A Study on the Impact of Financial Market Uncertainty on Gold as a Protective Investment

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Abstract :

Purpose. This research paper explores how people react to financial-market uncertainty, how they perceive the effect of financial-market uncertainty on the price of gold and on the returns on gold, whether they view gold as a protective (safe haven) investment and whether they believe that gold behaves differently during times of high and low uncertainty. Design. A quantitative, cross sectional survey was carried out in which a structured questionnaire comprised of 20 five point Likert items was included in four constructs. A convenience sampling was used to distribute 400 questionnaires and retain 98 questionnaires that were usable. Descriptive statistics, Cronbach's alpha, one-sample t-test, Pearson correlation, chi-square test of independence, one-way ANOVA, simple and multiple linear regression were used for data analysis in Microsoft Excel. Findings. The mean for each of the four propositions—uncertainty affects gold prices (M = 3.78); uncertainty is related to gold returns (M = 3.53); uncertainty makes gold a safe-haven investment (M = 3.45); and uncertainty improves gold's relative performance in high-uncertainty periods (M = 3.57)—was significantly higher than the neutral value of 3 for each of the tests, with $p < .001$. However, none of the constructs were significantly related to each other (all regression models; $p > .05$; R^2 ranged from .001 to .054), group differences in ANOVA were non-significant except one that did not pass correction for multiple testing ($p > .05$; $R^2 = .30$), and internal consistency of the scales was low (α ranged from -0.18 to .30). The age group, stream of study and occupation were found to be associated with the prior investment in gold investing using chi-square tests whereas gender was not found to be associated with the prior investment in gold investing. Implications and limitations. Though perceptions have been strongly skewed toward gold as a protective asset, these are attitudinal perceptions based on a small convenience sample of mostly young engineering students, and not based on actual price behavior. Originality. The study provides evidence of individual-investor perception of India which complements the secondary market evidence in the literature.Key words: Gold, Safe Haven Asset, Financial-market uncertainty, Investor perception, Gold returns, Portfolio protection, India.

1. Introduction

Gold has been a store of value throughout the ages, and a financial insurance policy. Historically, investors and central banks have sought refuge in gold in times of market downturns, high inflation and geopolitical strain because of its reputation as a credit risk free asset that is widely accepted. This concept is formalized in the academic literature by separating the hedge from the safe haven asset, which are on average uncorrelated or negatively correlated to some other asset, versus protection during market stress.The distinction between hedge and safe haven asset is formalized in the academic literature by the separation between the hedge and the safe haven asset, which are on average uncorrelated or negatively correlated to some other asset, versus providing protection during market stress (Baur & Lucey, 2010). The effectiveness of gold to perform these functions remains contentious; it has been shown to provide protection in gold markets and in some crises as a safe haven (Baur & McDermott, 2010; Bhunia & Das, 2025), but in others the gold safe haven effect is short-lived or market-specific or less powerful than that of other safe havens, such as the Swiss franc or the Japanese yen (Tronzano, 2022; Feder-Sempach et al., 2024).

Investors' uncertainty landscape is also becoming more complicated. Li and Liu (2026), Rahmadani (2025), and Arslanalp et al. (2023) have all indicated that geopolitical tension, sanctions, inflation, interest-rate changes, and episodes of equity-market volatility have all been connected with gold prices, gold price volatility, and central-bank demand, respectively. However, recent findings reveal that gold may not always perform well in times of crisis: for instance, during the conflict between the United States and Israel and Iran in 2026, oil prices rose, while gold prices fell

(Kachalia et al., 2026). The mixed results underscore the need to not only learn about the market behaviour of gold but also about the perception of its role by individual investors since investment choices rely on beliefs regarding safety and returns, in addition to realised prices.

1.1 Research gap

Current research has primarily focused on the interaction between gold and geopolitical uncertainties, U.S.-China tensions, market volatility, macroeconomic variables and central-bank buying and ETF inflows. Most of these studies rely on secondary financial data and econometrics and forecasting models to account for the fluctuations of gold prices and volatility. There has been, however, little focus on more prevalent uncertainty in the financial markets, on the uncertainty-gold return link, and on the potential utility of gold as a protective investment. The studies available also offer a patchwork effort of focus on individual investors' perception of financial security, risk reduction, wealth protection and stability. Furthermore, little has been done to examine the performance of gold in low and high uncertainty periods. This study attempts to fill these gaps by exploring the financial-market uncertainty, gold prices and returns as well as the protection role of gold as an investment.

The protective investment of gold and the return of the investment.

1.2 Research statement

In this study, the effect of financial-market uncertainty on gold prices and returns is explored and the protection of gold as an investment examined. It also examines gold's performance in times of low and high financial-market uncertainty.

1.3 Research questions

RQ1. So, what does the uncertainty in financial markets mean for gold?

RQ2. Are financial-market uncertainty and gold returns correlated?

RQ3. Where does gold fit in the financial-market uncertainty?

RQ4. Is there a difference in gold performance during times of low and high financial-market uncertainty?

2 Review of Literature

Shun Li and Yang Liu (2026) – A New Perspective on Gold as a Risk Hedge: The study finds that US–China political tensions increase long-term gold price volatility, highlighting the impact of geopolitical uncertainty on gold markets.

Istvan Mak and Etienne Vaccaro-Grange (2026) – Gold in Central Bank Reserves: The study shows that gold can protect central banks from credit risk but is exposed to price volatility and liquidity limitations.

Flavius-Cosmin Darie (2026) – Geopolitical Uncertainty and Gold Market Volatility: The study finds that geopolitical risk has limited effects on gold returns but significantly influences gold price volatility.

Zhen He, Fergal O'Connor and Jacco Thijssen (2018) – Is Gold a Sometime Safe Haven or an Always Hedge?: The study finds that gold generally acts as a hedge but does not always provide safe-haven protection during market stress.

Marco Tronzano (2022) – Optimal Portfolio Allocation Between Global Stock Indexes and Safe-Haven Assets: The study finds that the Swiss franc provided stronger risk protection than gold in the portfolios examined.

Hanen Ben Ameur, Fouad Jamaani and Mohammed N. Abu Alfoul (2024) – Gold and Cryptocurrency as Safe-Haven Assets: The study finds that gold provides stronger protection than cryptocurrencies during certain extreme crises.

Rangan Gupta, Sayar Karmakar and Christian Pierdzioch (2024) – Safe Havens, Machine Learning and Geopolitical Risk: The study shows that geopolitical risk influences gold volatility and machine-learning models improve its forecasting.

Ewa Feder-Sempach, Piotr Szczepocki and Joanna Bogolebska (2024) – Global Uncertainty and Potential Safe Havens: The study finds that safe-haven effectiveness varies across markets, with gold competing with currencies such as the Japanese yen.

Dirk G. Baur and Lee Smales (2018) – Gold and Geopolitical Risk: The study shows that gold prices generally respond positively to geopolitical threats, although the response to actual events is inconsistent.

Pedro Gomis-Porqueras, Shuping Shi and David Tan (2020) – Gold as a Financial Instrument: The study finds that gold can hedge inflation, currency and certain financial risks, particularly during periods of crisis.

Harsh Parikh (2019) – Institutional Gold!: The study finds that gold supports portfolio diversification and risk reduction, although its performance varies across investment periods.

Dirk G. Baur (2021) – Is Gold a Safe Haven in All Currencies?: The study finds that gold's safe-haven effectiveness depends partly on exchange-rate movements and the investor's currency.

Aniket Ranjan and Naveen Kumar (2022) – Performance of Gold as a Financial Asset During Different Phases of Financial Cycles: The study shows that gold can diversify portfolios and provide protection during financial market turbulence.

Dirk G. Baur and Thomas Dimpfl (2023) – How to Use Gold as a Safe Haven: The study suggests that continuously holding gold may be more practical than trying to predict financial crises and time gold purchases.

Jerry C. Wagner and Daniel Poppe (2024) – The Role of Gold in Investment Portfolios: The study finds that adding gold can improve portfolio diversification and risk-adjusted performance during market downturns and inflation.

Dhiva Rahmadani (2025) – The Role of Gold as a Safe-Haven Asset in Risk Management Strategies: The study finds that gold is positively related to geopolitical risk and inflation while showing negative relationships with stocks and the US dollar.

Serkan Arslanalp, Barry Eichengreen and Chima Simpson-Bell (2023) – Gold as International Reserves: A Barbarous Relic No More?: The study finds that geopolitical tensions and financial sanctions have increased central banks' demand for gold reserves.

Mahir Gaurav Vithlani (2025) – Global Gold Price Projections for 2025: The study identifies geopolitical uncertainty, central bank demand, interest rates and the US dollar as major factors influencing gold prices.

Sayad Reteos Baronyan and Alex Nae (2025) – Gold in a Fragmented World: Safe Haven and Strategic Asset: The study finds that gold's low correlation with major assets can improve portfolio diversification during global uncertainty.

Candauda Arachchige Saliya (2025) – The New Gold Standard: Financialization, Geopolitics, and the Structural Revaluation of a Precious Metal: The study highlights the influence of de-dollarization, geopolitical risks, ETFs and central bank policies on gold's growing financial importance.

RBI Staff (2025) – Decoding Safe Asset Volatility Amid Geopolitical Risks Using Neural Networks: The study finds that gold is relatively stable compared with other safe assets and that neural networks improve volatility forecasting.

Yasmine Snene Manzli et al. (2025) – On the Hedge and Safe-Haven Abilities of Bitcoin and Gold: The study finds that gold provides safe-haven benefits in some markets, although its effectiveness differs across sectors and crisis periods.

Amalendu Bhunia and Amit Das (2025) – Safe Haven or Risky Bet?: The study finds that gold showed safe-haven characteristics during extreme Indian stock market downturns, particularly against the Nifty 50.

Nandini Anup Nair and Ram Raj G. (2026) – Gold's Effectiveness in Reducing Risk for Asian Stock Investments During the Russia–Ukraine Conflict: The study finds that gold helped reduce downside risk in Asian stock markets during the Russia–Ukraine conflict.

Dirk G. Baur and Brian M. Lucey (2010) – Is Gold a Hedge or a Safe Haven?: The study finds that gold acts as a hedge against stocks and provides short-term safe-haven protection during severe market crashes.

Dirk G. Baur and Thomas K. J. McDermott (2010) – Is Gold a Safe Haven? International Evidence: The study finds that gold provides safe-haven protection in several international markets, particularly during major financial crises.

Md Akhtaruzzaman et al. (2021) – Is Gold a Hedge or a Safe-Haven Asset in the COVID-19 Crisis?: The study finds that gold acted as a safe haven during the early COVID-19 crisis, but its protective effect weakened later.

Muhammad Anas Kachalia, Marc Audi and Amjad Ali (2026) – Geopolitical Conflict and Financial Market Reactions: The study finds that gold does not always increase during geopolitical conflicts, showing that market conditions and investor demand also influence gold prices.

Conceptual framework :

The proposed framework has financial-market uncertainty as the independent variable and gold as a safe-haven (protective) investment as the dependent variable with risk aversion / investor sentiment proposed as a moderating variable. The framework is operationalized in the questionnaire in four constructs, each measured by five items, namely; (1) the perceived impact of uncertainty on the gold price, (2) the perceived relationship between uncertainty and gold return, (3) the perception of gold as a safe-haven investment, and (4) the perceived difference in gold performance between periods of high and low uncertainty.

2.9 Hypotheses

$H1_0$ (Null): Financial-market uncertainty has no significant impact on gold prices.

$H1_1$ (Alternative): Financial-market uncertainty has a significant impact on gold prices.

$H2_0$ (Null): There is no significant relationship between financial-market uncertainty and gold returns.

$H2_1$ (Alternative): There is a significant relationship between financial-market uncertainty and gold returns.

$H3_0$ (Null): Gold does not act as a significant safe-haven asset during periods of financial-market uncertainty.

$H3_1$ (Alternative): Gold acts as a significant safe-haven asset during periods of financial-market uncertainty.

$H4_0$ (Null): There is no significant difference in gold performance between periods of low and high financial-market uncertainty.

$H4_1$ (Alternative): There is a significant difference in gold performance between periods of low and high financial-market uncertainty.

3 **Research Methodology**

3.1 Research design

The study is a quantitative, cross-sectional survey (supported by secondary literature) in which an instrument was administered to a pool of respondents with knowledge of, or experience in, gold investment.

3.2 Sampling and data collection

The convenience sample consisted of 400 questionnaires (98 completed questionnaires with no duplicates retained for analysis at a 24.5% usable-response rate). Every respondent completed all items.

3.3 Instrument

The questionnaire had two parts, with part A capturing nine background items and part B comprising 20 items (statements) that measured the four constructs in Table 1 on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Items in part B were developed using the constructs identified in the literature review. All 20 items have the same (positive) wording direction and can be found in Appendix B. Part A asked for the respondent's age, gender, educational qualification, occupation, year of study, stream, monthly family income, gold-investment history (ever or never), and familiarity with gold investment (on a five-point scale).

3.4 Methods of analysis

The analysis was performed in Microsoft Excel and the computations are shown in the accompanying workbook. Composite scores for each construct were calculated as the mean of the five items that comprised it. The following methods were used: (i) frequency and percentage analysis of the respondent profile; (ii) Cronbach's alpha test for internal consistency; (iii) one-sample t-tests of item and construct means against the neutral scale-midpoint of 3; (iv) Pearson correlation between the four constructs; (v) simple and multiple linear regression (ordinary least squares); (vi) chi-square tests of independence between categorical variables; and (vii) one-way analysis of variance (ANOVA) to compare construct scores across respondent groups. The level of significance was 5%. To meet the minimum expected-frequency requirement for chi-square tests, the two lowest income categories were combined ("Up to ₹50,000") and the "Science" and "Others" streams were merged. Composite scores of 3.5 and above were classified as "high agreement" for the chi-square tests involving construct scores.

As the questionnaire does not have a separate scale to capture financial-market uncertainty, the regression models use the respondent's composite score on the price-impact construct (P) as the measure of perceived uncertainty effects and returns (R), safe haven (S) and high-versus-low performance (L) as outcomes. The coefficients therefore reflect relationships between the respondents' beliefs, and not between market variables.

4. Data Analysis and Results

4.1 Respondent profile

The total number of respondents was 98. The majority of the respondents were aged 21 – 23 years (46.9%) and 18 – 20 years (36.7%). Moreover, 75.5% of respondents were male, and 72.4% were students. Among students, the most common stream was B.Tech/Engineering (60.2%). Moreover, 36.7% of respondents mentioned that their family income is more than ₹1,00,000 per month, and 24.5% of respondents did not want to disclose their family income. Thus, 67 respondents (68.4%) had previous experience with investing in gold, and the mean of self-rating of gold investment knowledge was 3.22 (Table 2).

Table 2. Demographic profile of respondents (n = 98)

Variable	Category	Frequency	Percent
Age	18–20 years	36	36.7
	21–23 years	46	46.9
	Above 23 years	16	16.3
Gender	Male	74	75.5
	Female	24	24.5
Occupation	Student	71	72.4
	Salaried employee	27	27.6
Education	Undergraduate	92	93.9
	Postgraduate	6	6.1
Stream	B.Tech / Engineering	59	60.2
	BBA / Management	23	23.5
	Science	10	10.2

	Others	6	6.1
Monthly family income	Below ₹25,000	6	6.1
	₹25,000–₹50,000	13	13.3
	₹50,001–₹1,00,000	19	19.4
	Above ₹1,00,000	36	36.7
	Prefer not to say	24	24.5
Invested in gold	Yes	67	68.4
	No	31	31.6
Familiarity (1-5)	2	34	34.7
	3	28	28.6
	4	16	16.3
	5	20	20.4

4.2 Reliability

Cronbach's alpha was -0.04 for the price construct, -0.18 for returns, 0.30 for safe haven and -0.11 for the low-versus-high construct (0.24 for all 20 items) (Table 3). These values are far below the conventional threshold of 0.70, and the negative values suggest that the items within a construct are not positively inter-correlated. Indeed, the five items of a construct do not act as a single scale in this sample. For this reason, item-level results (Appendix B) are also reported alongside the construct-level results, and all inferences based on composite scores are interpreted with caution.

Table 3. Reliability of the constructs

Construct	**Items**	**Cronbach's α**	**Assessment**
Financial uncertainty → Gold prices (P1–P5)	5	-0.040	Negative / unacceptable
Financial uncertainty → Gold returns (R1–R5)	5	-0.182	Negative / unacceptable
Gold as safe haven (S1–S5)	5	0.305	Poor
Low vs high uncertainty (L1–L5)	5	-0.110	Negative / unacceptable
All 20 items combined	20	0.238	Poor

4.3 Descriptive statistics and one-sample t-tests (Objectives 1–4)

The mean of every construct was above the neutral value of 3 (Table 4, Figure 1). Respondents agreed strongest with the view that uncertainty affects gold prices ($M = 3.78$, $SD = 0.31$), followed by the opinion that gold outperforms during high-uncertainty periods ($M = 3.57$), that uncertainty is related to gold returns ($M = 3.53$) and that gold is a safe-haven investment ($M = 3.45$). All four one-sample t-tests were significant at $p < .001$ and none of the 95%-confidence-intervals included 3. At item level, all 20 statements had means significantly above 3 (Appendix B). Highest agreement was

expressed for the view that geopolitical uncertainty contributes to fluctuations in gold prices (P5: M = 4.22; 79.6% agreed or strongly agreed) and for the statement that demand for gold increases when uncertainty is high (L4: M = 3.80; 79.6%). Lowest item mean was found for the preference to invest in gold when markets become highly uncertain (S5: M = 3.27; 38.8% agreed or strongly agreed), still significantly above 3.

Table 4. One-sample t-test of construct means against the neutral value 3 (df = 97)

Construct	Objective	Mean	SD	t	p	95% CI
Perceived impact of uncertainty on gold prices	Obj. 1	3.78	0.31	25.23	<.001	3.72–3.84
Perceived relation of uncertainty with gold returns	Obj. 2	3.53	0.30	17.84	<.001	3.47–3.59
Gold as safe-haven investment	Obj. 3	3.45	0.36	12.47	<.001	3.38–3.52
Gold: high vs low uncertainty	Obj. 4	3.57	0.25	22.73	<.001	3.52–3.62

4.4 Correlation among constructs

Correlations among the four composite scores were weak and none was significant at the 5% level (Table 5). The largest was between returns and safe haven (r = .184, p = .069); the price construct showed near-zero correlations with returns (r = .035), safe haven (r = .108) and the low-versus-high construct (r = .058).

Table 5. Pearson correlation matrix (n = 98; two-tailed p in parentheses)

	Prices (P)	Returns (R)	Safe haven (S)	Low–High (L)
Prices (P)	1	.035 (.734)	.108 (.292)	.058 (.573)
Returns (R)	.035 (.734)	1	.184 (.069)	.110 (.283)
Safe haven (S)	.108 (.292)	.184 (.069)	1	.010 (.921)
Low-High (L)	.058 (.573)	.110 (.283)	.010 (.921)	1

4.5 Linear regression

Four regression models were estimated (Table 6). Inter-correlations among predictors were below .20, so multicollinearity is not a concern.

Model 1 regressed the safe-haven score on the price-impact score. The model was not significant, $F(1, 96) = 1.12$, $p = .292$, $R^2 = .012$; the coefficient for P was B = 0.125 (p = .292). Model 2 regressed the returns score on the price-impact score and was also not significant, $F(1, 96) = 0.12$, $p = .734$, $R^2 = .001$. Model 3 regressed the low-versus-high score on P, R and S; it explained 1.5% of the variance and was not significant, $F(3, 94) = 0.48$, $p = .695$. Model 4 added familiarity and prior investment to the safe-haven model; it explained 5.4% of the variance (adjusted $R^2 = .014$) and was not significant, $F(4, 93) = 1.34$, $p = .262$. In Model 4 the returns score had the largest coefficient (B = 0.214) but it did not reach significance (p = .083).

Table 6. Regression results (unstandardised coefficients)

Model / variable	Coefficient / fit	SE / model p	t	p
Model 1: S on P	R^2 = .012; F = 1.12	p = .292		
Intercept	B = 2.975	SE = 0.448	t = 6.64	p < .001
Prices (P)	B = 0.125	SE = 0.118	t = 1.06	p = .292
Model 2: R on P	R^2 = .001; F = 0.12	p = .734		
Intercept	B = 3.406	SE = 0.374	t = 9.11	p < .001
Prices (P)	B = 0.034	SE = 0.099	t = 0.34	p = .734
Model 3: L on P, R, S	R^2 = .015; F = 0.48	p = .695		
Intercept	B = 3.111	SE = 0.463	t = 6.72	p < .001
Prices (P)	B = 0.045	SE = 0.084	t = 0.54	p = .591
Returns (R)	B = 0.094	SE = 0.088	t = 1.06	p = .291
Safe haven (S)	B = -0.011	SE = 0.073	t = -0.16	p = .877
Model 4: S on P, R, familiarity, invested	R^2 = .054; F = 1.34	p = .262		
Intercept	B = 2.131	SE = 0.621	t = 3.43	p < .001
Prices (P)	B = 0.121	SE = 0.118	t = 1.02	p = .308
Returns (R)	B = 0.214	SE = 0.122	t = 1.75	p = .083
Familiarity	B = 0.032	SE = 0.032	t = 1.00	p = .322
Invested (Yes=1)	B = 0.007	SE = 0.077	t = 0.08	p = .933

S = safe haven; P = price impact; R = returns; L = low-versus-high performance. Model rows show R^2 and F, then the model significance; coefficient rows show B, SE, t and p. Intercepts were significant in all models (p < .001 or p = .001) but are not substantively meaningful.

4.6 Chi-square tests of independence

Chi-square tests examined whether having invested in gold was associated with respondent characteristics, and whether high agreement on the safe-haven construct was associated with investment status or gender (Table 7). All expected cell frequencies were at least 5. Prior investment in gold was significantly associated with age group (χ^2 = 10.16, df = 2, p = .006), income group (χ^2 = 12.71, df = 3, p = .005), stream of study (χ^2 = 29.97, df = 2, p < .001) and occupation (χ^2 = 17.24, df = 1, p < .001), but not with gender (B = 0.2140__, B = 0.2141__, p = .190). The proportion who had invested was 55.6% among 18–20-year-olds, 67.4% among 21–23-year-olds and 100% among those above 23; 100% of salaried employees compared

Table 7. Chi-square tests of independence

Test	χ^2	df	p	Cramér's V
Gender × Invested in gold	1.71	1	.190	.132
Age group × Invested in gold	10.16	2	.006	.322
Income group × Invested in gold	12.71	3	.005	.360
Stream group × Invested in gold	29.97	2	<.001	.553
Occupation × Invested in gold	17.24	1	<.001	.419
Safe-haven agreement level × Invested in gold	0.03	1	.862	.018
Safe-haven agreement level × Gender	0.48	1	.487	.070

with 56.3% of students; and 47.5% of B.Tech/Engineering respondents compared with 100% of BBA/Management and Science/Others respondents. High agreement that gold is a safe-haven investment was not associated with prior investment (p = .862) or gender (p = .487). Because age, occupation and stream overlap in this sample (for example, all 16 respondents above 23 were salaried employees and all had invested), these associations should not be interpreted as independent effects.

4.7 One-way ANOVA

One-way ANOVA compared the four construct scores across six grouping variables (24 tests; Table 8). Only one test was significant: the returns score differed across stream groups, F(2, 95) = 3.73, p = .028, with BBA/Management respondents scoring highest (B = 0.2142__), followed by B.Tech/Engineering (B = 0.2143__) and Science/Others (B = 0.2144__). Given that 24 tests were run, about one false positive is expected by chance at the 5% level, and the result does not remain significant under a Bonferroni-adjusted threshold (.05/24 = .002); it should be treated as tentative and no post-hoc comparisons were carried out. All other differences by age, gender, income, familiarity and prior investment were non-significant.

Table 8. One-way ANOVA: F (p) for each construct by grouping variable

Grouping variable (df)	Prices (P)	Returns (R)	Safe haven (S)	Low–High (L)
Age group (2, 95)	0.21 (.808)	2.20 (.116)	0.30 (.743)	0.62 (.538)
Gender (1, 96)	0.30 (.588)	0.02 (.885)	1.79 (.184)	0.36 (.552)
Stream group (2, 95)	0.14 (.873)	3.73 (.028)	0.21 (.811)	2.44 (.092)
Income group (3, 94)	1.06 (.370)	1.51 (.216)	1.11 (.348)	0.49 (.690)
Familiarity with gold (3, 94)	0.12 (.949)	0.62 (.605)	0.78 (.508)	0.27 (.846)

Invested in gold (1, 96)	0.76 (.384)	0.05 (.820)	0.01 (.943)	0.72 (.398)

4.8 Summary of hypothesis testing

Table 9. Summary of hypotheses

Hypothesis	Primary test	Supplementary test	Decision
H1: uncertainty and gold prices	$t(97) = 25.23$, $p < .001$	—	H_0 rejected: respondents perceive a significant impact
H2: uncertainty and gold returns	$t(97) = 17.84$, $p < .001$	Regression of R on P: $R^2 = .001$, $p = .734$	H_0 rejected on perceived effect; no significant linear relationship with price-impact score (partial support)
H3: gold as safe haven	$t(97) = 12.47$, $p < .001$	Regression of S on P: $R^2 = .012$, $p = .292$	H_0 rejected: gold perceived as a safe haven; not explained by other constructs
H4: low vs high uncertainty	$t(97) = 22.73$, $p < .001$	Regression of L on P, R, S: $R^2 = .015$, $p = .695$	H_0 rejected: respondents perceive better performance under high uncertainty

5. Discussion

The results show a consistent pattern of agreement. Respondents believe that financial-market uncertainty, and geopolitical uncertainty in particular, raises gold prices; that gold returns are linked to uncertainty; that gold is a protective investment; and that gold is more attractive and performs better when uncertainty is high. This is consistent with studies that find a positive relationship between gold and indicators such as the VIX and geopolitical risk (Rahmadani, 2025), with evidence that gold responds to geopolitical threats (Baur & Smales, 2018), and with India-specific evidence of safe-haven behaviour during equity downturns (Bhunia & Das, 2025). The very high agreement on the geopolitical item (79.6% agreement) also matches the emphasis placed on geopolitical risk in recent gold research (Li & Liu, 2026; Gupta et al., 2024).

Agreement was noticeably weaker on statements that require a personal or comparative commitment. Only 36.7% agreed that gold is safer than stocks in a crisis (S3), 38.8% that they would prefer to invest in gold when markets become highly uncertain (S5), and 36.7% that gold offers better portfolio protection in high- than in low-uncertainty periods (L5). This is in line with the literature's caution that gold is not automatically the strongest safe haven and that its protective role depends on the market and period (Feder-Sempach et al., 2024; Baur & McDermott, 2010; Kachalia et al., 2026).

The regression and correlation results did not show that respondents who believe uncertainty raises gold prices are also more likely to see gold as a safe haven or to expect higher returns; all models explained under 6% of the variance. Two explanations are plausible. First, the composite scores have very little spread (standard deviations of about 0.25–0.36) and the scales showed poor internal consistency, both of which attenuate correlations. Second, respondents may simply hold each belief independently, agreeing with all statements without linking them, which can occur when positively worded items are answered by respondents with limited investment experience (mean self-rated familiarity 3.2 out of 5). The lack of reverse-worded items means that acquiescence bias cannot be ruled out.

The chi-square results show that experience of investing in gold varies with life stage and occupation: older, salaried and BBA/Management or Science/Others respondents were far more likely to have invested than younger students and engineering students. These variables are highly overlapping in the sample, and the pattern probably reflects earning capacity and exposure to financial products rather than any single demographic factor. Importantly, attitudes towards gold did not differ between investors and non-investors (ANOVA and chi-square, all $p > .38$), which suggests that the belief in gold's protective role is widely shared regardless of personal experience.

6. **Conclusion, Implications and Limitations**

6.1 Conclusion

Respondents perceive financial-market uncertainty as a significant driver of gold prices and returns, regard gold as a safe-haven investment, and believe it performs better when uncertainty is high; all four null hypotheses were rejected on the basis of the one-sample tests against the neutral value ($p < .001$). However, these perceptions were not statistically linked to each other in regression or correlation analysis, differed little across demographic groups, and were not associated with prior investment in gold. Prior investment was associated with age, income, stream and occupation. The evidence therefore supports the view that gold enjoys a strong reputation as a protective asset among the respondents, while it does not establish that this reputation is grounded in a coherent, structured belief system or in actual price behaviour.

6.2 Implications

For investors and advisers, the results suggest that gold is widely perceived as protective and advisers can expect receptiveness to including gold in diversified portfolios; the weaker agreement on personal preference and on gold being safer than stocks indicates that clients still need evidence-based guidance on how much gold to hold and when, particularly as the literature shows that gold's protection is conditional and that trying to time crises is difficult (Baur & Dimpfl, 2023; Wagner & Poppe, 2024). For financial-literacy programmes, the low familiarity scores among many respondents indicate scope for education on the distinction between hedge and safe-haven roles. For policy makers, the finding that gold is seen as protective across groups is relevant to the design of gold-linked financial products.

6.3 Limitations and future research

•The sample is small (B = 0.2145__), non-random and dominated by young male engineering students, so the findings cannot be generalised to all Indian investors.
•The study measures perceptions, not actual prices or returns. The objectives concerning gold prices, returns and low-versus-high uncertainty periods are therefore addressed through beliefs only.
•The scales showed poor internal consistency, all items were positively worded, and the moderating variable (risk aversion / investor sentiment) was not measured. Composite-score results should be treated as exploratory.
•Testing against the scale midpoint of 3 is a weak benchmark for agreement, and multiple tests were run without formal correction except where noted.

Future research should (i) combine survey data with market data, for example gold prices and returns compared across low- and high-volatility regimes using an India volatility index; (ii) use validated multi-item scales that include reverse-coded items and test reliability in a pilot study; (iii) draw larger and more diverse probability samples of active investors; and (iv) test the moderating role of risk aversion and investor sentiment using struc3tural equation modelling or moderated regression.

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