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Research and Analysis on Herd Behavior of Individual Investors

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ABSTRACT

Based on the development of China's financial market later than the western markets, the professional level of individual investors and market supervision are undeveloped than the western markets. In the process of capital market gradually internationalization, China's individual investors are face some problems which will be reflected in herd behavioral effects.

In the investment market, herd behavior refers to the phenomenon of individuals giving up their own ideas, and their own information to make investment decisions consistent with the group's investment decisions. Generally speaking, individual investors buy blindly when the stock trading volume clearly increases, but blindly sell when the stock trading volume obviously declines that resulting in large fluctuations in stock prices. This paper analyzes the influence of herd behavior on individual investors by two cases. It focuses on the particularity of China's financial market analysis. It analyzes and compares specific positive and negative effects of the herd behavioral caused by individual investors.

Individual investors should fully aware of their strengths and weaknesses on investment strategies. There is little chance of absolute reasonable. In order to avoid losses, individual investors should improve their judge abilities and keep a clear thinking. As for the regulators, they should increase investment education for individual investors, promote rational investment, open markets and improve institutions.

Keywords: *herd behavior, individual investors, positive and negative effects, financial market, fintech*

1. INTRODUCTION

With the rapid growth of per capita disposable income, Chinese's investable scale grows rapidly. Therefore, the demand for wealth management increased and the number of individual investors in financial markets gradually expanded. The proportion of individual investors in financial market is increasing rapidly, so the behavior of individual investors has a more and more great influence on the dynamics of the whole market. It can protect the personal interests of individual investors and promote the stable development of China's financial markets to explore the behavior of individual investors and master the investment decision-making mentality of individual investors.

It is generally believed that the impact of herd effect on the market is divided into positive and negative aspects. Herd effects accelerate the reflection of information on market prices. On a positive prospect, herd effects allow some reliable market information to correct stray market prices more quickly than without herd effects. That is to say, the market has become more efficient. From a negative point of view, the herd effect makes the market price change increase and the market becomes more unstable. Through case studies and data comparison, the investment behavior and characteristics of individual investors in financial markets are analyzed. The analyze the reasons and the impacts for the herd effect on the development process of China's Internet finance and real estate. And the relevant suggestions are given, which is of great significance for stabilizing financial markets.

The innovation of this paper is to explain the influence of herd behavior by analyzing the more characteristic cases of individual investor herd effect. The case is analyzed according to the particularity of the Chinese market. Internet finance is growing rapidly in China, such as Balance Bao. What's more, individual investors have a strong interest in Internet finance. But in recent years there has been a lot of negative news. Another case is real estate. Individual investors start investing in real estate relatively early, but as far as I know, many individual investors invest in real estate entirely because of irrational psychological factors caused chaos in China's real estate market. Through case studies, this paper makes suggestions for individuals, organizations and managers. The aim is to promote the stability and development of China's financial markets.

1.1. Herd Behavior

A) Explain: Herd behavior refers to individuals ignoring the information obtained, giving up their different ideas from the public and making decisions that are consistent with group behavior. Herd behavior in financial markets refers to "chasing up and down". The consequence of herd behavior is that most investors trade in the same direction for a period of time. There are three characteristics of this behavior, first is not to consider personal information, the second is that the behavior of investors is irrational, and the third is that this behavior has an impact on the whole market.

B) Causes: The causes of herd behavior are divided into the following. Firstly, it is very common for individual investors tend to blindly follow the public to avoid risk. Secondly, the particularity of China's financial market induces herd effect. [1] First of all, China's individual investors have a large number, but low level of education. According to the data, more than 195 million people invested in the Shanghai and Shenzhen stock markets in 2017, 43.81% had a high school education or less. According to research that individual investors made 70.4% of investment decisions through friend introductions, expert recommendations, and reading to get information. 51.5% of them trusted friend's messages.[2] We can draw a conclusion that there is a general lack of knowledge and experience among individual investors, and that it why individual investors are more likely to generate irrational emotions than mature institutional investors. Then, there are some problems in the disclosure of information of listed companies in China, such as irregularities, institutional defects and lack of related supervision. Obviously, individual investors in china are in the information asymmetry environment that generated a sense of non-trust. These investors trust other people's information more than they do, so as to choose to follow other people's investment decisions. Finally, individual investors in China's financial markets generally lack long-term investment strategies, most of which are speculative. In 2017, individual investors held a market value of about 5.9 trillion yuan, with 82.01% of the stock traded and institutional investors holding about 4.5 trillion yuan, but only 14.76% of the stock traded. [3] Therefore, it is reasonable to think that these individual investors lack long-term consideration. That means they want to be able to profit from speculation in the short term. So, they don't spend a lot of time studying the market, they buy or sell with others.

C) Impact: This paper holds that the herd effect of herd behavior can be divided into positive and negative aspects. Positive is able to stabilize financial markets, negative is easy to exacerbate price volatility, triggering financial risks.

a) Positive: The positive effect is that it accelerates the reflection of reliable information in the market price to avoids overvaluation or undervaluation. To be specific, when the market price does not correspond to the value, the institutional investors will sell or buy the stock, and then the individual investor adopts the same decision. As a result, it accelerates the price return to normal value. Hence, the role of information in the market becomes more effective. This advantage of herd effect has a great effect on the development of China's financial market.

b) Negative: The negative aspect of the herd effect is the disruption of the market order. Blind buying and selling by investors can easily lead to price fluctuations and bubbles. Some investors will use this investment psychology to manipulate the market and make the investment market unstable. Such a lack of rational investment behavior can also cause market confusion. Such a lack of rational investment behavior can also cause market confusion.

1.2. Individual Investor Characteristics

The securities market is generally divided into two categories of institutional investors and individual investors. As long as the identity of a natural person to carry out securities transactions of value of the individual generally become an individual investor. Individual investors make up a large proportion of the Chinese market. Obviously, under the assumption that investors are absolutely rational, the price of the stock follows the market price completely. [4] However, individual investors are at a disadvantage in terms of information acquisition and investment knowledge in China. Personal investment is difficult and is influenced by irrational emotions.

1.3. The Development of China's Financial Market

According to the China Household Financial Survey Report, the average household financial assets in China are 63, 800 yuan.

Table 1. A comparison of the number of stocks, bonds, and futures trading from 1998 to 2017 [5]

	1998（Hundred million yuan）	2017（Hundred million yuan）	Rate
Stock trading	23,544	1,124,625	4677%
Bond trading	76	9,879,660	12999453%
Futures trading	18,483	1,878,925	10066%

China has become an important player in the global financial system, including banking, bonds and stock markets. In terms of total assets, China surpassed the U.S. in 2010 and the Euro zone in 2016, with the world's largest banking system, with total assets of 268.76 trillion yuan ($39.93 trillion) as of March 2019. On October 2019, 3,709 companies were listed on the Shanghai and Shenzhen exchanges. The total market capitalization of Shanghai Stock market reached 33.69 trillion yuan (US$4.72 trillion), while the total market value of Shenzhen Stock market reached 22.24 trillion yuan (US$3.11 trillion).[6] In securities investment transactions, individual investment occupies a large proportion. And the behavior of individual investors influence by the public psychology, short-sightedness, risk aversion, blind self-confidence, blind panic, dependence on national policies, dealer plot and other factors, showing herd behavior, preference for small-cap investment and other behavior characteristics easily.

1.4. Case Analysis and Comparison

1.4.1. Cases of internet finance

By virtue of the advantages of low barrier to enter, internet finance attracts a large number of financial activists such as cash-strapped people. It challenges the inherent model of traditional finance and attracts a large number of investors. Internet financial investors have continued to grow in recent years in the face of a depressed capital market in China. For most individual investors, the cost of identifying internet financial credit level is too high because of limited channels. Therefor, it is easy to cause a certain degree of information asymmetry, which causes individual investors to make herd behavior. In other words, information asymmetry on internet finance can lead to the spread of the entire industry, whether the decisions made by the followers are correct or not and pose a risk to the entire financial system.

For example, Yu'E Bao, which has grown rapidly since 2013. Yu'E Bao is a product launched by Alipay and Taizhong Fund on June 1,2013. In 2013, China's stock market performs as a whole is negative and the economy is down. At that time, bank deposit rates are low, but the Yu'E Bao attracted a large number of investors. This was reflected in more than 10million users increase in one week and more than $700 billion invest in the first quarter of 2015, making it the world's second largest fund for managed funds. At present, Yu'E Bao is still China's largest fund. Ant Financial Services Group's user size has grown by 110 percent and the number of fixed-rate users by 210 percent in 2019 one year. [7] The main reason is that the entry barrier of Yu'E Bao is very low as long as 1 yuan. What's more, the yield is higher than the bank's demand deposit rate. So that anyone can participate it. However, these individual investors tend to underestimate the potential risks of Yu'E Bao. For example, the scale of Yu'E Bao is greatly influenced by the changes of its yield and consumer demand. Yu'E Bao's industry competition risk is growing, such as WeChat, JD. com and other enterprises are gradually introducing similar internet financial products. [8] In the event of a wealth management product with higher interest rates, the Yu'E Bao user will be lost a lot. In the end of each year during the shopping peak season Yu'E Bao will have a huge redemption phenomenon due to its ready-to-use model which results a significant increase in liquidity risk. In fact, in China, Internet finance-related laws are not perfect, the Yu'E Bao developed in the lack of regulatory environment. For instance, Yu'E Bao can provide fund service before they get th fund sales license as an intermediary. Once the relevant laws put forward, Yu'E Bao will face a huge risk.

The herd effect on internet finance can also be reflected through the "Yu'E Bao sentiment index". The Yu'E Bao sentiment index is based on the Yu'E Bao business scenario, broken down the trading behavioral, screening out the users directly or indirectly into the stock market funds. After stripping the IPO, holidays, earnings impact, construct the data to standardize index. The Yu'E Bao sentiment index reflects the willingness of Yu'E Bao users to participate in the stock market. For example, when the Yu'E Bao sentiment index rises, it means that the Yu'E Bao user's willingness to enter the market increases. To look at this index from a different perspective, it can also be said that Yu'E Bao users are easy to trade in the same direction, easy to appear sheep behavior.

1.4.2. The case of real estate investment:

The vacant rate is an important index to measure the existence of herd behavior in the purchase of houses. The international standard for the rate of empty houses is 10%. According to data from 1999 to 2006, China's vacant housing rate is much higher than 10%. After China's policy of eliminating welfare housing began in 1998, and consumers began investing heavily in real estate which created a false boom. Therefore, I think there is a herd effect in Chinese real estate a lot. [9] When herd behavior occurs, and demand seeks to increase rapidly. However, the change elasticity of supply is very small, and the formation of a bubble weakens the impact of real housing demand on prices. Investors are too sensitive to real estate investment, causing industrial fluctuations. In the end, it destabilized the market.

Table 2 China's vacant housing rate from 1999 to 2006

	1999	2000	2001	2002	2003	2004	2005	2006
Vacancy rate	41.13%	36.48%	34.78%	31.88%	28.46%	25.00%	25.00%	26.00%

Vacancy rate = (（vacant area of the new commercial house+vacant area of the stock house）/the total number of houses）*100%

1.5. Suggestion

1.5.1. Individual investor perspective

A). It is recommended that individual investors invest as flexibly as possible. The number of investment products in the market is large, there are certain differences and the operation of the market will change at any time. The complexity is difficult for every individual investor to know. Although herd behavior may gain arbitrage opportunities in the event that there are erred pricing errors in wealth management products. Through this analysis, when the majority of individual investors in the market approve of a strategy and adopt the same strategy, it might cause negative results. Therefore, it is recommended that individual investors take full account of risks, flexible use of investment strategies, control the risks in their own more manageable range.

B). It is recommended that individual investors improve their analytical judgment. Before investing in financial markets, we need to learn certain financial knowledge and investment skills to master the laws of market change. Understand the laws of market operation in order to have a cool head, make the right judgment.

C). It is recommended that individual investors develop investment plans when investing in financial markets. Clear long-term goals, in order to truly achieve sustainable economic benefits. Avoid irrational investments caused by emotions in the investment process by developing detailed, long-term plans. Thus, in the changing capital market to avoid blindly tracking other people's views, adhere to self-judgment, reduce the negative herd effect.

1.5.2. Regulator, government perspective

A). It is recommended that the company accurately locate the current situation of China's market development, understand the characteristics and development direction. Obviously, there is a level of professional knowledge gap for China's investors, risk appetite is different and investment decision-making behavior is biased. Thereby, the regulators should establish a diversified and standardized investment strategy, launch a diversified portfolio, adapt to the development of China's financial markets, meet the needs of diversified investors, attract current individual investors.

B). It is recommended that regulatory bodies take full account of the different circumstances of market participants and quickly establish complete and more detailed legal norms. With the help of financial theory, do a comprehensive analysis of the current situation of China's financial markets including behavioral finance, to find out the existing problems and solve them. On the one hand, we should strengthen the financial knowledge of individual investors, education, etc., to improve their cognitive level. By analyzing and studying the individual differences of investors, the psychological factors of investors are systematically analyzed. Negative herd effects can be avoided to some extent. Compared with the financial markets of China and developed countries, the financial markets of developed countries are more developed, and the financial system and norms are more detailed. Communication and exchanges with other countries should therefore be strengthened. There are some differences in the financial markets of various countries, but there is also commonality. Therefore, we can learn to refer to the development experience of financial markets in developed countries, and then develop a suitable mode of operation locally.

2. CONCLUSION

This paper explains the meaning, causes and effects of herd effects, both positive and negative. By analyzing the cases of herd behavior in the development of the Chinese market, this paper explains the influence of herd effect on Internet financial investment and real estate investment. In the case of Internet finance, herd behavior is because of the universal characteristics of that internet finance attracted many individual investors. The herd effect has promoted the rapid growth of internet finance in China. However, due to large liquidity and inadequate regulation, the negative impact that increase the instability of the market cannot ignore. In the real estate investment case, the herd effect makes the housing demand increase, the price rises, and finally disturbs the market order. By analyzing the impact of individual investor herd effect on the market, these two cases give us the enlightenment that not all herd effects are negative. Actually, it is very difficult for individual investors to be absolutely rational, so we should use the "rational herd effect" which is make use of the positive impact of herd behavior and avoid the "irrational herd effect" which is avoid the negative impact of herd behavior to promote the development of financial markets. In view of the negative effect of individual investors' flock effect, this paper puts forward some suggestions for individual investors and regulatory authorities. In addition to the complex investment market environment and the need for individual investors to be cautious, regulators also need to further improve the system and open the market.

This paper focuses on the analysis of the case, but due to the author's limited scientific research time, funds, capacity, lack of data calculation support. It is hoped that in future research, I can support the degree of using "rational herd effect" and avoiding "irrational herd effect" by calculating the specific data of positive and negative effect factors such as different weights.

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