

The Impact of Falling Interest Rates and the Gold Price Index on Investment Interest in Indonesia

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Abstract

Investment activity has become a critical component in supporting economic growth and expanding public financial participation in Indonesia. Changes in macroeconomic variables—particularly declining interest rates and fluctuations in the gold price index—are considered capable of influencing public investment interest. This study aims to analyze the effect of falling interest rates and the gold price index on investment interest in Indonesia during the 2021–2025 period. The study employs a quantitative approach using secondary data sourced from Bank Indonesia, the Indonesia Central Securities Depository (KSEI), and national gold price data. A total of 58 monthly observations were analyzed using multiple linear regression, with classical assumption tests comprising normality, multicollinearity, heteroscedasticity, and autocorrelation diagnostics.

The results reveal that the interest rate variable exerts a negative and statistically significant effect on investment interest, with a regression coefficient of -1.2931 and a significance value of 0.000 . This finding indicates that lower interest rates tend to encourage the public to redirect their funds toward investment instruments with higher potential returns. The gold price index, by contrast, exhibits a positive but statistically insignificant effect, with a coefficient of 0.0000009 and a p-value of 0.1273 . The regression model yields an R^2 of 0.4191 , indicating that 41.91% of the variation in investment interest is explained by the two independent variables. The model satisfies the multicollinearity and autocorrelation assumptions; however, normality and homoscedasticity assumptions were not fully met. Overall, the findings confirm that declining interest rates play a more dominant role in shaping investment interest than short-term fluctuations in gold prices.

Keywords: Interest Rate; Gold Price Index; Investment Interest; Multiple Linear Regression; Indonesia; Macroeconomic Factors.

Introduction

The economic development of a country is fundamentally driven by investment activities, undertaken by both individuals and corporate entities. Investment plays a pivotal

role in stimulating economic growth, generating employment, and enhancing productivity. Consequently, understanding the determinants of investment interest is paramount, particularly within the shifting landscape of macroeconomic conditions. Two prominent variables frequently scrutinized for their influence on public investment decisions are interest rates and the gold price index.

Interest rates serve as a primary monetary policy instrument that significantly shapes investor behavior. A decline in interest rates typically reduces the yields on interest-bearing financial instruments, such as deposits and savings accounts. This condition prompts investors to seek alternative assets offering higher potential returns—including equities, mutual funds, real property, or gold. Furthermore, lower interest rates reduce borrowing costs, thereby stimulating economic activity and fostering investor optimism regarding the overall investment climate. Accordingly, fluctuations in interest rates exert a direct influence on the dynamics of public investment interest.

Gold is widely recognized as a "safe haven" asset [1], [2]. Movements in the gold price index often reflect the prevailing level of global and domestic economic uncertainty. When gold prices appreciate, the public tends to perceive gold as a secure and stable store of value, which in turn heightens investment interest. Conversely, when gold prices decline, investors may interpret the macroeconomic environment as relatively stable and pivot toward other instruments offering higher yields. These dynamics render gold price fluctuations a critical factor influencing investor decision-making, particularly among individual investors [3], [4].

The interplay between declining interest rates and gold price movements can produce significant shifts in public investment preferences. When low interest rates coincide with rising gold prices, the public may be further inclined to invest in gold as a hedging asset. However, if both variables experience a simultaneous downward trend, investors may reallocate their capital toward higher-yielding instruments such as equities or productive business ventures [5]. This complexity underscores the importance of examining how these two variables simultaneously influence investment interest.

Against this background, the present study—titled "The Impact of Falling Interest Rates and the Gold Price Index on Investment Interest"—is designed to provide a comprehensive empirical overview of how macroeconomic conditions affect public investment preferences in Indonesia. This study is expected to serve as a strategic reference for investors, financial institutions, and policymakers in formulating more effective investment strategies.

Literature Review

2.1 Interest Rates and Investment Behavior

Keynes's liquidity preference theory posits that changes in interest rates alter the relative attractiveness of holding liquid versus non-liquid assets [6]. When the central bank reduces benchmark interest rates, the opportunity cost of holding non-interest-bearing or low-yield assets decreases, motivating investors to rebalance their portfolios toward higher-return instruments [7]. Empirical evidence from Indonesia confirms that BI Rate movements significantly influence investor behavior across financial markets [8], [9].

2.2 Gold as a Safe Haven Asset

Baur and Lucey [1] defined gold as a "safe haven" when it maintains or appreciates in value during periods of market stress. Subsequent international evidence from Baur and McDermott [2] corroborated this classification across both developed and emerging market contexts. In the Indonesian setting, gold has been empirically confirmed as a safe haven and diversification instrument during inflationary periods [4], [10], and its safe haven characteristics are most pronounced over medium-term horizons [11].

2.3 Investment Interest and Digital Gold in Indonesia

Investment interest refers to an individual's willingness to commit financial resources to investment instruments. In Indonesia, the rapid expansion of digital gold platforms has provided a measurable proxy for retail investment interest through KSEI investor registration data [12], [13]. Recent empirical work by Habbe et al. [14] found that while gold prices may influence the motivational orientation of Generation Z investors, their direct price effect on new investor entry is statistically non-significant—a finding consistent with the behavioral dynamics examined in this study.

Research Methods

3.1 Research Design

This study adopts a quantitative approach with a causal-associative research design, aimed at determining the influence of independent variables on a dependent variable. The analysis covers the period from January 2021 to December 2025, incorporating 58 monthly observations.

3.2 Data Sources

Secondary data were obtained from three principal sources: (1) monthly benchmark interest rate data (BI 7-Day Reverse Repo Rate) from Bank Indonesia; (2) national domestic gold price index data (IDR/gram); and (3) monthly investor growth data from the Indonesia Central Securities Depository (KSEI), used as a proxy for investment interest.

3.3 Operational Definition of Variables

Table 1. Operational Definition of Variables

Variable	Operational Definition	Indicator
Interest Rate (X1)	Monthly benchmark interest rate set by Bank Indonesia.	BI Rate / BI 7-Day Reverse Repo Rate
Gold Price Index (X2)	Monthly domestic gold price movement during 2021–2025.	National gold price (IDR/gram)
Investment Interest (Y)	Monthly growth rate in the number of registered individual investors.	KSEI investor growth rate (%/month)

3.4 Analytical Model

The analysis employs Ordinary Least Squares (OLS) multiple linear regression. The regression model is specified as:

$$\hat{Y} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

where $\hat{Y}$ denotes the estimated monthly growth rate of investment interest (%), X_1 is the BI Rate (%), X_2 is the gold price index (IDR/gram), α is the intercept, β_1 and β_2 are the partial regression coefficients, and ε is the error term.

3.5 Classical Assumption Tests

Prior to interpreting the regression results, four classical assumption tests were conducted: (1) Normality—using the Shapiro-Wilk and Kolmogorov-Smirnov tests; (2) Multicollinearity—using the Variance Inflation Factor (VIF), with a threshold of $VIF < 10$; (3) Heteroscedasticity—using the Breusch-Pagan test; and (4) Autocorrelation—using the Durbin-Watson (DW) statistic.

Results and Discussion

4.1 Descriptive Statistics

Descriptive statistics for all research variables ($n = 58$) are presented in Table 2.

Table 2. Descriptive Statistics of Research Variables ($n = 58$)

Variable	Minimum	Maximum	Mean	Std. Deviation
Y – Investment Interest (%/month)	-1.1297%	9.1376%	2.7939%	2.0312%
X1 – Interest Rate (%)	3.50%	6.25%	4.9612%	1.0895%
X2 – Gold Price Index (IDR/gram)	792,490	2,268,097	1,131,515	378,203

The investment interest variable (Y) ranged from -1.13% to 9.14% per month, with a mean of 2.79% and a standard deviation of 2.03%. The negative minimum value indicates that at least one month during the study period recorded a decline in the number of registered digital investors, reflecting temporary suppression of investment interest. The interest rate (X1) ranged from 3.50% to 6.25%, capturing Bank Indonesia's full monetary policy cycle across the observation period. The gold price index (X2) more than doubled—from IDR 792,490 to IDR 2,268,097 per gram—reflecting both global commodity trends and Rupiah depreciation.

4.2 Multiple Linear Regression Results

Table 3. Multiple Linear Regression Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value
Constant (α)	8.1622	1.0131	8.0568	0.000***
X1 – Interest Rate	–1.2931	0.2075	–6.2328	0.000***
X2 – Gold Price Index	0.0000009	0.0000006	1.5481	0.1273 ns
$R^2 = 0.4191$ $\text{Adj. } R^2 = 0.3980$ $F = 19.84$ ($p = 0.000$)				

($n = 58$) Note: *** Significant at 1% level; ns = not significant ($p > 0.05$)

The resulting regression equation is:

$$\hat{Y} = 8.1622 - 1.2931X_1 + 0.0000009X_2$$

The R^2 value of 0.4191 indicates that 41.91% of the variation in investment interest is explained jointly by the interest rate and gold price index, while the remaining 58.09% is attributable to factors outside the model. The F-test ($F = 19.84$; $p = 0.000$) confirms the overall statistical significance of the model. The intercept ($\alpha = 8.1622$) represents the theoretical baseline growth rate of investment interest when both predictors equal zero.

4.3 Normality Test

Table 4. Normality Test Results

Test	Statistic	p-Value	Decision
Shapiro-Wilk	$W = 0.9042$	0.0002	H_0 Rejected
Kolmogorov-Smirnov	$D = 0.1787$	0.0431	H_0 Rejected

Both tests reject H_0 ($p < 0.05$), indicating that the regression residuals do not follow a normal distribution. This outcome is consistent with the volatile nature of monthly growth rate data and the presence of outlier observations during the post-pandemic recovery phase (2021–2022). The normality assumption is not

satisfied. Future research may consider bootstrapped standard errors or robust regression techniques to address this limitation.

4.4 Multicollinearity Test

Table 5. Multicollinearity Test Results (VIF)

Variable	VIF Value	Remark
X1 – Interest Rate	0.4954	No multicollinearity
X2 – Gold Price Index	1.0820	No multicollinearity

Both VIF values are well below the threshold of 10, and the inter-predictor correlation ($r = 0.3836$) confirms a low degree of linear association between X1 and X2. The non-multicollinearity assumption is satisfied.

4.5 Heteroscedasticity Test

Table 6. Heteroscedasticity Test Results (Breusch-Pagan)

Test	LM Statistic	p-Value	Decision
Breusch-Pagan	LM = 11.2516	0.0036	H_0 Rejected

The Breusch-Pagan test (LM = 11.2516; $p = 0.0036 < 0.05$) rejects H_0 , indicating the presence of heteroscedasticity. This violation is likely attributable to the substantial variability in monthly user growth rates across distinct economic regimes within the observation period—most notably the sharp growth during the post-pandemic recovery phase (2021–2022) compared to more moderate growth in subsequent periods. The homoscedasticity assumption is not satisfied. Remedies such as Weighted Least Squares (WLS) or heteroscedasticity-consistent standard errors (HC3) are recommended for future work.

4.6 Autocorrelation Test

Table 7. Autocorrelation Test Results (Durbin-Watson, $n = 58$, $k = 2$)

DW Statistic	dL ($\alpha=5\%$)	dU ($\alpha=5\%$)	4 - dU	Conclusion
2.1995	1.4985	1.6427	2.3573	No Autocorrelation

The DW statistic of 2.1995 falls within the no-autocorrelation zone ($dU < DW < 4 - dU$), confirming that H_0 of no autocorrelation is not rejected. The use of a growth rate specification for the dependent variable (rather than absolute investor counts) effectively eliminated the serial correlation inherent in the underlying time series. The non-autocorrelation assumption is satisfied. The partial hypothesis testing results confirm that the interest rate (X1) exerts a negative and statistically significant effect on investment interest in digital gold ($\beta_1 = -1.2931$; $p = 0.000$). This finding aligns with theoretical expectations: when Bank Indonesia lowers its benchmark rate, the return on conventional savings instruments—such as time deposits and government bonds—declines, making alternative assets such as digital gold relatively more attractive. Investors seeking superior risk-adjusted returns thus increase their participation in the digital gold market, driving up the monthly user growth rate. This result is consistent with Keynes's [6] liquidity preference theory and the substitution effect between interest-bearing and non-interest-bearing assets, as well as empirical evidence from Indonesia's financial markets [8], [9], [15].

In contrast, the gold price index (X2) does not exhibit a statistically significant effect on investment interest ($\beta_2 = 0.0000009$; $p = 0.1273$). This finding suggests that, while the absolute level of gold prices may influence the total user base, month-to-month price changes do not significantly drive marginal changes in the growth rate of new participants. A plausible behavioral explanation is that existing investors tend to maintain their positions regardless of short-term price movements, while the decision to enter the market as a new investor is primarily governed by the opportunity cost of money—as proxied by the prevailing interest rate—rather than the contemporaneous gold price. This interpretation is corroborated by Habbe et al. [14], who similarly found no direct significant relationship between gold prices and new investor entry in Indonesia.

Regarding the classical assumptions, the model fully satisfies the multicollinearity and non-autocorrelation conditions. The growth rate specification of the dependent variable successfully eliminated the serial correlation that would have been present in level-data models. However, violations of the normality and homoscedasticity assumptions are detected. These violations are consistent with the heterogeneous nature of investor growth dynamics across different economic regimes during 2021–2025—a period encompassing post-pandemic recovery, a global interest rate hiking cycle, and subsequent monetary easing. Importantly, while these violations compromise the efficiency of OLS coefficient estimates and the strict validity of standard t-tests, they do not affect the consistency of the OLS estimator, and the large sample size ($n = 58$) provides partial mitigation under the central limit theorem.

These findings carry practical implications for financial stakeholders. For policymakers, the significant influence of interest rates on investment participation underscores the importance of calibrated monetary policy in promoting capital market inclusivity. For financial institutions, the results suggest that periods of declining interest rates represent strategic windows for promoting digital investment products. For individual investors, awareness of the macroeconomic environment—particularly the interest rate cycle—may serve as a useful heuristic for timing investment decisions.

Conclusion

This study examined the influence of falling interest rates and the gold price index on investment interest in Indonesia using 58 monthly observations from 2021 to 2025. The principal findings are as follows:

1. The interest rate (X_1) has a negative and statistically significant effect on investment interest ($\beta = -1.2931$; $p = 0.000$), confirming that lower interest rates encourage greater public participation in digital investment markets.

2. The gold price index (X₂) has a positive but statistically insignificant effect on investment interest ($\beta = 0.0000009$; $p = 0.1273$), suggesting that short-term gold price fluctuations are not a primary driver of new investor entry.
3. The model explains 41.91% of the variation in investment interest ($R^2 = 0.4191$) and is jointly significant ($F = 19.84$; $p = 0.000$).
4. The multicollinearity and non-autocorrelation assumptions are satisfied. The normality and homoscedasticity assumptions are not met, which is consistent with the volatile investment growth dynamics observed during the 2021–2025 observation period.

Future research should consider: (1) expanding the model with additional macroeconomic predictors such as inflation, the USD/IDR exchange rate, and equity market returns; (2) applying robust regression or WLS to address heteroscedasticity; and (3) employing time-varying coefficient models to account for structural breaks across different economic regimes.

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