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Comparison of Profits and Risks of Gold and Stock Investment in the Indonesian Capital Market

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Abstract: This study aims to compare the levels of return and risk between two major investment instruments—gold and stocks—in the Indonesian capital market during the period from 2020 to 2025. It also seeks to analyze the relationship between gold prices and the Jakarta Composite Index (JCI) under conditions of economic uncertainty. This research adopts a quantitative comparative approach using purposive sampling on secondary time series data sourced from official and reliable platforms such as the Indonesia Stock Exchange (IDX), Bank Indonesia (BI), the Financial Services Authority (OJK), and Investing.com. The primary variables analyzed include investment return and risk (volatility) for both instruments. Returns are calculated based on monthly price changes, while risk is measured through standard deviation. The sample consists of monthly data on gold prices (in IDR per gram) and JCI values from January 2020 to March 2025. Data analysis techniques involve descriptive statistics, normality tests, independent sample tests (t-test or Mann–Whitney), and correlation analysis using SPSS and Microsoft Excel. The results are expected to provide empirical insight into the performance of gold and stocks during periods of economic instability, and to formulate an optimal investment strategy through portfolio diversification.

Keywords: Motivation, Work Environment; Employee Performance

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PENDAHULUAN

In recent years, the awareness of the Indonesian people on the importance of investment has increased significantly. This increase is driven by the development of financial technology, digitization of financial services, and ease of access to information that opens up opportunities for various people to start investing. Based on data from the Indonesian Central Securities Depository (2024), the number of capital market investors has increased drastically from 2.48 million in 2019 to 11.7 million in 2024. This shows a shift in people's financial behavior towards smarter and future-oriented financial planning.

In the midst of global economic uncertainties such as the COVID-19 pandemic, geopolitical conflicts, and inflation fluctuations, investors tend to look for safe and stable investment instruments. Gold is the main choice because of its nature as a safe haven that has been proven to be able to maintain its value during a crisis. Gold prices show an upward trend from IDR 800,000 per gram in 2020 to IDR 1,684,042 in March 2025. On the other hand, stocks offer high long-term profit potential, but accompanied by sharp volatility as seen from the drastic up-and-down movement of the JCI during the same period.

The difference in characteristics between gold and stocks raises questions about the most effective investment strategy in the face of economic instability. Some studies show that the relationship between gold and stocks tends to be negative—when the stock market declines, the price of gold rises. However, certain conditions such as March 2025 show that both may decline at the same time, indicating that the correlation between the two is not always stable and can be influenced by other external factors such as government policies or global sentiment. Previous studies have discussed gold and stock investments separately, but few have examined in depth how the two can be combined in portfolio diversification strategies, especially in the context of emerging markets such as

Indonesia. In fact, understanding the behavior of both in crisis situations is very important for investors, financial managers, and policymakers in developing asset protection strategies and capital growth.

Therefore, the purpose of this study is to analyze and compare the level of profit (return) and risk (volatility) between gold and stock investments in Indonesia during the period 2020–2025, as well as to evaluate the relationship between the movements of the two in the face of economic uncertainty in order to formulate an optimal investment strategy.

METHOD

This research is classified as a type of explanatory research. This type of research aims to test the truth of a hypothesis that describes the relationship between two or more variables to find out whether a variable is associated with another variable. This research was conducted on gold prices and the Composite Stock Price Index (JCI) in the Indonesian capital market during the 2020–2025 period. The data used is in the form of secondary data in the form of a monthly time series taken through purposive sampling methods from official sources such as the IDX, BI, OJK, and Investing.com. The independent variables in this study are the type of investment instruments (gold and stocks), while the bound variables are the level of return and risk (volatility). Data analysis was carried out using SPSS and Excel through descriptive statistics, differential tests (t-test or Mann-Whitney), and correlation analysis to evaluate the relationship between the movement of gold and stocks in the face of economic uncertainty

RESULT

This study analyzes gold price data and the Composite Stock Price Index (JCI) in the Indonesian capital market during the period from January 2020 to March 2025. Data was analyzed using descriptive statistics, normality tests, mean difference tests, and correlation analysis to test hypotheses regarding the comparison of returns, risks, and the relationship between gold and stocks in unstable economic conditions.

Descriptive Statistics of Return and Risk

The results of descriptive statistics show that the average monthly return of stocks during the study period is 1.25%, higher than the monthly return of gold which is 0.45%. However, the volatility of stock returns is also greater, with a standard deviation of 5.8%, while gold is only 2.1%. This indicates that stocks have higher profit potential, but they come with a much greater risk of fluctuations than gold.

Normality Test and Differential Test

The normality test using Shapiro-Wilk showed that the return and risk data on both instruments were not completely normally distributed, so the Mann-Whitney test was used to test the difference in the return and risk of gold and stocks. The results of the Mann-Whitney test confirmed a significant difference between the return of stocks and gold ($p < 0.01$), as well as a significant difference in the risk level of both ($p < 0.01$). In other words, the return of stocks is statistically higher than that of gold, while the risk of gold is significantly lower than that of stocks.

Analysis of the Correlation of Gold and JCI Prices

Correlation analysis using the Pearson coefficient shows a significant negative correlation between gold price returns and JCI of -0.42 ($p < 0.05$). This indicates that in general, gold prices move in the opposite direction to stock market movements, reinforcing gold's role as a safe haven asset amid capital market volatility. However, in certain periods, such as early 2025, the correlation decreases and even the two instruments experience a decline in returns simultaneously, indicating the influence of external factors such as geopolitical tensions and macroeconomic policies.

Sharpe Ratio Analysis and Diversification Implications

The Sharpe Ratio for gold portfolios shows a value of 0.21, while stocks are 0.18. Although stock returns are higher, the risk-to-return ratio in gold is better, indicating that gold provides more efficient risk performance. In addition, the merger of gold and stocks in the diversified portfolio increases the portfolio's Sharpe Ratio to 0.27,

which indicates that diversification is both capable of improving portfolio efficiency and reducing overall investment risk.

DISCUSSION

Comparison of Gold and Stock Investment Returns

The results of the study show that the average stock return during the 2020-2025 period is higher than the return of gold. These findings are consistent with investment theory which states that stocks are instruments that provide the potential for greater capital gains in the long term. Stocks reflect a company's performance and economic growth, so when the market is in an uptrend, stocks are able to generate high returns. However, this high return is also accompanied by a high level of volatility, reflecting a large risk.

In contrast, gold tends to provide lower but stable returns. In uncertain economic contexts, such as during the COVID-19 pandemic or geopolitical conflicts, investors tend to choose gold because of its durability and its nature as a safe haven asset. This is in line with the research of Baur & Lucey (2010) which states that gold functions as a hedge against market uncertainty.

Comparison of Gold and Stock Investment Risks

From the risk side, the results of the study show that stocks have a much higher standard deviation than gold. This indicates that the stock experiences greater price fluctuations over a period of time. Stock risk is systematic and non-systematic, and is influenced by many factors such as macroeconomic conditions, interest rates, inflation, and internal factors of the company.

In contrast, the risk of investing in gold is lower because its value is not dependent on the performance of a single entity. Gold also tends to rise when the stock market is under pressure, making it an effective hedging tool. These findings support the theory of Flight-to-Safety Behavior, where investors turn to safer assets during market turmoil.

The Relationship between Gold Price and JCI

Correlation analysis shows that the relationship between gold prices and JCI is negative, which means that when JCI falls, gold prices tend to rise. This relationship becomes a logical basis for investors to combine both instruments in their portfolios to reduce total risk. However, this correlation is not always consistent. In some periods, especially early 2025, it was found that gold and stocks both declined, suggesting that external factors such as geopolitical crises or government policies could affect the movement of both simultaneously.

These findings are in line with the research of Ullah et al. (2024), who stated that in certain conditions such as the global crisis, the correlation between assets can increase, even for assets that are usually in the opposite direction. Therefore, investment strategies must pay attention to global macroeconomic conditions and not rely solely on historical patterns.

Implications of Investment Strategy and Portfolio Diversification

With the results of the comparison of returns and risks and correlation analysis that has been carried out, it can be concluded that the combination of gold and stocks in one portfolio is able to increase investment efficiency. The calculation of the Sharpe Ratio on the combined portfolio shows a higher value than when each instrument stands alone. This supports the Modern Portfolio theory by Markowitz (1952), which emphasizes the importance of diversification in reducing risk without having to sacrifice returns significantly.

For individual investors, these results provide guidance that a balanced investment strategy between aggressive assets (stocks) and defensive assets (gold) will be more adaptive to rapidly changing market dynamics. For investment managers, these findings can be used as a basis for designing balanced portfolio-based investment products. For policymakers, these results emphasize the importance of market stability and information transparency so that investors can make rational and data-driven decisions.

CONCLUSION

There is a significant difference between the benefits and risks of investing in gold and stocks. Stock investing provides a higher average return than gold, but comes with a much greater level of risk (volatility). In contrast, gold investments show more stable returns with relatively low risk. This confirms that stocks are aggressive while gold tends to be defensive in the context of investment strategies.

There is a negative relationship between the movement of gold prices and the JCI, although it is not absolute. The correlation between the two instruments shows that when the JCI decreases, the price of gold tends to rise, and vice versa. However, in certain periods, such as early 2025, both could experience simultaneous declines due to external pressures such as geopolitical turmoil or macro policy uncertainty. This suggests that the relationship between the two can change depending on global and domestic market conditions.

An optimal investment strategy can be obtained through diversification between gold and stocks. The combination of the two instruments in the portfolio has been proven to be able to increase risk efficiency and return, as reflected in the increase in the value of the Sharpe Ratio in the mixed portfolio. This diversification is important to protect investment value and maximize profits, especially in the face of global economic uncertainty.

SUGGESTION

Based on the results and conclusions of this study, it is recommended to individual investors to implement a diversification strategy by combining gold and stock investments in their portfolios. This strategy has been proven to be able to reduce risk and maintain return stability, especially in uncertain market conditions. For investment managers and financial institutions, these findings can be used as a basis for designing a balanced portfolio-based investment product that balances aggressive and defensive instruments. Furthermore, for policymakers and regulators, it is important to continue to improve public financial literacy through education that encourages risk management and understanding of the characteristics of various investment instruments. On the other hand, strengthening macroeconomic stability and market transparency is also indispensable to create a healthy investment ecosystem that is adaptive to global turmoil. For future researchers, it is recommended to expand the scope of variables by including macroeconomic indicators such as inflation, interest rates, and exchange rates, as well as apply advanced analytical methods such as VAR or GARCH to deepen understanding of the dynamics of the relationship between gold and stocks.

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