

Study in Chinese Individual Investors Through Behavioral Finance

Yuyuan Chen

Department of Mathematics, University of Waterloo, Waterloo, ON, Canada

Abstract. Due to rapid growth and development in China's economy, there is also a dramatic growth in China's financial market. With that, the market has been attracting people to get into the market and investment, even though a lot of them do not have any knowledge or experience about investment. The entering of those investors not just brings more opportunity to the market but also increases uncertainty to the market due to their irrational behavior. With the purpose of providing insight into China's market, this paper will study the irrational behavior of Chinese investors and psychological biases that affect them based on behavioral finance.

Keywords: Behavior Finance, psychological biases of Chinese individual investors.

1. Introduction

After the changes in China's open-up policy since 1978, it is observed that there has been a dramatic and rapid growth in China's economy and their citizens' personal assets [8]. As a result of the economic growth, there is an increasing number of Chinese individuals starting to invest their money in the market. However, since the stock market is a relatively new concept to China, by comparison with other developed countries such as America, the market system in China is still imperfect and most of those individuals who just start investment are barely educated or experienced about market investment. Because of that, the decision-making of those individual investors are usually irrational and even randomized, which brings a lot of uncertainty to the market and increases the risk of loss. In order to provide insight into those irrational behaviors, this paper will analyze the psychological biases behind those behaviors and impacts on the market caused by those behaviors with the discipline of behavioral finance.

2. Reviewing Behavioral Finance Theory

2.1 Behavioral Finance

2.1.1 Define Behavioral Finance

In the traditional view of market and finance, it is always assumed that financial markets are efficient and information is equally accessible to all market participants. Under this traditional view, investors always make rational decisions to maximize their benefits only based on available information.

However, with real life examples, it is usually observed that a large portion of investors are irrational in financial decision-making. With that observation, behavioral finance suggests that the finance market is largely influenced by the behavior of investors. In other words, psychological events and behaviors of investors make great impacts on the financial market, such as price changes. In order to study the reasons for these irrational actions from investors, there are two main building blocks of behavioral finance, which are limits to arbitrage and psychology [1].

2.1.2 Classic Models Applied by Behavioral finance

In behavioral finance, insights from other sciences and business studies to be incorporated to learn, understand, and explain the impacts caused by investor behaviors and psychological factors that generate those behaviors. With a long time of studying and development, several theoretical models are developed and applied to theory of behavioral finance.

a. Expectancy Theory

This theory was originally suggested by Victor Vroom in 1964. In this theory, it is stated that people behave and make decisions based on the outcome of the behavior and a belief that increased effort leads to better performance and such performance will result in a certain outcome. In the field of behavioral finance, it states that rational investors tend to pay more attention to maximize their expected utility values.

b. Mental Accounting

This theory was firstly proposed by Richard Thaler in a paper written in 1999, "Mental Accounting Matters". In the paper, it is proposed that people place different values on the same amount of money, based on their own criteria. As a result of that, people evaluate funds differently, and hence make irrational decisions in their financial investments. [2]

c. Behavioural Asset Pricing Theory

In the traditional view of asset price theory, known as the capital asset pricing model, several assumptions are held for the model, such as identical time horizons and free access to all available information. However, those assumptions are not always true in the market. Thus, a new behavioural approach is proposed to asset pricing theory. Under this approach, investors are categorized into two types [3]. Firstly, there are typical traders within the traditional asset pricing theory who are informed, rational, and share an equal attitude towards risks and rewards. Secondly, there are noise traders who are outside the traditional model who have incomplete, wrong, or no information about the market. Those traders have different attitudes towards risk and gains. Those traders also have a larger possibility to make irrational decisions than the first type of traders do.

2.2 Individual Investors

2.2.1 Define Individual Investors

By the definition, individual investors, also known as retail investors, are people who make investments with their own capitals to meet their own goals, such as saving for retirement. Commonly, individual investors make investments with smaller amounts of money more frequently, and tend to be less experienced and knowledgeable than the investors who work for institutions. [4]

Generally, individual investors can be categorized into two types:

Firstly, there are proactive investors who rely a lot on their own justification or predictions to make financial decisions. Typically, those investors may overestimate their ability to predict and control unexpected events, and underestimate risks of uncertainty.

Secondly, there are extreme risk takers who make extreme aggressive decisions. Instead of making decisions based on open accessible information, knowledge and experience like rational investors, this type of investors tend to make decisions based on so-called "inside information" that usually are not trustworthy and believe that they can make a large profit from that. However, by real world data and examples, this type of action only increases the proportion of irrational investors involved in high risk of loss, and increases the volatility of the whole financial market

2.2.2 Psychological Bias of Individual Investors

For individual investors, there are three typical psychological biases that have observable impact on the financial market:

a. Herd Behavior:

This term is also called the herd effect, which is used to describe irrational action taken by a group of individual investors in financial markets and trading. Just like what its name suggests, investors' actions may affect others' decision-making process, where investors tend to follow the steps of other investors instead of making choices based on their own judgements.

b. Regret Aversion:

In behavioral finance, this theory describes a situation where investors tend to avoid feelings of regret by refusing to admit that they have made bad financial decisions. Those investors tend to cover their mistakes by investing more money on those projects they have invested in and hoping those

projects will grow in the future inside of investing other things to recover the past investments. As a result of that, it usually happens that those investors may fall into a sunk cost trap and keep making irrational decisions just to avoid regret.

c. Overconfidence:

In behavioral finance, this term, which is one of the most common psychological biases that causes irrational behaviors of individual investors, describes a situation where investors overestimate the quality of the information they have gained and their ability to invest rightly based on that information, which may result in more frequent trading activities than normal and failing to diversify their profit portfolios correctly.

3. The Impact of psychological Biases on Market:

Behavioral finance, especially irrational behaviors from investors, has always been an important topic to be studied in China. In China, since the financial market is a relatively new field compared to other countries such as America, there is an irrational belief in Chinese investors that they can make money easily by purchasing stocks if their price grows and selling them when their price falls.

According Li, it is possible that psychological biases of investors will result in price bubbles in the market [5]. For example, in a bull market where prices and investors' confidence continuously increase in the market, the impact of irrational mistakes can be constantly emphasized. As a result of that, the asset prices will grow to a level that exceeds its true value. Meanwhile, in a financial market that is experiencing a continuous decrease in the market price, which is also known as a bear market, irrational and pessimistic behavior of investors, the price will keep falling down to a point that is way lower than its true value, which may lead to a depression of the market.

Thus, this false expectancy about how the financial market works can result in price changes that move the price far from where it should be, and hence cause high volatility in the market price. What's more, due to herb effect, the interaction between irrational behavior caused by the false expectancy and the market price will form a loop, which will extend the impact of irrational behaviors and produce price bubbles in China's stock market.

According to Wang Yali, irrational behaviour of investors can also affect the positive feedback effect on China's stock market [6]. Due to the lack of professional knowledge and experience, it is common for individual investors to follow other successful investors' steps blindly, which spreads the impact through the market and magnifies the impact by the superior quantity of Chinese individual investors.

Based on another study [7], noise traders, who trade irrationally, can also affect China's market. In the positive prospect, noise traders can improve the market in a lot of ways, such as the market liquidity, and provide rational traders with more opportunities for transactions. However, since the behavior of noise traders are highly uncertain and randomized, it makes it difficult for rational traders to get valuable information from market transactions. In order to recognize useful information for transactions done by noise traders, those rational traders will need to conduct several researches on them. What's more, market manipulators can be benefited by spreading false information to manipulate irrational traders' actions in a way that manipulators wish to.

Beside the factors described above, it is also found that individual investors' age, knowledge level, education background, and gender can greatly affect an individual investor's way of getting and processing information, reason of getting into the market, and the ability to handle risks.

4. Conclusion

In summary, due to the rapidly growth of China's economy, there are more and more chinese individuals entering the finance market and willing to enter the market due to various motivations. Although these new blood entering the market can bring different benefits to the growth of the market, such as improved liquidity and improved market efficiency, the behaviour of these new investors are

usually irrational due to their lackness of professional knowledge and experience. They can also increase uncertainty of the market and risk of loss of transactions.

Thus, for institutions like the government and schools, in order to stabilize the market and economy, it is critical to provide people, who are new to the investments or are willing to invest things, with basic education about how the market truly works and how to distinguish between rumors and useful information.

For individual investors, it is important to be cautious about the risk of investments, acquiring knowledge about economy and investment to develop a correct view of investment and improve their decision-making skill on investment, and hence minimize their loss.

References

- [1] Thaler, R., and Barberis, N., (2002), A Survey of Behavioral Finance, Handbook of the Economics of Finance, National Bureau of Economic Research.
- [2] Thaker, R., Mental Accounting Matters. Journal of Behavioral Decision Making. Vol. 12 (1999), No. 3, p183-206
- [3] Zhao Honghong, Huang Chunyan. Analysis of Herd Behavior" in China's Financial Product Market from the Perspective of Behavioral Finance. Business, 2013(10Z):226-226.
- [4] Haegele, B. Individual investors vs. institutional investors: How they differ. Bankrate. (2022) <https://www.bankrate.com/investing/individual-investors-vs-institutional-investors/>
- [5] Xiaozhou L. Study in the Irrational Behaviors of China Securities Market [D]. Jilin University, 2006.
- [6] Wang Y. A study on the Influential Factors of China's Stock Price from the Perspective of double heterogeneity of Investors. Hebei University of Technology, 2005.
- [7] Liu L. Research on the Influence of Noise Trading on the Volatility of China's stock market. Northwest University, 2013
- [8] Marjerison R K, Chungil C, Shitong L., Investor Activity in Chinese Financial Institutions: A Precursor to Economic Sustainability. Sustainability (2021)