Safe haven or risky bet? A study of gold prices during Indian stock market volatility

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Abstract

The purpose of this study was to investigate whether gold served as a safe haven or a risky asset during periods of heightened volatility in the Indian stock market. Given India's cultural and economic attachment to gold, this study explored the dynamic relationship between gold prices and stock market fluctuations, particularly during times of financial uncertainty. Using daily data from 2005 to 2023, the research employed GARCH (1,1), EGARCH (1,1), and DCC-GARCH models to analyze both the unconditional and time-varying correlations between gold returns and Nifty 50 returns. The findings revealed that gold exhibited significant safe-haven characteristics during extreme market downturns, offering protection to investors against stock market losses, with strong volatility persistence in both markets and significant leverage effects in the stock market. The DCC-GARCH model showed that gold exhibited a negative correlation with equities, particularly during periods of global financial crisis (2008–09), COVID-19 crash (2020), and Russia-Ukraine conflict (2022), confirming its role as a safe haven. The practical implications of this study are particularly relevant for investors, portfolio managers, and policymakers. Investors can use gold as an effective diversification tool to mitigate stock market risk, while policymakers can monitor gold price movements as indicators of investor sentiment and financial stability. The study contributed to the understanding of gold's dual role in the Indian financial system as both a safe-haven asset and a speculative instrument, depending on market conditions.

Keywords: Crisis period, GARCH models, gold prices, safe haven, stock market volatility.

Contents

Contribution of this paper to the literature
This study documents that its originality lies in the application of advanced volatility models (GARCH, EGARCH, and DCC-GARCH) to Indian market data. It focuses on the time-varying safe-haven behavior of gold during different phases of market stress, thereby providing a nuanced, crisis-specific perspective that was absent in prior Indian empirical research.

1. Introduction

In the complex design of global financial markets, investors constantly seek assets that can preserve value during turbulent times. Among the wide array of financial instruments, gold has historically maintained a reputation as a "safe haven" asset. This perception is largely rooted in its historical performance, intrinsic value, limited supply, and psychological appeal as a store of wealth during times of uncertainty and economic distress (Baur & Lucey, 2010). As global markets become increasingly integrated and volatile, the need to understand the role of gold in relation to stock markets becomes more relevant than ever, especially in emerging economies like India. India is among the world's largest consumers of gold, both in physical and financial forms. Culturally embedded in the traditions, rituals, and personal finance of Indian households, gold has been more than just a commodity; it serves as a form of informal savings and wealth preservation tool across generations. This longstanding relationship with gold sets India apart from many other countries in terms of investor behavior and asset preferences (World Gold Council, 2022). As a result, any shifts in global or domestic financial markets may significantly influence gold investment behavior in India.

The Indian stock market, comprising major indices such as the BSE Sensex and NSE Nifty 50, is known for its rapid growth, diversity, and exposure to both domestic and international shocks. Events such as the Global Financial Crisis of 2008, the COVID-19 pandemic, the Russia-Ukraine conflict, and frequent changes in global interest rates have all triggered sharp fluctuations in the Indian equity market. During such turbulent times, risk-averse investors reassess their portfolios, reallocating capital to perceived safer assets like gold. For example, during the COVID-19 pandemic in 2020, while Indian stock indices plunged in March due to panic and uncertainty, gold prices surged sharply, reinforcing its reputation as a safe haven. However, the behavior of gold is not always consistent. There have been periods when gold has shown high volatility itself, reducing its efficacy as a safety asset. This has led to a growing academic and practical interest in evaluating whether gold is truly a safe haven or merely a risky bet during times of financial instability in India.

The concept of a "safe haven" asset is distinct from that of a "hedge." As Baur and Lucey (2010) clarify, while a hedge is negatively correlated with another asset on average, a safe haven is negatively correlated specifically during times of extreme market stress. In other words, a safe haven provides protection during adverse market conditions but may not necessarily offer negative correlation during stable periods. Gold, due to its liquidity, lack of default risk, and historical performance, is considered one of the few assets with potential safe-haven characteristics. Various international studies have sought to validate gold's role as a safe haven. For instance, Baur and McDermott (2010) found that gold acts as a safe haven in major economies like the United States, United Kingdom, and Germany. However, they also pointed out that gold's safe-haven role varies across time and markets. In emerging economies, including India, the relationship between gold and equity returns may be influenced by additional factors such as currency fluctuations, inflation expectations, government import duties, and global commodity market dynamics (Sadorsky, 2014).

India's relationship with gold is multifaceted. Beyond its financial attributes, gold is deeply intertwined with social customs and is considered a symbol of wealth and security. This dual nature of gold, both as a consumption good and an investment vehicle, complicates its behavior in financial models. Moreover, India's gold market is heavily influenced by policy measures such as gold import duties, the Goods and Services Tax (GST), and the Reserve Bank of India's Gold Monetization Scheme (Choudhry, Hassan, & Shabi, 2015). All these factors impact the investment decisions of retail and institutional investors. Additionally, India's high dependence on imported gold exposes domestic prices to global gold price trends and USD-INR exchange rate fluctuations. Hence, any attempt to evaluate gold's safe-haven status in India must consider these external influences, alongside domestic market volatility. Empirical studies focusing on India have yielded mixed results. Jain and Ghosh (2013) observed that gold acted as a hedge but did not exhibit strong safe-haven properties in the Indian context. Conversely, Kumar (2014) found evidence supporting gold's role as a refuge during periods of intense equity market stress. These conflicting results indicate the need for a more nuanced and data-driven exploration using advanced time-series econometric tools such as GARCH and DCC-GARCH models, which can account for time-varying correlations and volatility spillovers.

The COVID-19 pandemic dramatically reshaped global and Indian financial markets. During 2020, investors flocked to gold as uncertainty loomed, and global central banks unleashed record levels of stimulus. However, the situation reversed in 2021–2022 as global interest rates began rising, inflation surged, and equity markets regained momentum. These rapid changes have reignited debates over the reliability of gold as a safe haven. In India, retail participation in the stock market has grown significantly over the past five years, facilitated by digital trading platforms, low brokerage costs, and financial literacy campaigns. Simultaneously, gold investment has evolved beyond traditional jewelry purchases, with increasing adoption of Gold Exchange-Traded Funds (ETFs), Sovereign Gold Bonds (SGBs), and digital gold products. These shifts make it timely and relevant to reassess gold's role during equity market volatility from both a behavioral and empirical perspective.

This study is grounded in modern portfolio theory (MPT), which emphasizes diversification to minimize risk. According to MPT, assets that are uncorrelated or negatively correlated, during times of crisis, can help investors achieve optimal risk-return tradeoffs. Gold is recommended for inclusion in diversified portfolios due to its perceived counter-cyclical nature. Additionally, behavioral finance theory is also relevant, as investor psychology, fear, and herd behavior drive movements toward safe-haven assets in volatile times (Tversky & Kahneman, 1974). By testing these assumptions in the Indian context, this study aims to add empirical weight to theoretical propositions and provide practical insights for investors, policymakers, and financial advisors.

2. Literature Review

The role of gold as a safe-haven asset has garnered widespread academic interest, especially during periods of financial turmoil. A substantial body of literature has sought to assess whether gold provides a cushion against equity market volatility, acts as a hedge in normal times, or simply performs as another risky asset in a dynamic market environment. This review synthesizes the global and India-specific empirical evidence on the subject, while identifying methodological gaps that justify further exploration in the Indian context.

The foundational work of Baur and Lucey (2010) distinguished between a hedge, which is negatively correlated with another asset on average, and a safe haven, which is uncorrelated or negatively correlated specifically during periods of market stress. Their empirical analysis across major developed markets found that gold acted as both a hedge and a safe haven, depending on market conditions. Extending this framework, Baur and McDermott (2010) confirmed the safe-haven behavior of gold during global stock market crises but also highlighted significant regional variations. The findings from these seminal studies laid the groundwork for subsequent research using both static and time-varying econometric models to test gold's safe-haven role across markets and time horizons.

Several international studies examined gold's behavior across different asset classes and economic scenarios. Capie, Mills, and Wood (2005) found that gold acts as a hedge against exchange rate fluctuations, especially against the U.S. dollar. Ciner, Gurdgiev, and Lucey (2013), analyzing short- and long-run relationships, revealed that gold's hedge and safe-haven properties were unstable and time-dependent. Sadorsky (2014) emphasized the importance of modeling dynamic correlations and demonstrated that gold's behavior relative to stock markets can be significantly influenced by commodity price shocks and macroeconomic events. Al-Yahyaee, Rehman, Mensi, and Al-Jarrah (2019) used multifractal analysis to show that gold exhibited non-linear safe-haven characteristics during turbulent financial periods in both emerging and developed markets. While the consensus among global studies supports gold's potential as a safe haven, it also warns against assuming a universal, static relationship across markets and time periods.

India's unique socio-economic affinity for gold provided fertile ground for evaluating its performance during stock market volatility. However, the number of rigorous studies focusing solely on India remains limited compared to developed markets. Jain and Ghosh (2013) examined the dynamic interrelationship between gold prices, stock market indices, and exchange rates in India using co-integration and Granger causality tests. They found that while gold served as a hedge over the long term, it did not exhibit robust safe-haven characteristics during short-term equity market turbulence. In contrast, Kumar (2014) analyzed the return and volatility transmission between gold and Indian equities using GARCH models and reported evidence that gold served as a volatility buffer during major market downturns, thus supporting the safe-haven hypothesis. Sharma and Mahendru (2010) focused on the co-movement of gold and equity markets during financial crises and found significant negative correlation during periods of uncertainty. However, they cautioned that gold's performance was also influenced by inflation, interest rates, and currency values.

A variety of econometric techniques were applied to examine the gold-equity relationship. While early studies relied on basic regression, co-integration, and causality analysis, more recent works adopt time-varying volatility models such as GARCH, EGARCH, and DCC-GARCH frameworks to better capture dynamic interactions. Bouri, Jain, Roubaud, and Kristoufek (2017) used a DCC-GARCH model to explore volatility spillover between gold and oil markets and showed that the co-movement increased significantly during periods of global economic stress. Applying such models to the Indian gold-equity relationship would enable more precise analysis of time-varying correlations during periods of market volatility. Patra and Patnaik (2020) employed a combination of ARCH-type models and rolling correlation techniques to demonstrate that gold's role in Indian portfolios strengthened during periods of sharp equity corrections. However, their study called for deeper exploration of causality and cross-asset volatility effects using multivariate models. Furthermore, most Indian studies to date have focused primarily on physical gold or spot prices. With the rise in popularity of Gold ETFs, Sovereign Gold Bonds, and digital gold, there is a need to explore whether these instruments mirror the safe-haven behavior of physical gold, particularly during market stress.

While existing literature offers useful insights into gold's potential role as a hedge or safe haven, especially in developed markets, there remains a clear research gap in understanding the time-varying, crisis-specific, and behaviorally influenced relationship between gold and Indian equity markets. Most Indian studies either rely on static models or overlook key factors such as investor psychology, policy interventions, and international influences.

This study sought to address these gaps by applying advanced time-series econometric models to explore the dynamic relationship between gold prices and Indian stock market volatility. It also considered the unique socio-cultural and macroeconomic dimensions that influence gold investing in India, especially during the COVID-19 pandemic and recent geopolitical events.

3. Data and Methodology

This study utilized secondary daily time-series data spanning from January 2005 to December 2023 to explore whether gold served as a safe-haven asset during periods of heightened Indian stock market volatility. The dataset included daily closing prices of gold (INR per 10 grams) sourced from the World Gold Council and MCX, the Nifty 50 and BSE Sensex indices from NSE and BSE websites, and the USD/INR exchange rate from the Reserve Bank of India to control for currency effects on gold valuation.

All price data were transformed into log returns, defined as $R_t = \ln(P_t) - \ln(P_{t-1})$, to ensure stationarity and homoscedasticity. To empirically assess gold's hedging and safe-haven properties, the methodology adopts a multi-pronged econometric framework. Descriptive statistics and Pearson correlation coefficients were computed to examine average relationships between gold and stock returns, both across the full sample and during crisis periods, including the Global Financial Crisis (2008–09), the COVID-19 crash (2020), and the Russia-Ukraine conflict (2022).

Volatility modeling was conducted using the GARCH (1,1) and EGARCH (1,1) models (Bollerslev, 1986; Nelson, 1991) to estimate time-varying volatility and capture asymmetric shocks. The GARCH (1,1) model,

specified as $\sigma^2_t=\alpha_0+\alpha_1\epsilon^2_{t-1}+\beta_1\sigma^2_{t-1}$, captured persistence and clustering in volatility, while the EGARCH model, expressed as $\ln(\sigma^2_t)=\omega+\beta\ln(\sigma^2_{t-1})+\gamma\epsilon_{t-1}/\sigma_{t-1}+\alpha(|\epsilon_{t-1}/\sigma_{t-1}|-\sqrt{2/\pi})$, accounted for asymmetric effects of positive and negative shocks.

To examine the time-varying relationship between gold and equities, the Dynamic Conditional Correlation-GARCH (DCC-GARCH) model proposed by Engle (2002) was employed. The model decomposed the conditional covariance matrix as $H_t=D_tR_tD_t$, where D_t represents the time-varying standard deviations of individual assets and R_t captures dynamic correlations.

Furthermore, to test whether gold acted as a safe haven during market crises, a linear regression model with interaction terms was estimated: $R_{gold,t}=\alpha+\beta_1R_{stock,t}+\beta_2D_{crisis}+\beta_3(R_{stock,t}\times D_{crisis})+\epsilon_t$, where a significantly negative β_3 implied that gold moves inversely with stocks during turbulent periods, indicating safe haven behavior (Baur & Lucey, 2010). Crisis periods were represented using dummy variables (D_{crisis} = 1 during periods of sharp equity declines). Robustness checks include rolling-window correlations (30-day intervals) and sub-sample analyses, while alternative gold investment instruments such as Gold ETFs and Sovereign Gold Bonds are evaluated for consistency.

This methodological framework allowed for a nuanced perception of gold's dynamic role in Indian portfolios, whether as a hedge during normal periods or as a true safe haven during financial turmoil, filling a key gap in the literature on emerging markets' asset behavior during systemic shocks (Baur & McDermott, 2010; Sadorsky, 2014).

Table 1. Descriptive Statistics.

	Index	Mean return	S.D.	Skewness	Kurtosis	Jarque-Bera (p-value)
Full sample	Gold	0.03	1.14	0.17	3.82	0.00
	Nifty 50	0.04	1.71	-0.63	5.42	0.00
Global financial crisis (2008–09)	Gold	0.09	1.26	0.31	3.67	0.00
	Nifty 50	-0.13	3.45	-1.02	6.11	0.00
COVID-19 crash (2020)	Gold	0.14	1.31	0.51	4.10	0.00
	Nifty 50	-0.09	2.95	-0.87	5.73	0.00
Russia-Ukraine conflict (2022)	Gold	0.05	1.22	0.20	3.85	0.00
	Nifty 50	-0.04	2.21	-0.59	4.92	0.00

4. Empirical Results and Analysis

4.1. Descriptive Statistics

Table 1 demonstrated that mean returns of gold showed positive mean returns across all periods, especially during crises, suggesting it performed well as a hedge or safe haven. Nifty 50, on the other hand, experienced negative returns during all crisis periods, most severely during the global financial crisis and the COVID-19 crash. The standard deviation (volatility) of Nifty 50 displayed higher volatility than gold across all periods, particularly during the global financial crisis and COVID-19 crash, confirming stock market instability during crises. Gold volatility increased during crises, but to a lesser extent, indicating relative stability. Skewness & kurtosis of Nifty 50 showed negative skewness (left-tailed distribution), suggesting more frequent extreme losses. Gold showed positive skewness, meaning gains were more frequent during uncertainty. Both assets showed leptokurtic distributions, indicating fat tails and a higher probability of extreme events than a normal distribution. The p-values of the Jarque-Bera test were 0.000 for all series, rejecting normality, supporting the use of GARCH-type models to account for non-normality and volatility clustering.

4.2. Correlation Analysis

Table 2 demonstrated that gold and Nifty 50 showed a weak negative correlation for the full sample, indicating that in general, gold had a mild inverse movement with the stock market. It was a diversification tool, but not always a strong safe haven. Correlation strengthened in the negative direction during the global financial crisis, which indicated clear safe-haven behavior. Also, correlation strengthened in the negative direction during the COVID-19 crash, which indicated gold appreciated as stocks fell or gold again served as a hedge. Moreover, correlation was reinforced in the negative direction during the Russia-Ukraine conflict, which illustrated a slightly stronger hedge effect during geopolitical tension. This pattern aligned with Baur and Lucey (2010), who define a safe haven as an asset that is negatively correlated or uncorrelated with stocks during times of market stress.

Table 2. Correlation analysis.

	Index	Coefficient
Full sample	Gold	-0.17
	Nifty 50	
Global financial crisis (2008–09)	Gold	-0.31
	Nifty 50	
COVID-19 crash (2020)	Gold	-0.26
	Nifty 50	
Russia-Ukraine conflict (2022)	Gold	-0.20
	Nifty 50	

These results support the hypothesis that gold can serve as a risk-mitigating asset, especially when the Indian stock market experiences stress.

Table 3. GARCH (1,1) Model Test Results.

	ω	α	β	α + β
Full sample	0.000002**	0.09**	0.89**	0.98
	0.000001**	0.12**	0.87**	0.99
Global financial crisis	0.000003*	0.10**	0.87**	0.97
	0.000002**	0.17**	0.80**	0.97
COVID-19 crash	0.000002*	0.09**	0.90**	0.99
	0.000003**	0.18**	0.78**	0.96
Russia-Ukraine conflict	0.000001*	0.08**	0.91**	0.99
	0.000002**	0.15**	0.81**	0.96

Note: **significant at the 1% level. *significant at the 5% level.

4.3. GARCH (1,1) Model Test Results

Table 3 demonstrated that both assets are about 1, suggesting high volatility persistence and strong clustering with past shocks impacting current volatility during the full sample periods. The Indian stock market is more sensitive to past volatility shocks than gold. Gold's lower ARCH coefficient indicates lower short-term response to shocks, making it a relatively stable asset. During the global financial crisis, gold's volatility persistence declined slightly compared to the full sample but remains high. Nifty 50 showed a higher ARCH effect, indicating strong immediate response to market shocks during the crisis. Gold maintained stability with lower ARCH, reaffirming its role as a safe haven. During the COVID-19 crash, gold showed higher volatility persistence than the Nifty 50 in this period. Gold's lower ARCH effect again confirmed a less short-term shock reaction, reinforcing its safe-haven status. Nifty 50's behavior was more reactive, but its volatility dissipated quicker than during the global financial crisis. During the Russia-Ukraine conflict, Nifty 50 displayed higher ARCH (shock sensitivity) and slightly lower persistence. Gold remained highly persistent in volatility, but its low α means that gold absorbed shocks gradually, making it less erratic during geopolitical crises. The market reacted strongly to geopolitical shocks.

4.4. EGARCH (1,1) Model Test Results

EGARCH helps detect leverage effects, i.e., whether negative impacts have a stronger effect on volatility.

Table 4. EGARCH (1,1) model test results.

Parameter	ω	α	β	γ
Full sample	–0.12**	0.07**	0.93**	0.01 (p=0.37)
	–0.10**	0.09**	0.92**	–0.16**
Global financial crisis	–0.09*	0.06**	0.94**	0.01 (p=0.29)
	–0.11**	0.09**	0.92**	–0.18**
COVID-19 crash	–0.14**	0.07**	0.95**	0.00 (p=0.6)
	–0.12**	0.09**	0.90**	–0.17**
Russia-Ukraine conflict	–0.11**	0.06**	0.96**	0.01**
	–0.10**	0.09**	0.89**	–0.15**

Note: **significant at the 1% level. *significant at the 5% level.

Table 4 demonstrated that gold's γ was statistically insignificant, meaning no significant leverage effect during the full sample periods. Negative and positive shocks affected volatility similarly. Nifty 50 showed a strong negative and confirmed leverage effect, which indicated that bad news led to greater volatility in equity markets. Gold's high β showed persistent volatility, but relatively symmetric behavior over time. During the global financial crisis, gold remained relatively symmetric in response to news (γ not significant), Nifty 50 experienced intense asymmetry, showing investors panicked more with bad news, and gold continued to display safe haven properties even in a systemic shock scenario. During the COVID-19 crash, gold remained symmetric, indicating shock absorption capacity even during a health and economic crisis. Nifty 50 again showed highly negative and significant γ, confirming risk amplification from negative returns, and gold maintained its role as a volatility stabilizer. During the Russia-Ukraine conflict, gold showed no leverage effect (γ insignificant), acting as a risk-mitigating asset. Nifty 50 showed significant leverage, with investors reacting strongly to uncertainty, reinforcing the conclusion that gold behaves as a hedge against political instability.

4.5. DCC-GARCH Model Test Results

The DCC-GARCH model, proposed by Engle (2002), is widely used to model time-varying correlations between financial assets. It is particularly useful in understanding whether gold diversifies risk during market stress and how the correlation between gold and stock market returns changes during turbulent periods.

Table 5. DCC-GARCH model test results.

Parameter		Estimate	Std. Error	z-Statistic	Prob.
Full sample	α (DCC1)	0.02	0.01	5.49	0.00
	β (DCC2)	0.95	0.01	142.69	0.00
	Mean correlation	-0.07	—	—	—
	Min correlation	-0.21	—	—	—
	Max correlation	0.14	—	—	—
Global financial crisis	α (DCC1)	0.04	0.01	7.17	0.00
	β (DCC2)	0.92	0.01	127.83	0.00
	Mean correlation	-0.12	—	—	—
	Min correlation	-0.21	—	—	—
	Max correlation	0.08	—	—	—
COVID-19 crash	α (DCC1)	0.04	0.01	7.48	0.00
	β (DCC2)	0.90	0.01	106.17	0.00
	Mean correlation	-0.09	—	—	—
	Min correlation	-0.22	—	—	—
	Max correlation	0.11	—	—	—
Russia-Ukraine conflict	α (DCC1)	0.03	0.01	5.33	0.00
	β (DCC2)	0.93	0.01	122.62	0.00
	Mean correlation	-0.08	—	—	—
	Min correlation	-0.19	—	—	—
	Max correlation	0.12	—	—	—

Table 5 revealed that the high β value showed persistent correlation behavior during the full sample periods, low α indicated slow reaction to shocks. Generally, the correlation between gold and Nifty 50 was slightly negative, suggesting gold may serve as a hedge. The fluctuation between -0.21 and +0.13 implied that this hedge effect was time-varying. During the global financial crisis, stronger negative average correlation was observed, and gold acted as a safe haven. With high β and slightly higher α compared to the full sample, gold exhibited dynamic but persistent behavior. The DCC fell more during crisis shocks, indicating gold's decoupling from equities when panic rises. During the COVID-19 crash, gold and Nifty again showed a moderately negative average correlation, with the correlation dipping as low as -0.221, demonstrating gold's effectiveness as a crisis hedge. The increased α reflected higher reactivity to shocks during a public health and financial panic. During the Russia-Ukraine conflict, negative average correlation persisted, reaffirming gold's decoupling tendency during geopolitical risk. The market remained sensitive, though correlation persistence stayed high, and gold maintained its role as a risk diversifier.

5. Conclusion

This study investigated the dynamic relationship between gold prices and Indian stock market volatility, focusing on whether gold acts as a safe haven, a hedge, or a risky asset, especially during periods of market distress using GARCH(1,1), EGARCH(1,1), and DCC-GARCH, and data spanning normal periods and crises including the Global Financial Crisis (2008–09), COVID-19 crash (2020), and Russia-Ukraine conflict (2022). Several insightful conclusions emerge.

The GARCH (1,1) results for both gold and Nifty 50 confirmed strong volatility clustering, indicated by the high persistence values, reflecting that shocks to returns had long-lasting effects. The EGARCH results revealed significant leverage effects in Nifty 50 returns (γ negative and significant), suggesting that negative news impacted volatility more than positive news. For gold, however, the leverage term (γ) was statistically insignificant, reinforcing gold's role as a stabilizing asset in turbulent markets. The DCC-GARCH model provided the most nuanced understanding. Over the full sample period, gold and Nifty 50 showed a slightly negative but time-varying correlation, indicating that gold can act as a weak hedge against Indian equities. However, during crisis periods, the correlation became more strongly negative, especially during the Global Financial Crisis, confirming gold's role as a safe haven asset when financial markets experienced extreme distress.

5.1. Policy Implications

The negative and dynamic correlation between gold and Nifty 50 during crises implied that investors and portfolio managers should consider gold as a strategic component of investment portfolios, particularly during volatile market conditions. Allocating a portion to gold can reduce portfolio risk and enhance stability in uncertain times. Retail investors in India turn to gold as a traditional investment. These findings supported that such behavior was empirically justified, especially during financial turmoil. Financial educators and advisory firms should emphasize gold's hedging and safe haven properties in risk-focused investment education.

Gold reserves continue to play a vital role for the RBI. These results reinforce the need for maintaining and strategically managing gold reserves, especially in anticipation of external shocks, currency volatility, or geopolitical crises. During periods of systemic risk, policy responses can include stabilizing commodity markets, ensuring gold market liquidity, and monitoring speculative behavior. Gold's inverse relationship with equities during crises can be used as a real-time indicator of investor sentiment and stress in financial markets. The results justify further innovation in gold-based ETFs, mutual funds, and derivatives that can be more widely accessible to retail and institutional investors. SEBI could encourage the development of hedging tools linked to gold for managing equity portfolio risk.

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