 2019 to December 2022 that is included in this study. This rate is less than 10%. The economy needs low inflation because it will motivate producers to increase their output of products and services.

The Dow Jones Index (DJIA) has a negative impact on the success of the IDXV30, according to the findings of the IRF test. The idea that the DJIA variable significantly improves the performance of the IDXV30 is disproved. This study supports research by Midesia (2022), which discovered that the DJIA has a detrimental impact on the efficacy of the JCI. This is so because the DJIA represents the US economy's expansion. The United States has an effect on the Indonesian capital market in addition to being one of Indonesia's export markets. Investors will pull money out of the Indonesian capital market when DJIA rises, which will result in a fund loss and a decline in IDXV30 shares. Investors would be better off eschewing IDXV30 stocks when the DJIA rises.

According to the IRF test findings, the IDXV30's performance is negatively impacted by the Fed's interest rate. The idea that the Fed's interest rate variable has a favorable impact on IDXV30 success is disproved. This is because the worldwide economy will be impacted when the Fed raises interest rates. Investors will withdraw money from Indonesia to save or purchase bonds in the United States as a result of the Fed's rise in yields on savings and bonds there. When the Fed raises its interest rate, money will both move out and be absorbed by banks. This study confirms findings from Silaen, et al. (2019) who discovered that FED had a detrimental impact on the JCI.

The Hang Seng Index has a favorable impact on the success of the IDXV30, according to the findings of the IRF test. It is acknowledged that the Hang Seng Index variable has a beneficial impact on IDXV30 performance. This is due to the fact that the Hang Seng index is physically closer to the stock exchanges in New York, United States, and Tokyo, Japan, with a time difference of only one hour, is based on the same value as the JCI, and uses the same total population in its computation. The findings of Dewi and Suprajitno (2021), Setiawan and Mulyani (2020), and Slaihin (2020) that the Hang Seng Index has a favorable impact on the JCI are supported by this study.

Forecast Error Variance Decomposition (FEVD)

In order to determine how each independent variable, including JCI, BI7DRR, Exchange Rate, Inflation, DJIA, FED, and HSI, contributes to the dependent variable IDXV30, forecast error variance decomposition (FEVD) is used.

The findings of the FEDV analysis for IDXV30 of the shocks caused by each variable, including itself, are summarized in Table 4.5. When compared to the JCI, BI7DRR, Inflation, Exchange Rate, DJIA, FED, and HSI variables, IDXV30 made a 100% contribution to itself in the first term. Only IDXV30, however, made a cumulative, long-term contribution of 94.74% to the conclusion of the 50 era. Only BI7DRR contributed 3.36% in period 50, while the JCI, Inflation, Exchange Rate, DJIA, Fed, and HSI variables only added 0 - 0 5% to IDXV30 both short- and long-term. The independent variables had started to contribute beginning from period 2, but the increase was not significant.

Table 6. IDXV30 Variance Decomposition

Per.	S.E.	IDXV30	JCI	BI7DRR	INFLATION	EX RATE	DJIA	FED	HSI
1	0.09514	100.000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2	0.15182	98.7291	0.02027	0.01662	0.22004	0.11334	0.54755	0,20326	0.14975
3	0.19545	98.2581	0.05710	0.25594	0.22575	0.21678	0.50503	0.32275	0.15850
4	0.22538	97.6564	0.04930	0.67301	0.34622	0.17129	0.52779	0.33480	0.24117
5	0.25058	97.3871	0.04001	0.97112	0.32747	0.14741	0.51511	0.33246	0.27923
6	0.27413	97.1559	0.03392	1.20264	0.30066	0.12759	0.51101	0.36728	0.30090
7	0.29589	96.9284	0.02993	1.41405	0.27924	0.11237	0.50273	0.40775	0.32546
8	0.31585	96.7273	0.02680	1.59925	0.25899	0.10157	0.49901	0.44043	0.34654
9	0.33436	96.5417	0.02447	1.76824	0.24146	0.09252	0.49730	0.47106	0.36315
10	0.35172	96.3720	0.02252	1.92194	0.22667	0.08464	0.49508	0.49858	0.37850
15	0.42755	95.7764	0.01640	2.5478	0.17352	0.06014	0.48821	0.60091	0.42955
20	0.49145	95.4259	0.01325	2.76446	0.14380	0.04717	0.48478	0.66229	0.45830
25	0.54787	95.2042	0.02233	2.95970	0.12525	0.03920	0.48270	0.70126	0.47627
30	0.5989	95.0534	0.01004	3.09238	0.11268	0.03383	0.48130	0.72780	0.48846
40	0.68993	94.8627	0.00840	3.26019	0.09681	0.02704	0.47953	0.76138	0.50387
50	0.77021	94.7473	0,00741	3.36174	0.08720	0.02294	0.47846	0.78171	0.51319

Processed data, 2023

Conclusions

The Composite Stock Price Index (JCI) has a negative impact on the success of the Index Value 30. Based on the results of the Interest Rate Impulse Response Function (IRF) test (BI7DRR) has a negative effect on the performance of the Index Value 30. The Rupiah exchange rate against the United States Dollar has a negative effect on the performance of Index Value 30. Inflation has a positive effect on the performance of the Index Value 30. The Dow Jones index has a negative effect on the performance of the Index Value 30. The Dow Jones index has a negative effect on the performance of the Index Value 30. The Hang Seng Index has a positive effect on the performance of the Index Value 30. The Hang Seng Index has a positive effect on the performance of the Index Value 30. Investors in the Index Value 30 (IDXV30) stock must pay attention to individual performance (the performance of each stock) rather than the macroeconomic and global stock indexes represented by the Dow Jones Industry Average (DJIA) and the Hang Seng Index. For Index Value 30 (IDXV30) issuers, pay attention to their fundamental performance so that the stock rises. Given the findings of this study, additional research should take into account business performance variables because they have a negligible or negligible impact on the movement or fluctuation of the Index Value 30 (IDXV30).

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