Business ePaper: International Journal of Entrepreneurship and Management

E-ISSN:3047-907X
P-ISSN:3047-9061

Research Article

An Analysis of News Sentiment, Exchange Rate, and Interest Rate on Indonesia's Expected and Realized Economic Growth Indicators

Fritzco Fernando [1*], Amrita Nugraheni Saraswaty [2]

[1] Fakultas Ekonomi dan Bisnis, Universitas Udayana, Indonesia, Email : fritzcofernando1@gmail.com
[2] Fakultas Ekonomi dan Bisnis, Universitas Udayana, Indonesia, Email : fritzcofernando1@gmail.com

* Corresponding Author : **Fritzco Fernando**

Abstract: In recent years, both global and domestic economic uncertainties have increasingly influenced the movement of Indonesia's JCI and GDP. This study aims to examine how various factors including news sentiment, exchange rates, and interest rates affect the JCI as a proxy for economic growth expectations, and GDP as a reflection of actual economic growth. Using quarterly data from 2016 to 2024, the analysis is conducted through the Auto Regressive Distributed Lag (ARDL) model to identify both short-term and long-term effects. The results show that these variables collectively have a significant impact on both the JCI and GDP. In the short term, the JCI is found to respond more quickly to changes in information and policy, reinforcing its role as a leading indicator. In contrast, GDP responds more slowly, with exchange rates and the BI interest rate showing a significant influence in the long term. These findings highlight that economic information and policies may affect the financial market and the real economy differently, underscoring the importance of understanding expectation dynamics in assessing the direction of Indonesia's economic growth.

Keywords: Economic Growth, Exchange Rate, Interest Rate, JCI, News Sentiment

1. INTRODUCTION

Indonesia's recent economic landscape has been marked by financial market volatility, global uncertainties, and changes in both monetary and fiscal policy (Dianita et al., 2024). One of the key aspects that reflect economic dynamics is economic growth that commonly measured by Gross Domestic Product (GDP), which plays a crucial role in signaling corporate profitability, attracting investors, supporting stock prices and shows domestic consumption capabilities (P. A. Hakim et al., 2023; Sasono, 2020). A high levels of investment inflow is often interpreted as a signs of stability and economic attractiveness (Komang et al., 2023). These dynamics highlight the importance of undersshanding how market expectations about the economic situation and real outcomes shape economic trajectories.

In addition to GDP, the capital market plays a pivotal role in a country's macroeconomics landscape. Investment activity often reflects prevailing economic sentiment (Sunardi & Rabiul, 2017). For example, in Q1 2020, the Jakarta Composite Index (JCI) dropped by 27,95%, followed by GDP contraction of 2,41%. This synchronous movement might shows the possibility that financial market indices may serve as early signals for real economic performance.

While JCI is not intended to replace GDP as a measure of real economic activity, the OECD recognizes it as one of Indonesia's leading indicators. Stock prices, by reflecting on investors expectations of future earnings, may offer a forward looking view of the economic cycle (Mankiw, 2021: 153). Thus, JCI may serve as a proxy for aggregated market sentiment on future economic conditions.

According to (Shiller, 2020), in today's financial markets, investor behavior is shape not only with economic data but also by the narratives and sentiment that have been built and embedded in information. This highlights the importance to analyze how news sentiment functions as a transmission channel for economic expectations and influencing market indicators like the JCI in the short term, and real indicator like GDP for longer term (Kim, 2024; Serafeim & Yoon, 2021).

Received: June, 10,2025;
Revised: June, 30 2025;
Accepted: July, 11 2025
Published: July, 14 2025
Curr. Ver.: July, 14 2025

Alongside news sentiment fundamental variables such as exchange rate and interest rate plays role in reflecting the competitiveness of economic performance and reflect investor confidence in its economic outlook (Yudi Pratama, 2023). According to (Bursa Efek Indonesia, 2024), foreign investor held 4,85% of equity ownership in Indonesia's capital market, underscoring the extent to which currency fluctuations directly influece capital flows and investor behavior.

Persistent currency depreciation may result from inflation pressure and interest rate differentials, which ultimately eroding consumer purchasing power and weakening investor confidence in the country's economy outlook. In the long run, such factors can supress real economic growth, as reflected in GDP (Amalia et al., 2019; Arifin & Mayasya, 2018).

Interest rate both domestic (BI Rate) and global (Federal Funds Rate) also serve as key channels of monetary policy transmission. Increases in U.S. interest rates often trigger capital outflow from emerging markets, thereby exerting pressure on local exchange rates and stock markets (A. Hakim, 2023; Manap et al., 2023; Yoga Wismantara & Putu Ayu Darmayanti, 2017). Conversely, rising domestic interest rate may dampen household consumption and private investment, contributing to economic contraction.

In other words, while short-term market expectations are reflected through JCI movements, the realization of economic growth is more apparent over the medium to long term through GDP. Therefore, understanding how news sentiment, exchange rate, and interest rate shape expectations and transmit into the real sector constitutes are a critical issue in the formulation of responsive and evidence based policymaking.

2. LITERATURE REVIEW

However, prior to empirical finds have been inconsistent this whole time. For instance, some studies about the relationship between the news sentiment to JCI reported that news sentiment does not significantly affect JCI (Ainaya & KH, 2022), whereas (Sun et al., 2021; Tanveer et al., 2024; Zúñiga-Cedillo et al., 2025) state that news sentiment are affecting JCI positively and significant.

Similarly, studies exploring the effect of the exchange rate on JCI show mixed results. While (Liantanu et al., 2023) reported that exchange rate does not significantly affect JCI, other studies such as (Apriyani et al., 2023; Yudi Pratama, 2023) reports a positive and significant effect, and (Amalia et al., 2019; Ardian et al., 2023) observed a negative and significant impact.

In terms of interest rate policy, the majority of research indicates that the Bi Rate exerts a negative and significant effect on JCI (Apriyani et al., 2023; Manap et al., 2023). For the Federal Funds Rate (FED Rate), results are similarly varied. Manap et al. (2023) reported a negative and significant relationship, while (Kurniasari et al., 2023; Miyanti & Wiagustini, 2018) found a positive and significant effect.

Turning to GDP, the news sentiment has been found to positively affect GDP in several studies (Tanveer et al., 2024; Vazirani, 2023). Regarding the exchange rate, Manap et al. (2023) demonstrated a negative and significant impact on GDP primarily through increased import costs that supress consumption and investment. In contrast, other studies report negative and insignificant to GDP Devinda et al. (2023).

The BI Rate, as a central monetary policy tool, has shown both positive and significant relationship with GDP (Budhathoki et al., 2024; A. Hakim, 2023; Rafif Baihaqi & Dewi Rahmi, 2024), suggesting that higher rates might attract capital inflows and reflect economic stability. However, (Hutajulu, 2024) observed a negative effect, and other findings reports a positive but statistically insignificant (A. Hakim, 2023)

Selain BI Rate, faktor global seperti The Fed juga memainkan peranan penting dalam mengendalikan arus modal yang masuk ke dalam negeri, terutama dalam negara berkembang seperti Indonesia. (Luter Purba et al., 2023) menyatakan dalam studinya, bahwa Fed Rate tidak berpengaruh terhadap GDP, reinforcing the idea that the global rate's impact is more immediate on financial markets than on real sector performance.

Global monetary conditions, especially the Fed Rate, also play role in shaping domestic macroeconomic dynamics. (Luter Purba et al., 2023) concluded that the Fed Rate has no significant effect on GDP, reinforcing the idea that its impact is more pronounced in financial

market than in the real sector.

3. METHOD

This study used quantitative with an associative approach method, to aim on analyzing the impact and relationship between variables that affect JCI and GDP. This approach was chosen to examine how news sentiment, exchange rates, and interest rates contribute to shaping both economic expectations and real economic growth. Indonesia is selected as the research context, as most of the data, including news content, are sourced from national datasets.

The object in this study include dependent variable, Jakarta Composite Index (JCI) serving as a proxy for economic expectations, and Gross Domestic Product (GDP) representing realized economic growth. The independent variables include news sentiment, the exchange rate (USD/IDR), Bank Indonesia's benchmark interest rate (BI Rate), and the U.S. Federal Funds Rate (Fed Rate), all measured in percentage.

The study utilizes quarterly data spanning from 2016 to 2024. News sentiment is extracted using web scraping methods, resulting in a corpus of 9,300 news articles. Sentiment analysis is performed using IndoBERT, a transformer-based language model tailored to the Indonesian language. Macroeconomic data for JCI, GDP, exchange rates, BI Rate, and the Fed Rate are collected for 36 quarters within the study period.

To analyze both short-term and long-term effects, the Autoregressive Distributed Lag (ARDL) model is employed as the primary data analysis technique. This method allows for testing dynamic relationships among variables, particularly when the data exhibit different levels of stationarity. The findings are expected to illustrate how news sentiment and macroeconomic variables influence the JCI as a measure of market expectations and GDP as a reflection of real economic outcomes.

4. RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Table.1 Descriptive Statistical Test Result

Variabel	N	Min	Max	Mean	Std. Dev.
JCI	36	-27,95000	22,77000	1,483333	7,260393
GDP	36	-4,190000	5,050000	1,065556	2,372281
News Sentiment	36	-20.22000	34,09000	8,462500	12,42801
Exchange Rate	36	-6,570000	1,580000	0,458333	3,217976
BI Rate	36	-0,250000	0,416667	0,009259	0,130289
FED Rate	36	-0,500000	0,500000	0,038194	0,170018

Source: Secondary data processed, 2025

Table 1 presents the descriptive statistics used in this study, based on 36 quarterly observations from 2016-2024. The JCI variable (Y) has a minimum value of -27,95000 and a maximum value of 22,77000. The average value (mean) of JCI is 1,483333, with a standard deviation of 7,260393. Since the standard deviation is significantly higher than the mean, this indicates a high degree of volatility in the JCI during the observation period.

The GDP variable (Y) has a minimum value of –4,190000 and a maximum value of 5,050000. The average value (mean) of GDP is 1,065556, with a standard deviation of 2,372281. Since the standard deviation is significantly higher than the mean, this indicates a high degree of volatility in the GDP during the observation period.

The news sentiment variable (X_1) has a minimum value of -20,22000 and a maximum value of 34,09000. The average value (mean) of news sentiment is 8,462500, with a standard deviation of 12,42801. Since the standard deviation is significantly higher than the mean, this indicates a high degree of volatility in the news sentiment during the observation period.

The exchange rate variable (X_2) has a minimum value of -6,570000 and a maximum value of 1,580000. The average value (mean) of exchange rate is 0,458333, with a standard deviation of 3,217976. Since the standard deviation is significantly higher than the mean, this indicates a high degree of volatility in the exchange rate during the observation period.

The BI Rate variable (X_3) has a minimum value of -0,250000 and a maximum value of 0,41667. The average value (mean) of BI Rate is 0,009259, with a standard deviation of 0,130289. Since the standard deviation is significantly higher than the mean, this indicates a high degree of volatility in the BI Rate during the observation period.

The Fed Rate variable (X_4) has a minimum value of -0,500000 and a maximum value of 0,500000. The average value (mean) of news sentiment is 0,038194, with a standard deviation of 0,170018. Since the standard deviation is significantly higher than the mean, this indicates a high degree of volatility in the Fed Rate during the observation period.

Pre-processing News Sentiment with IndoBERT

Table 2. IndoBERT Training Evaluation Result

lass	recision	ecall	1-Score	upport
egatif	9000	8727	8862	55
etral	7792	8451	8108	42
ositif	8953	8603	8875	79
otal Accuracy			8601	36

Source: Secondary data processed, 2025

Based on Table 2, the IndoBERT model achieved an overall accuracy of 86,01%, indicating strong performance in classifying economic news sentiment. The evaluation used standard classification metrics, including precision, recall, and F1-score. Precision measures the proportion of correct predictions for each sentimen class, while recall captures the model's ability to correctly identify all relevant instances. F1-score represent the harmonic mean of precision and recall, balancing both false ppositive and false negative. Support refers to the actual number of instances per class used in the test dataset.

The label distribution was relatively balanced, consisting 37% positive, 34% negative, and 29% neutral, indicating that the model was not biased toward any particular class. These result confirm that IndoBERT effectively captures sentiment in indonesian economic news texts and suitable for further analysis of the relationship between sentiment, exchange rate, and JCI.

Stationarity Test

Table 3. Level Unit Root Test Augmented Dickey-Fuller Test

Variabel	DF Statistik	Critical Value			Declaration
		1%	5%	10%	
JCI	-6,861573	-3,632900	-2,948404	-2,612874	Stationary
GDP	-7,707825	-3,639407	-2,951125	-2,614300	Stationary
News Sentiment	-3,923675	-3,632900	-2,948404	-2,612874	Stationary
Exchange Rate	-10,07817	-3,632900	-2,948404	-2,612874	Stationary
BI Rate	-3,639340	-3,632900	-2,948404	-2,612874	Stationary
Fed Rate	-2,597891	-3,632900	-2,948404	-2,612874	on- stationary

Source: Secondary data processed, 2025

Table 4. first difference Unit Root Test Augmented Dickey-Fuller Test

Variabel	DF Statistik	Critical Value			Declaration
		1%	5%	10%	
JCI	-12,01733	-3,639407	-2,951125	-2,614300	Stationary
PDB	-10,11272	-3,653730	-2,957110	-2,617434	Stationary
lews Sentiment	-9,200936	-3,639407	-2,951125	-2,614300	Stationary
Exchange Rate	-5,569789	-3,670170	-2,963972	-2,621007	Stationary
BI Rate	-7,881368	-3,639407	-2,951125	-2,614300	Stationary
Fed Rate	-7,434489	-3,639407	-2,951125	-2,614300	Stationary

Source: Secondary data processed, 2025

Based on Table 3, the results of Augmented Dickey-Fuller (ADF) test show that not all variables are stationary at the level form. This indicate by ADF test statistic being higher than the critical values at 1%, 5%, and 10% significance levels. However, Table 4 show that all variables are stationary at first difference form.

Optimal Lag Length Test

In estimating the ARDL model, the selection of optimal lag length is a critical step to ensure model robustness and validity in subsequent testing stages. This study determines lag order based on Akaike Information Criterion (AIC), selected automatically using Eviews 12.

For JCI model, the optimal lag structure is identified as (3,3,0,1,4), indicating lag 3 for JCI, 3 for news sentiment, 0 for exchange rate, 1 for BI Rate, and 4 for Fed Rate. For the GDP model, the optimal lag structure is identified as (3,4,4,1,4), corresponding to lag 3 for GDP, 4 for news sentiment, 4 for exchange rate, 1 for BI Rate, and 4 for Fed Rate.

Although lag length selection can be conducted manually through VAR-based comparison of information criteria, this study leverages the ARDL framework's flexibility in selecting lags individually for each variable, which enhance model efficiency and fit.

Cointegration Test

Table 5. Cointegration Test (Bound Test) JCI Model

Test Statistic	**Value**	**K**
F-Statistic	2,476771	4
Signifikansi	**I (0) Bound**	**I (1) Bound**
10%	2,46	3,46
5%	2,947	4,088
1%	4,093	5,532

Source: Secondary data processed, 2025

Table 6. Cointegration Test (Bound Test) GDP Model

Test Statistic	**Value**	**K**
F-Statistic	5,203518	4
Signifikansi	**I (0) Bound**	**I (1) Bound**
10%	2,46	3,46
5%	2,947	4,088
1%	4,093	5,532

Source: Secondary data processed, 2025

The result of bound test for the JCI model (Table 5) shows an F-statistic value of 2,476771, which is lower than both the lower bound I(0) and upper bound I(1) critical values. This indicates that the ARDL estimation does not provide statistical evidence of a long run relationship between JCI and the independent variables. It means that there is no cointegration in JCI model.

Meanwhile, the result of bound test for the GDP model (Table 6) shows an F-statistic value of 5,203518, which is greater than lower bound I(0) and upper bound I(1) critical values. This confirms the existence of a statistically evidence for a long run relationship among the variables and GDP.

Classical Assumption Test

Normality Test

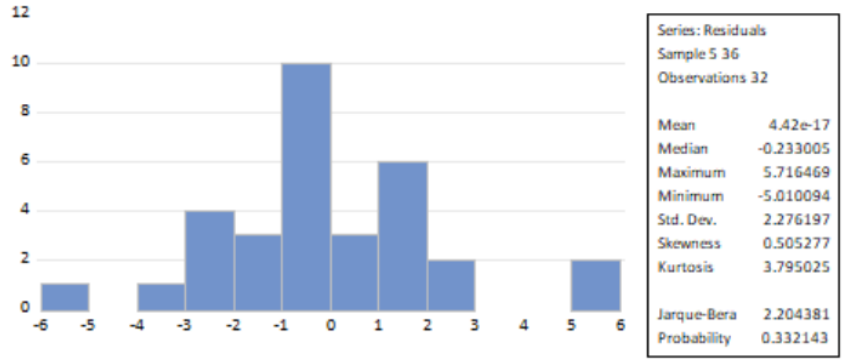

Figure 1. Normality Test for JCI Model
Source: Secondary data processed, 2025

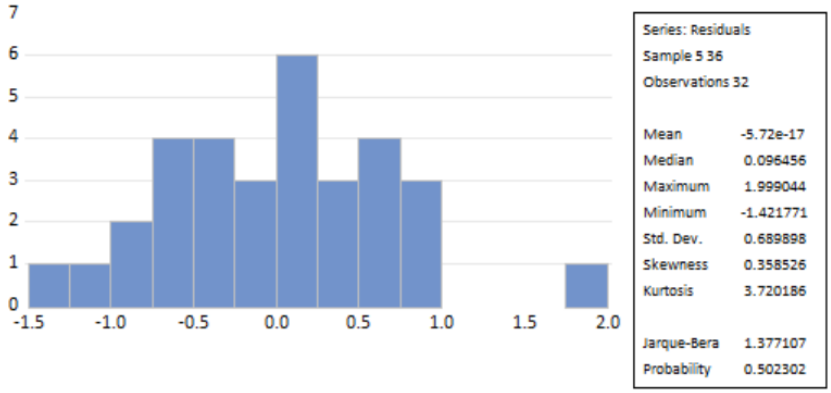

Figure 2. Normality Test for GDP Model
Source: Secondary data processed, 2025

Based on Figures, both models able to fulfill the assumption of normality. The normality test was conducted using the Jarque-Bera (JB) method. For the JCI model, the JB statistic is 2,204381 with a probability value of 0,332143 while the GDP model JB statistic is 1,377107 with a probability value of 0,502302

Since both p-values are greater than the 5% significance level (α=0,05), the null hypothesis of normally distributed residuals cannot be rejected. Thus, it can be concluded that the residuals of both models follow a normal distribution.

Stability Test

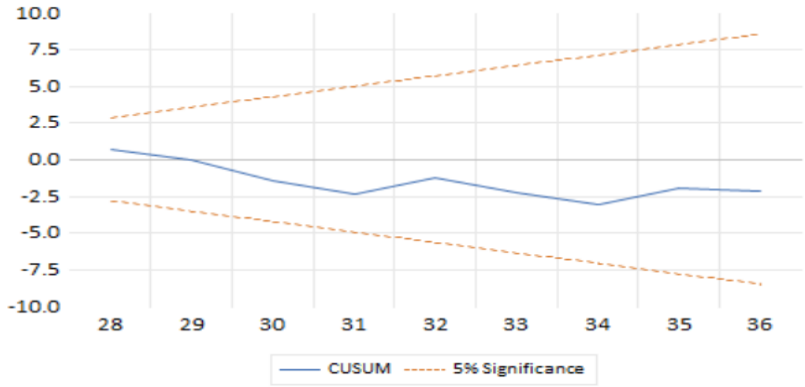

Figure 3. CUSUM Stability Test for GDP model

Source: Secondary data processed, 2025

Based on Figure 3, the result of model stability test are stable and appropriate for long run estimation. It means GDP can be use for long run estimation, supported by the CUSUM plot, where the blue line remains within the 5% significance boundaries that represented by the red llines suggesting parameter stability over time.

Heterokedasticity Test

Table 7. Heterokedasticity Test for JCI Model

Statistic	99762	ob. F(23,8)	788
bs*R-squared	64197	ob. Chi-Square(23)	775
aled explained SS	15585	ob. Chi-Square(23)	911

Source: Secondary data processed, 2025

Table 8. Heterokedasticity Test for GDP Model

Statistic	50568	ob. F(23,8)	814
bs*R-squared	00826	ob. Chi-Square(23)	161
aled explained SS	72754	ob. Chi-Square(23)	00

Source: Secondary data processed, 2025

Based on Table 7 and 8, the heterokedasticity test was conducted with Breusch-Pagan-Godfrey shows probability values of 0,5788 for the JCI model and 0,8814 for the GDP model. Since both values are greater than 5% significance level (α= 0,05), the null hypothesis of homokedasticity cannot be rejected. These finding indicate that both model exhibit homokedasticity, meaning the variance of the residuals is constant across observations.

Autocorrelation Test

Table 9. Autocorrelation Test for JCI Model

Statistic	60501	ob. F(2,24)	832
bs*R-squared	72334	ob. Chi-Square(2)	054

Source: Secondary data processed, 2025

Tabel 10. Autocorrelation Test for GDP Model

Statistic	21413	ob. F(2,24)	684
bs*R-squared	40111	ob. Chi-Square(2)	541

Source: Secondary data processed, 2025

Based on the results of the autocorrelation test in Table 9 and 10, the F-statistic probability values for the JCI and GDP models are 0,5832 and 0,6684, respectively. Since both values are above the 5% significance level (α= 0,05), it can be concluded that no autocorrelation is present in either model.

Auto Regressive Distributed Lag (ARDL) Model

Table 11. Autoregressive Distributed Lag Model Result for JCI

Variable	Coefficient	Std. Error	t-statistic	Prob.*
C	0,396635	0,917203	0,432440	0,6712
CointEq (-1)*	-0,577596	0,285696	-2,021716	0,0603
News Sentiment (-1)	0,044847	0,106581	0,420774	0,6795
Exchange Rate	-0,679229	0,286544	-2,370421	0,0307
BI Rate (-1)	1,107727	11,19494	0,098949	0,9924
Fed Rate (-1)	4,166604	8,099054	0,514456	0,6140
D(JCI (-1))	-0,013373	0,167588	-0,079796	0,9374
D(JCI (-2))	-0,241484	0,132349	-1,824594	0,0868
D(News Sentiment)	0,362508	0,063492	5,709476	0,0000
D(News Sentiment (-1))	0,076432	0,086173	0,886965	0,3882
D(News Sentiment (-2))	0,116179	0,070528	1,647260	0,1190
D(BI Rate)	-18,05326	8,205688	-2,200091	0,0428
D(Fed Rate)	21,35570	5,476644	3,899414	0,0013
D(Fed Rate (-1))	-6,640911	6,341111	-1,047279	0,3105
D(Fed Rate (-2))	20,04819	6,376598	3,144026	0,0063
D(Fed Rate (-3))	-18,27667	7,487646	-2,440909	0,0267

Source: Secondary data processed, 2025

Based on Table 11, in the short term ARDL estimation for JCI, news sentiment emerged as a significant variable with coefficient of 0,3625 and probability of 0.0000. Indicating that optimistic economic news can temporarily boost market performance on short term. This support the hypothesis that stock markets are responsive to short term information shocks and serve as a forward looking indicator (Serafeim & Yoon, 2021).

BI Rate also show a significant impact on JCI with coefficient of -18,053 and probability of 0,0428. This negative effect shows that The increase in benchmark interest rates is perceived as an added risk for investors, as it is often interpreted as a signal of slowing economic growth or declining corporate earnings. As a result, significant capital outflows may occur, which can negatively affect the IHSG (P. A. Hakim et al., 2023).

The Federal Funds Rate also show a significant impact on JCI at multiple lags. At lag 0 (21,355, p = 0,0013), lag 2 (20,048, p = 0,0063), and lag 3 (-18,276, p = 0,0267). These results show inconsistency between various lags. These results suggest that market responses to changes in U.S. interest rates are volatile and may vary depending on timing and investor expectations during different periods.

Since the bound test indicates no evidence of long-term cointegration for the JCI model, the ARDL estimation focus solely on short-term dynamics. These findings reinforce the view that the stock market could reflect short term expectations. As such, JCI serves as a strong proxy for market expectations and act as a leading indicator of economic condition (Shiller, 2020).

Table 12. Autoreggresive Distributed Lag Model Short Term Result For GDP

Variable	Coefficient	Std. Error	t-statistic	Prob.*
C	2,563088	0,614702	4,169644	0,0016
CointEq(-1)*	-1,695129	0,381410	-4,444379	0,0010
News Sentiment(-1)	-0,022511	0,036817	-0,611419	0,5533
Exchange Rate (-1)	-1,427918	0,553891	-2,577975	0,0257
BI Rate (-1)	15,47239	5,798924	2,668149	0,0219
Fed Rate (-1)	0,668708	3,320889	0,201364	0,8441
D(GDP (-1))	0,623057	0,223855	2,783307	0,0178
D(GDP(-2))	0,220243	0,163584	1,346364	0,2053
D(News Sentiment)	-0,100157	0,026251	-3,815384	0,0029
D(News Sentiment(-1))	-0,023830	0,040536	-0,587858	0,5685
D(News Sentiment(-2))	0,013932	0,030615	0,455052	0,6579
D(News Sentiment(-3))	0,064022	0,023295	2,748370	0,0189
D(Exchange Rate)	-0,438401	0,148377	-2,954640	0,0131
D(Exchange Rate(-1))	0,415519	0,313337	1,326109	0,2117
D(Exchange Rate(-2))	0,107948	0,210484	0,512855	0,6182
D(Exchange Rate(-3))	0,143870	0,115813	1,242261	0,2400
D(BI Rate)	9,716827	3,455197	2,812235	0,0169
D(Fed Rate)	0,569810	2,068620	0,275454	0,7881
D(Fed Rate(-1))	4,372389	3,032971	1,441619	0,1173
D(Fed Rate(-2))	-7,495752	2,647642	-2,831105	0,0163
D(Fed Rate(-3))	-4,019621	2,649508	-1,517119	0,1574

Source: Secondary data processed, 2025

Table 12 presents the short run ARDL estimation results for GDP. The first lag show that GDP significant and positive with coefficient of 0,623057 and probability 0,0178. This indicate that previous quarter's economic performance continues to influence current GDP growth. This result is consistent with autoreggresive dynamics in real economic activity.

News sentiment at lag 0 and lag 3 also shows significant effect with coefficient of -,100 and 0,064 with probability of 0,0029 and 0,0189 respectively. Although the direction of influence is inconsistent. This suggests that sentiment driven expectations may affect GDP, but the responses depend on contextual factors, possibly reflecting adaptive behaviors in the real sector in response to policy actions or economic shocks.

The exchange rate negatively affect GDP in the short run with coefficient of -0,4384 and probability of 0,0131, supporting the idea that currency depreciation can raise input costs and reduce investment or consumption, thus slowing economic growth.

Interestingly, BI Rate exhibits a positive and significant effect on GDP with coefficient of 9,716 and probability of 0,0169. This result might indicate that interest rate hikes attract capital inflows in short term, boosting economic activity. In contrast, Fed Rate at lag 2 has a negative impact with coefficient of -7,496 and probability 0,0163, aligning with the view that global monetary tightening affects domestic real activity with some delay or might be absorbed by local policy.

The error correction term (CointEq(-1)) is strongly significant (p = 0.0010) with a coefficient of -1.695, confirming the existence of a stable long-run equilibrium. The magnitude suggests an overshooting effect, where GDP rapidly adjusts back to its long-run path following short-term shocks.

Table 13. Autoreggresive Distributed Lag Model Long Term Result For GDP

Variable	Coefficient	Std. Error	t-statistic	Prob.*
Sentimen Berita	-0,013280	0,023062	-0575831	0,5763
Nilai Tukar	-0,842365	0,351999	-2,393090	0,0357
Suku Bunga BI	9,127558	3,970741	2,298704	0,0421
Suku Bunga The Fed	0,394488	1,946826	0,202631	0,8431
C	1,512031	0,369185	4,095590	0,0018

Source: Secondary data processed, 2025

In the long run model, news sentiment does not exhibit a statistically significant effect on GDP with coefficient of -0,013 and probability of 0,5763. This implies that market perceptions reflected in economic news sentiment are insufficient to explain long term real economic growth. The result aligns with the thought that sentiment driven expectations tend to be short lived, while GDP as a lagging indicator requires sustained changes across the real sector.

However, the exchange rate shows a significant negative impact on GDP in the long term with coefficient of -0,842 and probability 0f 0,0357. This implies that depreciation in the exchange rate reflects the increases in production and consumption costs erodes purchasing power and raise investor uncertainty.

On the other hand, BI Rate demonstrates a positive and significant long term influence on GDP with coefficient of 9,127 and probability 0,0421. This suggests that higher domestic rates may incetivize capital inflow and savings, making local financial assets more attractive and boositng investment led growth.

Lastly, the Fed Rate shows no significancy in the long run effect on Indonesia's GDP with coeffiecient of 0,394 and probability of 0,8431. While global rate hikes may prompt capital outflows, Fed Rate long term transmission to domestic real economic activity appears limited in this research.

Table 14. Simultaneous Effect Test (F-test) on JCI Model

R-squared	0,910015	Mean dependent var	1,209375
Adjusted R-squared	0,825654	S.D dependent var	7,587948
S.E of regression	3,168332	Akaike info criterion	5,451140
Sum squared resid	160,6132	Schwarz criterion	6,184008
Log likelihood	-71,21824	Hannan-Quinn criter.	5,694065
F-statistic	10,78714	Durbin-Watson stat	2,275067
Prob(F-statistic)	0,000011		

Source: Secondary data processed, 2025

Table 15. Simultaneous Effect Test (F-test) on GDP Model

R-squared	0,915046	Mean dependent var	1,043125
Adjusted R-squared	0,790585	S.D dependent var	2,366976
S.E of regression	1,158163	Akaike info criterion	3,376206

Sum squared resid	14,75475	Schwarz criterion	4,338096
Log likelihood	-33,01930	Hannan-Quinn criter.	3,695046
F-statistic	5,924113	Durbin-Watson stat	1,840894
Prob(F-statistic)	0,002124		

Source: Secondary data processed, 2025

The F-test results in Table 14 and 15 shows that the independent variables such as news sentiment, exchange rate, BI Rate, and Fed Rate together have a statistically significant effect on the Jakarta Composite Index (JCI) as a proxy for economic expectations and GDP as a real outcomes that shape economic trajectories. This support the conclusion that both JCI and GDP indicators are shaped by a combination of market sentiment and macroeconomic factors.

Discussion

This study reveal how market sentiment and macroeconomics factors interact to shape both short term market behavior and long term economic growth. The Jakarta Composite Index (JCI), as a financial market indicator responds rapidly to changes in news sentiment. The findings suggests that positive news narrative tend to boost IHSG performance, underscoring the forward looking nature of investors who often adjust their portfolios based on current information and perceived economic outlook

In addition to sentiment, global and domestic monetary policy such as U.S. Federal Funds Rate and BI Rate also influence JCI in the short term. While the direction varies across periods, its significancy indicates that global interest rates are closely watched by investors. However, the reactions may depend on market context and expectations. Conversely, domestic factors such as exchange rate do not appear to affect IHSG in the short run, suggesting a possible lag in transmission or weaker direct influence on the stock prices.

The lack of a long run relationship between JCI and the independent variables highlights its volatility and sensitivity to short term sentiment, reinforcing its role as a proxy for market expectations rather than real economic fundamentals.

On the other hand, GDP reflects actual economic activity and exhibits both short and long term linkages to the variables. Past GDP performance influences current growth and fluctuations in the exchange rate negatively affect GDP due to higher production costs and reduced investor confidence. Meanwhile, increases in BI Rate correlate with higher GDP, possibly due to improved in investor trust and capital inflows. News sentiment and Fed Rate significant in the short term, but do not seem to demonstrate longer effect on GDP.

Overall, IHSG represents short term economics sentiment, while GDP captures the real structural impact of economic variables. These findings reinforce the importance of distingushing between market based signals and actual economic outcomes in regulations.

5. CONCLUSION

1) News sentiment has a positive and significant short term effect on IHSG, while exchange rate do not show significant short run impact. BI Rate show negative and significant effect, while Fed Rate show significant effect across multiple lag, but with various direction, highlighting the fluctuating nature of global and domestic monetary policy influence. There is no evidence of a long term cointegration between these variables and IHSG, supporting the idea that stock market highly sensitive to short term expectations
2) For GDP, short term impacts are found for all variables, where news sentiment show mixed effect across the lag, exchange rate negatively influences GDP, and both BI Rate and Fed Rate display significant impact. In the long run, exchange rate significantly affect GDP by negative impact, while BI Rate positively influences it. However news sentiment and Fed Rate do not exhibit significant long-term relationships.
3) These findings highlight that IHSG is more responsive to short term market sentiment and expectations, while GDP responds to structural fundamentals and monetary

conditions over time. This confirms IHSG's position as a leading indicator and GDP as a lagging indicator.

REFERENCES

[1]. Ainaya, F. I., & KH, S. (2022). Dampak Sentimen Investor dan BI7DRR Terhadap Prediksi Pergerakan IHSG Pada Masa Pandemi COVID-19 Tahun 2020. AKTUAL Jurnal Ilmu Ekonomi Dan Sosial, 20(2).

[2]. Amalia, L., Chasan, A., & Herman, A. (2019). Pengaruh Inflasi, Nilai Tukar, dan Tingkat Suku Bunga Terhadap Indeks Harga Saham Gabungan (Studi pada Bursa Efek Indonesia Periode 2015-2017). Jurnal Aplikasi Administrasi, 22(2). https://doi.org/10.30649/aamama.v22i2.107

[3]. Apriyani, R., Suharti, T., & Yudhawati, D. (2023). Pengaruh Inflasi, Kurs dan Suku Bunga terhadap IHSG di Bursa Efek Indonesia. JISM Jurnal Ilmiah Swara Manajemen Jurnal Ilmiah Swara MaNajemen, 3(4), 768–778. https://doi.org/10.32493/jism.v3i4

[4]. Ardian, R., Hendayana, Y., Sulistyowati, A., Ekonomi, F., Bisnis, D., Bhayangkara, U., & Raya, J. (2023). Pengaruh Inflasi, Suku Bunga, dan Nilai Tukar Terhadap Indeks Harga Saham gabungan. KINERJA Jurnal Ekonomi Dan Bisnis, 2, 310–323.

[5]. Arifin, S., & Mayasya, S. (2018). Faktor-Faktor yang Mempengaruhi Nilai Tukar Rupiah Terhadap Dolar Amerika Serikat. Jurnal Ekonomi-Qu, 8(1). http://jurnal.untirta.ac.id/index.php/

[6]. Budhathoki, P. B., Bhattarai, G., & Upadhyaya, Y. M. (2024). Does Interest Rate Impact Economic Growth? Empirical Insight from Nepal. Nepal Journal of Multidisciplinary Research, 7(1), 97–110. https://doi.org/10.3126/njmr.v7i1.65253

[7]. Bursa Efek Indonesia. (2024). Jumlah Investor Saham di Indonesia Lampaui 6 Juta SID. Indonesia Stock Exchange. https://www.idx.co.id/id/berita/siaran-pers/2224

[8]. Devinda, N. W., Fitra, R. J., & Harahap, E. F. (2023). Analisis Ekspor, Impor, Nilai Tukar, dan Inflasi Terhadap Produk Domestik Bruto Indonesia. Jurnal Bisnis Net, 2, 6.

[9]. Dianita, A., Tinambunan Ulinda Fitry, Lubis, S. N., Lingga, D. R., & Lubis, D. K. P. (2024). Dinamika Pasar Modal Indonesia: Perjalanan Selama dan Pasca Pandemi. Jurnal Pendidikan Tambusai, 8(2), 19950–19955.

[10]. Hakim, A. (2023). Pengaruh Inflasi dan Tingkat Suku Bunga Terhadap Pertumbuhan Ekonomi di Indonesia. Ekonomi, Keuangan, Investasi Dan Syariah (EKUITAS), 4(4), 1283–1291. https://doi.org/10.47065/ekuitas.v4i4.3377

[11]. Hakim, P. A., Dhenis, M., & Sulfitri, V. (2023). Pengaruh Inflasi, Suku Bunga, Nilai Tukar, dan Pertumbuhan Ekonomi Terhadap IHSG. EBID:Ekonomi Bisnis Digital, 1(2), 85–92. https://doi.org/10.37365/ebid.v1i2.180

[12]. Hutajulu, N. (2024, May 3). Analysis of the Effect of Macroeconomic Indicators on Indonesia's Economic Growth in Open Economy. https://doi.org/10.4108/eai.22-9-2022.2337403

[13]. Kim, W. (2024). Words that Matter: The Impact of Negative Words on News Sentiment and Stock Market Index.

[14]. Komang, I., Perdana, R., Putu, N., Setyari, W., & Kunci, K. (2023). Analisis Faktor- Faktor Makroekonomi yang Mempengaruhi Indeks Harga Saham Gabungan (IHSG). E-Jurnal Ekonomi Dan Bisnis Universitas Udayana, 12(8), 1594–1607. https://ojs.unud.ac.id/index.php/EEB/index

[15]. Kurniasari, C. C., Pratiwi, Y. E., & Lasianti, S. D. (2023). Pengaruh Kenaikan Suku Bunga the Fed, Harga Minyak Dunia terhadap IHSG dalam Pergerakan Pasar Modal. Jurnal Penelitian Ekonomi Akuntansi (JENSI), 7(2).

[16]. Liantanu, A., Dama Yanti, L., Oktari, Y., & Dharma, U. B. (2023). Pengaruh Suku Bunga, Nilai Tukar (Kurs) Rupiah, Inflasi, dan Pertumbuhan Produk Domestik Bruto Pada Indeks Harga Saham Gabungan (IHSG) di Bursa Efek Indonesia Periode 2014-2021. ECo-Buss, 5.

[17]. Luter Purba, M., Samosir, H. E., & Damanik, H. M. (2023). KEBIJAKAN SUKU BUNGA SERTA DAMPAKNYA TERHADAP PEREKONOMIAN INDONESIA. Edunomika, 8(1).

[18]. Manap, A., Sasmiyati, Y. R., Edy, N., Mustangin, M., & Nugroho, A. R. M. (2023). Pengaruh Bank Indonesia Rates dan Federal Fund Rates Terhadap Indeks Harga Saham Gabungan di Bursa Efek Indonesia. Al Buhuts, 19(1), 2023–2143.

[19]. Mankiw, N. G. (2021). Brief Principles of Macroeconomics (9th ed.). Cengage Learning.

[20]. Miyanti, G. A. D. A., & Wiagustini, L. P. (2018). Pengaruh Suku Bunga The Fed, Harga Minyak, dan Inflasi Terhadap Indeks Harga Saham Gabungan (IHSG) di Bursa Efek Indonesia. E-Jurnal Ekonomi Dan Bisnis Universitas Udayana, 7, 1261–1288. www.idx.co.id

[21]. Rafif Baihaqi, & Dewi Rahmi. (2024). Pengaruh Indeks Pembangunan TIK, Inflasi, dan Suku Bunga terhadap PDB Indonesia. Jurnal Riset Ilmu Ekonomi Dan Bisnis, 135–142. https://doi.org/10.29313/jrieb.v4i2.5031

[22]. Sasono, H. (2020). Analisa Pengaruh TingkatSuku Bunga, Nilai Tukar, Inflasi, Harga Minyak Dunia, IndeksHarga Saham Gabungan dan Produk Domestik Bruto TerhadapPertumbuhan Ekonomi. Prosiding Seminar Nasional Pakar. https://doi.org/10.25105/pakar.v0i0.6848

[23]. Serafeim, G., & Yoon, A. (2021). Stock Price Reactions to ESG News: The Role of ESG Ratings and Disagreement.

[24]. Shiller, R. J. (2020). Narrative Economics: How Stories Go Viral and Drive Major Economic Events (P. Dougherty & Chekanov Alena, Eds.). Princeton University Press.
[25]. Sun, Y., Kong, X., Chen, T., Su, H., Zeng, X., & Shen, Y. (2021). Measuring Investor Sentiment of Cryptocurrency Market - Using Textual Analytics on Chain Node. Procedia Computer Science, 187, 542–548. https://doi.org/10.1016/j.procs.2021.04.097
[26]. Sunardi, N., & Rabiul, U. N. L. (2017). Pengaruh BI Rate, Inflasi, dan Kurs Terhadap Indeks Harga Saham Gabungan (IHSG). Jurnal Ekonomi Keuangan Dan Investasi, 1(2), 27–41. http://www.bi.go.id/en/moneter/inflasi/data/Default.aspx
[27]. Tanveer, A., Afzal, I., Fatima, K., & Bano, S. (2024). Prediction of Economic Growth by Using Machine-Learning Algorithms through Sentiment Index Analysis in Economy of Pakistan. Journal of Social & Organizational Matters, 3(1), 165–175. https://doi.org/10.56976/jsom.v3
[28]. Vazirani, K. (2023). Evaluating the economic disparities in the world: Sentiment Analysis on Central Bank Speeches from Third World and First World Countries. IEEE. https://doi.org/10.1109/ICARC57651.2023.10145702
[29]. Yoga Wismantara, S., & Putu Ayu Darmayanti, N. (2017). PENGARUH NILAI TUKAR, SUKU BUNGA DAN INFLASI TERHADAP INDKES HARGA SAHAM GABUNGAN DI BURSA EFEK INDONESIA. E-Jurnal Manajemen Unud, 6(8), 4391–4421. https://media.neliti.com/media/publications/254963-none-7f947e4f.pdf
[30]. Yudi Pratama, A. K. (2023). Pengaruh Suku Bunga dan Nilai Tukar Rupiah (Kurs) Terhadap Indeks Harga Saham Gabungan (IHSG) (Periode Tahun 2020-2022). JURNAL KEWIRAUSAHAAN, AKUNTANSI DAN MANAJEMEN TRI BISNIS, 5(1). https://doi.org/10.59806/tribisnis.v5i1.249
[31]. Zúñiga-Cedillo, S. Y., Jiménez-Preciado, A. L., Cruz-Aké, S., & Venegas-Martínez, F. (2025). Behavioral Economics and Stock Market Sentiments in Investment Decisions in Mexico: Web Scraping, Natural Language Processing, and Pearson Correlation of Scores. International Journal of Economics and Financial Issues , 15(2), 344–354. https://doi.org/10.32479/ijefi.18142