Who Governs Fear and Greed? - Exploring the Impact of Psychological Trauma on Investment and Financial Behavior

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Abstract. With the development of finance research, the assumption of rationality in traditional economics has been modified by behavioral finance. Although behavioral finance has identified many biases, the psychological origins of these biases, such as traumatic experiences, personality traits, and emotional patterns, have not been well elucidated. In particular, as a key experience in shaping cognitive and emotional patterns, how psychological trauma systematically affects financial behavior is still lacking in empirical evidence. The goal of this study is to draw the core conclusion that the persistent cognitive affective imprinting caused by psychological trauma will affect investment decisions and performance by exacerbating classical behavioral finance biases. Through the questionnaire survey of 40 investors, through quantitative analysis and qualitative analysis as the supplement, this research measured their post-traumatic stress tendency, main behavioral deviation, investment preference and self-rated performance, finally, it is concluded that post-traumatic stress disorder (PTSD) propensity has a significant positive effect on the strength of the disposition effect. The purpose is to fill this part of the research gap and enrich the theoretical dimension of behavioral finance.

Keywords: Psychological Trauma, Behavioral Finance, Securities Investment, Irrational Behavior

1 Introduction

China's A-shares have attracted the majority of Chinese investors since the market opened in 1990, and the difference in investor returns has always been a key measure of an investor's success. Today, the stock market is undergoing a gradual bull cycle, which has attracted investors of different age groups to participate in the equity market,and with the increase of the number of investors, the differentiation of investment returns is more significant. Most studies on differences in investment returns are grounded in traditional finance frameworks. Standard financial theory, based on the premise of rational economy and market effectiveness, attempts to carry out perfect and standardized mathematical analysis of financial problems [1]. It is

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against this backdrop that behavioral finance emerged as an alternative framework. . Behavioral finance has systematically challenged the modern mainstream financial theory and effectively explained many abnormal market behaviors [2]. It can be seen that the volatility of the capital market is not only driven by government policies, macro fundamentals and corporate performance, but also deeply affected by the deviation of investors' collective psychology and individual decision-making. Although behavioral finance has incorporated psychological factors into financial analysis and revealed many theories, such as "overconfidence," "loss aversion" and other common cognitive biases, there is still insufficient research on the deep individual origins of these biases. Psychological trauma may be one of the origins of deep individual differences. Whether and how psychological trauma, as an intense stressful experience that may trigger lasting cognitive, emotional, and behavioral changes, affects investors' decision-making frameworks remains a largely underexplored area in the literature.

The purpose of this paper is to test that the continuous cognitive emotional imprinting caused by psychological trauma is not a static past, but an active one, similar to a continuous emotional processing tendency, which continuously changes investors' processing of risk information, evaluation of profit and loss, and judgment of their own ability, thus reflecting in more obvious financial differences. In order to verify the above proposition, this study aims to systematically reveal the specific path and conditions of psychological trauma affecting investment behavior through quantitative and qualitative research on investors of different ages.

2 Theoretical and Literature Review

2.1 Financial Behavioral Deviation from the Perspective of Behavioral Finance Theory

The "efficient market hypothesis" and the "rational man" assumption, the cornerstones of traditional finance, face challenges in explaining the stock market bubbles and crashes, herding behavior, and long-term market anomalies [3]. For this reason, behavioral finance was born, which introduced psychology into financial analysis and pointed out that investors' financial behaviors were not completely rational, but were limited by a series of emotional and cognitive biases. Behavioral finance shows that investment decisions are affected by cognitive factors, such ascognitive biases, heuristics, and emotional responses. and also affect the rationality and irrationality of investment decisions [4]. However, the existing literature has not clearly identified psychological differences as a root cause of irrationality, and such differences may stem from individual variation in life experiences and personal histories. Trauma psychology shows that psychological trauma will form a lasting and specific cognitive affective pattern. This study combines the psychological trauma theory and behavioral finance theory, which aims to prove that psychological trauma is one of the important reasons for the yield difference. Among them, the core deviations closely related to this study mainly include the following two types:

Firstly, risk perception distortion and loss aversion will systematically affect investors' financial behaviors, such as buying and selling timing and investment sector

preference. In behavioral finance, the core theory of prospect theory is that the value function is steeper in the loss domain than in the gain domain, which means that the psychological pain caused by the same amount of loss is much greater than the happiness caused by the same amount of gain, which is defined as loss aversion. This basic psychological mechanism directly leads to the widespread "disposal effect" in the financial market. The disposition effect describes the greater tendency of individuals to sell shares when they make a profit rather than when they lose [5]. Subsequent studies further show that loss aversion is largely independent of the risk-return preferences commonly used in investor classification, and there are significant individual differences [6]. However, the existing research has not fully explained the stable internal source of such individual differences, especially its relationship with the deep psychological traits of individuals.

The second reason is that overconfidence and self-attribution bias drive irrational trading, that is, investors systematically overestimate their knowledge accuracy, information mastery and forecasting skills. Although overconfidence is widely confirmed, most studies regard it as a general psychological tendency, and there is a lack of in-depth research on individuals, especially their psychological trauma. The psychological motivations underlying this tendency—particularly its potential role as a defense mechanism against underlying psychological distress—remain insufficiently examined in the literature

2.2 Psychological Trauma

The word trauma originally comes from the Greek word “injury ", Usually, people refer to physical damage caused by external forces, but it can also refer to psychological damage caused by some direct, strong emotional injury. It has been suggested that all mental illnesses are linked to these life events. This external force is called "life events. " Trauma may exert wide-ranging effects on the individual, encompassing physical, cognitive, emotional, and behavioral dimensions. . For example, an early experience of abuse can affect or even prevent a person from developing a stable sense of self. Traumatic experiences -such as death in the family, serious illness, chronic physical pain, natural disasters, etc. -can have large and lasting effects on an individual's psychological system and behavior. Traumatic experiences significantly impair people's self-control, the ability to suppress impulsive feelings and behaviors that are driven by immediate rewards rather than long-term goals. Lower self-control, in turn, means higher impulsivity and a stronger desire for immediate gratification [7]. This study focuses on post-traumatic stress disorder (PTSD). According to DSM-5, PTSD symptoms are divided into four clusters: re-experience, avoidance, negative thoughts and emotions, and increased alertness. PTSD is often accompanied by persistent negative emotional states such as fear, terror, anger, guilt, or shame, reduced interest in or participation in important activities, and a persistent inability to experience positive emotions [8].

Behavioral finance accurately defines the "irrationality" of investment behavior, while trauma psychology reveals how major adversity shapes individuals' deep and stable cognitive affective patterns. However, few studies have directly linked trauma-related cognitive-affective patterns to specific behavioral deviations in financial

markets through empirically testable psychological mechanisms. Therefore, this study aims to fill this critical gap. This paper proposes an integrated theoretical analysis framework: individuals' psychological trauma experience, through the formation of "post-traumatic stress tendency," will systematically aggravate the deviation of their disposition effect in financial investment decisions, that is, the deviation of transaction frequency, and the strength of the disposition effect will ultimately affect the return on investment. Based on the above framework, this study proposes the following core research hypotheses: H1: Investors' PTSD propensity has a significantly positive impact on the strength of their disposition effect.

3 Methods of Research

This study collected 40 investors, using quantitative mainly, qualitative supplemented research methods. First, an online questionnaire survey was administered to 40 investors recruited through convenience sampling. and all key variables were quantified by multi-item Likert scale (1-5 points). Then,a post-traumatic stress tendency scale demonstrating satisfactory reliability and validity was developed to collect investor sample data. and conduct statistical analysis by using regression model. The purpose of this paper is to explore the relationship between the strength of the disposition effect of investors' post-traumatic stress disorder and the return on investment from a quantitative perspective. Finally, in order to deeply understand the real psychological thoughts of investors behind the quantitative results and further verify the subjective connection between investors' traumatic experiences and their investment behaviors, this study added open-ended questions on the basis of the quantitative questionnaire. According to the quantitative data, investors are divided into “Low-Trauma Investors”, “Medium-Trauma Investors”and “High-Trauma Investors”, and one investor is selected from the three types of investors by random sampling. Respondents were assigned anonymous identifiers such as P-001 and P-002, and in-person semi-structured interviews were subsequently conducted with their informed consent. It aims to deeply understand the psychological mechanism behind the results from the quantitative perspective through the qualitative perspective, provide clearer and real proof for the quantitative findings, and enhance the credibility and readability of the conclusions (See Table 1).

Table 1. Questionnaire Basic Information Table

Item	Design Goal	Question Scope
Essential information	Obtain basic information about the investigator	Q1-Q5
Degree of psychological trauma	Assess the psychological trauma level of investors	Q6-Q13
Trading frequency	Understand investors' trading frequency	Q22
Rate of return	Understand investors' ultimate returns	Q31

Investment experience	Assess the investor's investment experience level	Q3
Loss aversion	Assess the degree of investor loss aversion	Q23-Q25
Risk repugnance	Assess investors' risk aversion level	Q5

3.1 Research from a Quantitative Perspective

Firstly, the data were cleaned and reliability analyzed to exclude invalid data and ensure the credibility of the data. Then, the average score of Q6-Q13 was taken as the total score of the interviewer's trauma,and the score of Q22 was taken as the transaction frequency score for regression analysis. After regression analysis, F-test was performed to ensure that the regression results were meaningful.

3.2 Research from a Qualitative Perspective

Open-ended Question Design. In order to further explore the internal psychological mechanism of trauma affecting investment behavior, this study added open-ended questions on the basis of quantitative questionnaire. It aims to capture subjective experience and attribution logic that cannot be directly measured by quantitative data.

The open-ended questions were designed around three core themes: self-attribution with disposal effect, emotional reactions in loss situations, and overall thinking about investment style and life experience. This study uses an inductive method based on a qualitative perspective, which can strengthen or revise existing theories through the results generated when applied to financial research [9]. It can also provide an understanding of how individuals behave in a specific environment and their perceptions [10].

Selection of Respondents. Based on the questionnaire survey of quantitative research, 40 investors were classified into low trauma investors (the total trauma score is 2-3), medium trauma investors (the total trauma score is 3-4) and high trauma investors (the total trauma score is 4-5) according to their trauma score from low to high. Then one investor was randomly selected from them, and the offline interview was conducted with the semi-structured interview mode, and the recording was made with their consent, and the transcription was carried out afterwards.

4 Results and Discussion

4.1 Quantitative Research Findings

Analysis of Reliability. As shown in the table 2, the Cronbach's alpha value of 0. 787 exceeds the threshold of 0. 7, indicating acceptable internal consistency for the research instrument. For “CITC”, the CITC of the analysis items are all greater than 0. 4, indicating that there is a good correlation between the analysis items, and also indicating a good level of reliability. In summary,

the cronbach alpha value of the research data is higher than 0. 7, which comprehensively indicates that the reliability quality of the data is high and can be used for further analysis.

Table 2. Cronbach's Alpha Table

Item	Corrected item-total correlation (CITC)	Alpha if Item Deleted	Cronbach Alpha
Total Trauma Score	0. 530	0. 767	0. 787
Loss Aversion	0. 561	0. 754	
Risk Repugnance	0. 508	0. 762	
Trading Frequency	0. 628	0. 732	
Investment Experience	0. 510	0. 764	
Rate of Return	0. 578	0. 748	

Linear Regression Analysis of Total Trauma Score and Transaction Frequency. The total trauma score is used as the independent variable and the trading frequency is used as the dependent variable for linear regression analysis, and the model formula is as follows: trading frequency =0. 241 + 0. 928* total trauma score, and the model R-square value is 0. 255, which means that the total trauma score can explain 25. 5% of the change in trading frequency (See Table 3 &4).

Table 3. Linear Regression

	Unstandardized Coefficient		Standardized Coefficient	t	p Value	Collinearity Diagnostic	
	B	Std. Error	Beta			VIF	Tolerance
Constant	0. 241	0. 771	-	0. 312	0. 757	-	-
Total trauma score	0. 928	0. 258	0. 505	3. 603	0. 001***	1. 000	1. 000
R-squared	0. 255						
Adjust R-squared	0. 235						
F Test	F (1, 38) = 12. 984, p = 0. 001						
D-W	1. 722						

Note: Dependent Variable = Trading Frequency
* p<0. 1 ** p<0. 05 *** p<0. 01

Table 4. Results of ANOVA

	Sum of Squares	*df*	Mean Square	*F*	*p* Value
Regression	9. 926	1	9. 926	12. 984	0. 001
Residual	29. 049	38	0. 764		
Total	38. 975	39			

When tested using the F-statistic, the model was found to be statistically significant (F = 12. 984, p = 0. 001), indicating a significant predictive relationship between total trauma score and trading frequency. Finally, the specific analysis shows that the regression coefficient value of the total trauma score is 0. 928(t=3. 603, p=0. 001<0. 01), which means that the total trauma score will have a significantly positive impact on the trading frequency.

The comprehensive results suggest that, under the null hypothesis H1: The post-traumatic stress disorder predisposition of investors has a significant positive impact on the intensity of their disposition effect, this finding is preliminarily validated.

4.2 Qualitative Research Findings

This study conducted a thematic analysis of the open-ended responses of three respondents. Through repeated listening and induction, this study extracted three core themes of qualitative research: (1) anxiety-drives trading; (2) Using trading behavior to regulate emotions; (3) Trauma changes the outlook on life and thus changes the trading logic. Each theme will be elaborated in the following in combination with the original words of the respondents, and their total trauma score groups (high/medium/low) will be marked in brackets after the number of respondents (See table 5).

Table 5. Sample Description Statistics

Respondent ID	Investor Type	Interview Duration
P-001	Low-Trauma Investor	55minutes
P-002	Medium-Trauma Investor	43minutes
P-003	High-Trauma Investor	46minutes

Anxiety-Driven Trading. This theme reflects a central psychological feature of the trading of traumatised investors - excessive anxiety about losses drives frequent profit-taking. Respondents in the high-trauma group reported symptoms such as insomnia and anxiety when the value of their holdings declined, which in turn compelled them to sell their stocks. . P-003 Respondents (High-Trauma Investors), after talking about the decline in their stocks, said: *"That night, I only managed to sleep five hours. I woke up every hour and a half, and even when the market opened, although the stock price wasn't extremely low, it still left me feeling extremely uncomfortable. "*In contrast, the response from respondent P-001 (Low-Trauma Investor) demonstrated more rational reflection:

"If my stocks show a clear upward trend with strong momentum, I will hold them even if there is a short-term pullback. "

Using Trading Behavior to Regulate Emotions. This theme reveals the emotional regulation function of trading behavior - for some high-trauma investors, frequent trading itself is a kind of "ritualized behavior" to cope with anxiety. When asked if there is an urge to "want to do something" in the face of losses, interviewee P-003 (High-Trauma Investor) replied: *"Actually, it does happen—that's a major flaw in my current trading approach. The core issue lies in my lack of inner stability. I tend to get impatient easily and struggle to achieve a calm, composed mindset. Moreover, I place excessive emphasis on profit and loss metrics. That's why I often feel a sense of relief after selling positions. "*

The response from respondent P-002 (Medium-Trauma Investor) revealed some contradictions:

"I'll feel quite anxious, but I'll keep holding the position until it hits the stop-loss level. "

Trauma Changes the Outlook on Life and Thus Changes the Trading Logic. This topic demonstrates how investors project the worldview formed through traumatic experiences onto their investment behaviors. Multiple respondents directly linked their investment styles to life experiences.

Respondent P-003 (High-Trauma Investor):

"My life hasn't been entirely smooth sailing, but I believe the sole benefit of all these experiences is that they've taught me to reflect on myself more readily. By combining my personal approach with the trading strategies I've developed, I can keep moving forward. "

Respondent P-002 (Medium-Trauma Investor):

"During the 2015 stock market crash, my first investment resulted in a 60% loss. After prolonged passive investment strategies, I decided to take decisive action—replacing stocks through thorough analysis—to recover the losses. "

Respondent P-001(Low-Trauma Investor):

"The major setbacks in my life have taught me to become more rational: the stock market is one thing, life is another. "

4.3 Comprehensive Conclusion Description

The qualitative and quantitative findings are broadly consistent with one another. . The responses of the respondents in the High-Trauma group reveal the psychological mechanism of this association -excessive anxiety about losses and the need to regulate anxiety through trading jointly drive HFT behavior. In contrast, the responses of the Low-Trauma group reflect a more rational pattern of decision making, consistent with the result that investors with a lower total trauma score in the quantitative analysis trade less frequently.

Through in-depth exploration of the impact of psychological trauma imprinting on investment decisions, the findings of this study have important practical significance: Investors' post-traumatic stress propensity significantly increases their trading frequency. Specifically, the data show that investors with higher trauma scores have a stronger tendency to sell early, which directly leads to more frequent buying and selling. This reveals that psychological trauma not only shapes the static holding preference, but also drives the dynamic trading behavior, which provides a

psychological explanation framework for explaining the high turnover rate in the market.

4.4 Theoretical Explanation and Mechanism Discussion

From the perspective of behavioral finance, this reflects the "realization of certainty," that is, the psychological need for the preference for deterministic outcomes drives the trading behavior. Prospect theory states that decision makers tend to place too much weight on deterministic outcomes. For investors with traumatic experiences, it means not only locking in gains but, more importantly, gaining a psychological certainty that translates uncertain market movements into certain account balances. This desire for certainty stems from a low tolerance for uncertainty caused by trauma. Each profit realization is a temporary "safety confirmation," but this confirmation gradually tends to collapse as the account surplus accumulates again. Driven by the need for investment returns or the anchoring effect, investors tend to return to the stock market after a brief respite from anxiety, creating a "sell on profits, reinvest, take profits" cycle, driving up the frequency of trading.

Secondly, from the perspective of emotional regulation, frequent trading may be a kind of "ritualized behavior" to cope with anxiety. Research on trauma psychology has found that individuals may regulate unbearable emotions through repetitive behaviors. In an investment situation, the action of executing a trade may play a role of emotional regulation by enhancing investors' sense of control. When market volatility causes anxiety, making a trading decision itself can temporarily regain an investor's sense of control. Especially the operation of selling profitable positions, which not only locks in profits, but more importantly ends uncertainty and provides immediate anxiety relief. Once this "trade-as-relief" pattern is established, it becomes self-reinforcing through the operant conditioning mechanism.

4.5 Integration with Existing Theories

First of all, the results of this study enrich the behavioral expression dimension of the disposition effect at the level of transaction frequency. Traditional studies mainly examine the relationship between investor characteristics and the disposition effect, that is, there are systematic differences in the holding behavior of investors in the state of profit and loss [11]. This study reveals that it also affects the important market microstructure variable of trading frequency. This shows that the disposal effect not only changes the buying and selling timing at the individual stock level, but also reshapes the trading rhythm of investors at the portfolio level.

Second, this paper provides a new perspective for explaining frequent trading. Most of the existing literature attributes frequent trading to overconfidence. From the results of this study, even if overconfidence is not involved, investors may still increase the frequency of trading due to the increase in the degree of psychological trauma, which means that there may be different types of overtrading driven by psychological motivations in the market, namely: Those who trade because they are confident they can win, and those who trade because they are afraid of uncertainty. The latter may be more sensitive to market fluctuations and their trading behavior is more reactive than proactive.

Finally, the research in this paper is another powerful counterattack against the hypothesis of "rational man. " Standard financial theory assumes that trading is based on information and beliefs [12], but this finding suggests that a significant proportion of trading may serve the function of emotion regulation rather than asset optimization. This explains why many trades are clearly value-destroying in hindsight, yet there are investors who execute them anyway. In such cases, investors do not engage in value-destroying trades out of deliberate choice; rather, their trading behavior primarily serves psychological regulatory functions rather than financial optimization goals.

5 Conclusion

Taken together, the finding that PTSD tendencies drive up trading frequency by reinforcing the disposition effect reveals a profound but often overlooked dimension of investment behavior: trading is not just an asset allocation tool, but also reflects the psychological state of traders. For investors with traumatic experiences, frequent profittaking may be a psychological strategy to cope with market uncertainty. This finding urges us to rethink the connotation of "rational investment" in terms of emotion management and behavioral constraints. In the era of increasing popularity of algorithmic trading, understanding the unique psychological behavior pattern of individual investors not only helps individual investors improve their performance, but also provides psychological enlightenment for improving the stability of investor behavior and market resilience.

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