

Bullion Price Volatility and Portfolio Diversification: Is Gold Still a Safe Haven?

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ABSTRACT

The price of Gold is primarily dependent on the demand. Metals have an inelastic supply. Due to the in elastic supply of the metal the price has been increasing as demand increases as it has been considered a 'safe haven'. Research has indicated that the rising price has been most prominent when there have been major economic crisis that have impacted the world, examples of this are the oil crisis in the 70's, the Global Financial Crisis of 2008, to name a few. But in recent years especially after the Covid 19 crisis the property of it being a safe haven has been shaken. As during this time the crisis existed but the price of Gold depreciated, encouraging a re-look at the label of gold being considered a permanent "safe haven". This paper attempts to understand the reasons and circumstances as to when and what impacts this property of the metal and what are the factors that change the perception of this characteristic.

Keyword: Safe Haven, Oil Crisis, Global Financial Crisis, Covid 19, Portfolio Diversification, market volatility, geo political crisis.

Introduction

Gold has played a significant role in the global monetary system for centuries. During the nineteenth century, the gold standard was widely adopted by developed economies, allowing paper currency to be converted into a fixed quantity of gold. Under this system, the value of a country's currency was directly linked to gold. Although the importance of gold in the formal monetary system declined following the collapse of the Bretton Woods system, it continues to hold a prominent position in the portfolios of central banks and individual investors. Its enduring appeal can be attributed to its ability to preserve value over time, its high liquidity, and its perceived stability during periods of economic and financial uncertainty.

Gold is often considered a reliable investment during times of market volatility, geopolitical tensions, and economic instability. When uncertainty increases, investors tend to adjust their

portfolios by reducing exposure to risky assets and shifting towards investments that may help protect their wealth. In this context, gold has attracted considerable attention as a potential hedge against uncertainty and a means of reducing portfolio risk. Previous studies have examined its role in portfolio diversification, highlighting its potential to improve risk-adjusted returns and reduce exposure to fluctuations in financial markets (Jaffe, 1989; Draper et al., 2006; Li and Lucey, 2017; Yan and Garcia, 2017). Similarly, researchers have investigated whether gold can protect investors against inflation and the erosion of purchasing power, although its effectiveness may vary across different economic conditions (Adrangi et al., 2003; Worthington and Pahlavani, 2007; Blose, 2010).

Despite its longstanding reputation as a store of value, the effectiveness of gold as a financial hedge is not necessarily consistent across all market conditions. Its ability to protect investors may depend on the nature of the economic shock, the prevailing level of uncertainty, and the relationship between gold prices and other financial assets. Therefore, understanding the role of gold in investment portfolios remains important for investors and policymakers seeking to manage financial risks and preserve wealth in an increasingly uncertain global economy.

Gold is used as an universal safe haven investment for all countries in the world. Researchers have indicated that Gold is used as a global asset, it also reacts to extreme price movements as well as the level and speed of changes that occur in an economy. How important are price dynamics in using this asset as a 'safe haven'? (Phillips, Shi and Yu (2015). The movement towards stocking 'Gold', as a safe haven increased when there was the European sovereign debt, stock market crash and oil crisis which led to a steep increase in the oil prices. But it has been observed that gold has been a 'weak haven', for certain set of investors. This was most noticeable during the 'covid 19' pandemic. When uncertainty was so large that the movement to any metal was also depressed, resulting in bullion being a 'weak haven'.

Literature Review

Gold and other precious metals are widely considered safe-haven assets because investors often turn to them during periods of economic uncertainty and financial market instability. They can help investors protect their wealth against both expected and unexpected market risks. According to Baur and Lucey (2010), a hedging asset is one whose returns are not correlated with those of another asset or portfolio. A safe-haven asset, on the other hand, maintains a negative or zero correlation with another asset during periods of market stress. Gold has therefore attracted considerable attention as a potential safe-haven investment during financial crises, sovereign debt problems, oil price fluctuations, stock market declines, inflation, and exchange rate instability. Its role as a safe haven has also been examined during more recent crises, including

the COVID-19 pandemic. However, gold does not always provide complete protection, as its performance can vary depending on market conditions and the type of risk investors face.

A sustained fall in bond prices can lead to higher bond yields and wider yield spreads, reflecting growing concerns among investors about a government's ability to meet its financial obligations. Similarly, a negative shock in the stock market can cause share prices to fall sharply, resulting in higher earnings-to-price ratios. These movements may signal increasing uncertainty, changing investor expectations, and rising financial stress. However, such changes do not necessarily indicate a crisis, as they may also reflect normal market fluctuations. To distinguish unusual movements from ordinary changes in financial indicators, this study uses the random-drift martingale process as a framework for understanding how financial variables evolve over time. The Phillips–Shi–Yu (PSY) procedure is then applied to bond yield spreads and earnings-to-price ratios to identify episodes of explosive behaviour that may indicate emerging financial instability. This approach helps the study examine when financial market pressures become unusually intense and whether these episodes can serve as early warning signals of potential financial distress.

The Phillips–Shi–Yu (PSY) procedure is appropriate to understand this volatility because it provides a systematic method for identifying and dating episodes of explosive behaviour in financial time-series data. Phillips, Shi, and Yu (2015) developed this approach to improve the detection of multiple episodes of financial exuberance, particularly when such episodes occur at different points within a longer period of otherwise normal market activity. The PSY procedure tests whether the observed series exhibits periods of explosive behaviour relative to a unit-root benchmark. It gives an insight on the reason for the sudden buying of bullion under certain circumstances.

The findings suggest that gold does not provide the same level of protection against every type of risk. For example, gold may offer some protection against stock and bond market risks because its price does not always move in the same direction as these markets. Gold can be particularly useful against currency risk because its value may rise when a currency loses value. During European sovereign debt crises, investors may also turn to gold because they are worried about the safety of their investments. However, gold offers less protection during stock market crashes and periods of rising oil prices. This may happen because gold prices can also fall when investors sell their holdings to raise cash or respond to changing market conditions. Similarly, during the COVID-19 pandemic, gold did not provide consistent protection against market uncertainty.

Research has also indicated that the results can change depending on the method used to analyse financial data. This means that researchers need to choose their methods carefully when

examining gold's role as a safe-haven asset. Overall, studies have indicated that although gold can help investors manage financial risks, it does not guarantee protection in every crisis. Its effectiveness depends on the type of risk, market conditions, and the method used to study its performance.

Precious metals such as gold, silver, platinum, and palladium have been popular investment choices for many years. Investors often buy these metals to protect their wealth, especially when the economy is uncertain or financial markets are unstable. Since precious metals are limited in supply and have value in global markets, investors may use them to protect their savings and reduce investment risks (Sineni, 2023).

Another reason investors choose precious metals is that they can help spread risk across different investments. For example, rather than investing all their money in stocks and bonds, investors may also hold gold or silver. This is known as **diversification**, which means spreading investments across different assets to reduce the impact of losses in any one area. Precious metals may also help protect against inflation, as investors sometimes turn to them when they are concerned that rising prices will reduce the value of their money (Guryanova & Chernova, 2019).

Precious metals also differ from stocks and bonds in important ways. A bond depends on the issuer, such as a company or government, repaying the money borrowed. Precious metals do not depend on such repayment promises and therefore do not carry the same default risk as bonds. However, their prices can still rise or fall significantly. Their value is influenced by factors such as supply and demand, global events, and investor confidence. These characteristics can make precious metals useful for diversifying an investment portfolio, particularly when their prices do not move in the same direction as stocks and bonds (Krawiec, 2016). *This paper examines whether at all times bullion and gold are protecting agents during financial uncertainty. Whether these assets genuinely reduce investment risk investment risk, and what is the idea of them being 'safe haven's'. Are these metal's used for reduction of risk, or do they protect investors during financial crisis? Does volatility of metals impact their property of being a 'safe bet'.*

Research Gap and Methodology

An attempt would be made to address the role that bullion plays as an asset, against volatility. Does it protect investors from volatility of the financial market? How do investors address volatility in the price movement of gold and other similar assets.? Is it an effective instrument of "portfolio diversification"? Is 'gold', the safest bullion?.

The methodology adopted would be the mixed method type that includes both quantitative and qualitative methods. All findings would be from authentic secondary sources.

Analysis

Gold has long been considered a valuable investment because it helps to preserve wealth during periods of economic uncertainty. It is also widely used as a hedge against inflation and currency depreciation (Chua and Woodward, 1982; Ghosh et al., 2004; Nguyen et al., 2020; Wang and Lee, 2022). During periods of high inflation, gold and other precious metals may help investors protect the real value of their investments (Sineni, 2023). Studies have also highlighted the role of gold as a safe-haven asset during financial crises and periods of market instability (Baur and Lucey, 2010; Baur and McDermott, 2016; Fatima et al., 2022). The ability to provide protection may vary depending on the circumstances that cause the market to fall. Therefore, it is important to understand whether gold offers protection during all types of market downturns or only during particular events.

Gold was considered a better and a greater protection during the Global Financial Crisis than it was during the Covid-19 pandemic. Thus it was observed by various researchers that, the effectiveness of gold may also depend on the reasons behind a market decline, rather than only on the country or type of market being examined. *This belittles the fact that “gold is the only strong safe-haven asset”.*

More specifically, gold provides stronger protection when stock market declines are triggered by negative macroeconomic news, terrorist attacks, and changes in international trade policy. In these situations, gold has demonstrated a strong safe-haven role. However, its protective ability is weaker or absent when stock market declines result from other factors, such as commodity price movements, election results, and certain other economic or political developments.

These findings also help explain why gold performed differently during the Global Financial Crisis and the COVID-19 market downturn. The Global Financial Crisis involved a greater influence on the stock market resulting in a sharp decline associated with negative macroeconomic news. Since gold tends to perform better during downturns driven by such news, it is reasonable that gold offered greater protection during the GFC than during the COVID-19 stock market decline.

These observations have important implications for investors and portfolio managers. Investors should not assume that gold will protect their investments during every stock market crisis. Instead, they should consider the factors driving market movements before deciding how much gold to include in their portfolios. Gold may be particularly useful during periods of macroeconomic uncertainty and when trade policy developments or terrorist attacks create market instability. Understanding this relationship can help investors make better investment decisions and develop more effective portfolio diversification strategies. Future research could

extend these findings by examining how portfolios containing gold, stocks, and other potential safe-haven assets perform in the days following different types of market downturns. However, investors may need additional diversification strategies when market declines are driven by other factors.

Time line 1-Classification of Gold's Safe-Haven Status Under Different Market Conditions

Reason for stock market decline	Not a safe haven	Weak safe haven	Strong safe haven
Macroeconomic news and outlook	0	1	8
Corporate earnings and outlook	0	8	1
Other non-policy reasons	5	4	0
Unknown reasons	0	9	0
Monetary policy and central banking	0	9	0
Government spending	0	9	0
Military and security actions	0	9	0
International trade policy	0	0	9
Commodity-related developments	6	3	0
Elections and political transitions	0	9	0
Foreign stock markets	0	9	0
Other policy-related reasons	0	9	0
Regulation	1	8	0
Terrorist attacks	0	0	9

Note: The table above summarises the classification of gold's safe-haven performance across nine alternative model specifications. These include different GARCH models, models incorporating lagged gold or S&P 500 returns, and an alternative proportional assignment rule.

Interpretation of the above table

The above table shows that gold has the ability to protect investors, but it varies according to the reasons behind stock market declines and other crisis situations.

The following are various aspects and observations of Gold's various properties across different time periods:

- **Strong safe-haven performance:** Gold was classified as a strong safe haven in eight out of nine specifications during downturns caused by macroeconomic news. It was classified as a strong safe haven in all nine specifications for downturns associated with international trade policy and terrorist attacks.

- Weak safe-haven performance: Gold generally provided weak protection during downturns related to corporate earnings, monetary policy, government spending, elections, and several other factors
- Limited or no protection: Gold was not classified as a safe haven in six out of nine specifications during commodity-related market declines. It also failed to qualify as a safe haven in five out of nine specifications for declines caused by other non-policy factors

Time line 2: Important milestones of the valuation of Gold



Source: Standard Chartered

The above graph is a clear indication of when Gold has been used as a 'safe haven', and when not.

If Gold is considered over a long period of time say forty plus years, then it could be considered a good inflation hedge. During the time period when inflation is high, the purchasing power of fiat currency falls. This is when the demand for gold holds or even tends to increase in value. In addition the fact that gold is limited in supply adds to the increasing price of the metal. This inverse relationship has been in existence seen since the 1970's.

Timeline 3: Impact on the metal from 1973/74 onwards.

Year	Crisis	Impact on Gold	Impact of the crisis on other factors
1973/1974	Oil Crisis	65%	213% increase in oil
2008	GFC		Steep increase in inflation.
2011		USD 1,917.90 an ounce.	Inflation
2019-2020	Covid Pandemic	USD 2000	Mostly Deflation
2026	US - Iran conflict	No fixed trend, a lot of volatility	Increasingly Price has been moving up.

Source: Standard Chartered

Its role in asset allocation: offering low correlation to both equities and bonds, while acting as a portfolio stabiliser.

As the US- Iran conflict continues and China gains in importance there is a possibility of downgrading the importance of the dollar and replacing it with another single currency, maybe the Yuan or with a combination of various currencies. In the interim period the importance of Gold as a safe haven increases. One of the most important characteristics of this asset is it's low risk attribute, compared to other assets during times of uncertainty.

Time line 4: Price of fluctuating of Gold Prices from 1968 till 2023.



Source: FTSE Russell, LSEG, March 31st 2025.

Table 1: Returns on Gold during 1972-2025

	1972 to 1976	1977 to 1982	2007 to 2015	2020 to 2025
Cumulative Return at end of period	174%	144%	85%	90%
Peak Returns during crisis	302%	261%	154%	90%
Drawdown from Peak	-128%	-117%	-69%	0%

Source: FTSE Russell, LSEG as of March 31, 2025.

The geo political crisis in the world has led to the accumulation of gold as a ‘reserve security’, especially from 2021 onwards, the main reasons being that the Russia-Ukraine crisis have reshaped ‘global security dynamics’, and countries have started to prefer neutral reserve assets like ‘gold’. These conflicts tend to increase inflation due to the disruption in the ‘Global supply chain’.

The demand for this metal has a ‘dual purpose’ one as a ‘real asset’ whose demand has been increasing especially since the geopolitical tensions in the world and the other as a security asset that the world wants to move towards to reduce dependence on ‘dollar reserve’.

As an Investment it has a 'low correlation to equities, bonds and commodities, and thus becomes an important part of an individuals portfolio, especially so when the geopolitical conflicts in the world leads to doubts on the efficacy of 'traditional sources of portfolio hedging'. Accumulation of gold at times maybe safer than other securities as it acts as a hedge in both inflationary and deflationary situations. It is a proactive tool for acting against risk as well as capturing value across different situations. It has moved from a defensive store of value to a dynamic, strategic tool for a complex world in an uncertain geopolitical space.

Limitations

The main limitation of the study is the lack of primary data that could have been corroborated with the analysis that has been depicted in the study using authentic secondary sources. This was not possible due to lack of finance and paucity of time.

Conclusion

Gold has been traditionally been used as a safe haven mainly when the economies of the world have had to face economic issues, and their macro economic aggregates have not followed the path chartered by them by the central banks. Given it's limited supply any increase in demand leads to an increase in their price. Under normal situations in the world price changes have been minimal, but under various macro turmoils, like the oil crisis, or the Global Financial Crisis the demand for this metal has increased, leading to an upsurge in it's value. But in recent years it has been observed that in the case of the Covid 19 pandemic there was a decrease in the value of Gold. This led researchers to conclude that it is not always necessary that the price of metals will increase under all circumstances. There are situations where it is not considered a 'safe haven' and other conditions when they are not considered 'safe'. Along with this is the increased demand towards 'dedollarisation' which has further led to the increasing demand for this metal. Central banks around the world are attempting albeit slowly to change its reserves from dollars to a safe metal. But this may not happen aggressively in the near future.

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