



Safe haven assets in emerging market (evidence from gold, government bonds, and crude oil in Indonesia 2019 – 2024)

Yudith Dyah Hapsari¹, Agustini Hamid²

¹Faculty of Economic and Business, Universitas Katolik Atma Jaya, Indonesia

²School of Accounting, Universitas Bina Nusantara, Jakarta, Indonesia

ARTICLE INFO

Article history:

Received Jan 5, 2026

Revised Jan 10, 2026

Accepted Feb 2, 2026

Keywords:

Crude Oil;
Gold;
Government Bonds;
Quantile Regression;
Save Have Assets.

ABSTRACT

The study investigates the Save Haven properties of Gold, West Texas Intermediate (WTI) Crude Oil and Indonesian Government Bonds with maturities of 5 and 10 years against the Indonesian stock market over the period 2019 – 2024. The period encompasses episodes of global financial stress, the COVID-19 pandemic, post-pandemic recovery, and heightened geopolitical and macroeconomic uncertainty from 2019 to 2024. Understanding safe-haven assets is crucial for investors in the Indonesian stock market, especially during periods of market turbulence. This study examines the characteristics of these assets, their link with geopolitical factors and economic stability, the influence of foreign exchange rates, and the function of diversification strategies in risk mitigation. We applied quantile regression method processed to evaluate relationship across different points of the return distribution. The results indicate that gold functions as a conditional safe-haven asset in Indonesia. Government bonds 5 years and 10 years demonstrate a maturity-dependent safe-haven attribute. Conversely, WTI crude oil serves as a significant safe haven predominantly in the later segments of the sample, notably in 2023 and 2024, while exhibiting minimal safe-haven characteristics during the initial periods. Overall, the results underscore the inherently dynamic and asset-specific nature of safe-haven effectiveness in emerging markets, demonstrating that no single asset consistently provides protection across all market scenarios in Indonesia

This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license.



Corresponding Author:

Agustini Hamid,
School of Accounting,
Finance Program,
Universitas Bina Nusantara,
Jl. Alam Sutera Boulevard No. 1 Alam Sutera – Serpong Tangerang, 15325, Indonesia
Email: AgustiniHamid@binus.ac.id

1. INTRODUCTION

The Indonesian capital market experienced a period of significant volatility and subsequent recovery between 2019 and 2024, influenced heavily by the COVID-19 pandemic, global economic dynamics, and strong domestic fundamentals. The market was relatively stable, building on its role in national economic growth (BEI, 2024). This study examines the distinctive amalgamation of concurrent financial shocks impacting Indonesia's financial markets from 2019 to 2024, a period encompassing multiple regimes of market stress rather than a single crisis episode. The time period includes the stable economy before COVID-19 (2019), the worldwide shock of COVID-19 (2020), the rise in prices and tightening of money after the pandemic (2021–2022), and the drop in currency value and capital flow volatility that followed (2023–2024). This multi-regime arrangement makes the analysis more valid and useful in the real world. The study uses a quantile regression

approach, which allows for the evaluation of asset connections across varied market conditions, especially during extreme downturns and tail events, instead of just looking at average effects. Additionally, the analysis includes variances in maturity between 5-year and 10-year bonds, offering detailed information on how safe-haven characteristics change with bond duration. The study enhances the safe-haven literature by examining the association among crude oil, bonds, and stock indexes across different stress levels. Crude oil is typically regarded as a diversifier or an inflation catalyst, it can demonstrate negative correlation with equities markets under specific extreme market conditions (Adiputro et al., 2021). This indicates that in the event of significant market downturns, oil prices may deviate from stock prices, thereby mitigating overall portfolio risk. Furthermore, in markets characterized by significant energy dependency, such as Indonesia, a hybrid energy importer/exporter profoundly affected by fluctuations in global oil prices, these structural connections become increasingly evident. Empirical research indicates that the relationships between crude oil and equity markets are nonlinear and contingent upon specific regimes, elucidating why oil may serve as a hedge during certain crises but not others.

Before the onset of the worldwide epidemic, market conditions were comparatively stable, indicative of the increasing significance of the capital market in fostering national economic development. Nonetheless, in 2020, the emergence of COVID-19 instigated a pronounced decline in the market, marked by increased uncertainty, diminished investor confidence, and a reduction in market activity. Commencing in 2021 and continuing through 2023, the Indonesian capital market embarked on a vigorous period of recovery. Market capitalization increased by 18.4% by the end of 2021, totaling approximately Rp 8,256 trillion, with the technology sector expensing the most significant growth as digital transformation accelerated amid the pandemic (Capital Market Book, 2023). The market recovery coincided with a considerable surge in investor engagement; the number of participating investors grew from approximately 2.4 million five years prior to nearly 13 million by mid-2024 (*Statistik-Bulanan-Pasar-Modal---November-2024 @ Ojk.Go.Id*, n.d.) . Notwithstanding ongoing global economic volatility, escalating geopolitical tensions, and internal political shifts, the market exhibited remarkable resilience. The Jakarta Composite Index (JCI/IHSG) maintained a positive performance and attained new historical highs at various intervals, driven by strong macroeconomic fundamentals and growing participation from domestic investors. Average daily transaction values and total market capitalization also persisted in their upward trajectory (BEI, 2024)

Simultaneously, regulatory bodies, encompassing the Financial Services Authority (OJK) and the Indonesia Stock Exchange (IDX), augmented their endeavors to enhance market depth by introducing innovative instruments such as carbon trading and fostering Environmental, Social, and Governance (ESG) initiatives (*Statistik-Bulanan-Pasar-Modal---November-2024 @ Ojk.Go.Id*, n.d.) . Nevertheless, the heightened volatility experienced during the pandemic and subsequent global shocks highlights the critical significance of understanding how investors safeguard portfolio value during times of intense market turbulence. Although the post-crisis recovery underscores the resilience of the Indonesian capital market, episodes of severe downturns especially in 2020 prompt important concerns concerning the accessibility and efficacy of safe-haven assets within an emerging market framework. Consequently, identifying assets that maintain value or demonstrate limited or inverse correlation with the Indonesia composite index (idx) during periods of economic instability is crucial for portfolio diversification, risk mitigation, and policy development (Hamid & Arshanty, 2022)

In financial theory, a safe-haven asset is defined as an asset that maintains its value or exhibits negative dependence on risky assets specifically during periods of market stress. This definition distinguishes safe havens from hedging assets, which may display negative correlation on average but fail to provide protection during extreme downturns. Consequently, identifying safe-haven assets requires methodological approaches that focus explicitly on tail risk rather than average market behavior (Dimitriou et al., 2025). Safe-haven investments are assets that remain relatively safe and still offer attractive returns for investors during periods of turmoil in the capital market, so when stock prices fall investors tend to shift their funds from shares into these assets to preserve their investment value. Safe Haven analysis is the evaluation of assets to determine their ability to retain or gain value during periods of market distress. Unlike a hedge, which correlates

negatively with other assets on average, a haven must specifically exhibit low or negative correlation during extreme market shocks (Uğurlu, 2025). The classic examples of safe-haven assets include gold, certain sovereign currencies (such as the US Dollar, Japanese Yen, and Swiss Franc), and specific high-grade government bonds (like US Treasuries). These assets are often sought by investors looking to protect their portfolios from the volatility and downturns associated with riskier assets like equities (Niveditha, 2025).

Several studies indicate that gold functions as a conditional safe-haven asset but does not consistently provide protection across all market conditions. Gold is widely recognized in financial theory and empirical research as a Safe Haven asset an investment that retains or increases in value during periods of market stress, financial uncertainty, or economic downturns (K. S, 2025). Gold is a Safe Haven asset against the stock index and government bonds during the COVID-19 pandemic period (Widjaja et al., 2024). During the COVID-19 sub-period, gold acted as a weak safe haven in Pakistan and Thailand, while it served as a strong safe haven in China, Indonesia, Singapore, and Vietnam. Findings from other studies discussing weak and strong safe-haven assets also indicate that, in several Asian countries during the COVID-19 outbreak, gold provided protection for investors and portfolio managers against losses. Other study found that gold acts as a weak hedge and when the market is bearish and conducted on G7 stocks proves that gold can become a hedge rather than bitcoin and gold served as a robust Safe Haven for Indonesian mining stocks (JASICA index) during extreme shocks in the pandemic period, using Quantile Regression and GARCH models. Gold can be a haven asset in the Chinese market when market returns are below the 1%, 5%, and 10% quantiles (Gutama et al., 2025, Nia et al., 2025, Feder-Sempach et al., 2024, Le Thi Thuy et al., 2024, Dung et al., 2023, Ming et al., 2023, Wijaya et al., 2022, Adekoya et al., 2021, Yousaf et al., 2021 Salisu et al., 2021 Manuj, 2021, Hussain Shahzad et al., 2020, Robiyanto, Nugroho, Handriani, et al., 2020, Pemayun, 2020, Wu et al., 2019)

Government and high-grade bonds are often considered Safe Haven assets because their relatively low credit risk, predictable cash flows, and liquidity make them attractive to investors during periods of heightened uncertainty or equity market declines (Nahiduzzaman et al., 2025). This *flight-to-quality* behavior is well documented in both academic finance and empirical studies. In the ASEAN and Indonesian context, quantile regression analysis shows that while government bonds may not always exhibit strong Safe Haven properties, they function effectively as hedges or portfolio diversifiers that reduce exposure to equity market risk (Nahiduzzaman et al., 2025). International literature further demonstrates that government bonds tend to hold value or appreciate relative to stocks during macroeconomic downturns, reinforcing their role as safer assets in diversified portfolio. A study also found that bonds can serve as hedges and diversifiers during periods of market stress; in some markets external to Indonesia, the articles even displayed Safe Haven characteristics. In the Indonesian case, government bonds were classified more as diversifiers than strong Safe Haven assets, though they still help reduce portfolio risk relative to equities. This finding supports the broader theoretical point that fixed-income securities are viewed as safer than equities in turbulent times, even if they do not always fulfill a strict Safe Haven role in every market, particularly emerging ones (Asean- et al., 2021). Arif et al., 2022 found that the green bond variable serves as a diversification asset for equity investors with medium- and long-term investment horizons, and green bonds also act as a hedging tool and safe haven for investments in currencies and commodities. Hartono and Robiyanto et al., 2021 using the quantile regression model in their research stated that gold and government bonds could not be a Safe Haven before the COVID-19 pandemic period. The results suggest that government bonds only diversify the composite stock index during the COVID-19 pandemic period. Cheema et al., 2025 found that government bonds tend to be effective Safe Haven assets during market declines driven by financial or macroeconomic shocks, especially when inflation and interest rates are low, leading investors to shift into safe fixed-income assets.

WTI could be the potential Safe Haven asset due to flight-to-commodity behavior. When equity markets are under stress, especially during global systemic crises (e.g., financial crises, pandemics, geopolitical shocks), investors often reallocate capital into alternative assets that are perceived as less correlated with stocks (Cheema et al., 2025). Oil, particularly when represented by liquid futures markets like West Texas Intermediate (WTI), may offer diversification benefits in

investment portfolios due to its potential to move differently than stock indices, particularly during periods of increased risk aversion (Heema et al., 2025). Oil may offer temporary risk mitigation during stock market declines primarily due to its potential for low or negative correlation with equity markets in the short term, its high liquidity, and its role in an investor's pursuit of diversification and a safe-haven asset during times of economic uncertainty (Xu et al., 2020). Adiputri & Robiyanto, 2021 found that crude oil (WTI) can be a Safe Haven against the LQ45 index before and during the COVID-19 pandemic period.

This research investigates this matter by analyzing the effectiveness of gold, WTI, 5 and 10-year government bonds as a Safe Haven asset from 2019 until 2024 within the Indonesian capital market during times of market volatility. This period was chosen to represent encompassing episodes of global financial stress, the COVID-19 pandemic, post-pandemic recovery, and heightened geopolitical and macroeconomic.

The persistent discourse concerning the optimal Safe Haven assets continues to be a central theme in financial research. This study enhances the current literature by examining the relationship between diverse safe havens and Indonesian stock indexes from 2019 to 2024 through the application of the quantile regression model. This study seeks to offer insights for investors concerning the performance of diverse Safe Haven assets throughout the specified period of economic instability.

2. RESEARCH METHOD

This study investigates the Safe Haven performance of Gold, WTI crude oil, 5-year and 10-year government bonds against Indonesia stock indices. The methodology consists of data collection, processing and analysing using quantile regression because the method is used to look at how assets behave in different levels of market stress. A negative and statistically significant coefficient $\beta(\tau)$ shows that the Safe Haven asset and stock market profits go down when the market is stressed. The study accentuate on the 0.1, 0.2, and 0.3 quantiles to represent a range of moderate to severe negative market conditions, rather than relying solely on extreme lower quantiles such as 0.05, which primarily reflect exceptional market crashes like the March 2020 COVID-19 shock. The research utilizes daily return time-series data for each asset covering the period from January 1, 2019, to December 31, 2024. This timeframe encompasses multiple episodes of global and regional financial turbulence, including the COVID-19 pandemic, the Russia–Ukraine conflict, the global inflation surge, and the Israel– Hamas conflict, allowing for a comprehensive evaluation of safe haven properties across different market regimes. Data were obtained from the Reuters (LSEG) terminal and Investing.com.

Table 1. Operational variables

Variables	Measurement
Gold	Return $\text{GoldPrice}_t = (\text{GoldPrice}_t - \text{GoldPrice}_{t-1}) / \text{GoldPrice}_{t-1}$
Crude Oil (WTI)	Return $\text{OilPrice}_t = (\text{OilPrice}_t - \text{OilPrice}_{t-1}) / \text{OilPrice}_{t-1}$
Government Bonds	Return $\text{BondsPrice}_t = (\text{BondsPrice}_t - \text{BondsPrice}_{t-1}) / \text{BondsPrice}_{t-1}$
JCI	Return $\text{IHSG}_t = (\text{IHSG}_t - \text{IHSG}_{t-1}) / \text{IHSG}_{t-1}$

Quantile regression is an analysis method that have been used by numerous previous study (Ben Ameur et al., 2024; Eleuch et al., 2025; Irani et al., 2025) to test the ability of assets as safe havens, hedges, and diversifiers under varying market conditions by estimating the mean effect of independent variables on the dependent variable. Quantile regression allows researchers to examine the relationship across multiple quantiles of the distribution. The quantile regression model is specified as:

$$Q_{Y_t}(\tau | X_t) = \alpha(\tau) + \beta(\tau)X_t + \varepsilon_t$$

Where:

- $Q_{Y_t}(\tau | X_t)$ is the conditional quantile (τ) of the stock index return Y_t given the return of the Safe Haven asset X_t
- $\tau \in \{0.1, 0.2, 0.3\}$ represents the lower quantiles, capturing stress periods in financial markets
- $\alpha(\tau)$ is the quantile-specific intercept
- $\beta(\tau)$ is the quantile-specific slope coefficient

- ϵ_t is the error term

A negative and statistically significant $\beta(\tau)$ suggests that the Safe Haven asset is inversely related to the stock index during downturn. This research utilizes the use of 0.1, 0.2, and 0.3 quantile to capture a broader range of significant but also diverse negative market conditions during 2020–2024 period instead of utilizing an even lower quantile such as 0.05 that generally only been used to analyse extreme market crash like March 2020 Covid crash.

3. RESULTS AND DISCUSSIONS

Gold

As shown in table 2. Gold could be a significant Safe Haven in Indonesia in 2019, 2020, and 2024 while 2021 – 2023 not significant. In 2020, Indonesia Composite Stock Price Index (JCI) indices have significant negative coefficient, indicating that the decline indices correspond to an increase in gold prices, which strengthens the gold as the Safe Haven asset at lower quantile one (0.1) or when the very bad days of market. To deliver substantial, investor-relevant insights, researchers ought to augment p-values with metrics of economic importance, risk contribution, and regime-specific effects. Such measurements not only determine the existence of a link but also assess its economic significance, especially in turbulent markets such as Indonesia's. Quantile one almost always showing the strongest Safe Haven effect. Therefore, the results change slightly at middle quantiles (0.2) when the market is not as bad as (0.1) quantiles, where the significant level slightly decreases. Conventionally gold is considered a hedge against inflation, a source of wealth, and as a safe investment, especially when the tock market is experiencing a period of fluctuation (Boubaker et al., 2020; Valadkhani et al., 2022). The empirical results highlight the conditional and regime-dependent characteristics of Safe Haven assets within Indonesia's equity market. The statistically strong negative correlation between gold and stock returns at lower quantiles, especially during times of severe market distress, indicates that its protective role is engaged selectively rather than consistently. These results have clear effects on both investors and portfolio managers. Using gold as a consistent hedge may make it harder to diversify in normal or moderately volatile market conditions. Instead, gold should be seen as a conditional hedge that is mostly used to protect against tail risk when the market is under a lot of stress. In a broader sense, the results show how important nonlinear, distribution-sensitive methods like quantile regression are for measuring asset resilience, especially in developing markets that are structurally weak and have short-term financial instability. From a regulatory point of view, the evidence shows that we need to keep a careful eye on how different assets affect each other during times of stress. Changes in the effectiveness of safe havens can affect capital flows, market stability, and the spread of systemic risk.

Regional dynamics and the role of external factors such as the pandemic and global monetary policy also affect the sensitivity of gold price changes IDX. It can be concluded that the effect of stock indices on gold prices varies depending on the conditions of the distribution of gold price returns as analyzed by (Zwak-Cantoriu, 2023).

Table 2. Quantile regression results gold as a safe haven against IDX

Gold	Percentiles	Beta	Probability
2019	0.1	-0.180070*	0.1259
	0.2	-0.098563*	0.3331
	0.3	0.051290	0.6328
2020	0.1	-0.101888**	0.0070
	0.2	-0.058309*	0.4865
	0.3	-0.045658*	0.5752
2021	0.1	0.063475	0.6048
	0.2	0.140168	0.0927
	0.3	0.129294	0.0833
2022	0.1	0.238327	0.0167
	0.2	0.066437	0.4708
	0.3	0.057717	0.04887
2023	0.1	0.128244	0.1543
	0.2	0.008673	0.9423
	0.3	0.054176	0.054176
2024	0.1	0.145967	0.3289

Gold	Percentiles	Beta	Probability
	0.2	0.051241	0.6935
	0.3	-0.044608*	0.6704

Note: ***, **, * stands for high significant, significant, weak significant.

Source: Eviews 13 result

Government Bonds for 5 years and 10 years

As shown on table 3, result show that 5-year government bonds have the potential to be a Safe Haven for JCI indices, while having high consistency across markets and periods. Five-year bonds could be a significant Safe Haven 2019, 2020, and 2022 in all quantiles and not significant Safe Haven in 2021, 2023, and 2024. It shows that this role in periods is not fixed but contextual and dependent on market dynamics. Government bonds were classified more as diversifiers than strong Save Haven because it reduces portfolio risk relative to equities. This finding supports the broader theoretical point that fixed income securities are viewed as safer than equities in turbulent times.

Table 3. Quantile regression results 5Y Indonesian government bond as a safe haven against IDX

Bonds 5 years	Percentiles	Beta	Probability
2019	0.1	-0.340206**	0.0056
	0.2	-0.409281**	0.0000
	0.3	-0.283258**	0.0010
2020	0.1	-0.101888**	0.0000
	0.2	-0.058309*	0.0000
	0.3	-0.045658*	0.0000
2021	0.1	-0.051756*	0.7373
	0.2	0.005346	0.9265
	0.3	0.129294	0.8288
2022	0.1	-0.039334**	0.7758
	0.2	-0.224400*	0.0073
	0.3	-0.165151*	0.0324
2023	0.1	-0.019428*	0.8742
	0.2	0.035104	0.6996
	0.3	0.084938	0.3511
2024	0.1	-0.002781	0.9735
	0.2	0.046836	0.5166
	0.3	0.002142	0.9782

Note: ***, **, * stands for high significant, significant, weak significant.

Source: Eviews 13 result

Government bonds 10 years could be a Safe Haven for certain markets and periods. As shown in table 4, Ten-year bonds have the potential to be a significant Safe Haven in all quantile 2019, 2020, and 2022 but not significant in 2021, 2023, and 2024. This mainly happened because these countries were dealing with serious economic challenges throughout the 2020 to 2024 period. This mainly happened because these countries were dealing with great economic challenges throughout those periods. Since 2020, the correlation between bonds and equities has increased dramatically once negative, bond volatility has spiked, undermining their defensive role (544256925742d496d53961f5bf3001612579ec75 @ Wwww.Reuters.Com, n.d.). Therefore, the hypothesis that 10-year government bonds act as a Safe Haven against the stock. Government bonds are one of the investment instruments that are targeted by investors because they are guaranteed by the state so that they are protected from the risk of default (Statistic Idx December 2025.Pdf, n.d.). The results of research by (Arif et al., 2022) the green bond variable serves as a diversification asset for equity investors with medium- and long-term investment horizons, and green bonds also act as a hedging tool and safe haven for investments in currencies and commodities. Bond prices can move quickly and significantly without being solely influenced by stock prices, thus indicating that bonds can act as a Safe Haven against stock market movements. During COVID-19 itself, government bonds still maintain a safe haven role as evidenced by research by (*Navigating-Economic-Storms-Deciphering-the-Bond-Market-in-Times-of-Uncertainty* @ Bookmap.Com, n.d.) Therefore, investors can still use government bonds as a hedge against the risk of financial market uncertainty amid a pandemic.

Table 4. Quantile regression results 10Y Indonesian government bonds as a safe haven against IDX

Bonds 10 years	Percentiles	Beta	Probability
2019	0.1	-0.403933**	0.0008
	0.2	-0.318622**	0.0090
	0.3	0.279609**	0.0021
2020	0.1	-0.21882**	0.0008
	0.2	-0.176163*	0.0881
	0.3	-0.146764*	0.0000
2021	0.1	-0.072382*	0.5566
	0.2	-0.121776**	0.0175
	0.3	-0.098143**	0.0201
2022	0.1	-0.121180**	0.0611
	0.2	-0.140011**	0.0658
	0.3	-0.040737*	0.5196
2023	0.1	0.016327*	0.08740
	0.2	0.004528	0.09612
	0.3	0.0018956	0.08438
2024	0.1	0.051354	0.4929
	0.2	0.022471	0.6926
	0.3	-0.24748*	0.7589

Note: ***, **, * stands for high significant, significant, weak significant.

Source: *Eviews 13 result*

West Texas Intermediate (WTI) Crude Oil

WTI became a significant Safe Haven only in 2023 and 2024, and not significant in 2019. As shown on table 5, crude oil is an influential commodity in the global economy. For countries, the existence of crude oil is very important to improve the national economy. WTI crude oil prices are often used as a reference for global oil prices (Suoth & Rumengan, 2023). Research by (Assifuah-Nunoo et al., 2022) found that when the market is bearish, oil acts as a Safe Haven against the Nairobi Stock Exchange. For an oil-importing country like Kenya, this result is important as it shows the choices made by investors during extreme market conditions. Research conducted by Adiputri and Robiyanto (2021) shows that crude oil (WTI) during the COVID-19 pandemic can be used as a safe-haven asset against the LQ45 index, both before and during the COVID-19 period.

Meanwhile, Ji et al. (2020) explain that crude oil commodities provide a safe-haven role for equity indices under normal market conditions, but the effectiveness of this role decreases when entering the COVID-19 period. These results are consistent with the findings of Yousaf et al. (2021), who found that the correlation between WTI and the stock market can shift from positive to negative, especially when there is market stress and high oil price volatility. In addition, the role of oil as a Safe Haven is not always consistent across countries, where oil is only effective as a Safe Haven in certain emerging markets, while in developed countries it can amplify market risk. This leads to the conclusion that the dynamics of global energy and financial markets are heavily influenced by changing geopolitical and macroeconomic conditions (Fund, 2025).

Table 5. Quantile regression results WTI as a safe haven against IDX

WTI	Percentiles	Beta	Probability
2019	0.1	-0.512059*	0.1208
	0.2	0.177542	0.5116
	0.3	0.443054	0.0133
2020	0.1	0.446500	0.2714
	0.2	0.432239	0.0017
	0.3	0.317735	0.0296
2021	0.1	0.213467	0.3163
	0.2	0.601087	0.0027
	0.3	0.593680	0.0050
2022	0.1	0.445850	0.2405
	0.2	0.499797	0.1729
	0.3	0.559510	0.0989
2023	0.1	-0.654953*	0.0125
	0.2	-0.2496697*	0.3925
	0.3	-0.018459*	0.9519

WTI	Percentiles	Beta	Probability
2024	0.1	-0.665190**	0.0156
	0.2	-0.286353*	0.2352
	0.3	-0.198600*	0.342

Note: ***, **, * stands for high significant, significant, weak significant.

Source: *Eviews 13 result*

4. CONCLUSION

The results of the study on the performance of Gold, Government Bonds for 5 and 10 years as Safe Haven Assets for the Indonesia Composite Stock Price Index (JCI) rates in 2024 show an interesting result. Gold functions as a conditional Safe Haven asset in Indonesia. Government bonds 5 years and 10 years demonstrate a maturity dependent safe-haven attribute. Conversely, WTI crude oil serves as a significant safe haven predominantly in the later segments of the sample, notably in 2023 and 2024, while exhibiting minimal safe-haven characteristics during the initial periods. Overall, the results underscore the inherently dynamic and asset-specific nature of safe-haven effectiveness in emerging markets, demonstrating that no single asset consistently provides protection across all market scenarios in Indonesia.

The results show that Indonesian investors should move toward a regime dependent portfolio allocation strategy, in which choices about asset allocation are based on current market conditions rather than past averages. Gold generally serves as a tail-risk hedge, demonstrating protective characteristics during instances of diminished equities returns or heightened market volatility. In typical market situations, gold's connection with stocks is inconsistent or minimal, indicating that excessive allocation may diminish portfolio efficiency. Government bonds exhibit maturity-dependent Safe Haven attributes 5-year bonds ensure capital preservation with reduced duration risk amid increased uncertainty, whereas 10-year bonds deliver enhanced downside protection during significant market downturns but are susceptible during stringent monetary tightening phases. WTI crude oil demonstrates sporadic Safe Haven characteristics, functioning as a hedge solely during extreme tail-risk events caused by energy supply interruptions, but otherwise behaving as a pro-cyclical asset that increases portfolio volatility. In Indonesia, Safe Haven behavior is conditional, asymmetric, and particular to regimes, underscoring the necessity of nonlinear asset allocation frameworks. Some of the shortcomings of this study include the exclusion of important macroeconomic and risk control variables, the subjective selection of quantile thresholds without clear theoretical crisis benchmarks, and the simplified measurement of bond returns. These constraints may induce specification bias and restrict the accuracy of tail-risk inference. Future studies should utilize panel quantile regression models with enhanced bond return definitions, augmented control variables, and extreme quantile methodologies, supplemented by connectedness or spillover analysis. Such additions would provide a more thorough evaluation of heterogeneous risk pricing and cross-asset dynamics across market regimes, consistent with current developments in quantile econometrics.

The main constraints of this study emerge from the operational definition of bond returns, the arbitrary selection of quantile thresholds without alignment to theoretical crisis indicators, and the lack of control variables that account for essential macroeconomic and risk factors. Such limitations can lead to omitted variable bias, mis-specified return measures, and incomplete tail behavior inference. The most suitable research design to address these issues is a panel quantile regression model featuring accurately specified bond return measures and extensive control variables, augmented by tail-focused extreme quantile methods and connectedness analysis approaches. This design is supported by advances in quantile econometrics that emphasize heterogeneous risk pricing across market regimes. Recommendations for more research include examining the potential of various assets, such as alternative precious metals, commodities, and robust, stable currencies. Suggestions for further research are to consider the ability of other assets such as different precious metals, commodities and strong and stable currencies.

REFERENCES

- 544256925742d496d53961f5bf3001612579ec75 @ www.reuters.com. (n.d.).
<https://www.reuters.com/markets/rates-bonds/navigating-brave-new-world-bond-investing-taasha-wang-2025-01-13/#:~:text=First%2C bonds help offset portfolio,to bonds appears seriously flawed.>

- Adiputri, B. L., & Robiyanto, R. (2021). Oil, Exchange Rate, and Dollar Index as Safe Haven in The Period Before and During Covid-19 Pandemic: Examination in Indonesian Capital Market. *Jurnal Bisnis Strategi*, 30(1), 12–25. <https://doi.org/10.14710/jbs.30.1.12-25>
- Arif, M., Naeem, M. A., Farid, S., Nepal, R., & Jamasb, T. (2022). Diversifier or more? Hedge and safe haven properties of green bonds during COVID-19. *Energy Policy*, 168(October 2021), 113102. <https://doi.org/10.1016/j.enpol.2022.113102>
- Asean-, P. P. C.-D. I., Elvina, G., Siahaan, D., Robiyanto, R., & Wacana, K. S. (2021). *OBLIGASI SEBAGAI SAFE HAVEN SAAT MARKET CRASH: Bursa Efek Singapura . Bursa Efek Singapura . 23(1)*, 1–9. <https://doi.org/10.9744/jmk.23.1.1>
- Assifuah-Nunoo, E., Junior, P. O., Adam, A. M., & Bossman, A. (2022). Assessing the safe haven properties of oil in African stock markets amid the COVID-19 pandemic: a quantile regression analysis. *Quantitative Finance and Economics*, 6(2), 244–269. <https://doi.org/10.3934/qfe.2022011>
- BEI. (2024). *Indonesia Stock Exchange Activities - November 2024*. 2–7. <https://www.idx.id/id/data-pasar/laporan-statistik/digital-statistic/monthly/idx-trading-activities/indonesia-stock-exchange-activities?filter=eyJ5JZWfYlJoiMjAyNCIsIm1vbnRlJoiMTEiLCJxdWYdGVyIjowLj0eXBllJoiW9udGhseSJ9>
- Ben Ameer, H., Jamaani, F., & N. Abu Alfoul, M. (2024). Examining the safe-haven and hedge capabilities of gold and cryptocurrencies: A GARCH and regression quantiles approach in geopolitical and market extremes. *Heliyon*, 10(22), e40400. <https://doi.org/10.1016/j.heliyon.2024.e40400>
- Boubaker, H., Cunado, J., Gil-Alana, L. A., & Gupta, R. (2020). Global crises and gold as a safe haven: Evidence from over seven and a half centuries of data. *Physica A: Statistical Mechanics and Its Applications*, 540, 123093. <https://doi.org/10.1016/j.physa.2019.123093>
- Cheema, M. A., Ryan, M., & Sarwar, S. M. (2025). Which assets are safe havens? Evidence from 13 stock market downturns. *International Review of Economics and Finance*, 102(December 2024), 104364. <https://doi.org/10.1016/j.iref.2025.104364>
- Dimitriou, D., Tsioutsios, A., & Corbet, S. (2025). Analysing art as a safe-haven asset in times of crisis. *International Review of Financial Analysis*, 104(PA), 104194. <https://doi.org/10.1016/j.irfa.2025.104194>
- Dung, P. T. N., Long, L. K., Trang, L. N. T., & Nhan, D. T. T. (2023). Safe Haven for Asian Equity Markets During Financial Distress: Bitcoin Versus Gold. *Acta Informatica Pragensia*, 12(2), 400–418. <https://doi.org/10.18267/j.aip.224>
- Eleuch, M., Souissi, N., & Mroua, M. (2025). Does the crisis period affect the properties of various financial assets: evidence from G7, BRIC, GCC countries. *Cogent Business and Management*, 12(1). <https://doi.org/10.1080/23311975.2025.2451132>
- Feder-Sempach, E., Szczepocki, P., & Bogoleńska, J. (2024). Global uncertainty and potential shelters: gold, bitcoin, and currencies as weak and strong safe havens for main world stock markets. *Financial Innovation*, 10(1). <https://doi.org/10.1186/s40854-023-00589-w>
- Fund, I. M. (2025). Geopolitical Risks: Implications for Asset Prices and Financial Stability. *Global Financial Stability Report, April 2025, 2024*(April). <https://doi.org/10.5089/9798229003261.082.ch002>
- Gutama, Z. A., Setyahuni, S. W., Safitri, M., & Puspitasari, D. (2025). Penguujian Peran Emas dan Bitcoin Sebagai Aset Safe Haven: Stabilitas vsSpekulasi. *Jurnal Maneksi (Management Ekonomi Dan Akuntansi)*, 14(3), 1242–1253. <https://doi.org/10.31959/jm.v14i3.3244>
- Hamid, A., & Arshanty, R. (2022). the Comparative Analysis of Financial Performance and Trading Volume During Mers and Covid-19 on the Indonesia and Malaysia Stock Exchange. *Journal of Applied Finance & Accounting*, 8(2), 83–95. <https://doi.org/10.21512/jafa.v8i2.8153>
- Hussain Shahzad, S. J., Bouri, E., Roubaud, D., & Kristoufek, L. (2020). Safe haven, hedge and diversification for G7 stock markets: Gold versus bitcoin. *Economic Modelling*, 87(July 2019), 212–224. <https://doi.org/10.1016/j.econmod.2019.07.023>
- Irani, F., Al.Al. Haddood, A., Gökmenoğlu, K. K., & Athari, S. A. (2025). Impact of Financial Market uncertainty and Financial Crises on Dynamic Stock—Foreign Exchange Market Correlations: A New Perspective. *SAGE Open*, 15(1). <https://doi.org/10.1177/21582440251314719>
- Ji, Q., Zhang, D., & Zhao, Y. (2020). *Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID- 19 . The COVID-19 resource centre is hosted on Elsevier Connect , the company ' s public news and information website . Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories , such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source . These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active . Searching for safe-haven assets during the COVID-19 pandemic. January.*
- K. S, D. S. (2025). The Role Of Gold As A Safe Haven Asset During Financial Crises: Evidence From The

- Covid-19 Pandemic & The 2008 Global Financial Crises. *Journal of Asia Entrepreneurship and Sustainability*, 21(2), 19–24. <https://doi.org/10.53555/jaes.v21i2.23>
- Le Thi Thuy, V., Oanh, T. T. K., & Ha, N. T. H. (2024). The roles of gold, US dollar, and bitcoin as safe-haven assets in times of crisis. *Cogent Economics and Finance*, 12(1). <https://doi.org/10.1080/23322039.2024.2322876>
- Nahiduzzaman, M., Shabbir, R., Kuri, B. C., Dhar, B. K., & Roy, A. (2025). Financial Volatility Spillovers and Risk Dynamics in Global Tourism: Evidence From Equity and Bond Markets. *Thunderbird International Business Review*, 1–29. <https://doi.org/10.1002/tie.70031>
- navigating-economic-storms-deciphering-the-bond-market-in-times-of-uncertainty @ bookmap.com*. (n.d.). <https://bookmap.com/blog/navigating-economic-storms-deciphering-the-bond-market-in-times-of-uncertainty>
- Niveditha, P. S. (2025). Identifying Safe Haven Assets: Evidence from Fractal Market Hypothesis. *Computational Economics*, 65(1), 313–335. <https://doi.org/10.1007/s10614-024-10572-x>
- Robiyanto, R., Nugroho, B. A., Handriani, E., & Huruta, A. D. (2020). Hedge effectiveness of put replication, gold, and oil on ASEAN-5 equities. *Financial Innovation*, 6(1). <https://doi.org/10.1186/s40854-020-00199-w>
- Statistic idx December 2025.pdf*. (n.d.).
- Statistik-Bulanan-Pasar-Modal---November-2024 @ ojk.go.id*. (n.d.). <https://ojk.go.id/id/kanal/pasar-modal/data-dan-statistik/statistik-pasar-modal/Pages/Statistik-Bulanan-Pasar-Modal---November-2024.aspx>
- Suoth, C. M., & Rumengan, F. C. T. (2023). The relationship between oil prices and energy sector stocks in the global recession issue. *The Contrarian : Finance, Accounting, and Business Research*, 2(2), 36–40. <https://doi.org/10.58784/cfabr.25>
- Uğurlu, E. (2025). Quantile-Based Safe Haven Analysis and Risk Interactions Between Green and Dirty Energy Futures. *Risks*, 13(8). <https://doi.org/10.3390/risks13080159>
- Valadkhani, A., Nguyen, J., & Chiah, M. (2022). When is gold an effective hedge against inflation? *Resources Policy*, 79(January), 103009. <https://doi.org/10.1016/j.resourpol.2022.103009>
- Widjaja, M., Gaby, & Havidz, S. A. H. (2024). Are gold and cryptocurrency a safe haven for stocks and bonds? Conventional vs Islamic markets during the COVID-19 pandemic. *European Journal of Management and Business Economics*, 33(1), 96–115. <https://doi.org/10.1108/EJMBE-05-2022-0135>
- Wijaya, C. A., & Ulpah, M. (2022). The Analysis of the Roles of Bitcoin, Ethereum, and Gold as Hedge and Safe-Haven Assets on the Indonesian Stock Market before and during the COVID-19 Pandemic. *The Indonesian Capital Market Review*, 14(1), 51–62. <https://doi.org/10.21002/icmr.v14i1.1140>
- Wu, S., Tong, M., Yang, Z., & Derbali, A. (2019). Does gold or Bitcoin hedge economic policy uncertainty? *Finance Research Letters*, 31(April), 171–178. <https://doi.org/10.1016/j.frl.2019.04.001>
- Xilong, P. (2025). Capital Market. *Dictionary of Contemporary Chinese Economics*, 1764–1765. https://doi.org/10.1007/978-981-97-4036-9_891
- Xu, S., Du, Z., & Zhang, H. (2020). Can crude oil serve as a hedging asset for underlying securities?-research on the heterogenous correlation between crude oil and stock index. *Energies*, 13(12). <https://doi.org/10.3390/en13123139>
- Yousaf, I., Bouri, E., Ali, S., & Azoury, N. (2021). Gold against Asian Stock Markets during the COVID-19 Outbreak. *Journal of Risk and Financial Management*, 14(4). <https://doi.org/10.3390/jrfm14040186>
- Zwak-Cantoriu, M.-C. (2023). A Study of the Relationship Between the Gold Price, the Exchange Rate and the Stock Market Index Returns during the Current Crisis Period using DCC-GARCH and VAR DCC-GARCH Models. Comparative Analysis of Romania and Poland. *Geopolitical Perspectives and Technological Challenges for Sustainable Growth in the 21st Century*, 652–662. <https://doi.org/10.2478/9788367405546-060>