



Comparative Study on the Safe-haven Asset Characteristics of Bitcoin and Gold

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Abstract. With the increasingly turbulent political situation and the outbreak of public health events without warning, it will not only affect people's physical health, but also affect the global financial market, causing the market to fall into a huge crisis, thus leading to a continued decline in the worldwide economy. During periods of financial market turmoil, many investors fall into panic and urgently need a "haven" to protect their assets. With the rise of the digital economy, gold no longer seems to be the only safe-haven option. Bitcoin has gradually entered the investors' field of vision. Some investors believe that Bitcoin can become an emerging safe-haven asset that is as important as or surpasses gold. Based on an analysis of the safe-haven properties of Bitcoin and gold during major political and historical events and public health events, this article will clarify which of the two is more suitable as a reliable contemporary safe-haven asset and provide advice to investors.

Keywords: Bitcoin, Gold, Safe Haven.

1 Introduction

With the rapid development of the global economy, personal asset levels are also gradually increasing. However, due to the instability of the economic situation, many investors are unable to predict the next direction of the economic market. It is too late to take measures when the market is in crisis and turmoil. This endangers the economic assets of every investor. Currently, it is particularly important to choose a safe-haven asset to protect one's rights and interests. When choosing a safe-haven asset, should still choose to believe in gold, which has stood the test of history, as the first choice for haven, or choose Bitcoin, which has risen with the development of the digital economy? How to make the right choice between the two controversial ones?

Traditionally, gold has become the first choice for many people because of its physical scarcity and historical status. With the issuance of Bitcoin, its artificially stipulated "limited issuance" makes it have the same scarcity as gold. At the same time, the transparency of online virtual currency transactions makes Bitcoin fairer and more open than gold in terms of purchase and sale. In addition, due to other digital properties that are superior to physical objects, some scholars regard Bitcoin as "digital gold" and believe that Bitcoin may become an emerging safe-haven asset that is equivalent to or even

replaces gold. Although both Bitcoin and gold can maintain asset stability to a certain extent, the factors that affect the value changes of the two are very different. Gold is susceptible to factors such as the global economic situation, inflation, and major political events. Since Bitcoin only exists in a virtual network, it is more susceptible to non-traditional factors such as technical issues and regulatory policies. Especially during the Russia-Ukraine conflict and the COVID-19 pandemic, the price of Bitcoin fluctuated greatly, with the maximum drop even exceeding 40%. Although the two have different abilities to adapt to the market, some scholars still believe that Bitcoin can be used as an asset to replace gold. When economic conditions become turbulent or technological monopolies intensify, the prices of gold and Bitcoin in financial markets tend to fluctuate. Due to the uncertainty of future information and the high unpredictability of the basis and increase of price changes of the two, it is difficult for most investors to accurately judge their trends. Therefore, when choosing a suitable safe-haven asset, it is necessary to deeply analyze and compare the similarities and differences between gold and Bitcoin in terms of properties, mechanisms, and market performance to make more rational and scientific investment decisions.

This article will analyze the data changes in market prices during major global events in recent years and periods of economic turmoil, aiming to evaluate the similarities and differences between Bitcoin and gold in terms of their safe-haven functions, and to delve into their different effects in different aspects, in order to provide guidance for scholars and those who wish to purchase safe-haven assets.

2 Theoretical Analysis Based on Facts

Hedge funds, also known as hedge funds in English, refer to a defensive investment strategy that combines financial derivatives such as financial futures with finance to reduce risks and offset possible losses when conducting financial activities such as transactions in the event of a crisis or market downturn. A common hedging strategy is to purchase some financial derivatives, which include futures, options, forward contracts, etc. These can play a role in hedging to a certain extent. Just like when are uncertain about future economic market changes, can sign a futures contract to ensure that no matter what the economic situation is in the future, can obtain stable economic income, and both parties to the contract can reduce risks.

After some financial derivatives were combined with finance, some physical financial products like gold emerged. And because of gold's unique physical property of scarcity, its price has always tended to be high since it began to circulate in the financial market. In early 2025, after Trump came to power, he announced a 10% tariff on all imported goods into the United States and even imposed tariffs of up to 145% on Chinese goods. Such irrational economic decisions often lead to instability in the economic market. More and more investors bought large amounts of safe-haven assets such as gold, causing the gold price in New York to break through US\$3,400 per ounce, setting a record high. Buying gold is a good choice when the market is extremely unstable, but gold does not seem to be the only option.

Under Trump's tariff policy, some experts believe that in the long run, Trump's policy may weaken the dominance of the US dollar and instead promote the creation of space for alternative assets, including Bitcoin. Bryan Rualan pointed out in his article that after taking office, Trump will appoint Paul Atkins, who supports cryptocurrency, as chairman of the U.S. Securities and Exchange Commission [1]. This clearly shows that Trump supports digital currencies such as Bitcoin, which provides a strong impetus for the growth of Bitcoin's value, causing the price of Bitcoin to fluctuate by about 10%. It was also discovered that some US lawmakers hold digital currencies such as Bitcoin. As of April 24, 2025, the value of Bitcoin is approximately US\$93,542, and gold is approximately US\$3,314 per ounce. In terms of absolute value, the value of Bitcoin is already far higher than that of gold. With the current trend, the returns investors will get from purchasing Bitcoin will inevitably be higher than those from gold. However, it is far from enough to judge which one is better from the perspective of value. Compared with gold, whose price becomes stable under long-term influence, Bitcoin has a shorter issuance time, which leads to more drastic price changes when it and gold experience a crisis at the same time. Despite this, some scholars still believe that with the development of technology, the emerging Bitcoin can replace gold as a new safe-haven asset.

3 Bitcoin and Gold

3.1 Bitcoin's Role as a Hedge in Times of Crisis

In recent years, financial markets have become freer and open, providing investors with diverse investment options. At the same time, with the development and popularization of digital currency, people have created a new asset class - Bitcoin. So, in times of crisis, can it become a safe-haven asset for investors to avoid economic losses, along with traditional assets such as gold? Natalia pointed out that COVID-19 is the most serious epidemic in recent years, and its occurrence has had a huge impact on the global economic market [2]. As a virtual currency, Bitcoin can be traded online without leaving home. In theory, its price should fluctuate slightly during the epidemic. But the World Health Organization announced that Bitcoin has experienced considerable volatility, with prices falling from \$8,900 to \$5,165, a drop of more than 40%, reaching its lowest level in a year. The price fluctuations almost surpassed those of other financial assets, but what is optimistic is that the price of Bitcoin recovered much faster than other financial assets. After recovery, the price was even higher than the price a few months before the outbreak. This rapid price recovery feature has led some investors to believe that Bitcoin may have the potential to be a safe-haven asset. Although its price fluctuates dramatically when faced with major events, because it can quickly recover its value after a shock, investors can quickly make up for their losses, causing many people to buy Bitcoin as a safe-haven asset.

And with the influence of factors such as the Federal Reserve's loose monetary policy, the price of Bitcoin has increased significantly, attracting the attention of many international investors. Some even claim that the United States will include Bitcoin in its national strategic reserve assets [3]. At the same time, Bitcoin's price shows high

sensitivity to the diversified returns of time changes. When the correlation between Bitcoin and the S&P 500 daily returns decreases or increases by 0.1, Bitcoin's return rate increases or decreases by an average of 0.15. This kind of return predictability is particularly evident in the Bitcoin market. In contrast, traditional safe-haven assets such as U.S. Treasuries or gold offer absolutely no predictability. James's predictable value feature is not present in traditional safe-haven assets. Bitcoin may be greatly affected by market sentiment and positioning, and it may be more "sensitive" than gold or US bonds [4]. This shows that Bitcoin is not a "stable" safe-haven asset today, but more of a safe-haven alternative that responds significantly to market sentiment.

3.2 Gold's Role as a Hedge in Times of Crisis

During the COVID-19 pandemic, gold, as the most classic safe-haven asset, many investors chose to buy large amounts of gold in order to cope with the plunge in the original value of the asset.

From a historical perspective, gold has generally been viewed as a tool to preserve the value of assets and mitigate investment risks. It became an important liquidity support during the financial crisis. In the United States and the United Kingdom, it is often used as an effective tool to hedge against inflation [5]. Because gold reacts countercyclically to macroeconomic news, it behaves very differently from other asset classes, especially stocks [6]. The price of gold tends to rise when economic uncertainty continues to grow or market confidence weakens, such as when stock market indices plummet. On the contrary, in an environment of a buoyant market economy and controllable inflation, the attractiveness of gold may decline. This countercyclical characteristic makes gold a safe-haven asset that many investors are willing to buy during crises. Gold's identity has changed during the different stages of the COVID-19 pandemic, from being a safe-haven asset for stock indices in the initial stage to being a safe-haven asset for investors in the second stage. The changes in different identities show that a portfolio of gold and other assets is effective in hedging and can cope with increased risks. Although the price of gold fell during the epidemic, the decline was smaller than that of commodities such as global stocks, which also shows that gold can play a significant role as a safe-haven asset in the early stages of responding to the crisis [7].

3.3 Comparison between Bitcoin and Gold

When investors engage in economic activities, their behavior is often influenced by psychological biases and market sentiment. Especially during periods of market crisis or instability. As can see in the prospect theory proposed by Kahneman and Tversky, the psychological pain people suffer when facing losses is far greater than the pleasure they feel when they obtain the same benefits. This aversion to losses makes many investors subjectively choose assets that they believe to be safer and stay away from high-risk assets when facing a turbulent market. They prefer traditional safe-haven assets such as gold [8]. At present, when emerging assets such as Bitcoin have not yet been widely accepted, they tend to think that these assets are highly risky.

At the same time, behavioral finance points out that in periods of information asymmetry or market instability, investors tend to give up independent judgment and choose to follow the mainstream behavior of the market, which is the "herd effect." Because gold was discovered early and has been repeatedly reinforced in many historical events,

many investors have reached a consensus on gold. Therefore, once the market becomes turbulent, investors will buy gold almost reflexively, which invisibly forms gold's "automatic risk-averse logic." In contrast, there is still no consensus in the market perception of Bitcoin. Some young investors may pursue Bitcoin, but more conservative investors or large institutions still regard it as a risky asset and will not choose to buy it but will sell it in times of crisis. The herd effect further expands the trend of prospect theory, that is, when many investors in the market choose to buy gold as a safe-haven asset to deal with the crisis, this will become the choice of more people to reduce the potential losses that may be caused by independent judgment. This inner perception of financial security has led to a significant increase in the demand for gold during the crisis, while Bitcoin's performance has been relatively mediocre.

When an economic crisis breaks out, investors tend to use gold and Bitcoin as key risk hedging tools in the foreign exchange market. This preference is also directly reflected in the significant increase in the proportion of their traditional currency asset allocation [9]. Four representative global stock indices and three major currencies denominated in U.S. dollars were studied from April 29, 2013, to January 5, 2021. After analyzing using the multivariate asymmetric dynamic conditional correlation (A-DCC) model, it was found that both gold and Bitcoin have certain risk hedging capabilities during periods of market stability and turbulence. However, during the COVID-19 pandemic, although gold can still play some safe-haven functions, its hedging effect is generally weak. Except for the Nikkei 225 Index, other assets have not shown obvious safe-haven properties. Due to its extreme volatility, Bitcoin failed to provide robust risk protection during this period [10].

4 Conclusion

This article compares the performance of Bitcoin and gold as safe-haven assets and explores the risk-hedging function of the two in different market environments. As a traditional safe-haven asset, gold has long demonstrated obvious safe-haven properties during financial crises due to its scarcity, stability, and global recognition. Many studies have shown that during financial market turmoil or economic crisis, gold's price tends to rise when the stock market falls or economic indicators deteriorate due to its countercyclical response. Therefore, gold has always been regarded by investors as a reliable option for risk hedging. On the contrary, Bitcoin, as an emerging digital asset, has also demonstrated some safe-haven functions in certain circumstances, but its safe-haven properties are not yet mature due to its drastic price volatility and insufficient historical testing. Bitcoin's wild price swings during the coronavirus pandemic suggest that while it can recover value quickly in the short term, uncertainty remains about its long-term safe-haven potential compared to gold.

From the perspective of long-term asset preservation and profitability, gold remains the best choice for investors as a safe-haven asset. Its physical properties support the purchaser's self-preservation and can provide an excellent value response in times of crisis. Bitcoin is still in the process of development. Although its price is always rising, it reacts too drastically to market sentiment, which will cause its price to be high, but

also the decline to be high. Excessively high prices will provide room for price plunges. When it comes to choosing hedging tools, investors can still choose to buy gold. Bitcoin is more suitable for investors who dare to invest and seek greater profits. Whether Bitcoin can be used as a hedge fund remains to be considered.

References

1. Baur, D.G., Lucey, B.M.: Is gold a hedge or a safe haven? An analysis of stocks, bonds and gold. *Financial Review* **45**(2), 217-229 (2010)
2. Chemkha, R., et al.: Hedge and safe haven properties during COVID-19: evidence from Bitcoin and gold. *The Quarterly Review of Economics and Finance* **82**, 71-85 (2021)
3. Diniz-Maganini, N., Diniz, E.H., Rasheed, A.A.: Bitcoin's price efficiency and safe haven properties during the COVID-19 pandemic: a comparison. *Research in International Business and Finance* **58**, 101472 (2021)
4. Elder, J., Miao, H., Ramchander, S.: Impact of macroeconomic news on metal futures. *Journal of Banking & Finance* **36**(1), 51-65 (2012)
5. Hoang, T.H.V., Lahiani, A., Heller, D.: Is gold a hedge against inflation? New evidence from a nonlinear ARDL approach. *Economic Modelling* **54**, 54-66 (2016)
6. Klein, T., Malek, R., Wagner, M.: Bitcoin as a safe haven for global equity markets. *Finance Research Letters* **26**, 166-172 (2018)
7. Lian, J.: Will Bitcoin become a reserve asset for the United States? *Economic Daily*, (2024)
8. Ruslan, B.: Donald Trump government on a cryptocurrency and Bitcoin support for further effects on the industry. Working Paper, (2025)
9. Yae, J., Tian, G.Z.: Volatile safe-haven asset: evidence from Bitcoin. *Journal of Financial Stability* **73**, 101285 (2024)
10. Akhtaruzzaman, M., et al.: Is gold a hedge or a safe-haven asset in the COVID-19 crisis? *Economic Modelling* **102**, 105588 (2021)

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