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# The Influence of Macroeconomic News on Currency Exchange Rates in Indonesia 2018-2023

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***Abstract:***

*This study aims to explain the cause of the IDR exchange rate experiencing high fluctuations during 2018-2023 using monthly data. To determine whether macroeconomic news affects the IDR exchange rate, this study employs the Ordinary Least Square (OLS) model. In addition, this study aims to determine what macroeconomic news affects fluctuations in the IDR exchange rate. The main findings of the research results show that search interests related to macroeconomic news simultaneously affect the IDR exchange rate, but partially six of the eleven search interests related to macroeconomic news affect exchange rate fluctuations. In addition, the mean value which is greater than the median value on the dependent variable indicates that during the study period the IDR exchange rate tended to depreciate against the USD. Studies like this are still rare in Indonesia, making this research a valuable addition to financial management education. The researcher hopes that it can be developed further with other search interests that can affect and predict the movement of the IDR exchange rate.*

***Keywords:*** *Macroeconomic News, Google Trends, Indonesia, IDR Exchange Rate*

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## 1. Introduction

The global economy has experienced various challenges in recent years, policy changes in various developed countries and the dynamics of international trade can create global economic uncertainty. In addition, major phenomena such as the COVID-19 pandemic have caused concerns about the financial system and global economic conditions (Phan & Narayan, 2020). Developing countries are very sensitive to various global economic changes that cause economic uncertainty within the country (Lin et al., 2020).

As one of the growing economies, Indonesia has involvement in international trade, economic pressure is increasingly felt when there is global economic instability. Furthermore, Lin et al., (2020) stated that macroeconomic sentiment, especially from developed countries such as the US and China, has a broader and greater influence on the economy of developing countries such as Indonesia. This is because exports and

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imports that cause exchange rate fluctuations can affect the domestic economy which has an impact on domestic competitiveness and inflation.

According to Kristianto et al., (2024), exchange rates are important in assessing the economic stability of a country. Based on Bank Indonesia transaction rate data, significant fluctuations in the IDR exchange rate against the USD occurred during the 2018-2023 period. Macroeconomic factors and others such as the COVID-19 pandemic are considered to be the causes that influence it. Maintaining macroeconomic stability is the output of economic policies in facing the challenges of exchange rate fluctuations. Concerns about increasing import costs as a result of exchange rate depreciation, while export competitiveness becomes unattractive in the global market as a result of exchange rate appreciation (Egilsson, 2020).


**Figure 1. USD/IDR Exchange Rate**
Source: Bank Indonesia

Indonesia's economy is heavily influenced by fluctuations in the IDR exchange rate against the USD. At the macro level, inflation is triggered by the depreciation of the IDR which has an impact on increasing the price of imported goods, so that it can affect monetary policy. According to Gu et al., (2022) at the company level, exchange rate depreciation can increase production costs, especially companies that depend on imports of raw materials. This causes industrial sectors in Indonesia to be under pressure. On the other hand, temporary benefits are felt in the export sector because the depreciation of the IDR exchange rate makes products cheaper and more competitive.

Exchange rate fluctuations have an impact on financial markets such as the forex market as an instrument of speculation. The forex market is a place for every demand and supply made by market players on forex market. The forex market becomes inefficient when there is an overreaction to macroeconomic news or policies that affect the exchange rate (Dimitriadou, 2024). (Aslam et al., 2020) stated that the forex market becomes inefficient due to the global shock of the COVID-19 pandemic. This

is due to the fact that exchange rate depreciation is felt by almost all countries, so that it has an impact on the forex market.

Behavioral finance states that the market becomes biased and irrational due to psychological and emotional factors in decision making (Hon et al., 2021). Market players tend to follow the sentiment of current market news, so that market players' expectations of exchange rates can be influenced when there is an economic news release. This makes the market irrational and does not reflect the true fundamentals.

Changes in macroeconomic conditions such as news related to interest rates and inflation are one of the main causes of exchange rate fluctuations (Herzog, 2021). The benchmark interest rate policy set by Bank Indonesia (BI) is an issue or macroeconomic news that is often discussed in various online media. For example, market expectations are very easily influenced by news of a rate hike. In addition, the depreciation of the IDR exchange rate is inevitable due to uncontrolled national inflation. In addition to these factors, various other macroeconomic factors can affect the IDR exchange rate.

In addition to fundamental factors, macroeconomic news can affect market sentiment towards exchange rate fluctuations. Trends in searching for macroeconomic information such as Google Trends (GT) can be one of the main sources influencing economic sentiment. Market concerns and expectations are reflected in searches for macroeconomic news. According to Chiang et al., (2021) GT data can improve predictions of exchange rate volatility. They stated that GT data contains information that affects exchange rate movements. In addition, according to Klinlampu et al., (2022) the increasing number of searches for "Covid-19" and "Coronavirus" can result in exchange rate depreciation. This is because there is public anxiety and concern about Covid-19 which is reflected in the spike in searches on the GT search engine as an early indicator in predicting exchange rates.

The duty of stabilizing the IDR exchange rate is controlled by Bank Indonesia (BI), in accordance with Law No. 23, Article 7 of the Republic of Indonesia (1999) concerning Bank Indonesia, which states that Bank Indonesia has the responsibility to maintain exchange rate stability as part of its task of maintaining monetary stability. In addition, as the main instrument in maintaining exchange rate stability, Bank Indonesia has the responsibility to determine interest rate policy. However, information and news about macroeconomics in various media can also affect the exchange rate.

Macroeconomic news can affect exchange rates, this has been proven in several previous studies that have discussed it. Research results Cheung et al., (2019) found that US macroeconomic news had a greater influence on the JPY/USD exchange rate compared to Japanese macroeconomic news from January 1, 1999 to August 31, 2016, Lin et al., (2020) found that US macroeconomic news had a greater influence on the exchange rate volatility of BRICS countries compared to Chinese macroeconomic news from 2000 to 2019, Antwi et al., (2020) found that low real GDP caused the depreciation exchange rate in Ghana, Nor et al., (2020) found that macroeconomic

fundamentals such as money supply, dependence on imported products and short-term capital flows affect the volatility of the informal exchange rate of Somalia, Wilcoxson et al., (2020) found that search keywords related to macroeconomic indicators on GT can help predict the USD exchange rate against other currencies, Chiang et al., (2021) found that search keywords related to macroeconomic indicators can predict and affect the volatility of the USD/INR exchange rate, Ahmed & Mazlan (2021) found that interest rates affect the volatility of the exchange rates of ASEAN countries. Herzog (2021) found that search keywords related to macroeconomic indicators can predict and influence exchange rate volatility, Devpura (2021) found that the COVID-19 pandemic phenomenon affected the depreciation of the EUR/USD exchange rate, Chortane & Pandey (2022) discovered that the Russia-Ukraine conflict adversely affected the currency, Rudy & Sharilova (2024) found that increasing interest rates during the Russia-ukraine conflict effectively made the financial behaviour of Belarusians to convert their savings from foreign currency into local currency, thus affecting the stability of the local currency in the short term, Klinlampu et al., (2022) showed that macroeconomic news sentiment has a significant effect on exchange rate depreciation. Meanwhile, Yang (2024) showed that macroeconomic news surprises in China affect the domestic exchange rate, Alamsyah et al., (2024) found that fluctuations in the IDR exchange rate are significantly and positively influenced by domestic bad news, foreign bad news, and exchange rate changes. The results of another study by Narayan (2020) found that macroeconomic news sentiment had a significant effect on the appreciation of the Japanese Yen exchange rate against the US Dollar, the Yen actually appreciated on the other hand the Dollar depreciated due to interest rate cuts. However, Bortnikova et al., (2025) found that the different economic conditions of each country have a different impact when there is macroeconomic news on the exchange rate.

Building on this background, this study carries the title "The Influence of Macroeconomic News on Currency Exchange Rates in Indonesia 2018-2023". Search trends from GT regarding macroeconomic news can influence the IDR exchange rate. That way, there are new economic indicators that don't only rely on traditional economic indicators but also search indicators on the internet as a public response in facing economic instability.

Using GT data, this study tested the influence of macroeconomic news on the IDR exchange rate over the period 2018-2023. In addition, this study is to determine and explain what macroeconomic news most influences the IDR exchange rate during the study period.

## 2. Theoretical Background

**Behavioral Finance:** Believing that the market is efficient, that all investors are rational, and that profit maximization is the main goal, all of which are included in the principles of traditional theory (Fogaat et al., 2022). Traditional theory only concentrates on market conditions, but is often unable to describe the actual market. Therefore, behavioral financial theory is able to explain how actual market conditions

occur. Behavioral finance states that psychological and emotional factors influence a person in making decisions (Almansour et al., 2023). Behavioral finance provides a clear picture of various biased behaviors in the psychological aspects of financial decision making (Gupta & Shrivastava, 2023).

Financial behavior is often influenced by various economic sentiments. Gupta & Shrivastava (2023) discovered that financial behavior has a significant impact on how investment decisions are made. In addition, Kebe & Uhl (2024) research found that financial behavior important in understanding exchange rate fluctuations, this is because of economic sentiment that allows market players to make decisions.

**Exchange Rates:** The exchange rate expresses the price of a different currency in terms of the domestic currency (Chiang et al., 2021). exchange rates can reflect and describe the economic conditions of a country. exchange rates are very important in any economy because they can affect other prices (Egilsson, 2020). The instability of exchange rates can substantially impact investors, businesses, and consumers, especially in handling currency risks and distributing assets across international markets (Chiang et al., 2021). According to Pranata et al., (2022) exchange rates are very important for multinational companies because trade is carried out by relying on foreign currencies as a means of trade transactions.

Narayan (2020) found that when a major shock from the COVID-19 pandemic occurred, the USD exchange rate depreciated, making it unattractive for investors and then switching to a safer currency, namely JPY. In addition, Lin et al., (2020) found that a good economy can have an impact on a stable exchange rate.

**Macroeconomics:** Macroeconomic sentiment is very important in determining the exchange rate (Herzog, 2021). The exchange rate always fluctuates when there is macroeconomic sentiment. This is because market players always respond to every macroeconomic policy that can reflect future economic conditions. Interest rates, inflation and gross domestic product (GDP) are included in the macroeconomic section (Antwi et al., 2020). Therefore, the role of Bank Indonesia (BI) is very important in making good and appropriate policies to stabilize the IDR exchange rate against foreign currencies.

Antwi et al., (2020) found that with high inflation and money supply, interest rates and low GDP can influence exchange rate depreciation. In addition, Nor et al., (2020) found that the amount of money supply, dependence on basic needs through imports and the use of USD as a currency for import transactions cause the local currency to depreciate.

Financial behavior shows that market players tend to follow economic news sentiment in making decisions, so that macroeconomic news can be a benchmark for market players in understanding economic conditions. So that market players can predict exchange rate fluctuations and make good decisions.

**Research Framework**

Exchange rates as an important indicator in knowing the economic stability of a country. Exchange rates always experience movements or fluctuations that are influenced by each financial institution's policy. In the end, market players tend to follow information and news related to macroeconomic policies on one of the websites, namely Google. Every search related to macroeconomics can be accessed through a relative interest index scale ranging from 0-100 on GT.

One of the reasons for GT' success in predicting exchange rates is a phenomenon known as “herding.”. Herding behavior occurs when a group of people, or experts, predict that prices will fluctuate. Their speculation influences others, reinforcing beliefs that ultimately drive the expected outcome, making it a self-fulfilling prophecy. Herzog's (2021) research found that some searches related to macroeconomic news can affect a country's exchange rate. This means that the more searches related to macroeconomics can affect the psychology of market players towards exchange rates in making decisions.

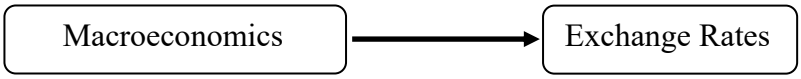


**Figure 2. Research Framework**

**Hypothesis 1:** Macroeconomic news affects the USD/IDR exchange rate.
**Hypothesis 2:** Macroeconomic news doesn’t affect the USD/IDR exchange rate.

**Table 1. Operationalization of Variables**

| Variables | Indicators | Scale | Data Source |
|---|---|---|---|
| Macroeconomics (X). (Herzog, 2021) | Inflation<br>Consumer Price Index (CPI)<br>Gross Domestic Product (GDP)<br>Interest Rate<br>Credit<br>ATM<br>Job Vacancies<br>Holidays<br>Shopping<br>Exchange Rate<br>Currency Appreciation | Ratio | Google Trends. |
| Exchange Rate (Y). (Wilcoxson et al., 2020), (Chiang et al., 2021) | USD/IDR Exchange Rate. | Ratio | Bank of Indonesia (BI). |

## 3. Methodology

This study was conducted using a quantitative approach to determine the influence of macroeconomic news indicators on the IDR/USD exchange rate during the period 2018–2023, by applying the Ordinary Least Squares (OLS) model. The research data consists of search keywords from Google Trends (GT) related to macroeconomic indicators in Indonesia, namely inflation, Consumer Price Index (CPI), Gross Domestic Product (GDP), interest rate, credit, ATM, job vacancies, holidays, shopping, exchange rate, and currency appreciation. In addition, data on the USD/IDR exchange rate from 2018–2023 were obtained from Bank Indonesia (BI).

The data collection technique was carried out using the documentation method, where data were collected from official written documents that had been published by recognized sources. This study uses secondary data related to macroeconomic news, obtained from Google Trends, following the approach of Chiang et al. (2021), Herzog (2021), and Wilcoxson et al. (2020). Meanwhile, the exchange rate data were sourced from Bank Indonesia (BI). The dataset is in monthly time series format, covering the period from January 2018 to December 2023.

The collected data were then analyzed using the OLS model to test the influence of macroeconomic news on the USD/IDR exchange rate. The OLS model is used to estimate the regression coefficients within the regression model. Additionally, the use of the OLS model requires fulfilling several tests, including the stationarity test and various classical assumption tests such as descriptive statistics, normality, multicollinearity, autocorrelation, and heteroscedasticity tests. If all of these assumptions are met, the resulting parameter estimators are considered the Best Linear Unbiased Estimators (BLUE) (Sari et al., 2020).

## 4. Empirical Findings/Result

### Unit Root Test

To ensure the data is stationary and suitable for modeling, a stationarity test is applied to all acquired data. The outcomes of the stationarity analysis conducted with the Augmented Dickey-Fuller (ADF) test are presented below.

**Table 2. Stationarity Test**

| Variable | Level | | | First Difference | | |
|---|---|---|---|---|---|---|
| | **ADF Value** | **Critical Value (5%)** | **P-Value** | **ADF Value** | **Critical Value (5%)** | **P-Value** |
| Inflation | -3.845 | -2.902 | 0.003 | | | |
| Consumer Price Index (CPI) | -2.029 | -2.910 | 0.274 | -8.361 | -2.910 | 0.000 |
| GDP | -4.955 | -2.903 | 0.000 | | | |
| Interest Rate | -5.107 | -2.902 | 0.000 | | | |

| Variable | Level | | | First Difference | | |
|---|---|---|---|---|---|---|
| | **ADF Value** | **Critical Value (5%)** | **P-Value** | **ADF Value** | **Critical Value (5%)** | **P-Value** |
| Credit | -1.007 | -2.903 | 0.746 | -11.723 | -2.589 | 0.000 |
| ATM | -1.680 | -2.903 | 0.436 | -14.266 | -2.903 | 0.000 |
| Job Vacancies | -1.545 | -2.910 | 0.503 | -3.000 | -2.911 | 0.040 |
| Holidays | -1.332 | -2.910 | 0.609 | -4.022 | -2.911 | 0.002 |
| Shopping | -3.084 | -2.902 | 0.032 | | | |
| Exchange Rate | -4.692 | -2.902 | 0.000 | | | |
| Currency Appreciation | -4.208 | -2.902 | 0.001 | | | |
| USD/IDR Exchange Rate | -2.038 | -2.904 | 0.2701 | -8.334 | -2.904 | 0.000 |

Source: Eviews Output, 2025

The stationarity test in Table 2 is conducted to ensure that the research data is stationary, thereby avoiding spurious regression. Based on Table 2, non-stationary data at level is found in the variables CPI (IHK), Credit, ATM, Job Vacancies, Holidays, and the IDR-USD Exchange Rate, as indicated by p-values greater than the significance level (α) of 5% or 0.05. To address this, first-level differencing is applied. The results of the ADF test after differencing show p-values less than the 5% significance level, indicating that the data becomes stationary after first-level differencing.

**Descriptive Statistics Test**

Descriptive statistical tests were conducted on all data obtained in order to understand the characteristics of the research data. The following are the results of the descriptive statistical test in table 3 obtained after data testing.

**Table 3. Descriptive Statistics Test**

| Variable | USD/IDR Exchange Rate | Inflation | CPI | GDP | Interest Rate | Credit | ATM | Job Vacancies | Holidays | Shopping | Exchange Rate | Currency Appreciation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Mean** | 30.00 | 40.36 | 0.40 | 63.97 | 47.09 | -0.67 | -0.11 | -0.97 | -0.76 | 74.88 | 33.70 | 24.97 |
| **Me** | 17.94 | 36.00 | 3.00 | 63.00 | 43.00 | 0.00 | 0.00 | -3.00 | 0.00 | 75.00 | 30.00 | 26.00 |
| **Max** | 1418.40 | 100.00 | 39.00 | 100.00 | 100.00 | 11.00 | 16.00 | 42.00 | 48.00 | 100.00 | 100.00 | 100.00 |
| **Min** | -961.24 | 13.00 | -51.00 | 33.00 | 24.00 | -15.00 | -16.00 | -19.00 | -55.00 | 51.00 | 17.00 | 0.00 |
| **Std Dev.** | 312.45 | 17.88 | 18.16 | 15.76 | 17.19 | 5.27 | 7.42 | 10.50 | 18.73 | 12.09 | 14.63 | 23.24 |

Source: Eviews Output, 2025

The descriptive statistical test in Table 3 shows that the mean of the USD/IDR exchange rate after first-level differencing is 30.00, with a median of 17.94, a

maximum of 1418.4, a minimum of -961.24, and a standard deviation of 312.45, indicating substantial fluctuations during the study period. Inflation has a mean of 40.36, a median of 36.00, a maximum of 100.00, a minimum of 13.00, and a standard deviation of 17.88, suggesting moderate market interest with notable variation. CPI (IHK), after first-level differencing, has a mean of 0.40, a median of 3.00, a maximum of 39.00, a minimum of -51.00, and a standard deviation of 18.16, indicating declining search interest over time with high volatility. GDP (PDB) shows a mean of 63.97, a median of 63.00, a maximum of 100.00, a minimum of 33.00, and a standard deviation of 15.76, reflecting consistently high interest with relatively stable fluctuations. Interest Rate has a mean of 47.09, a median of 43.00, a maximum of 100.00, a minimum of 24.00, and a standard deviation of 17.19, showing moderate interest and moderate variability. Credit, after first-level differencing, records a mean of -0.67, a median of 0.00, a maximum of 11.00, a minimum of -15.00, and a standard deviation of 5.27, suggesting a declining trend with low to moderate fluctuations. ATM searches, also after first-level differencing, show a mean of -0.11, a median of 0.00, a maximum of 16.00, a minimum of -16.00, and a standard deviation of 7.42, reflecting decreasing interest but with high variability. Job Vacancies present a mean of -0.97, a median of -3.00, a maximum of 42.00, a minimum of -19.00, and a standard deviation of 10.50, suggesting declining interest with significant fluctuations. Holidays have a mean of -0.76, a median of 0.00, a maximum of 48.00, a minimum of -55.00, and a standard deviation of 18.73, indicating a downward trend in interest with substantial variability. Shopping shows a strong interest with a mean of 74.88, a median of 75.00, a maximum of 100.00, a minimum of 51.00, and a standard deviation of 12.00, pointing to consistent interest with relatively stable fluctuations. Exchange Rate records a mean of 33.70, a median of 30.00, a maximum of 100.00, a minimum of 17.00, and a standard deviation of 14.63, reflecting moderate interest with manageable variability. Lastly, Currency Appreciation shows a mean of 24.97, a median of 26.00, a maximum of 100.00, a minimum of 0.00, and a standard deviation of 23.24, indicating moderate interest with high fluctuations in search trends.

**Normality Test**

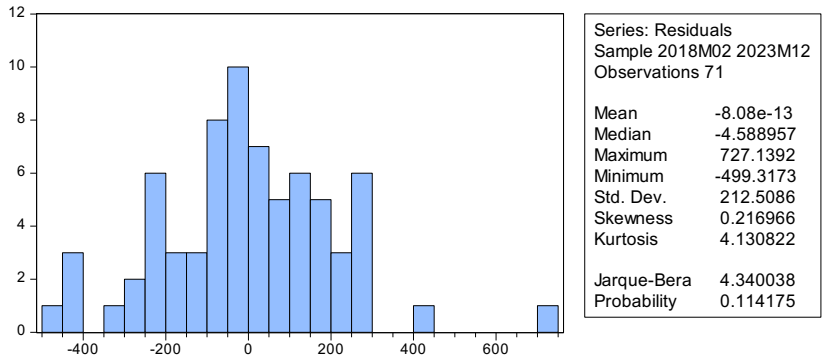


**Figure 3. Normality Test**
Source: Eviews Output, 2025

The normality test in figure 3 was carried out to ensure that the research data was normally distributed. The results obtained a statistical value of 4.340 with a prob. value of 0.114. The prob. value > α value of 5% or 0.05, so the data is normally distributed.

**Multicollinearity Test**

**Table 4 Multicollinearity Test**

| Variable | Coefficient Variance | Uncentered VIF | Centered VIF |
|---|---|---|---|
| C | 1211306. | 1605.140 | NA |
| LOG(INFLATION) | 13114.90 | 229.4802 | 3.042798 |
| IHK | 4.202733 | 1.812179 | 1.811250 |
| LOG(PDB) | 21206.47 | 480.6200 | 1.729261 |
| LOG(INTEREST RATE) | 33044.77 | 635.6194 | 4.627482 |
| CREDIT | 57.25677 | 2.113752 | 2.079074 |
| ATM | 15.09349 | 1.086808 | 1.086554 |
| JOB VACANCIES | 12.67630 | 1.844680 | 1.828815 |
| HOLIDAY | 4.007044 | 1.839905 | 1.836834 |
| LOG(SHOPPING) | 49591.94 | 1218.399 | 1.777865 |
| LOG(EXCHANGE RATE) | 13910.24 | 221.9208 | 2.032190 |
| CURRENCY APPRECIATION | 3.000224 | 4.597974 | 2.118762 |

Source: Eviews Output, 2025

Multicollinearity test in table 4 was carried out so that each independent variable does not have a linear relationship. The results show 5 independent variables that have VIF values >10. LOG data transformation is performed in order to reduce the VIF value. The result is that the VIF value of all independent variables is <10, thus the multicollinearity problem can be overcome properly.

**Autocorrelation Test**

Autocorrelation test is conducted to identify whether there is a serial relationship between residuals in the regression model. This test is conducted using the Breusch-Godfrey Serial Correlation LM test and the Durbin-Watson test (DW Test). Refer to table 5 and 6 below for the results:

**Table 5. Breusch-Godfrey Serial Correlation LM**

| | | | |
|---|---|---|---|
| F-statistic | 0.149827 | Prob. F(2,57) | 0.8612 |
| Obs*R-squared | 0.371300 | Prob. Chi-Square(2) | 0.8306 |

Source: Eviews Output, 2025

**Table 6. Durbin-Watson Test**

| | | | |
|---|---|---|---|
| R-squared | 0.537422 | Mean dependent var | 30.00896 |
| Adjusted R-squared | 0.451179 | S.D. dependent var | 312.4526 |
| S.E. of regression | 231.4726 | Akaike info criterion | 13.87969 |
| Sum squared resid | 3161194. | Schwarz criterion | 14.26211 |
| Log likelihood | -480.7288 | Hannan-Quinn criter. | 14.03176 |
| F-statistic | 6.231468 | Durbin-Watson stat | 1.935583 |
| Prob(F-statistic) | 0.000001 | | |

Source: Eviews Output, 2025

The results of the Breusch-Godfrey test, the Chi-Square prob. value is 0.8306, meaning the prob. value is > 0.05. So there is no autocorrelation. While the results of the DW test are 1.935, meaning the value is close to 2 so there is no autocorrelation.

**Heteroscedasticity Test**

The heteroscedasticity test is conducted to ensure that the error variance in the regression model is constant (homoscedasticity). This test uses the Harvey method. Refer to table 7 below for the results:

**Table 7. Heteroscedasticity Test**

| | | | |
|---|---|---|---|
| F-statistic | 1.894013 | Prob. F(11,59) | 0.0585 |
| Obs*R-squared | 18.52871 | Prob. Chi-Square(11) | 0.0701 |
| Scaled explained SS | 34.43644 | Prob. Chi-Square(11) | 0.0003 |

Source: Eviews Output, 2025

The heteroscedasticity test in table 7 was conducted using the Harvey test method. The test results have a Chi-Square prob. value of 0.0701, meaning the prob. value is > 0.05. So there is no heteroscedasticity.

**Analysis of Regression**

**Table 8. Regression Result**

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 1053.339 | 1100.593 | 0.957065 | 0.3424 |
| LOG(INFLATION) | -297.1753 | 114.5203 | -2.594957 | 0.0119 |
| IHK | 1.074417 | 2.050057 | 0.524091 | 0.6022 |
| LOG(PDB) | 230.0534 | 145.6244 | 1.579772 | 0.1195 |
| LOG(INTEREST RATE) | 395.2650 | 181.7822 | 2.174388 | 0.0337 |
| CREDIT | 6.949282 | 7.566820 | 0.918389 | 0.3622 |
| ATM | -13.80075 | 3.885034 | -3.552287 | 0.0008 |
| JOB VACANCIES | -17.67908 | 3.560379 | -4.965504 | 0.0000 |
| HOLIDAY | 2.701376 | 2.001760 | 1.349500 | 0.1823 |
| LOG(SHOPPING) | -776.3706 | 222.6925 | -3.486290 | 0.0009 |
| LOG(EXCHANGE RATE) | 269.2622 | 117.9417 | 2.283012 | 0.0260 |
| CURRENCY APPRECIATION | -0.107691 | 1.732115 | -0.062173 | 0.9506 |

| | | | |
|---|---|---|---|
| R-squared | 0.537422 | Mean dependent var | 30.00896 |
| Adjusted R-squared | 0.451179 | S.D. dependent var | 312.4526 |
| S.E. of regression | 231.4726 | Akaike info criterion | 13.87969 |
| Sum squared resid | 3161194. | Schwarz criterion | 14.26211 |
| Log likelihood | -480.7288 | Hannan-Quinn criter. | 14.03176 |
| F-statistic | 6.231468 | Durbin-Watson stat | 1.935583 |
| Prob(F-statistic) | 0.000001 | | |

Source: Eviews Output, 2025

The F-test results indicate that the F-statistic is 6.231 with a significance level of 0.00 < 0.05. This suggests that searches using the keywords *Inflation, CPI, GDP, Interest Rate, Credit, ATM, Job Vacancies, Holidays, Shopping, Exchange Rate,* and *Currency Appreciation* collectively have a significant effect on the USD/IDR exchange rate.

The T-test results show the following:

1. Inflation has a T-statistic of 2.59 and a significance level of 0.0119 < 0.05, indicating that search interest in "inflation" significantly affects the IDR exchange rate.
2. CPI has a T-statistic of 0.52 and a significance level of 0.6022 > 0.05, meaning it does not significantly affect the IDR exchange rate.
3. GDP has a T-statistic of 1.57 and a significance level of 0.1195 > 0.05, so it does not significantly affect the IDR exchange rate.
4. Interest Rate has a T-statistic of 2.17 and a significance level of 0.0337 < 0.05, indicating a significant effect on the IDR exchange rate.
5. Credit has a T-statistic of 0.91 and a significance level of 0.3622 > 0.05, meaning it does not significantly affect the IDR exchange rate.

6. ATM has a T-statistic of 3.55 and a significance level of 0.0008 < 0.05, indicating a significant effect on the IDR exchange rate.
7. Job Vacancies has a T-statistic of 4.96 and a significance level of 0.0000 < 0.05, also showing a significant effect on the IDR exchange rate.
8. Holidays has a T-statistic of 1.34 and a significance level of 0.1823 > 0.05, meaning it does not significantly affect the IDR exchange rate.
9. Shopping has a T-statistic of 3.48 and a significance level of 0.0009 < 0.05, indicating a significant effect on the IDR exchange rate.
10. Exchange Rate has a T-statistic of 2.28 and a significance level of 0.0260 < 0.05, indicating a significant effect on the IDR exchange rate.
11. Currency Appreciation has a T-statistic of 0.06 and a significance level of 0.9506 > 0.05, meaning it does not significantly affect the IDR exchange rate.

The Adjusted R-Square value is 0.451179, or approximately 45.2%. This indicates that the variables *Inflation, CPI, GDP, Interest Rate, Credit, ATM, Job Vacancies, Holidays, Shopping, Exchange Rate,* and *Currency Appreciation* collectively explain 45.2% of the variation in the USD/IDR exchange rate, while the remaining 54.8% is explained by other factors not included in this research model.

## 5. Discussion

The main findings of this study indicate that exchange rates can be influenced by macroeconomic news. In other words, the instability of the USD/IDR exchange rate during the study period was simultaneously influenced by information search interest (SI) related to inflation, consumer price index (CPI), gross domestic product (GDP), interest rates, credit, automated teller machines (ATMs), job vacancies, holidays, shopping, exchange rate, and currency appreciation. This finding aligns with prior studies, such as Lin et al. (2020), who found that U.S. domestic macroeconomic news significantly influences the USD exchange rate against the currencies of countries in the BRICS organization. Research by Cheung et al. (2019) found that before, during, and after the Global Financial Crisis (GFC), the movement of the USD exchange rate against the Japanese Yen (JPY) was driven by U.S. macroeconomic news. Similarly, Antwi et al. (2020) reported that macroeconomic factors in Ghana, such as low GDP, adversely impact the domestic exchange rate. Nor et al. (2020) also found that Somalia's macroeconomic conditions significantly affect exchange rate volatility. According to behavioral finance theory, exchange rate appreciation and depreciation occur in response to macroeconomic news, which shapes the sentiment of market participants. This confirms that macroeconomic information is a crucial factor for market players to consider when forecasting the IDR exchange rate.

The study partially found that SI related to inflation, ATMs, job vacancies, and shopping had a significant negative effect on the exchange rate. This suggests that negative sentiment arises with increased search activity for these keywords, triggering IDR depreciation. Market participants may view such topics pessimistically, which weakens confidence in the exchange rate and leads to depreciation. These findings are in line with Herzog (2021), who demonstrated that SI for inflation and job vacancies

contributes to exchange rate depreciation. However, Herzog also found that SI related to ATMs and shopping led to exchange rate appreciation, indicating a different result from this study.

Search interest related to interest rates was found to have a significant positive effect on the USD/IDR exchange rate, indicating that positive sentiment emerges with every increase in interest rate-related news searches, which contributes to IDR appreciation. Market players interpret this positively and become more optimistic about the IDR, resulting in appreciation. This outcome contrasts with Herzog (2021), who found that interest rate search terms predicted exchange rate depreciation.

Additionally, SI related to the exchange rate itself showed a significant positive effect on the USD/IDR exchange rate. This indicates that positive sentiment is generated as more people search for exchange rate-related news, leading to appreciation of the exchange rate. This is consistent with the findings of Wilcoxson et al. (2020), who showed that exchange rate-related keywords on Google Trends can influence appreciation.

In contrast, SI related to the CPI, GDP, credit, holidays, and currency appreciation did not significantly influence the USD/IDR exchange rate. Based on the analysis, these variables did not meet the threshold of statistical significance in affecting the IDR. Among the 11 macroeconomic news-related SIs examined, six were found to have a significant effect during the study period: inflation, interest rates, ATMs, job vacancies, shopping, and exchange rate.

These results are consistent with Chiang et al. (2021), who found that Google Trends data related to macroeconomic news contained relevant information affecting the USD/INR exchange rate. Likewise, Wilcoxson et al. (2020) found that search terms from Google Trends can help explain and predict the USD exchange rate against other currencies. These findings support the behavioral finance theory, which suggests that market players rely on the latest digital media information to shape sentiment, which in turn impacts exchange rate movements. This is also supported by the present study, showing that increased searches for macroeconomic news in Indonesia influence the movement of the IDR exchange rate.

Apart from macroeconomic news, exchange rates may also be influenced by major events such as the COVID-19 pandemic, which affected Indonesia in 2020. As a result, the Indonesian economy—along with most of the world—experienced a slowdown that negatively impacted exchange rates, including the IDR, which depreciated during this period. This aligns with research by Devpura (2021), who emphasized that the EUR/USD exchange rate was affected by the COVID-19 pandemic starting in March 2020. Aslam et al. (2020) also highlighted that the foreign exchange market experienced disruptions due to the pandemic. Research by Aji Kristianto et al. (2024) showed that the IDR exchange rate experienced overshooting throughout the COVID-19 period. However, this is inconsistent with findings by Narayan (2020), who observed that the Japanese Yen appreciated during the pandemic due to the Bank of Japan's decision not to reduce interest rates, while the Federal

Reserve lowered its rates—leading many investors to consider the Yen a safe-haven asset.

## 6. Conclusions

High fluctuations in the IDR exchange rate occurred during the research period. The main finding obtained is that the model used in this study is able to explain macroeconomic news that can affect the IDR exchange rate simultaneously. Partially, six out of eleven SIs have a significant effect on the fluctuation of the IDR exchange rate during the research period. Interestingly, this study reveals a new finding that during the research period the IDR exchange rate tends to depreciate due to negative sentiment from market players towards macroeconomic news.

This research strengthens the behavioral finance theory that market players' perceptions and expectations of macroeconomic news can shape the occurrence of sentiment that can affect exchange rates. In addition, to assist corporations, companies or individuals in making financial management plans and strategies, GT data can be used as a tool to monitor the sentiment of market participants that can affect exchange rates. Research related to this is still very minimal in Indonesia, researchers hope that further research can be developed using other search interests that can influence exchange rates.

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