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The Impact of Investor Expectation on the Financial Decision-Making

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Abstract: Unlike traditional finance, behavioral finance challenges the traditional financial theory of investor rationality, emphasizing that investors are not absolutely rational in real life. This perspective provides new insights for understanding and predicting financial markets. This study examines core concepts in behavioral finance, such as loss aversion, market anomalies, momentum effects, reversal effects, endowment effects, and framing effects, and analyzes how they influence investors' financial decisions. These concepts highlight the significant role of human psychology and behavior in shaping financial decisions, thus aiding investors in making more rational choices in complex financial markets. Loss aversion, for instance, suggests that investors are more sensitive to losses than to gains, leading to suboptimal decision-making. Market anomalies, such as price bubbles and crashes, indicate that markets are not always efficient. Momentum effects suggest that past stock performance can predict future trends, while reversal effects point to the tendency of extreme stock performances to revert to the mean. The endowment effect reveals that individuals value their own possessions more highly than similar items they do not own. Lastly, framing effects demonstrate how the presentation of information can influence decision-making. Future research can delve deeper into how the framing effect can be harnessed to improve the design and marketing strategies of financial products, thereby enhancing the efficiency and effectiveness of investment decisions. This exploration could lead to more sophisticated financial products and better-informed investors, ultimately contributing to a more stable and efficient financial market.

Keywords: Behavioral Finance, Loss Aversion, Market Anomalies, Investment Decision-Making

1. Introduction

Behavioral finance is an interdisciplinary field that merges psychology, particularly behavioral science, with finance. It aims to uncover irrational behaviors and decision-making patterns in the financial market.

From a behavioral finance perspective, the market price of a security is not determined solely by the intrinsic value of the security, but is also significantly influenced by investor behavior. This suggests that investor action and psychology have a significant influence on price decisions and their volatility in the securities market. Behavioral finance research analyzes deviations and anomalies in market behavior, seeks the characteristics of different market participants' business philosophies and

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decision-making behaviors, and strives to establish a model that accurately reflects actual decision-making behavior.

The research concept of behavioral finance is a reverse logic compared to traditional economics. While traditional economic theory first creates an ideal and then gradually moves towards reality, behavioral finance adopts an empirical attitude to pay attention to what actually happens. Behavioral finance believes that investors are boundedly rational and make mistakes. Both rational and boundedly rational investors are at work in the market most of the time.

Behavioral finance challenges the central assumption in traditional financial theory - the rationality of investors. In traditional financial models, such as the Efficient Market Hypothesis (EMH), investors are assumed to always make rational decisions based on all available information. However, behavioral finance recognizes that the human decision-making process is far more complex. It emphasizes the impact of cognitive biases, emotions, and psychological factors on investment choices. By delving deeper into these concepts, it can better understand the volatility of capital markets and how investors respond to this volatility.

2. Loss Aversion

People are risk averse when it comes to profit. Given a choice between a clear benefit (gain) and a 'gamble', most people will choose the clear benefit. To be more specific, this is the 'value for money' experiment.

A. Investors will definitely get $2,000.

B. Investors have an 80% chance of getting $3,000 and a 20% chance of losing $2,000.

The result is that most people choose A. Investors will definitely get $2,000. However, in Unified Economics, this is not reasonable. Because the expected value of B is actually greater than 2000, investors should choose B.

The reality is that most people tend to be cautious when it comes to gains, preferring to take what they can for fear of losing what they have already gained. This is loss aversion. Loss aversion is when people are much more sensitive to losses than they are to gains of the same amount. Psychologists Daniel Kahneman and Amos Tversky first introduced the concept in their research [1].

When predicting future trends, people tend to make decisions to avoid losses rather than gain. This is closely linked to people's brains. Although human civilization has existed for almost 10,000 years, people's brains still retain subconsciousness inherited from the ancient human ancestors, for example, fear of cold and hunger. Loss aversion reflects the organism's fundamental response to pain and pleasure, namely that 'losses cause twice as much damage as gains' [2].

Graphically, the expected utility curve of risk aversion is concave, and risk averse individuals endeavor to avoid risk in order to make a solid gain. Loss aversion and risk aversion, while interconnected, are distinct concepts. According to Tversk's prospect theory, risk aversion generally refers to a dislike for variability in a distribution, while loss aversion pertains more to the psychological impact of losses compared to gains [1]. An individual might be risk-neutral when it comes to pure gains and pure losses, meaning their value function is linear for both. However, this person might still avoid lotteries that offer mixed outcomes. This behavior can be observed if the individual exhibits a high degree of loss aversion, specifically, if their loss aversion coefficient exceeds 2. In such a case, they might reject a lottery with an 80% chance of winning $3,000 and a 20% chance of losing $2,000 [3]. This choice is reflected in the stock market, where Dimmock constructed a loss aversion indicator from 16 intertemporal choice questions in the Dutch DNB household survey, and empirically concluded that loss aversion inhibits household participation in the stock market and reduces allocations to equities in household portfolios, and that the inhibitory effect of loss aversion is more pronounced for direct holdings of equities than for mutual fund holdings [4]. Lee measured loss aversion based on an intertemporal choice problem in data from a

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study at Tilburg University in the Netherlands, and found that if loss averse investors evaluate the performance of their portfolios more frequently, such frequent evaluations will continually reinforce perceptions of losses, which will lead to lower stock market participation [5].

Loss aversion is also seen in Ponzi schemes, where those who invest upfront see high returns, which attracts more participation. When losses occur during the investment process, investors expect to make up for the losses at a higher cost and risk. This also reflects the fact that people usually choose to forget about unpleasant experiences and experiences and do not accept the fact that they have lost money on their investments.

In theoretical studies, volatility is considered an important characteristic of capital markets. Especially in the stock market, the high volatility of stock returns often triggers investors' concern. Investors tend to feel uneasy when there is a decline in stock prices. This observation is supported by a study by Barberis and Huang in 2001 [6]. The study focuses on the characteristics of firm-level stock returns in two economic systems. In the first system, investors exhibit loss aversion to fluctuations in their stock portfolios. While in the second system, investors exhibit loss aversion to fluctuations in the individual stocks they own. Both systems explain some empirical phenomena, but the second system is more prominent in terms of explanatory power. In this system, typical individual stock returns are not only characterized by high mean and excessive volatility, but also by a large value premium in the cross-section. These characteristics can be captured to some extent by commonly used multifactor models.

Thus, investors' loss aversion to individual stocks may be a key factor in explaining firm-level stock returns. This finding provides a new perspective on understanding and forecasting the stock market. Overall, these theoretical and research findings provide insight into the understanding of capital market volatility and how investors respond to this volatility.

3. Market Anomalies

Market anomaly is a phenomenon in financial markets where the behavior of the prices of certain assets does not correspond to the behavior expected by the efficient market hypothesis. Such anomalies play an important role in investor decision-making.

3.1. Momentum

The momentum effect refers to the tendency of a stock's return to continue its original direction of motion, that is, a stock with a high return in a past period will still earn a higher return in the future than a stock with a lower return in the past. This phenomenon is widely observed in the investment field, especially in the short term. The presence of momentum effect has a significant impact on investors' decision making. Investors may be able to predict future price movements based on past price trends, thereby influencing their buying and selling decisions. However, this strategy does not always result in the expected returns because market price movements are often influenced by many unpredictable factors.

In Søndergaard’s study, she explores the issue of financial market efficiency and compares the differences between traditional and behavioral finance theories on financial asset pricing by focusing on the Danish stock market [7]. She describes trading strategies based on technical analysis, including momentum strategies, which are closely related to the previous discussion of the momentum effect. In addition, Søndergaard's study finds that momentum strategies perform weaker during market reversals and better during bull and bear markets. This may be due to the fact that in periods of market reversals, past price trends are not fully predictive of future price movements, and excessive pursuit of momentum may pose an investment risk. Momentum strategies are more volatile during market crises and there is a difference in the average profits of momentum strategies in non-US developed

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and emerging markets. These findings suggest that investors need to consider market specifics and possible risks when using momentum strategies.

3.2. Reversal

The reversal effect, on the other hand, refers to the tendency for the price of a stock to move in the opposite direction after a period of upward or downward price movement. This phenomenon is more common in long-term investments. The existence of the reversal effect suggests to investors that past price trends are not a complete predictor of future price movements, and that excessive pursuit of momentum may entail investment risks. Therefore, investors need to consider the possibility of the reversal effect when making investment decisions.

These theoretical arguments have been widely validated in empirical studies. For example, the market anomalies are analysed in detail the various types, including time-series anomalies (e.g., calendar anomalies, momentum as well as overreaction), market-localized anomalies (e.g., market-capitalization effect, value-share effect), and other types of market pricing anomalies [8]. The article points out that these market anomalies have a significant impact on investors' judgements and decisions. Yang's study finds that the A-share market does not exhibit significant momentum effects during the sample period; there is a significant reversal effect in the short term (3 months), and the reversal effect is not significant in the medium to long term. The article also found that the strength of the reversal effect in the Shenzhen A-share market is greater than that in the Shanghai A-share market, and the strength of the reversal effect in the GEM is significantly stronger than that in other types of markets [9].

4. Endowment Effect and Framing Effect

The application of psychological phenomena such as the endowment effect and the framing effect in finance has received widespread attention, and these phenomena have had a profound impact on investors' decision-making behavior. However, the depth of research in the research area is still limited, and it still need to conduct more research to understand these phenomena more deeply and how they affect investors' decision-making behavior.

Kahneman's study first introduced the concept of endowment effect,which is caused by loss aversion and path dependence psychology [10]. It may cause investors to overestimate the value of their assets and thus hesitate in deciding to sell, reducing market liquidity and increasing the M&A premium [11]. The endowment effect is more prominent in emerging industry M&As and may affect investors' risk appetite and asset allocation decisions [11]. The endowment effect may lead investors to be overly cautious in their purchasing decisions, overly risk averse, and miss opportunities for high returns [12]. The endowment effect may also lead to a lack of portfolio diversity and increased investment risk [13]. The framing effect refers to the fact that people have different decision-making preferences for different representations of the same information. For example, when a doctor tells a patient that a certain treatment has a 70 per cent survival rate, the patient may choose that treatment; however, when the doctor tells the patient that the same treatment has a 30 per cent mortality rate, the patient may reject that treatment. When faced with a choice between gains and losses, investors are often influenced by the way information is presented. For example, an investor may be more willing to take a risk when the risk of an investment is described as a possible gain, while an investor may be more inclined to avoid the risk when the same investment risk is described as a possible loss. Li et al.'s study found a pseudo-immediacy effect [14]. In the experiment, subjects in the no-framing group were required to choose between a smaller but more recent return (SS) and a larger but more distant return (LL). However, in the pseudo-immediate framing group, subjects were required to complete a two-phase task, with the first phase requiring a 100-week enrolment period to qualify for participation

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in the second phase, and then in the second phase, subjects were required to choose between the SS and LL options, but by this time, the two options had changed to A'. Get 3200 now, and B'. Get 3300 after 10 weeks. When the options are presented in a pseudo-immediate frame, people ignore the waiting time in the first stage and mistakenly believe that they can gain immediately in option A at this point, which leads to a greater preference for the SS option, and a greater preference for the LL option when the frame is removed.

5. Conclusion

It has been found through research that behavioral finance such as loss aversion, market anomalies, momentum effect, inversion effect, endowment effect and framing effect contribute to some of the irrational behaviors of human beings when faced with financial decisions. How investors can cope with and overcome the psychological cues brought about by emotional factors as well as a series of uncertainties, such as market volatility, and then make choices to choose sensible investment objectives is what this paper explores. The rise of behavioral finance has not only injected new vitality into traditional finance, introduced many new theories, and promoted the development of the financial industry together with traditional financial theories, but also optimized the asset allocation based on modern portfolio management theories and using intelligent investment advisors as tools.

In this paper, the study facilitates investors to further understand these concepts and apply them to practical financial decisions. For example, how loss aversion affects an investor's risk tolerance, or how the endowment effect affects an investor's buy and sell decisions. In addition, firms can explore how the framing effect can be used to improve the design and marketing strategies of financial products. These studies will help investors better understand and anticipate the dynamics of financial markets, thereby improving the efficiency and effectiveness of their investment decisions.

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