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Gold Investment Preferences and Rational Pathways under Crisis Memory

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Abstract

Based on the crisis memory theory in behavioral finance, this paper reviews relevant literature, focusing on the continuous fluctuations in the gold market following the 2020 pandemic. By examining investors' risk-averse tendencies and irrational behaviors such as trend chasing and premature selling, this paper systematically explores the impact of crisis memory on investment behavior and possible rational responses under such conditions. There is a lack of systematic reviews by scholars in this field. A comprehensive review of existing studies indicates that: (1) The behavioral finance channel is a core mechanism through which tail risk and market linkages are transmitted. The behavioral inertia formed by crisis memory triggers irrational herding, and investor sentiment guidance creates a synergistic amplification effect, causing gold prices to deviate from fundamentals; (2) A multi-factor dynamic regulation mechanism significantly alters the trajectory of risk transmission. Increased institutional participation and policy expectation management can effectively hedge panic-driven tail shocks, whereas the intensity of retail-institutional game interactions has a differentiated moderating effect on the transmission; (3) The effects of behavioral factors on the market exhibit significant time-varying heterogeneity, with financial news factors and macro-policy factors showing pronounced enhancement effects on regulation. It is recommended to enhance the resilience of the gold market to tail risks through measures such as optimizing market microstructure and strengthening investor sentiment guidance, providing a decision-making basis for financial stability and high-quality development.

Keywords

behavioral finance, crisis memory, investor preferences, gold market, post-pandemic era

1. Introduction

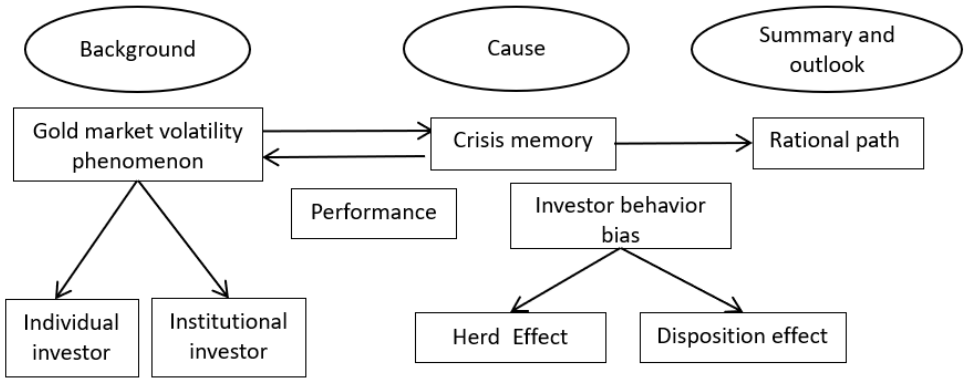
The concept of crisis memory in finance belongs to the field of behavioral finance, referring to the persistent cognitive patterns and path dependencies regarding risk formed at the psychological level by market participants after experiencing financial crises or extreme market shocks. This cognition may further develop into behavioral inertia in investment decision-making, causing participants to overreact to similar risk signals, thereby exacerbating market volatility, herding behavior, and the transmission of tail risks.

Against this backdrop, analyzing crisis memory holds significant theoretical and practical implications. This paper explores the impact of crisis memory on the gold market based on behavioral finance theory. It not only provides a key supplement to the explanation of the mechanisms driving irrational market fluctuations by behavioral finance theory, but also goes beyond the limitations of traditional financial theory, which mainly emphasizes fundamental analysis, enriching the understanding of the causes behind the linkages between crisis memory and market behavior. Furthermore, it provides an important basis for predicting the behavioral responses of market participants to extreme shocks, optimizing dynamic risk early-warning systems, and formulating targeted investor guidance strategies, thereby helping to improve the precision and effectiveness of financial market risk prevention and control [1]. Finally, it serves as a reference for regulatory authorities to anticipate market risk evolution, design differentiated risk prevention mechanisms, and guide investors in mitigating irrational behavioral inertia, contributing to the stable operation of financial markets. Figure 1 illustrates the logical framework of this study.

Traditional finance is characterized primarily by the efficient market hypothesis and rational expectations, with the efficient market hypothesis proposed by Eugene F. Fama serving as a representative theory that has long dominated the field of finance [2]. However, a large number of empirical studies and observations indicate that people do not always make decisions rationally, and numerous cognitive biases can be observed in actual decision-making contexts. These biases inevitably influence investment behavior and asset pricing, causing the value and price of stocks to gradually diverge. Behavioral finance, on the other hand, posits that humans are inherently subject to various cognitive and psychological biases that affect investment decisions. When the majority of market participants exhibit such biases, herd behavior can create systemic impacts on gold market prices, while disposition effects lead to irrational behaviors of buying high and selling low. The continuous rise in gold prices has not only promoted the growth of China's gold market but also fostered the phenomenon of "underground gold trading" in the country, seriously disrupting the operation of the formal gold market and causing substantial investor losses [3]. Based on behavioral finance theory, this paper examines heightened fluctuations and speculative tendencies in the gold market. driven by investors' psychological biases from the perspectives of crisis memory and investor preferences, and also examines rational investment approaches.

The main contributions of this paper are as follows: First, it focuses on the impact of crisis memory in the post-pandemic era, enabling various market participants to develop a comprehensive and in-depth understanding of the characteristics of crisis memory in the gold market. Second, based on behavioral finance theory, it incorporates investor preferences into the analysis, thereby refining the concept of market interconnectedness and expanding the explanation of traditional safe-haven asset pricing trends under extreme market conditions. This helps investors recognize the influence of their own psychology on investment decisions and risk perception. Finally, it reveals the potential limitations of single-asset allocation in traditional safe-haven assets and underscores the necessity of establishing long-term allocation strategies based on risk-hedging needs, providing practical guidance for investors.

Figure 1: Framework for reviewing the study on the relationship between crisis memory and gold market volatility



2. Gold Market Volatility Since 2020

Due to various preventive measures decided by governments around the world, particularly lockdown measures, and the resulting economic consequences, the COVID-19 pandemic has had a profound impact on many people. The evolution of financial markets during the pandemic illustrates the economic effects of these measures. According to the study by Ammy-Driss, financial markets were indeed severely disrupted during this period, and part of the intense volatility in the gold market can also be attributed to these disruptions [4].

As a special commodity possessing both the attributes of a precious metal and money, gold's dual characteristics give it unique price elasticity during periods of risk shock, and it has long been regarded as a traditional safe-haven asset [5]. Its price stability is directly related to the security of the industrial chain and the smooth development of the macro economy [6]. However, in the long term, gold's hedging effect against the stock market is not significant [7].

In recent years, China's bulk commodity market has developed rapidly, with a total market transaction volume of approximately 428.33 trillion yuan in 2024, exceeding the A-share market transaction volume of the same year by 1.6 times [8]. Gold prices have shown a continuous upward trend. as of February 2026, the main contract for gold at the Shanghai Futures Exchange was 1,202 yuan per gram. The sustained rise of this traditional safe-haven asset is based on the frequent extreme risk shocks experienced by domestic financial markets in recent years, including the 2015 "stock market crash," the panic selling triggered by the COVID-19 pandemic in 2020, and the crisis memories from geopolitical conflicts such as the Russia-Ukraine conflict in 2022, which have led investors to adopt risk-averse preferences [1]. Since international gold prices entered an upward trend, they have stimulated Chinese investors' demand for gold investment and simultaneously fueled the rapid development of domestic "underground gold trading" companies.

However, most "underground gold trading" companies suffer from irregular operations, limited capital, and small scales, which has led to frequent bankruptcy cases in recent years [3], thereby introducing credit risks and systemic risk spillovers to China's gold market.

Retail investors typically have smaller capital sizes. Due to limited capital, they cannot diversify their asset allocation, and their risk tolerance is relatively limited, placing them at a disadvantage in competition with institutional investors. Additionally, retail investors have weaker information-gathering abilities, relatively limited capacity to collect and analyze market information, and are easily influenced by certain stock analysts and experts. Lastly, retail investors are often not sufficiently rational and may make investment mistakes due to information interference.

In contrast, institutional investors generally have abundant capital, allowing them to invest in multiple stock portfolios and mitigate potential risks. They may have better access to listed companies and can therefore obtain first-hand information more efficiently. Moreover, institutional investors have a better understanding of the actual situation of a company and its stock, possess rich professional knowledge and experience, and can make judgments from a macro perspective [9].

During this gold craze, there was a significant difference in behavior between retail and institutional investors. Retail investors primarily engaged in emotion-driven trading, preferring physical gold, gold ETF-linked funds, and high-leverage instruments. They exhibited noticeable chasing of price trends and disposition effects, concentrated their purchases during rapid price increases, often bought at high prices, and suffered forced liquidations and losses during sharp declines, with only a few positioning at low prices profiting. The herd effect was pronounced, amplifying market volatility.

Institutional investors, on the other hand, focused on contrarian positioning and strategic trading, relying on macroeconomic data and fundamental analysis for decisions. They favored gold ETFs, futures, and other low-leverage instruments, adhered to strict stop-loss disciplines, gradually reduced positions at market peaks to realize gains, and positioned in advance for market lows. Global central banks and large asset managers led market pricing, influencing supply-demand structures and price expectations through large-scale position adjustments. Their overall profitability was stable, combining portfolio allocation and trading profits, contributing to market stability.

The core differences between retail and institutional investors lie in their decision-making basis, entry timing, trading behavior, and investment outcomes.

3. Definition of Concepts Related to Crisis Memory and Behavioral Finance

3.1 Crisis Memory

Crisis memory, in behavioral finance, crisis memory refers to a long-term, emotionally charged, and partially rational form of collective memory held by individuals or market groups regarding past financial crises and extreme risk events. It is not an objective historical record, but rather a subjective psychological representation processed through selective attention, loss aversion, and availability bias. At its core, it embodies investors' traumatic experiences of extreme losses and market crashes, as well as the resulting accumulation of risk perception. Crisis memory influences investors' perception of the intensity of future risks, probability judgments, and decision-making preferences, directly affecting asset pricing, market sentiment, and herd behavior. It can also be used to explain key psychological mechanisms behind market anomalies such as the cyclical fluctuation of market sentiment, overreaction, and periodic amnesia.

3.2 Herd Effect

Herd behavior mainly refers to situations in which an individual's actions are influenced by the majority. resulting in a conformist mentality. In the stock market, herd behavior manifests as blind following of trends. Due to the uncertainty in the stock market and the virtual nature of trading, some individual investors find it difficult to develop systematic investment strategies. Their investment behavior tends to be random, making them easily influenced by others, resulting in behavioral conformity [9].

3.3 Disposition effect

The disposition effect is manifested as the systematic bias in which investors prematurely sell winning assets while delaying the realization of losses on losing assets. It refers to investors' tendency to sell profitable assets too early and hold onto losing assets for too long. Its theoretical foundation originates from prospect theory: behavioral finance explains the disposition effect from the perspective of investors' non-standard preferences, among which the prospect theory proposed by Tversky and Kahneman (1979, 1992) is widely recognized. Investors' utility is derived from unrealized gains or losses relative to a reference point (typically the purchase price), rather than from the amount of wealth. The S-shaped utility function is convex in the gain domain and concave in the loss domain, meaning investors exhibit different risk preferences under different conditions: they tend to be risk-averse after gains and risk-seeking after losses. Moreover, the utility function is steeper in the loss domain, indicating loss aversion; therefore, investors are more inclined to sell stocks after gains, demonstrating the disposition effect [10].

4. The Manifestation of Three Theories in the Gold Market for Individual and Institutional Investors

4.1 The Manifestation of Crisis Memory

After the combined impact of the COVID-19 pandemic in 2020, geopolitical conflicts in 2022, and multiple rounds of aggressive interest rate hikes by the Federal Reserve, global economic uncertainty has continuously increased [11]. Crisis memories have caused investors to overreact, leading to a tendency toward risk aversion and a preference for allocating assets to traditional safe-haven markets, namely the commodity market.

The performance of individual investors can be summarized as follows: under the dominance of traumatic risk memories, hedging and panic emotions fluctuate alternately. At the beginning of the pandemic in 2020, many retail investors, driven by fear, repeated the 2008 financial crisis scenario, panic-selling gold ETFs and gold bars, even though gold is a traditional safe-haven asset. After the Fed's aggressive rate hikes in 2022, retail investors, recalling the memory that "interest rate hikes suppress gold prices," preemptively cut their positions and exited the market, missing subsequent rebounds. Following significant market fluctuations at high levels in 2025, young investors who entered at high prices, due to lack of crisis experience and fear of "liquidation," closed positions indiscriminately, causing a cascade effect.

The performance of institutional investors can be summarized as follows: they respond rationally and strategically utilize crisis memories. During the gold price crashes in March 2020 and September 2022,

hedge funds, central banks, and large asset managers took advantage of retail investor panic to buy at low prices, turning crisis memories into buying opportunities. They incorporated crisis memories into risk hedging strategies, increasing gold allocations during periods of high volatility, while simultaneously using derivatives to hedge downside risk, rather than panic-selling. Additionally, by guiding expectations, some institutions moderately issued risk warnings during overheated markets, leveraging retail investors' crisis memories to lock in profits in advance and steer capital flows.

4.2 Manifestation of the Herd Effect

The manifestation of the herd effect among individual investors can be summarized as follows: driven by social media and characterized by aggressive trend chasing and panic selling. During the phase of chasing gains, as the gold price breaks historical highs, social media, live streaming platforms, and friend circles engage in frequent "gold flaunting," creating an atmosphere of "missed purchases equal losses." Retail investors, afraid of missing out, enter the market in concentrated high positions. During the phase of panic selling, as gold prices drop rapidly, fear spreads within communities, with headlines like "crash" and "cut-loss" dominating the conversation. Retail investors sell regardless of the losses involved, generating a "more selling leads to more selling" stampede. The causes of these behaviors originate from information cocoons, where individuals rely on self-media and group chats to acquire information, lacking independent analytical ability, and are easily swept up by emotions, becoming part of the herd.

For institutional investors, the manifestation can be summarized as achieving contrarian trading profits through strategic information release. At the early stage of a bull market, institutions gradually build positions and release favorable information through research reports and media. Emotional contagion theory indicates that emotional states can be transmitted and spread among individuals through language, expressions, and other means. Financial news, filled with emotionally charged and biased expressions (such as "panic selling" and "frenzied chasing of gains"), serves as an important carrier for evoking emotional resonance in investors [6]. Institutional investors exploit this to enhance market sentiment resonance and accelerate price fluctuations, thereby attracting retail investors to follow the trend and push up prices. Finally, institutions exit at high levels: when retail investors frantically chase gains and market sentiment peaks, institutions gradually reduce their holdings to take profits, passing the positions to retail investors who "buy the dip."

4.3 Manifestation of the Disposition Effect

The disposition effect in individual investors is summarized as follows: realizing gains prematurely and holding onto losing assets for too long. When profitable, they are eager to lock in gains: from 2020 to 2025, gold prices showed a long-term upward trend, and many retail investors sold after small gains, missing subsequent multiple-fold increases. Essentially, this reflects investors' pursuit of pride. Conversely, when facing losses, they tend to delay cutting losses.: during the interest rate hike cycle in 2022 and the high-level correction in 2025, retail investors generally were unwilling to stop losses and chose to remain inactive while waiting for a market rebound, resulting in amplified losses. Fundamentally, this behavior reflects investors' aversion to regret. These painful lessons arise from high-frequency trading and inability to hold positions: due to the disposition effect, individuals have extremely short holding periods, trade frequently, and ultimately their returns are eroded by transaction fees and missed gains.

For institutional investors, the disposition effect is mitigated through institutionalized risk control mechanisms that weaken its negative impact on returns. When holding profitable positions, institutions strictly follow trend strategies; during gold price uptrends (such as 2023-2025), they hold core positions long-term and do not easily take profits due to short-term fluctuations, fully benefiting from bull market gains. When facing losses, they decisively cut losses: due to strict risk control discipline, once key support levels are breached or fundamentals deteriorate, losses are immediately cut, avoiding substantial losses caused by "playing dead." Rational behavior is underpinned by rebalancing strategies: through dynamic rebalancing, positions are moderately reduced (but not fully liquidated) during profit periods and increased during pullbacks, smoothing the negative impact of the disposition effect. Institutions even employ recursive neural networks, such as the LSTM (Long Short-Term Memory) networks studied by Mroua, M (Mroua, Mourad), which demonstrate very high predictive capabilities. This strong predictive ability regarding actual observed outcomes prompts institutions to use these networks to extract forecasted values of financial index prices. Based on this data, institutions can choose strategies that maximize diversified returns [12].

5. Conclusion

After a period of substantial market fluctuations, the price volatility in the gold market has gradually tended toward a relatively stable range. According to Pan Sijie's analysis of investment risks in the Chinese gold market: gold has a certain hedging function against the stock market in the short term, but in the long term, the hedging effect of gold on the stock market is not significant and cannot provide substantial preservation of portfolio value.

Based on the above summary, this paper provides rational strategies and practical recommendations for various market participants investing in the gold market:

(1) For individual investors: focus on underlying assets and identify differences in product types. Market participants should recognize the volatility of the gold market, avoid over-relying on gold as the primary hedging tool. Continuously monitor market dynamics, manage asset risks, and strengthen research on the macroeconomy and policy. Diversifying asset portfolios can effectively reduce exposure to single-asset risk. Avoid short-sightedness, lower expectations for each asset, set psychological boundaries, and maintain emotional stability.

(2) At the macro and institutional level: China should improve the mechanisms for opening and regulating the gold market, promote high-level financial opening-up, advance the implementation of the "going global" strategy for the gold market, and enhance international pricing capabilities to further improve the international pricing efficiency of the Shanghai gold market. Promote cross-border information exchange and improve participation in global market governance. At the same time, maintain the continuity, stability, and sustainability of macroeconomic policies; effectively coordinate internal risk exposure and prevent domestic and external risks from resonating. Finally, implement macroprudential management and microprudential supervision policies in a coordinated manner while ensuring appropriate market risk release and scientific prevention of systemic risk.

(3) For regulatory agencies: deepen investor education, popularize behavioral finance knowledge, and reveal the dangers of biases such as herding effect and disposition effect through case-based teaching, to enhance investors' information discernment and rational decision-making capabilities and guide rational investment behavior. Establish a multidimensional monitoring system, and based on real-time data from indicators such as volatility indices, capital flow indicators, and sentiment text indices, develop AI-driven tail risk early warning platforms and use LSTM networks to strengthen cross-border risk prevention.

However, there is currently a lack of research on the specific duration and effect of investors' reactions to crisis memories caused by various factors since 2020, and scholars need to conduct detailed data-based investigations to provide further guidance for investors' future decision-making.

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The authors declare no conflict of interest.

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