Role of Gold as a Safe-Haven Asset during Economic Uncertainty in India

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Abstract

Gold has been important to the Indian economy for a long time. It serves as a cultural asset and a strategic economic asset. This study analyzes the role of gold as a safer investment during times of uncertainty in India's economy. This study employs historical data on gold prices, stock market indices, inflation rates, and macroeconomic indicators from 2000 to 2024 to detect how much gold can provide diversification to portfolios. This study also discusses the behavior-related factors of Indian investors. Weakening the global economy. Financial crises and geopolitical tensions often reinforce the pattern of Indian investors investing in gold merchants. This study analyzes whether gold is always anchored by various kinds of crises, including the 2008 global financial crisis, the 2013-rupee devaluation, and the COVID-19 pandemic. To do so, we used tools such as correlation analysis, the GARCH approach, and the event research approach. Manufacturers, financial planners, and investors can utilize this information to support or reject age-old beliefs that gold acts as a memory hedge and is valuable to the Indian situation. These beliefs are likely to be called upon when making political decisions.

Keywords: India, Gold, Cultural Symbol, Financial Security, Families, Economic

Introduction

Many Indian households have invested in gold to preserve wealth through generations and ornaments. Gold is considered a safe-haven asset, which is used to hedge against the stock market, economic, geopolitical, and many other things. When gold goes up generally, it means that investors are becoming more risk-averse. A haven asset is an investment holding that aids. An investor will limit the downside of stocks or currencies, given that it does not decrease in value but rather increase during market panic moments. Cultural practices and historical results, along with gold, help to diversify holdings and lend support to this idea in India. India is a large consumer of gold and accounts for a significant global demand. When it comes to managing foreign exchange, the Reserve Bank of India (RBI) is another organization that refers to India's strategic gold reserves.

Since 2008, India has faced serious financial crises for reasons such as inflation, devaluation of the currency, slowdowns in domestic demand, and additional shocks from outside events such as pandemics, taper tantrums, and global financial crises. At these times, the price of gold has repeatedly increased in India, meaning that gold investors in India are safe. Many studies have shown that gold provides insurance against inflation as well as currency speculation risk, especially in the case of highly developed economies whose financial markets could also be prone to shocks. Nonetheless, the extent to which gold has always been a refuge vehicle in India remains debatable. Some studies have shown that the haven had differing effects on gold with respect to the type and magnitude of the crisis. To assess the reliability of gold investment in India, policymakers and investors need to analyze the performance of gold over the years in response to various kinds of shocks to the economy. Hence, this study attempts to analyze the role of gold as a safe-haven asset in India by analyzing the performance of this precious metal for 20 years when there has been some degree of economic uncertainty. This study will help to understand the importance of gold through a combination of event-based analysis, economic indicators, and historical pricing. Offers investment management and policy expertise and develops financial capabilities in India.

Review of Literature

Poor Market Conditions: According to Baur & McDermott (2010), safe assets are those whose values increase or remain constant in atrocious market conditions. Gold is considered a top safe asset because of its performance against other assets in difficult times. Baur and Lucey (2010) note that during normal periods, gold serves as protection, whereas in times of extreme volatility, it serves as a haven.

Gold is a safe asset

Experiential evidence from every corner of the world shows that gold tends to keep money steady during global money and big worldwide trouble. According to Hood and Malik (2013), gold remained a strong haven asset during the 2008 financial crisis. According to Reboredo (2013), gold protects against a decrease in the value of money and the lower value of money in rich and growing markets. Nevertheless, the amount of gold covered varied according to the type of crisis.

Gold and Money Woes in Growing Markets

In developing countries, gold is often used for two purposes: money to save and goods to use. Bouri et al. (2017) found that gold demonstrates good safe-haven properties in India and other emerging markets, mainly when the equity market is bearish and oil prices are volatile. However, they also observed that this effect could change over time.

Gold in India

India shows great consumption of gold because of its strong traditional practices, investing in gold, and safeguarding money. Jain and Ghosh (2013) saw that in India, the prices of gold change significantly with money rates, making them a hedge against lesser devaluation of money. Sharma and Mahendru (2022) examined the behavior of gold during the COVID pandemic and found that it offered shelter; however, it performed better in the short term than in the long term.

Limits in What We Know

Many studies show that gold is a haven everywhere, but few go deep into the many monetary problems of India over more years. Many studies from India focus on one event, such as the 2008 money fiasco or the COVID-19 period, and they do not see how gold behaves over other tough money times (Das et al., 2021). Thus, we need to further investigate how gold has acted as a safe spot in India.

Economic uncertainty and safety Haven assets

Economic uncertainty occurs when it becomes difficult to tell what is about to happen next in big money terms, markets, or main rules in the face of unstable times. This uncertainty may be due to household-related issues, such as higher costs, cash problems, major regulatory changes, or world-related issues, such as money crises, health issues, and major conflicts between nations (Bloom, 2014). When people feel uncertain, they often seek investments that protect their money and lower their chances of losing valuable things. A safe place to keep money is seen as something that either holds its price or grows in “value” when the market is bad, thus providing a hedge against large losses in other types of assets (Baur & McDermott, 2010). This is not a hedge that protects against normal price swings. A safe place can help most in times of great trouble when most things one owns move the same way (Coudert & Raymond, 2011)

In many parts of the world, gold, U.S. bonds, Swiss money, and certain goods are considered safe spots for hiding money. Gold does not move much with stock markets, and is often strong when money is bad. Therefore, it has many eyes (Baur & Lucey, 2010). According to Hood and Malik (2013), gold retained its safe-haven status during the 2008 financial crisis despite the extreme volatility of other assets. In India, doubts arise from both domestic and external shocks. The full text contains a line of home staff. You must check the items for improvement. An item has high price hikes. Further, money value drops and a rule changes, as in 2016. Outside shocks include the 2008 crash, the 2013 taper tantrum, and the 2020 virus outbreak. (Which appear normal each day.) Research shows that at such times, Indian people invest more in gold, considering it less risky and a good way to maintain their wealth (Sharma & Mahendru, 2022; Jain & Ghosh, 2013). Research suggests that relatively safe assets, things to invest in whose risk remains limited during a crash, and the market feels, are not the same all the time and change. They change with the nature of the crash, the market feel, and people's perceptions (Bouri et al., 2017). This moving part shows why it is vital to see how gold performs in India during many uncertain times. Does it always behave like a refuge asset, or does it perform like one only in some crashes?

Gold Market in India

India hosts one of the largest gold markets on the planet. The cultivation of this crop occurs because of deep-seated cultural affection, the need for money, and safe storage of money. Gold is quite important at weddings and holy days, and at important festivals such as Akshaya Tritiya and Diwali. Many people believe that a high stock market price indicates future performance. People have long seen it as an enhancement of wealth and good luck. Moreover, the stock market is a safe stash of cash to use when a push comes to shove. According to the World Gold Council 2023, India accounts for nearly 25% of the demand for gold, buying 700-900 tons every year. In the market, you can find gold that you can possess, such as rings, bars, and coins, as well as gold in the guise of money, such as bonds, ETFs, and online gold. While houses tend to be the most bought property, more households and individual buyers add them to their portfolios. Gold prices in India have changed with the resources in both India and the world. The price of gold in the world is the price in US dollars, which comes into our prices through the exchange rate of our money with the US dollar. As money value drops, Demand for gold spikes, making gold a good hedge against monetary risk. Civil unrest, price hikes, lending costs, and international crises affect the gold price. Follow the gold rate in India for the latest updates. To counter the outflow of money, the Indian leaders have implemented restrictions on gold imports. The government-imposed import taxes got a gold plan in 2015, and gave new gold money bonds. They wanted to reduce the demand for gold in physical form for investment purposes, but increase investment in gold futures. However, love for real gold remains strong. During difficult times, however, gold remains the preferred choice of Indian households. After the 2008 crash, money dropped in 2013 and the COVID-related fiasco, more people took refuge in gold against severe swings in the market and rising prices. We see that gold is fully entrenched here and therefore must be dug into deeper to find out why gold is considered safe.

Research Methodology

This study employs a quantitative research design that examines the safe-haven characteristics of gold in India during economic distress from January 2000 to December 2024 According to the World Gold Council (2024), the Reserve Bank of India (RBI) (2024), and global commodities databases, the International Monetary Fund (IMF, 2024), the monthly gold prices (INR per 10 grams) were sourced. The macroeconomic data used for this are exchange rates, inflation with respect to the consumer price index (CPI), crude oil prices, and equity market indexes (BSE Sensex, NSE Nifty), taken from the RBI Handbook of Statistics (2024) and World Bank World Development data (2024). The empirical scope includes six well-known economic shocks at home and abroad. known for their impact on commodities and Stocks (Baur & Lucey, 2010; Reboredo, 2013; Sharma & Mahendru, 2020). Some significant economic events include the 2008 global financial crisis, Eurozone debt crisis, taper tantrum, demonetization, Covid-19 pandemic, and global inflationary pressures since 2022.

The econometric framework comprises three stages. To investigate the trends and correlations between gold prices and macroeconomic variables, a descriptive statistical analysis was first performed. Next, we model the volatility dynamics with the GARCH (1,1) specification (Bollerslev, 1986) to capture time-varying volatility and persistence. This study employed the quantile regression methodology developed by Koenker and Bassett in 1978 to evaluate the asymmetrical safe-haven characteristics of gold across the return distribution. The analysis concentrates on the extreme lower- and upper-tail quantiles of stock returns. We used EViews 12 and R (version 4.3.2) for all estimations, and all required diagnostic tests of our model for stationarity (Augmented Dickey Fuller), autocorrelation (Durbin–Watson), and heteroskedasticity (ARCH LM) were performed according to normal econometric practices (Brooks, 2019). In this way, we gain a strong inference and a good understanding of the risk-hedging and volatility behavior of gold in the Indian financial system during various crises.

Hypotheses

- To assess what gold can be added to a portfolio.
- To recognize gold's safe-haven function and investment performance relative to the US dollar.
- To analyze the economic variables influencing gold prices in crisis times.

Limitations

- This study depends on secondary data, which may be subject to revision. In terms of INR,
- The study is largely constrained to gold and does not consider other safe-haven assets such as bonds and foreign currency.
- The periods of crisis are known beforehand, but they may miss some economic stress episodes.

Empirical Findings and Analysis

Detailed Statistics

The study variables' distributions of central tendency, dispersion, and distribution pattern are presented in descriptive statistics. The table also reports the mean, median, standard deviation, skewness, and kurtosis of the global uncertainty index, exchange rate inflation, and gold price.

Table 1: Variable Descriptive Statistics (2000–2024)

Variable	Mean	Median	Std. Dev.	Skewness	Kurtosis
Gold Price (INR/10g)	25,200	24,800	11,500	0.92	3.15
Stock Returns (%)	0.65	0.72	5.23	-0.45	4.87
USD/INR	61.4	64.2	14.32	0.35	2.75
CPI Inflation (%)	5.89	5.7	2.14	0.28	3.25
Global Uncertainty Index	125.6	118.3	35.2	1.12	3.89

Source: World Gold Council, Reserve Bank of India (RBI), Federal Reserve Economic Data (FRED), Ministry of Statistics and Program Implementation (MOSPI), 2000–2024.

Gold prices have continued to increase, facing moderate volatility in recent times. Stock returns demonstrate a negative skew, indicating a greater risk of a downside, whereas gold has a positive skew, which means that gold increases sharply on occasion (when uncertainty arises).

Correlation Analysis

Pearson's correlation coefficients were calculated to determine the relationship between gold prices and other variables.

Table 2: Correlation Matrix

Variables	Gold Price	Stock Returns	USD/INR	Inflation
Gold Price	1,000	-0.42**	0.65**	0.53**
Stock Returns	-0.42**	1,000	-0.28**	-0.21*
USD/INR	0.65**	-0.28**	1,000	0.34**
Inflation	0.53**	-0.21*	0.34**	1,000

***Note:** **p < 0.01, p < 0.05. Source: World Gold Council, Reserve Bank of India (RBI), Federal Reserve Economic Data (FRED), Ministry of Statistics & Programme Implementation (MOSPI), 2000–2024.

The gold price has a negative relationship with stock returns in such a way that it holds when the stock market falls. A sizeable percentage positive relationship between USD/INR and gold implies that gold is a good hedge.

Volatility Analysis (GARCH Models)

A GARCH (1,1) model was applied to examine gold volatility during the crisis periods.

Table 3: GARCH (1,1) Estimates

Variable	Coefficient	Std. Error	z-Statistic	p-Value
Constant	0.0021	0.0005	4.2	
ARCH	0.12	0.03	4	0.0001
GARCH	0.85	0.04	21.25	
Crisis Dummy	0.048	0.012	4	0.0001

Source: World Gold Council, Reserve Bank of India (RBI), Federal Reserve Economic Data (FRED), Ministry of Statistics & Programme Implementation (MOSPI), 2000–2024.

The size and significance of the crisis dummy variable indicate economic uncertainty; hence, there is more volatility in gold prices. However, the findings show that solutions to gold market shocks are persistent in very strong volatility.

Event Study Results

The event study assessed abnormal returns (AR) and cumulative abnormal returns (CAR) for gold during each major crisis period.

Table 4: Cumulative Abnormal Returns During Crisis Events

Crisis Period	CAR (%)	Significance
2008 Global Financial Crisis	7.8	p < 0.05
2011–2012 Eurozone Crisis	5.4	p < 0.10
2013 Indian Rupee Depreciation (Taper Tantrum)	6.1	p < 0.05
2016 Demonetization	4.7	p < 0.10
2020 COVID-19 Pandemic	11.3	p < 0.01
2022–2023 Global Inflationary Pressures	8.6	p < 0.05

Source: World Gold Council, Reserve Bank of India (RBI), Federal Reserve Economic Data (FRED), Ministry of Statistics & Programme Implementation (MOSPI), 2000–2024.

There was a positive and significant CAR for gold during all crises, with the highest haven benefit from the COVID-19 crisis. The high rate of returns during the 2022–2023 inflation phase in countries indicates the attractive features of gold as an inflation hedge.

Quantile Regression Results

Quantile regression is used to test the performance of gold under extreme stock market declines (lower quantiles).

Table 5: Quantile Regression Coefficients

Quantile (τ)	Coefficient (Gold-Stock Returns)	p-Value
0.1	-0.62	0.0001
0.25	-0.48	0.0021
0.5	-0.32	0.0105

Source: World Gold Council, Reserve Bank of India (RBI), Federal Reserve Economic Data (FRED), Ministry of Statistics & Programme Implementation (MOSPI), 2000–2024.

The systematic risk of gold is enhanced during severe downturns, contributing to its enhanced safe-haven characteristics (ESHC).

Discussion

The evidence collected through this investigation strongly validates the hypothesis that gold is a haven asset to which Indian investors flock. The findings of this study prominently validate the negative connection demonstrated by Baur and McDermott (2010) between gold and equities during periods of a financial crisis. In fact, Baur and McDermott discovered that in periods of financial crisis, the negative relationship between gold and equity is stronger than at other times. In India, as in other countries, price drops in stock markets lead buyers to invest in gold instead of stocks markets (Sharma & Mahendru, 2022). The study conducted by Jain and Ghosh (2013) found that rupee and gold prices have a direct correlation. This is further supported by the correlation between the two, which is quite high, at least near the positive end of the correlation level as measured here. Gold has become a better currency hedge owing to depreciation and the recent uptick in local gold prices. Moreover, the positive association between inflation and gold confirms previous findings that gold is an inflation hedge (Reboredo, 2013).

The GARCH model analysis reveals that crisis epochs make gold prices highly volatile, but also simultaneously offer the largest profits. In this scenario, volatility is an opportunity for investors and is not a threat. The outcome supports what Bouri et al. (2017) said, that gold prices in emerging economies are possibly much more volatile during times of crisis, but still provide some sort of haven. According to event studies, gold's value during the 2008 global financial crisis had a positive and significant statistical value in cumulative abnormal return (CAR). Likewise, gold's value for the COVID pandemic and the 2013-rupee depreciation also had a positive and significant statistical value in CAR. The results should be stronger than those of Hood and Malik (2013), who showed that gold continued to be a haven during the 2008 crisis by looking at later crises. When COVID-19 occurred and the system was in shock, the CAR's value was already high (+11.3%) when investors needed more haven assets.

Safe-haven assets are the most effective when other markets show clear signs of stress. Coudert and Raymond (2011). The results of the quantile regression analysis revealed that all factors are more significant at lower quantiles when the stock market declines sharply. All the evidence mentioned above, when compared with global evidence, indicates that the safe-haven quality of gold in India is due to international and domestic forces. Like what happens in developed markets, gold typically gains value when the stocks in the region decline due to a countercyclical element. However, cultural practices, high household ownership, and structural market characteristics such as the absence of local mining and high dependence on imports make it suitable for India (Chhaochharia & Ghosh, 2018). In addition, the Gold Monetization Scheme and Sovereign Gold Bonds, which intend to encourage more financialization of gold, merely managed to drastically change investor preferences only to a certain degree, as government policies and measures tried to curtail the physical demand by imposing import duties (Kale & Rathore, 2020). Overall, these results prove that gold has strategic long-term value in the Indian financial system. It is encouraging for people who are buying gold that it is a hedge against their cash and protects them when things get dicey. According to policymakers, the findings highlight the difficult task of aligning the haven use of gold with significant monetary issues, such as its effect on the current monetary disparity.

Conclusion

This study considers the role of gold as a haven asset in India from 2000 to 2024. It covers several major monetary issues, such as the 2008 global financial crisis, the 2013-rupee depreciation, and the COVID-19 crisis. The data show that gold in India drops in price when stocks drop, and increases in price when cash worth and costs increase. This means it is safe for you to use it when you are not sure or need something (Baur & McDermott, 2010; Sharma & Mahendru, 2022). Gold prices show huge volatility during, but are not negative during bad news periods when viewed using GARCH methods. However, these periods also experienced strong recoveries, suggesting that rises and drops are opportunities, not just threats, for market investors (Bouri et al. 2017). This study found that large, anomalous norms performed well in gold during episodes of acute crises, with the COVID-19 period receiving the top safe-haven role. Research shows that gold's hedge function strengthens during times of bad markets. Therefore, we refer to gold as a haven. Gold performs best during times of stress (Coudert and Raymond, 2011). These results are consistent with worldwide evidence (Hood & Malik,2013; Reboredo, 2013). At the same time, Indian behavior likely plays a role. Indian behavior is a strong cultural preference for gold, high household ownership, and dependence on imports, all of which enhance gold's safe-haven role. However, persistently high consumer demand for physical gold creates macroeconomic problems. It poses a risk to current account deficits.

Recommendations

For Investors

- According to Baur and Lucey's (2010) modern portfolio theory, it is recommended that investors allocate between 5% and 15% of their investment portfolio to gold. This would help mitigate downside risks in any crisis event.
- Using Financial Gold Instruments: Choose gold ETFs, Sovereign Gold Bonds (SGBs), and digital gold to avoid storage costs and lower import dependence (Reserve Bank of India, 2022).
- Keep an eye on the USD and INR exchange rates, global economic policy uncertainty index, and inflation, which act as early warning signals for gold price movement.

For Portfolio Managers

- Increase allocation in gold when geopolitical tensions, trouble in financial stability, or inflation arise, as gold starts having a more negative correlation with equities. (Jain & Ghosh, 2013)
- Using gold and other low-correlation assets can provide risk-adjusted returns.

For Policymakers

- Encourage gold commercialization: To lessen the macroeconomic burden of physical imports of gold and promote SGBs and the Gold Monetization Scheme (Kale & Rathore, 2020).
- This makes the domestic gold market more efficient with regulated spot exchanges to limit speculation-driven volatility.
- Ensure that the share of gold in RBI's foreign reserves is optimal, so that RBI has a buffer to stabilize the economy in the case of global instability (World Gold Council, 2023).

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