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Financial Communication of Global Commodity Price Information and Indonesian Stock Market Dynamics

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Abstract
Financial communication plays an important role in conveying global economic information that influences investor perceptions and market behavior. Among the most prominent forms of financial information are changes in global commodity prices, particularly oil and gold prices, which serve as information signals for investment decision-making. This study examines the relationship between global commodity price information and Indonesian stock market dynamics using the Autoregressive Distributed Lag (ARDL) approach. Annual data covering the period 1990–2025 were employed to investigate both long-run and short-run relationships among oil prices, gold prices, and the Indonesian stock market. The Augmented Dickey-Fuller (ADF) test indicates that all variables are integrated of order one, while the Bounds Test confirms the existence of a long-run equilibrium relationship. The long-run estimation results reveal that oil price information has a positive and statistically significant effect on stock market dynamics, whereas gold price information has a negative but statistically insignificant effect. In the short run, contemporaneous changes in gold prices do not significantly affect stock market performance, while lagged changes in gold prices have a positive and significant effect. The error correction term is negative and statistically significant, indicating a rapid adjustment toward long-run equilibrium following short-run disturbances. These findings suggest that investors respond differently to commodity-based information signals depending on the type and timing of information received. This study contributes to the interdisciplinary field of financial communication by highlighting how global commodity price information is reflected in stock market dynamics and investor responses.

Keywords: *Information Signals, Financial Communication, Investor Response, Commodity Price Information, Stock Market Dynamics.*

1. Introduction

In recent decades, global financial markets have experienced increasing uncertainty driven by economic crises, geopolitical tensions, and fluctuations in commodity markets. Among various commodities, gold and crude oil have attracted considerable attention from investors due to their important roles in the global economy. Gold is often perceived as a safe-haven asset during periods of uncertainty, while oil remains a key driver of industrial production and economic activity. Consequently, fluctuations in gold and oil prices may influence stock market performance by affecting investor expectations and market sentiment (Umar et al., 2021). Furthermore, commodity price volatility has become increasingly relevant for emerging markets, where external shocks can significantly affect financial stability and investment decisions (Shahzad et al., 2020)

The rapid development of information and communication technologies has transformed the dissemination of financial information across global markets. Information regarding commodity price movements is continuously communicated through financial news platforms, digital media, market reports, and investment applications, allowing investors to respond to market developments almost instantaneously. As a result, stock market movements may reflect not only changes in economic fundamentals but also the manner in which investors receive, interpret, and process available information (Chen et al., n.d.). In this context, the transmission of commodity-related information plays an important role in shaping investor expectations and influencing market behavior (Yang et al., 2023). Accordingly, commodity price movements may also be understood as financial information signals that influence how investors interpret market conditions and formulate their responses.

However, investors do not always respond uniformly to the same information. Behavioral Finance suggests that investment decisions are often influenced by psychological factors, including risk perception, sentiment, cognitive biases, and investor attention (Kahneman & Tversky, 1979). Consequently, identical information may generate different reactions across investors and market conditions. Previous studies have shown that investor attention significantly affects stock market dynamics and may amplify market reactions to economic information (Hao, 2023). Therefore, changes in gold and oil prices may influence stock market performance not only through economic channels but also through investors' behavioral responses to information signals.

A substantial body of literature has examined the relationship between commodity prices and stock market performance. Several studies have reported that oil price fluctuations can affect stock markets through changes in production costs, inflation expectations, and economic activity

(Umar et al., 2021). Likewise, gold prices are frequently associated with shifts in investor risk preferences and portfolio allocation decisions, particularly during periods of market uncertainty (Shahzad et al., 2020). Nevertheless, empirical findings remain inconclusive, as previous studies have documented varying results regarding both the direction and magnitude of the relationship between commodity prices and stock markets across countries and time periods (Alzate-Ortega et al., 2024).

Despite the growing body of literature examining the relationship between commodity prices and stock markets, several important gaps remain. First, existing studies have primarily focused on the economic transmission mechanisms linking gold prices, oil prices, and stock market performance, such as production costs, inflationary pressures, and macroeconomic conditions (Umar et al., 2021). However, limited attention has been devoted to understanding how investors process and interpret commodity-related information before incorporating it into investment decisions (Said & Slim, 2022). Second, investor attention has been recognized as a crucial factor influencing market dynamics and volatility, yet its role in explaining the transmission of commodity price information to stock markets remains insufficiently explored, particularly in emerging economies (Ballinari et al., 2022). Third, previous studies have reported inconsistent findings regarding the impact of gold and oil prices on stock market performance, suggesting that market responses may vary across countries, economic conditions, and investment horizons (Shahzad et al., 2020). Furthermore, empirical evidence from Indonesia remains relatively limited, especially studies employing a long observation period that captures multiple economic cycles and structural changes in the financial market. From an interdisciplinary communication perspective, market responses cannot be explained solely by economic mechanisms because investors first receive, interpret, and respond to information before it is reflected in market movements. Consequently, there is still a need for research that examines how commodity price information affects stock market performance in both the short run and the long run while considering the role of investor behavior and information processing.

This study contributes to the existing literature in several ways. First, it provides updated empirical evidence from Indonesia, one of the largest emerging economies in Southeast Asia, using a long observation period that encompasses various episodes of economic expansion, crisis, and recovery. Such a long-term perspective is important because the relationship between commodity prices and stock markets may evolve over time as market structures and investor behavior change (Alzate-Ortega et al., 2024). Second, unlike many previous studies that focus primarily on contemporaneous relationships, this study distinguishes between short-run

and long-run effects, thereby offering a more comprehensive understanding of how stock markets respond to commodity-related information across different investment horizons (Pesaran et al., 2001). Third, this study extends prior research by interpreting the empirical findings through the lens of Behavioral Finance. Furthermore, this study positions commodity price movements not merely as economic indicators but also as financial information that shapes investor expectations and market responses. According to Behavioral Finance theory, investors are not always fully rational and may be influenced by psychological factors such as risk perception, sentiment, attention, and cognitive biases when processing market information (Kahneman & Tversky, 1979). Recent studies have further demonstrated that investor attention and behavioral responses can significantly affect market volatility and investment decisions (Abideen et al., 2023). Therefore, this study not only investigates whether gold and oil prices influence the Indonesian stock market but also provides a behavioral explanation of how information related to commodity price movements is incorporated into stock prices. To achieve these objectives, the study employs the Autoregressive Distributed Lag (ARDL) approach, which enables the simultaneous examination of short-run dynamics and long-run equilibrium relationships among the variables (Pesaran et al., 2001).

Oil prices play an important role in the global economy because they serve as a primary source of energy for production, transportation, and industrial activities. Fluctuations in oil prices can influence economic conditions, corporate performance, and financial market dynamics. Rising oil prices may increase production and operating costs, potentially affecting firms' profitability and stock market performance (Thi Huong Vuong et al., 2024). Conversely, higher oil prices may also reflect stronger global demand and improved economic activity, which can support stock market growth (Shahzad et al., 2020). From the perspective of Behavioral Finance, information related to oil price movements may influence investor expectations and market sentiment, leading investors to adjust their investment decisions based on their perceptions of economic conditions (Abideen et al., 2023). Therefore, information regarding oil price movements is expected to be associated with investor responses and the performance of the Indonesian stock market.

H1: Oil prices have a significant relationship with the Indonesian stock market.

Gold is widely regarded as a safe-haven asset and is often used by investors to protect wealth during periods of economic uncertainty and financial instability (Baur & Smales, 2020). Changes in gold prices may influence investor behavior, portfolio allocation decisions, and stock market

dynamics. During periods of uncertainty, investors may shift their investments from stocks to gold, while stable economic conditions may encourage investors to move funds back into equity markets (Madani & Ftiti, 2022). According to Behavioral Finance theory, investor perceptions of risk and uncertainty can shape their responses to market information, including fluctuations in gold prices (Kahneman & Tversky, 1979). Consequently, gold price movements may be associated with changes in investor sentiment and stock market performance, particularly in emerging markets such as Indonesia (Mensi et al., 2023). Therefore, information regarding gold price movements is expected to be associated with investor responses and the performance of the Indonesian stock market.

H2: Gold prices have a significant relationship with the Indonesian stock market.

Figure 1 presents the proposed relationships by viewing gold and oil price movements as financial information signals that may shape investor responses and stock market dynamics.

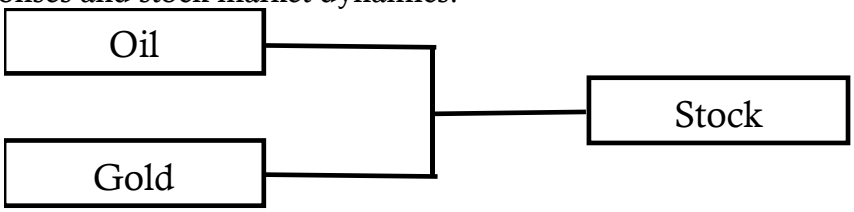

Figure 1. Theoritical Framework

2. Method

2.1 Research Design

This study employs a quantitative approach using annual time-series data to examine the relationship between gold prices, oil prices, and the Indonesian stock market. The observation period spans from 1990 to 2025, allowing the analysis to capture both long-run equilibrium relationships and short-run dynamics among the variables. The Indonesia Composite Index (IDX Composite) is used as a proxy for stock market performance, while gold and crude oil prices represent global commodity market indicators that may influence investor behavior and financial market conditions.

2.2 Data Sources

This study utilizes secondary data obtained from official and internationally recognized sources. Data on the Indonesia Composite Index (IDX Composite) are collected from the (*IDX 2026*, n.d.) . Gold price data are obtained from the London Bullion Market Association (*LBMA 2026*, n.d.), which provides internationally recognized benchmark prices for precious metals. Crude oil price data are collected from the U.S. Energy

Information Administration (*EIA 2026*, n.d.), a widely used source for global energy statistics. All variables are measured annually and transformed into natural logarithms to reduce potential heteroscedasticity and facilitate elasticity interpretation.

2.3 Theoretical Framework

This study is grounded in Behavioral Finance theory, which argues that investors do not always process information rationally and may be influenced by psychological factors, expectations, and market sentiment (Kahneman & Tversky, 1979). Information regarding fluctuations in gold and oil prices may affect investor perceptions of risk and economic conditions, thereby influencing investment decisions and stock market performance. Consequently, the relationship between commodity prices and the stock market can be explained not only through economic fundamentals but also through investors' responses to market information.

2.4 Model Specification

The functional relationship among the variables can be expressed as:

$$IDX_t = f(GOLD_t, OIL_t)$$

The econometric model employed in this study is specified as follows:

$$ln(IDX_t) = \beta_0 + \beta_1\, ln(GOLD_t) + \beta_2\, ln(OIL_t) + \varepsilon_t$$

where:

- IDX_t represents the Indonesia Composite Index at time t
- $GOLD_t$ denotes the gold price at time t
- OIL_tt denotes the crude oil price at time t
- β_0 is the intercept;
- β_1 and β_2 are the estimated coefficients;
- ε_t is the error term.

To estimate both short-run and long-run relationships, the Autoregressive Distributed Lag (ARDL) model can be expressed as:

$$\Delta\, ln(IHSG_t) = \alpha_0 + \sum_{i=1}^{p} \alpha_1 \Delta\, ln(IHSG_{t-i}) + \sum_{i=0}^{q} \alpha_2 \Delta\, ln(GOLD_{t-i}) + \sum_{i=0}^{r} \alpha_3 \Delta\, ln(OIL_{t-i}) + \lambda ECT_{t-1} + \varepsilon_t$$

where ECT_{t-1} represents the Error Correction Term that captures the speed at which deviations from long-run equilibrium are corrected.

2.5 Data Analysis Technique

This study employs the Autoregressive Distributed Lag (ARDL) approach developed by Pesaran et al. (2001) to investigate the relationship between gold prices, oil prices, and the Indonesian stock market. The ARDL framework is selected because it enables the simultaneous estimation of both short-run and long-run relationships and remains applicable as long as none of the variables are integrated of order two, I(2).

The empirical analysis begins with the Augmented Dickey-Fuller (ADF) unit root test to determine the order of integration of each variable. Subsequently, the optimal lag length is selected using the Akaike Information Criterion (AIC). The ARDL Bounds Test is then conducted to examine the existence of a long-run relationship among the variables. Once cointegration is confirmed, long-run coefficients and the Error Correction Model (ECM) are estimated to analyze long-run equilibrium and short-run adjustments. Finally, several diagnostic tests, including the Breusch-Godfrey LM test, Breusch-Pagan-Godfrey test, Jarque-Bera test, CUSUM test, and CUSUM of Squares (CUSUMSQ) test, are performed to ensure the validity, reliability, and stability of the estimated model.

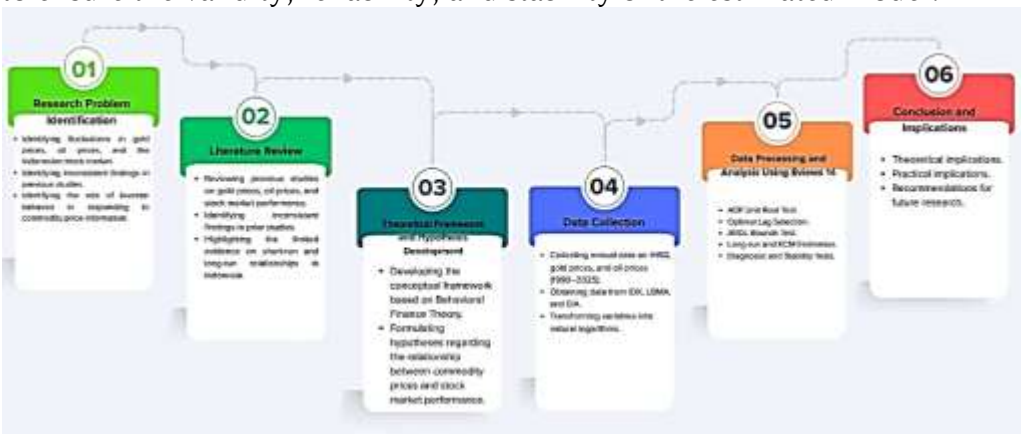

Figure 2. Research Stages Diagram of the Study

3. Results

3.1 Unit Root Test

A stationarity test was conducted using the Augmented Dickey-Fuller (ADF) unit root test to ensure that none of the variables are integrated at the second difference I(2), as this would invalidate the bounds testing procedure.

Table 1. Unit Root Test

Augmented Dickey-Fuller test statistic

Variabel	Level t-statistic	Level Prob.	1st Difference	1st Difference Prob.	Critical Value 5%	Decision
Stock Market	-0.130	0.938	-5.429	0.000	-2.951	I(1)
Oil	-1.226	0.651	-5.289	0.000	-2.951	I(1)
Gold	-2.337	0.166	-6.301	0.000	-2.951	I(1)

The results are presented in Table 1. The findings reveal that all three variables, namely the stock market, world oil price, and world gold price, are non-stationary at the level, with probability values of 0.938, 0.651, and 0.166 respectively, all of which exceed the 5% significance threshold. However, upon taking the first difference, all variables become stationary with probability values of 0.000, which are well below the 0.05 significance level. Accordingly, all variables are integrated of order one, or I(1), confirming that none of the series is integrated at I(2). T=hese results satisfy the prerequisite condition for applying the ARDL bounds testing approach, as the method is valid when variables are either I(0), I(1), or a mixture of both (Cho et al., 2023).

3.2 Optimal Lag Selection

The optimal lag length for the ARDL model was determined using the Akaike Information Criterion (AIC). The selected model is ARDL(3, 2, 0), indicating that the stock market variable uses up to three lags, while oil price uses two lags and oil price uses no lags. This specification balances model parsimony with adequate capture of dynamic relationships among the variables.

3.3 Model Fit Statistic

Prior to examining the long-run and short-run relationships, the overall model fit was assessed to ensure the adequacy of the estimated ARDL model. Table X presents the model fit statistics.

Table 2. Model Fit Statistic

Statistic	Value
R-squared	0.376
Adjusted R-squared	0.260
F-statistic	3.254
Prob. F-statistic	0.019

The R-squared value of 0.376 indicates that the model explains approximately 37.6% of the variation in the Indonesian stock market. The Adjusted R-squared of 0.260 accounts for the number of predictors in the model, reflecting a moderate level of explanatory power which is acceptable given the limited number of observations and the macroeconomic nature of the variables employed. The F-statistic of 3.254 with a probability value of 0.019 confirms that the model is statistically significant at the 5% level, indicating that the independent variables jointly explain a significant portion of the variation in the dependent variable.

3.4 Bound Test

Having confirmed that all variables are stationary at first difference, a bounds test was subsequently conducted to determine whether a long-run cointegrating relationship exists among the variables

Table 2. Bound Test

Significant	Lower Bound I(0)	Upper Bound I(1)
1%	4.948	6.028
5%	3.478	4.335
10%	2.845	3.623
F statistic	6.033	

The bounds test results presented in Table 2 show that the F-statistic value of 6.033 exceeds the upper bound critical value of 4.335 at the 5% significance level. In accordance with the decision rule established by (Pesaran et al., 2001), when the computed F-statistic exceeds the upper bound I(1) critical value, the null hypothesis of no long-run relationship is rejected. These results therefore confirm the existence of a long-run cointegrating relationship among the IDX Composite, world gold prices, and world oil prices, justifying the estimation of both long-run and short-run coefficients within the ARDL framework.

3.3 Long-Run Estimation Results

Following confirmation of cointegration, the long-run coefficients were estimated using the selected ARDL model.

Table 3. Long-run coefficient of ARDL

Variables	Coefficient	Standard error	t-statistic	Probability
Oil	0.423	0.116	3.647	0.001
Gold	-0.216	0.493	-0,438	0.664

Oil prices exhibit a positive and statistically significant long-run effect on the Indonesian stock market (coeff. = 0.423; p = 0.001), suggesting that a 1% increase in world oil prices is associated with approximately a 0.42% increase in the IDX Composite in the long run. Gold prices, however, carry a negative coefficient that is statistically insignificant (coeff. = −0.216; p = 0.664), indicating no significant long-run relationship between gold prices and the Indonesian stock market.

3.3 Long-Run Estimation Results

The short-run dynamics were estimated using the Error Correction Model (ECM) derived from the ARDL specification.

Table 4. Short-run coefficient of ARDL

Variables	Coefficient	Standard error	T-statistic	Probability
COINTEQ	-0.936	0.129	-7.246	0.000
D(Gold,2)	-0,076	0,174	-0,435	0,666
D(gold(-1),2)	0,425	0.174	2,440	0.020

Note: CointEq(−1) is the Error Correction Term (ECT), not a long-run coefficient.

The Error Correction Term (ECT), labeled as CointEq(−1), carries a coefficient of −0.936 and is statistically significant (p = 0.000). The negative sign confirms the existence of a self-correcting mechanism, whereby deviations from the long-run equilibrium are corrected within the subsequent period. The magnitude of −0.936 implies that approximately 93.6% of any disequilibrium is corrected within one year, suggesting a relatively rapid speed of adjustment. This result should be interpreted with caution, however, as such a high adjustment speed in annual data may reflect the limited number of observations (n = 36) and warrants further investigation in future studies using higher-frequency data.

Regarding the short-run effects of gold prices, the contemporaneous change in gold prices D(Gold,2) is statistically insignificant (p = 0.666), indicating no immediate effect on stock market performance. However, the first lag of gold price changes D(gold(-1),2) exhibits a positive and statistically significant effect (coeff. = 0.425; p = 0.020), suggesting that gold price increases in the prior period are associated with higher stock market performance in the short run.

3.4 Diagnostic Test

To validate the robustness of the estimated ARDL model, a series of diagnostic tests were conducted.

The Jarque-Bera normality test yields a statistic of 0.159 with a probability value of 0.923, which is well above the 5% significance level, confirming that the residuals are normally distributed (Khoza & Biyase, 2024).

The Breusch-Pagan-Godfrey heteroscedasticity test produces an F-statistic of 1.870149 with a probability value of 0.1196, exceeding the 5% threshold, indicating that the null hypothesis of homoscedasticity cannot be rejected, indicating the absence of heteroscedasticity problems in the model (Magubane, 2025).

The Breusch-Godfrey LM test yields an F-statistic of 0.497 with a probability value of 0.615, which exceeds the 5% significance level, confirming the absence of serial correlation in the model residuals.

Collectively, these diagnostic results confirm that the ARDL model is well-specified and statistically valid.

3.5 Stability Model

The CUSUM and CUSUMSQ plots indicate that the cumulative sum statistics remain within the 5% critical bounds throughout the observation period. According to the stability criteria, a model is considered structurally stable when both plots do not cross the critical boundaries, suggesting the absence of parameter instability and structural breaks in the estimated model (Brown et al., 1975). These results confirm that both the short-run and long-run coefficient estimates are stable and reliable over the sample period.

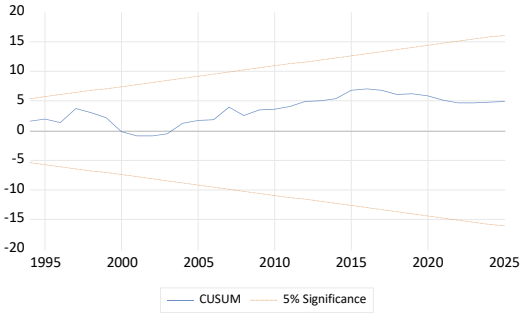

Figure 2. CUSUM

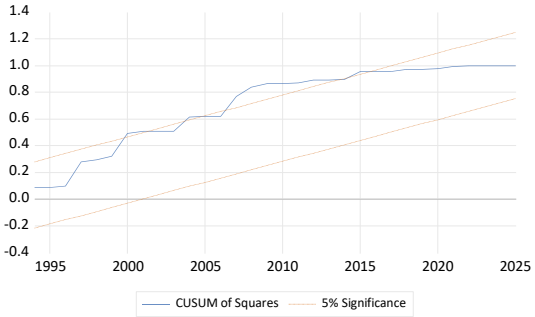

Figure 3. CUSUM of Squares

4. Discussion

The results of this study reveal that oil prices positively and significantly influence the Indonesian stock market in the long run, while gold prices do not exhibit a significant long-run impact. In the short run, gold prices positively and significantly influence stock market performance with a one-period lag. These findings are discussed in relation to prior empirical studies and Behavioral Finance theory.

Oil prices positively and significantly influence the Indonesian stock market in the long run. Although conventional economic reasoning suggests that rising oil prices increase production costs and reduce corporate profitability, thereby pressuring stock prices downward, this study finds the opposite. This can be explained by Indonesia's position as a commodity-exporting country, whereby rising oil prices improve export revenues, strengthen terms of trade, and boost the performance of resource-based sectors listed on the IDX. This finding is consistent with (Umar et al., 2021) and (Thorbecke, 2025), who report similar positive relationships in commodity-exporting economies. However, it contrasts with evidence from oil-importing economies, where rising oil prices tend to negatively affect stock markets by increasing production costs and reducing consumer purchasing power (Thi Huong Vuong et al., 2024). These contrasting results highlight the importance of considering each economy's structural

characteristics when interpreting the relationship between oil prices and stock market performance.

From the Behavioral Finance perspective, the long-run positive effect of oil prices can be partly attributed to investor sentiment and expectation formation. When oil prices rise, investors in commodity-exporting markets such as Indonesia tend to perceive this as a signal of favorable global economic conditions, leading to increased market confidence and higher stock market participation. This behavioral channel complements the fundamental economic explanation and illustrates how investor psychology amplifies the transmission of commodity price signals into stock market performance over extended time horizons.

In contrast, gold prices do not exhibit a significant long-run effect on the Indonesian stock market. This finding suggests that over an extended investment horizon, investors tend to focus more on domestic economic fundamentals and corporate performance rather than fluctuations in gold prices. This result is consistent with (Shahzad et al., 2020), who found that the relationship between gold and stock markets varies across market conditions and is not always significant in the long run. Gold primarily functions as a short-term safe-haven asset, and its influence on investor decision-making tends to diminish as market conditions stabilize and economic fundamentals reassert their dominance.

In the short run, gold prices positively and significantly influence the Indonesian stock market with a one-period lag. This implies that gold price increases in the prior period are associated with improved stock market performance in the subsequent period. A plausible explanation is that rising gold prices initially signal heightened global uncertainty, prompting investors to temporarily reallocate their portfolios toward gold as a safe-haven asset. As uncertainty subsides, investors gradually shift their funds back into equity markets, thereby driving stock prices upward in the following period. This finding differs from studies in developed markets that report a negative short-run relationship between gold and stock prices, where gold and equities serve as more direct substitutes (Madani & Ftiti, 2022). The positive lagged effect observed in Indonesia may reflect the relatively delayed behavioral response of Indonesian investors to global commodity price signals.

From the Behavioral Finance perspective, the lagged short-run effect of gold prices is consistent with the concept of investor underreaction, whereby market participants do not fully incorporate new information immediately but adjust their investment decisions gradually over time. When gold prices rise as a response to global uncertainty, Indonesian investors exhibit loss aversion behavior by prioritizing capital preservation over return maximization in the short run. As perceived risk diminishes in

the subsequent period, investors reassess their portfolios and reallocate capital back into equities, producing the positive lagged effect observed in this study. This pattern reflects the dynamic interplay between cognitive biases and market information processing that characterizes Behavioral Finance in emerging markets.

The significant and negative error correction term confirms that the Indonesian stock market self-corrects toward its long-run equilibrium following short-run deviations. The high speed of adjustment observed in this study may reflect the increasing integration of Indonesia's financial markets with global commodity markets, as well as the role of digital information dissemination in accelerating investor responses to market developments. Nevertheless, this result should be interpreted with caution given the relatively small sample size used in this study, which may influence the precision of the adjustment estimate.

The findings further suggest that commodity price movements should not be viewed merely as economic indicators. Rather, they represent financial information signals that are continuously communicated, interpreted, and incorporated into investor expectations and market responses. This perspective highlights that stock market dynamics are influenced not only by changes in economic fundamentals but also by how market participants process available information.

Taken together, the findings of this study provide empirical support for the Behavioral Finance perspective in the context of the Indonesian stock market. In the short run, investor behavior is predominantly driven by loss aversion, whereby investors prioritize capital preservation during periods of global uncertainty by reallocating their portfolios toward safe-haven assets such as gold. This behavioral pattern is further reinforced by herding behavior, in which Indonesian investors collectively follow prevailing market sentiment rather than independently evaluating fundamental information, amplifying the short-run response to gold price movements. The delayed return of investors to equity markets following periods of uncertainty is consistent with investor underreaction, reflecting the gradual and incomplete incorporation of new information into investment decisions. In the long run, however, these cognitive biases gradually diminish as investors shift their focus toward economic fundamentals, particularly oil price dynamics as a proxy for global economic conditions. This transition from sentiment-driven to fundamental-driven decision-making across investment horizons demonstrates that Behavioral Finance biases are not permanent but rather time-varying in their influence on market participants, contributing to a more nuanced understanding of stock market dynamics in emerging economies.

5. Conclusion

The R-squared value of 0.376 indicates that the model explains approximately 37.6% of the variation in the Indonesian stock market. The Adjusted R-squared of 0.260 accounts for the number of predictors in the model, reflecting a moderate level of explanatory power which is acceptable given the limited number of observations and the macroeconomic nature of the variables employed. The F-statistic of 3.254 with a probability value of 0.019 confirms that the model is statistically significant at the 5% level, indicating that the independent variables jointly explain a significant portion of the variation in the dependent variable.

Theoretically, this study contributes to the Behavioral Finance literature by demonstrating that cognitive biases, including loss aversion, herding behavior, and investor underreaction, are time-varying in their influence on market participants. These biases are more pronounced in the short run, where sentiment-driven decision-making dominates, while their influence diminishes in the long run as investors shift toward fundamental-based assessments. This finding advances the understanding of how psychological factors shape stock market dynamics in emerging economies, particularly in the context of commodity price fluctuations.

In addition, this study contributes to interdisciplinary communication research by demonstrating that commodity price information functions as a form of financial communication that shapes investor expectations and market behavior. The findings indicate that stock market dynamics are influenced not only by economic fundamentals but also by the communication and interpretation of commodity-related information among investors.

For investors, the findings suggest that gold price movements serve as a leading indicator of short-run stock market performance in Indonesia. Investors may therefore incorporate gold price trends into their short-run portfolio allocation strategies, using gold as a hedging instrument during periods of heightened global uncertainty before reallocating capital back into equities as conditions stabilize. The positive long-run relationship between oil prices and stock market performance further suggests that monitoring global energy market developments is essential for long-term investment decision-making in Indonesia's commodity-linked equity market.

For policymakers, the results underscore the importance of monitoring global commodity price shocks, particularly oil price fluctuations, as these have demonstrated a significant long-run influence on the Indonesian stock market. Regulatory authorities and financial market supervisors should consider integrating commodity price monitoring into their macroprudential frameworks to anticipate potential stock market volatility

arising from external commodity price shocks. Furthermore, policies aimed at reducing Indonesia's commodity export dependency may help moderate the vulnerability of the stock market to global oil price fluctuations over time.

This study is subject to several limitations that should be acknowledged. First, the use of annual data over a 36-year period limits the ability to capture high-frequency market dynamics and may affect the precision of the error correction estimate. Second, the model does not incorporate macroeconomic control variables such as inflation, exchange rates, or interest rates, which may constitute omitted variable bias and influence the estimated relationships. Third, the absence of direct behavioral metrics, such as investor sentiment indices or trading volume data, means that the Behavioral Finance interpretation is inferred from price dynamics rather than directly measured from investor behavior.

Future research should address these limitations by employing higher-frequency data, such as monthly or daily observations, to better capture short-run market dynamics. The inclusion of macroeconomic control variables, including inflation rates, exchange rates, and interest rates, would strengthen the robustness of the estimated relationships. Additionally, future studies may consider employing alternative econometric methodologies such as the Nonlinear ARDL (NARDL) model to capture asymmetric effects of commodity price changes, Time-Varying Parameter VAR (TVP-VAR) to account for structural changes over time, or quantile regression to examine the heterogeneous effects of gold and oil prices across different stock market conditions. Direct measurement of investor behavioral variables, such as sentiment indices derived from social media or news analytics, would also provide more rigorous empirical grounding for the Behavioral Finance interpretation advanced in this study.

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