The Impact of Retail Investor Mindset and Investor Behavior on Investment Returns in China A-Share Market

Haokai Zhao

University of Nottingham Ningbo China, Ningbo, 315000, China HaokaiZhao123@outlook.com

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Abstract: The purpose of this paper is to explore in depth the impact of retail investors' mindset and behavior on their investment returns in the Chinese A-share market. This study analyzes the direct and indirect effects of investor mindset (including confidence level, risk appetite, emotional control, etc.) and investment behaviors (e.g., trading frequency, asset selection and timing) on investment returns. It is found that retail investors generally have cognitive biases and irrational behaviors, and these psychological and behavioral factors significantly affect their investment decisions and ultimate returns. On this basis, based on the results of the study, this paper proposes investment strategy recommendations for retail investors, as well as policy recommendations for investor protection mechanisms that can improve the current situation of the A-share market. This study not only provides a new perspective for understanding retail investors in China's A-share market, but also provides an empirical basis and policy reference for financial market regulators and policy makers.

1. Introduction

In the process of investing, investors are influenced by a variety of factors. Investors' mental states, including emotions, beliefs, and expectations, greatly influence their decision-making process. Past research has revealed multiple dimensions of investor mindset and behavior, including aspects of investor sentiment, behavioral finance, and psychology. Investors' emotional fluctuations are often closely related to market fluctuations; for example, self-confidence may lead investors to take excessive risks, and fear or greed may lead to irrational buying or selling decisions. Behavioral finance, on the other hand, focuses on investors' behavioral patterns and their impact on the market. The psychological perspective, on the other hand, helps to understand the decision-making process of investors in the face of risk and uncertainty. In addition, with the continuous development of financial markets and the acceleration of globalization, investors are faced with increasingly large and complex information. In this context, investors' decisions are not only affected by their own mindset and behavior, but also challenged by information acquisition. All of the above factors may lead to irrational behavior in investment decision-making, which ultimately affects the return performance of the investment portfolio. Therefore, an in-depth understanding of the mechanisms by which investors' mindsets and behaviors affect investment returns is of great significance in

improving the science and accuracy of investment decisions.

2. Background of the study

2.1 Operation of A-shares in recent years

Against the backdrop of economic downturn, the overall performance of China's A-share investment returns has been sluggish in the past two years. Due to the uncertainties and complexities of the domestic and international economic environment, China's economic growth has been under certain pressure, corporate profitability has been affected to some extent, and investor confidence has been low. As shown in Figure 1, the A-share market has been more volatile, and the overall investment returns of the market have declined.

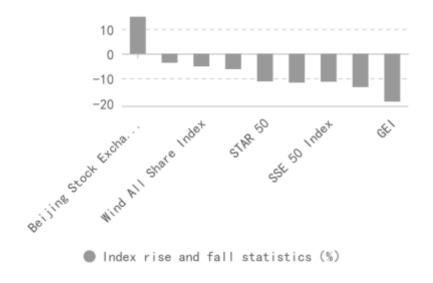


Figure 1: Performance of major A-share indices in 2023. Source: Wind.

2.2 Investment structure of China's A-share market

The investor structure of China's A-share market is relatively unique, with a large number of retail investors occupying the majority of the market. By the end of November 2023, the number of investors in A-share accounts reached 211 million, and the size of retail investors was 210 million, accounting for 99.76% of the number of investors. As shown in Figure 2, in 2023, the shareholding of individual investors in A-shares accounted for 32.55%, and excluding the general legal entities of enterprises, the market value of shareholdings of individual investors has taken up a large part of the total number of A-shares. Therefore, individual investors are the backbone of the A-share market, both in terms of the number of households and market capitalization. The large number of retail investors is a typical feature of the A-share market, which has made the A-share market one of the most actively traded stock markets in the world.

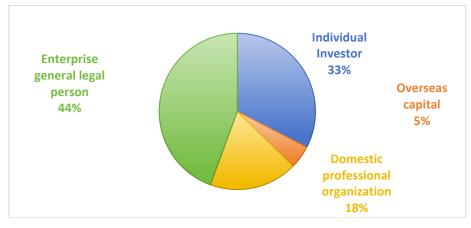


Figure 2: Structure of investor holdings in the A-share market in 2023

2.3 Returns of A-share investors

According to the data from wind, the result of equity wealth from July 2023 to February 2024 compared with the initial equity wealth in June 2023, more than 50% of the population lost 28% of their capital, while the richest 10% gained 31%. The top 0.5% of investors with the most money made a fortune in this round of ups and downs, while the bottom 85% faced notable losses. For individual investors, the largest investment group but most in the stock market but can not make money, this is both small and medium-sized investors due to the lower level of investment is the inevitable result, but also the basic phenomenon of China's stock market is difficult to develop healthily.

Overall, despite the fact that China's economy has maintained relatively solid growth, the overall returns of the A-share market appear to be unimpressive. Volatility in the A-share market has increased, and most investors are facing investment losses. Against this backdrop, traditional financial theories, especially models based on the rational investor assumption, seem unable to fully explain these phenomena in the market. This has prompted scholars and market analysts to start exploring new perspectives, especially by taking investor psychology and behavioral factors into account. Especially in the A-share market, the peculiarities of the investor structure make it possible for individual investors' behavioral biases, such as overconfidence, loss aversion, and herd behavior, to be amplified in the market, which can lead to price deviations from the fundamental value, triggering excessive volatility and a decline in returns. Therefore, examining the performance of the A-share market from the perspective of investment psychology and behavior not only contributes to an indepth understanding of the operating mechanism of the market, but also provides new strategies and countermeasures for investors and policymakers to improve market performance and enhance investment returns.

3. Literature review

3.1 Impact of investor mindset on investment returns

Regarding the direct link between investor mindset and investment returns, scholars at home and abroad have conducted extensive research. Patterson and Diagler conducted an analysis of the relationship between changes in investor mindset and abnormal stock returns and the relationship and found that investor mindset has a significant impact, especially in the case of market decline^[1]. Some other scholars believe that the link between investor mindset and investment returns is bidirectional. Zhou Wenlong and Li Yudong found that there is a bidirectional impact relationship between investor sentiment and stock market returns, and the degree of impact is different for different styles of

stocks^[2]. Meanwhile, most scholars believe that the mindset of individual investors has a more significant impact on stock price volatility compared to institutional investors. Zhang Jihai and Liu Yamei argued that the mindset of individual investors in the stock market is more likely to have a greater effect on stock returns than the mindset of institutional investors, and that this effect will increase over time^[3]. Zhou Fangzhao and Jia Shaoqing similarly found that the fluctuation of retail investors' mindset in the stock market has a greater impact on stock prices, especially during economic downturns^[4]. Wang Chun and Yuan Xun used Va model, Granger causality test and other methods to conclude that any investor's mindset affects stock market returns to some extent^[5].

3.2 The impact of investor mindset on investor behavior

The impact of investor mindset on individual behavior is a complex psychological phenomenon that involves several psychological and behavioral finance concepts. An investor's level of self-confidence is a key psychological factor that affects trading frequency. Confident investors believe they have a better understanding of the market and therefore tend to trade more frequently to maximize profits ^[6]. In contrast, investors with less confidence in their trading level generally choose to hold financial products for a long period of time so as to obtain relatively stable investment returns^[7]. Risk appetite determines whether investors tend to choose stocks, bonds, money market instruments or other financial derivatives^[8]. Investors with lower risk appetite may overly prefer assets that are considered "safe", such as treasury bonds or gold, when faced with potential losses^[9]. Yang Zhaojun found that investors may have multiple risk preferences at the same time, and therefore may divide their funds into different uses^[10]. Timing is one of the keys to investment success, but investors' emotional control often determines timing differences. For example, the anchoring effect can cause investors to rely too much on a particular price point when making buy and sell decisions, rather than based on comprehensive market analysis^[11]. Wan Shunfeng, on the other hand, point out that market greed or fear may cause investors to buy or sell at the most inappropriate time^[12].

3.3 Impact of investor behavior on investment returns

Higher trading frequency usually implies more transaction costs, including fees and possible slippage losses. Some scholars argue that frequent trading is often based on short-term market forecasts, which may cause investors to miss opportunities for long-term growth^[13]. Yang Shichao similarly point out that high trading frequency is likely to be driven by overconfidence or market sentiment rather than based on in-depth market analysis^[14]. Asset selection is a key determinant of portfolio risk and return characteristics. Overly concentrated stock asset selection is likely to increase investment volatility and thus affect investment returns^[15]. In addition, with the same asset selection, the investment return also depends on to the risk tolerance, investment horizon and financial objectives of investors^[16]. Effective investment timing can greatly increase investment returns, but it is also very challenging because it requires investors to accurately predict market movements^[17]. Short-term market volatility is difficult to predict, so a long-term holding strategy can usually lead to better returns than choosing the right time to enter the market when the investor thinks it is appropriate^[18].

3.4 Research Review

After combing the literature, it is found that investor mindset, investor behavior and portfolio diversification are directly and inextricably linked to investment returns, as shown in Figure 3. The investor's mindset can affect the trading frequency, asset selection and trading timing from the three aspects of self-confidence, risk appetite and emotional control, which in turn indirectly affects the

investor's investment returns. At the same time, it is found that a good mindset has a direct positive effect on investment returns. Overall, the existing research results mainly focus on discussing the connection between investor mindset, investor behavior and investment returns, while there are fewer studies that take into account the reality of A-share investor mindset and behavior. Therefore, this paper will start from the perspective of investment returns in China's A-share stock market, explore the real problems and causes of investor mentality and investor behavior, and propose corresponding countermeasures and solutions.

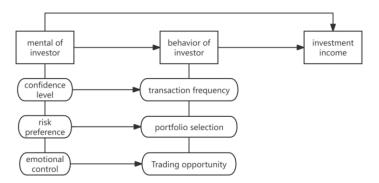


Figure 3: Study variables and dimensions

4. Problems and their causes

4.1 Psychological and Behavioral Symptoms of A-share Investors

The current mindset of investors in the A-share market is complex and volatile, and is influenced by multiple factors such as the global economic environment, internal market volatility, and policy changes. Although panic indices (e.g., the VIX index) are not commonly used in the A-share market, similar market volatility indicators, such as the Volatility Index of the Shanghai-Shenzhen 300 Index (VHSI), can also reflect the panic mentality of investors to a certain extent.2023 China's economic uncertainty increased, market volatility intensified, and the VHSI index climbed sharply, which reflected that China's A-share investors were faced with macroeconomic pressures, corporate performance decline and other unfavorable information, the panic sentiment significantly higher.

The line of A-share investors is characterized by three main problems: loss aversion, over-trading, and emotional investing. First, investors' aversion to losses is greater than their love for gains of the same magnitude, which leads to the fact that investors are often reluctant to stop losses in a timely manner when faced with losses, hoping to make up for them through market reversals. The result of holding a losing stock for a long period of time is not only the tying up of capital, but also the possibility of further widening of losses as the market falls further, or even the risk of having the position closed. Second, investors often try to realize profits by capturing short-term fluctuations in the market, so they buy and sell stocks frequently within a short period of time. However, frequent trading increases transaction costs, while over-trading tends to be detrimental to returns in the long run due to the random nature of market prices. Emotional investing refers to the fact that investment decisions are influenced by personal mood swings, such as greed and fear. As shown in Figure 4 in the A-share market, such emotional decision-making often leads to chasing up stocks at high levels and panic selling at low levels, which runs counter to the principle of rational investment. Especially when market volatility increases, emotional investors are more likely to make wrong decisions, resulting in impaired investment returns.

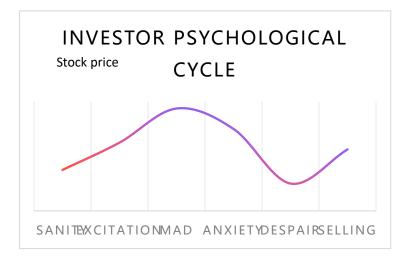


Figure 4: Emotional Investor Investment Psychological Cycle

4.2 Objective causes

First, Trading Mechanism Loopholes. The characteristics and trading mechanism of the A-share market have contributed to the formation of investor psychology and behavioral problems to a certain extent. First, the A-share market has a limit on the daily price increase or decrease, usually $\pm 10\%$ (different for some new stocks and special stocks). Although this mechanism can prevent excessive price fluctuations in a single day and protect investors' interests, it may also lead to increased herd mentality and panic. The restriction on the extent of stock gains on the same day prevents a complete venting of the energy of both the long and short sides, and is prone to the formation of a one-sided market. Data statistics found that about 70% of the stocks in the CSI 500, for example, will experience a significant amplification of trading volume within ten minutes of the approaching up and down stops. Many investors have the willingness to chase up or down, and the up and down stop system is relatively clear, in the stock close to the limit of up or down, many investors may not be able to withstand the temptation to push up or down, forming the trend of up to help up and down to help down, which exacerbates the volatility of the market. Secondly, there are also certain loopholes in the mechanism for the release of restricted shares in A-shares. The release of restricted shares may lead to a sudden increase in market supply, affecting the stability of stock prices.

Second, commercial malpractice. Commercial malpractice in the A-share market also affects the psychology and behavior of investors. First of all, information asymmetry is relatively serious in the A-share market, and some listed companies do not disclose information in a timely or transparent manner, which makes investors unable to accurately assess the value and risk of the company. Under such circumstances, investors are more likely to be influenced by market rumors and irrational emotions and make irrational investment decisions. In the meantime, there are some listed companies, investment institutions that manipulate stock prices through false trading, wash trading, and pulling up or suppressing stock prices. This kind of fraud leads to stock prices deviating from their true value, increases market volatility, induces herd mentality and panic among investors, and causes an increase in irrational investment behavior.

4.3 Subjective reasons

On a subjective level, the core problem faced by investors in the A-share market is the single source of return. Investors in the A-share market mainly rely on the spread between the purchase and sale of shares to obtain returns. In this case, investors' mentality and behavioral fluctuations are mainly influenced by the following factors.

First, the speculative nature of the market increases. When a large number of investors are pursuing short-term spread profits, the speculative nature of the market increases. Investors are more susceptible to market sentiment, such as panic or greed, resulting in share price fluctuations that are disconnected from the actual operating conditions of the company. In 2015 China's stock market and again staged a roller coaster ride, half a year's time the SSE index doubled from 2,600 points straight to 5,100 points, half a year later fell back to 2,900 points. However, the same face of the subprime crisis impact on the U.S. capital markets, S & P500 index only from the peak of 1526 points, down to 1280 points, a decline of 16%. According to the theory of the law of value in traditional finance, it should not come out of the roller coaster market in two years nearly four times the rate of increase, which to a certain extent reflects the volatility of China's stock market is very large.

Second, there is a significant herd effect among investors. The herd effect manifests itself in the tendency of investors to follow the decisions of the majority in the face of uncertainty. And the spread-dependent return model makes investors more likely to make decisions by imitating the behavior of others under conditions of information asymmetry. In the event of negative news or increased uncertainty in the market, this herd mentality may lead to panic selling, resulting in large swings in stock prices. Meanwhile, as investors tend to be more willing to believe and follow the decisions of the majority, some untrue or misleading information may be widely disseminated and accepted. This not only undermines the fairness of the market but also reduces its effectiveness.

Third, investor overreaction. When an unanticipated events occur in the market, investors tend to over-emphasize these events and may make irrational decisions as a result. This lead to a tendency for investors to trade more frequently in an attempt to capture profit opportunities rather than investing based on a company's fundamentals or long-term value. This short-term behavior exacerbates market volatility and reduces market stability and predictability. The overreaction of the A-share market can be reflected in the indicator of turnover rate.

5. Investment Strategies and Protection Mechanisms for Small and Medium-sized Investors

The above research shows that A-share investors are suffering from psychological and behavioral problems such as loss aversion, over-trading, and emotional investment, which are mainly caused by the investors themselves as well as the general environment of A-share, both subjectively and objectively. Therefore, the following section will discuss the appropriate investment strategies for small and medium-sized A-share investors and how to build an investor protection mechanism, so as to provide practical solutions to the current realities of the A-share market from both subjective and objective perspectives.

5.1 Investment strategy

In order to ensure stable and substantial investment returns, investors can build long-term value investments from several perspectives.

First, long-term value investing. Long-term value investing emphasizes making investment decisions based on the intrinsic value of a company rather than short-term market fluctuations. This requires investors to study in depth factors such as a company's financial condition, industry position, growth potential and the ability of its management team. Secondly, diversification diversifies the portfolio. It can help investors reduce the risk of specific stocks or sectors. Investors can diversify from several perspectives, including industry, geography, and asset class. Thirdly, a risk management mechanism should be established. Reasonable risk management is the key to ensuring investment returns. First, investors need to set up stop-loss and take-profit, set clear stop-loss and take-profit points, and avoid emotional trading decisions. Secondly, investors should regularly review their

investment portfolio, assess its performance and risk profile on a regular basis, and make timely adjustments to maintain consistency with their investment objectives and risk tolerance. Finally, investors need to understand their own risk appetite and construct their investment portfolios accordingly to avoid taking excessive risks. Fourth, make passive investments. Passive investment, especially investment in index funds and ETFs, provides investors with a low-cost, risk-diversified investment path. Investors can choose funds that track core indices, such as CSI 300 index funds and SSE 50 index funds, which diversify their investments across multiple stocks, reducing the risk of investing in a single stock. The passive investment strategy is suitable for long-term holdings and avoids the increase in costs caused by frequent trading. In addition, investors can also adopt regular fixed investment, which can smooth out market fluctuations and reduce the risk of choosing the investment timing.

5.2 Protection mechanisms

According to the real problems existing in the A-share market at present, and drawing on the experience of other countries' stock markets in investor protection (Figure 5). We can establish the relevant system from the three phases of the preparation of enterprises for listing, the successful listing of enterprises, and the emergence of enterprises with illegal behaviors, so as to build an effective protection mechanism for the rights and interests of investors in the A-share market.

With the rapid development of digital technology, there has been a deep integration of finance and digital technology, but at the same time, the capacity of financial regulation has lagged far behind the innovation of financial technology. Therefore, drawing on the UK's regulatory sandbox system, a 'safe space' that fully simulates real market scenarios can be established under the auspices of digital technology, and financial entities can be placed in the safe space to pilot test new financial technologies and business models before going public, with a dedicated contact person helping the tested companies continuously adjust their products or services to comply with the regulatory framework. Upon completion of the test, the final summary report provided by the company will be evaluated and a decision will be made on whether to allow the product or service to enter the market. Through early regulatory intervention, investors are protected from the potential risks of immature financial products.

After the listing of financial entities, on the one hand, a strict information disclosure system should be established to require A-share listed companies to provide comprehensive, transparent and timely information disclosure to ensure that all investors have equal access to information. On the other hand, regulators can raise the level of horizontal supervision in the society by increasing the rewards for reporting information disclosure problems and setting up a strict penalty mechanism for retaliation. Efforts should also be made to strengthen investor education and popularize financial knowledge through online platforms and public lectures to enhance investors' ability to understand and use such information.

The investor rights defense system is the most important part of the investor protection mechanism when the enterprise has violated the law, and the regulator can effectively safeguard the rights and interests of investors from three main aspects. Firstly, implementing a group litigation system. Government departments can encourage, guide and support small and medium-sized investors to litigate against violations of the law through collective action, so as to reduce the cost and difficulty of individual investors to defend their rights. At the same time, the system needs to be designed to ensure that the litigation process is fair and efficient, and to avoid abusive litigation. Secondly, referring to the fair fund system in the United States, the regulator can use the fines and proceeds from violations of securities trading to establish a fund dedicated to compensating investors who have received losses as a result of violations of the law. The establishment of an investor protection fund,

as a means of public compensation, has a higher success rate and a shorter period of time than the group litigation system in the private litigation field, and can cover a wider range of cases, making up for the shortcomings of private enforcement. Thirdly, the establishment of a specialized complaints body. With the continuous development of China's financial market, various types of financial cases have emerged. In order to improve the efficiency of enforcement in the financial market, the regulator can set up a complaint hearing body independent of the Securities and Futures Commission and the Stock Exchange, specializing in dealing with disputes between investors and financial institutions. This body can organically link internal processing, mediation and arbitration, and is an efficient and low-cost dispute resolution mechanism.

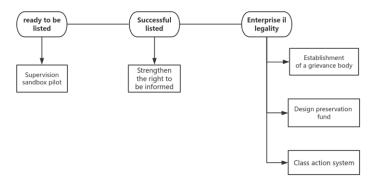


Figure 5: Investor protection mechanisms

6. Conclusions and recommendations

6.1 Conclusion

This paper focuses on the background of economic downturn and serious decline in stock market returns, and takes the enhancement of stock market investment returns as the main content, analyzes the development status quo and main problems of China's stock market, and explores the mechanism of investor's mentality and investor's behavior on investment returns. This paper finds that the psychological and behavioral problems such as herd mentality, loss aversion, over-trading and emotional investment among investors have caused the status quo of poor stock investment returns in China's A-share market. While investors can improve this status quo by adjusting their investment strategies, the state can improve the investor protection mechanism from two aspects together.

6.2 Recommendations

This paper proposes three countermeasures at both the investor and state levels:

Firstly, for individual investors, due to the lack of professional knowledge background, the degree of market cognition is insufficient, when the risk comes easy to cause chasing up and down, blindly follow the crowd and other phenomena, especially when the market big step down, investors' emotions will become worse, extreme fear of the psychology will further increase negative emotions. Therefore, as an individual investor, you need to continuously strengthen the learning of professional knowledge, abandon the concept of speculation, good control of emotions, improve investment execution, maximize risk avoidance, control their own investment emotions, and thus reduce market volatility and improve investment returns.

Secondly, for individual investors, investors should develop the ability to think independently and not blindly follow the trend of buying and selling. Before making investment decisions, they should conduct sufficient personal research and analysis and base their decisions on the fundamentals of the company and the long-term trend of the market, rather than solely on market sentiment or the behavior of others. In addition, setting fixed investment principles and disciplines, such as stop-loss points and profit targets, can help investors resist the influence of market sentiment.

Thirdly, the state should start from the legal level, enhance the financial market supervision to improve the financial regulatory model, so that the financial investment market has a law to follow; increase the financial market penalties, from the source of false information, to rectify the financial market; to the developed countries to learn from the experience of the financial market, so as to save for a rainy day, to reduce the impact of unexpected events on the stock market. At the same time, the use of big data, joint securities companies, securities trading institutions to establish a database of investor sentiment, quantitative and qualitative analysis, to find the entry point to the majority of investors to educate and guide, and thus avoid the negative impact of investor sentiment fluctuations on stock returns.

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