

Analysis on Investment Behavior Deviation

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Abstract: - The paper adopts from the investment behavior theory and studies the affecting factors of financial investors in investment decision-making and the investment fund behavioral deviation. At the same time, the thesis also analyzes the efficiency of asset allocation and investment behavior of China's securities investment funds, and studies its impact on China's securities market. On the basis of this, it also uses LSV model to test the Fund's herding behavior, the investment behavior of the deviation and its effect on China's market orientation. At the last, it proposes some suggests and points out the paths and strategies on correcting investment behavior deviation of China's investment fund.

Key-Words: - Investment Funds; Asset Allocation; Investment Behavior Deviation; Amending Paths

1 Introduction and A Literature Summarizing

1.1 Introduction

In recent years, with the rapid development of China's securities market, as the "backbone of stability" in the securities market, investment fund has been excessively developed. Fund as a major institutional investor, coupled with its commitment to reveal the information, its status and impact is important to the market. However, it is inconceivable that the large-scale development of securities investment fund isn't able to cause a substantial change in China's stock market which is volatile and low efficiency. There is a phenomenon need to pay special attention: during the large-scale development of China's public offering fund, because of the policy protection and lacking of external competition, the fund investment behavior tends to be a dissimulation, or even exposure a "dark side of the fund". On a certain extent, the "herding behavior" has exacerbated the volatility of stock price and brought adverse effects to the market gradually. Comprehensive analysis and empirical research on a number of domestic fund companies' asset allocation and performance in recent years, we can see that low efficiency on asset allocation, unsatisfactory performance and other issues still existed in China's fund managers, whose root

maybe is that a variety of cognitive declinations exist.

In view of the above, we believe that under the current market environment and theoretical research background, it has great realistic and theoretical significance in many ways: to strengthen the research in China's securities investment deviation and then in general holding the China's fund managers' transaction characteristics and its impacts on the market price, volume change and so on ; to provide a basis to the administration agency in making an appropriate policy and monitoring on the market development .

1.2 A Literature Summarizing

Securities market is a complex multi-fight system which concerning a lot of different main interests, such as the government, the listed companies, brokerage firms, securities intermediaries, investors and so on. Nofsinger and Sias (U.S.,1999) found that the ratios of institutional investors holding shares have a positive correlation with the stock returns because the institutional investors are easier to take momentum strategies than the general investors and the impact caused by institutional investors' herding behavior is far greater than the general investors on the stock price. Therefore, in some sense, as a leading part in the market, the securities investment funds' investment decision-making can determine the fluctuations of

the share price on a large extent and have a direct effect on the efficiency of the securities market.

In fact, both small and medium-sized investors or the institutional investors, their investment decision-making and investment behaviors will be affected by a variety of factors. As to the investment decision-making, as the representative and traditional financial theory, Markowitz's optimal choice theory and Fama's effective capital market hypothesis consider that: people driven by self-interest are able to make a rational judgment and decision according to the information they obtained. In uncertain conditions, their subjective probability is no deviation analysis of the optimal investment portfolio. However, the accumulation of a variety of unusual phenomena and the departures between models and facts often put the rational analysis of the modern financial theory into an awkward position.

In 1980s, the behavioral finance theory quietly rose. Through a lot of empirical researches and observations, it tried to prove that: during the investment decision-making process, people can't always make a rational decision, and there are many awareness deviations exist in reality, and these deviations inevitably affects people's portfolio, which will lead to distortions in asset prices. The representative of this theory, the American scholars, Richard.H.Thaler (1999) believed that investment behavior awareness deviation and psychological fluctuations would cause distortions in the pricing of assets, and then affected the efficiency of the investment decision-making. As early as 1970, Friend found that a group of securities investment funds have a remarkable and same investment tend which is shown by the following behavior with their counterparts who have got a success investment in the previous period. Lakonishok, Shleifer and Vishny (1992) introduced a well-known method named as LSV to test the herding behavior when they did research on the herding behavior of institutional investors. They suggested that they did not find marked herding behavior on the whole, but the small scale shares' herding are greater than the big scale shares' herding. Grinblatt, Mark, Titman and Wermers (1995) had investigated all the mutual fund of the United States dates from year 1974 to 1984 and researched their herding, momentum trading strategy and its performance, and they found that the whole institutional investors have no distinct herding behavior, however, the institutional investors' herding behavior in buying advantage shares is greater than their selling inferior shares. In order to find the existence of herding behavior in funds, Wermers (1999) analyzed the stock

transaction of US mutual funds dates from year 1975 to 1994, and the studies showed that fund holdings is overall less herding, and the degree of herding is almost the same when they buy and sale, but different style investment funds' herding behavior have a great of difference, for example, the growing funds' herding degree is higher than the income funds.

Tversky studied the three conflict areas between the human behavior and the basic assumptions of investment decision-making model: risk attitudes, mental accounts and excessive self-confidence, and named the phenomenon which observed in the research as "cognitive bias." Kahneman and Tversky (1979) co-sponsored the "prospect theory" through using the theory of psychology and behavior. It believes that: in investment decision-making, an investor often shows such characteristics as over-confidence, avoid losses, fashion, herding mind, reducing its regret and responsibility, and so on. These are the psychological characteristics which existed in investors investment decision-making, and which often enable their actual decision-making process deviated from the optimal decision-making process.

2 The Asset Allocation Efficiency of China's Securities Investment Fund and Its Impact

About the asset allocation efficiency of China's securities investment funds, we had gotten 63 funds' related data from the first quarter of 2000 to the fourth quarter of 2004 and used their asset allocation contribution to the funds' income rates as a sample, and tested and measured the contribution rate of China's major fund asset allocation to their income rate using a regression analysis of empirical research.

2.1 Review of the Theory and Investigation of the Model

Asset allocation of fund is the first step for fund managers to build a portfolio. It includes the definition of every part and category assets of the portfolio and the fund assets' allocation among the main kinds of latent investment objects. These latent investment objects include domestic shares, bonds, real estate, private equity and rights, derivative securities and foreign securities. Compared to the decision-making of stock and bond investment, assets allocation is the higher-level during the fund

investment decision-making. As to the fund, the asset allocation usually means:

1. to calculate the income, standard deviation and correlation;
2. to use these variables mean - variance in order to optimize the different risk rate of return of the portfolio;
3. to analysis and use one of the alternative asset allocation program according to the Fund objectives, history, preferences, restrictions and other factors of the fund.

Asset allocation can be roughly divided into three kinds: strategic asset allocation, dynamic asset allocation and tactical asset allocation. Strategic asset allocation is based on the fund's investment objectives and the host country's legal restrictions to decide the funds asset allocation proportion among main types of assets. Dynamic asset allocation is established on strategic asset allocation, it made a dynamic management on assets allocation proportion, including whether timely adjust the ratio according to the market condition or not and how to adjust. Tactical asset allocation means to make a rapid adjustment to get profit according to the prospect of assets' returns in a short period. Different asset allocation strategy has its own unique theoretical basis, behavior characteristics and payment mode, and applies to different market environment.

Optimizing asset allocation often refers to the process to find a portfolio which has the following characteristics: it can produce the highest expected profit under a certain level of risk, or to a given income level it has the lowest risk. The most commonly technique used to optimize the financial assets allocation was called Mean-Variance Optimization (MVO), which was developed by the economist Markowitz in the early 1950s. Since the establishment of CAPM model, people often use the standard deviation or variance to test and measure the risk. At present, most institutional portfolio management is based on the traditional Means-Variance framework. The Mean-Variance theory is correct under the assumption of the second utility function or the reward performing a normal distribution. However, these assumptions don't come into existence in reality. At present, the newest international asset allocation model including the main non-linear asset allocation model which based on neural network and the dynamic asset allocation model under the framework of downside risk aversion. Now, we would make a brief introduction of the dynamic asset allocation model which on the basis of downside risk abhor.

Downside Risk is a more scientific measurement of risk. What called of downside risk refers to the proportion of that the return on investment is lower than the minimum acceptable rate of return (MAR), it is used to measure the risk of negative return. Downside risk-measurement allows the non-symmetrical distribution of compensation and the discussion of a more general utility function. Downside risk's more general application is based on the use of LPMS. Investors' best strategy is to make a choice between mean and downside variance. Here, the risk can be measured using the following expression:

$$R_{\gamma}(\theta) = E([\max\{\theta - x, 0\}]^{\gamma}) = \int_{-\infty}^{\theta} (\theta - x)^{\gamma} dF(x), \gamma \geq 0$$

$F(x)$ is a probability distribution function of the return rate of the investment portfolio. Reference point θ is the MAR, which is the basic distinction benchmark between profit and loss, usually defined by expected return of investment, risk-free interest rate or target rate of return. The benchmark can be time-dependent, such as tracking the index, institutional investors' debt. In the expression, θ is a constant (bigger than 1 or equal to 1), and it will be regarded as the benchmark level of wealth.

Investors maximize:

$$E(x) - AE([\max\{\theta - x, 0\}]^{\gamma})$$

Here, the θ and A are constant, A means risk-averse of investors. The maximization of investor's expecting income can be seen as the expected utility maximization as the following:

$$U(x) = \begin{cases} x - A(\theta - x)^{\gamma}, & x \leq \theta \\ x, & x > \theta \end{cases}$$

Here, $A \geq 0, \gamma > 0$. We may use the end wealth represent utility function $U(x)$.

Under the downside-risk choice measure to be: the probability of loss ($\gamma=0$), the expected loss ($\gamma=1$), half variance, and downside variance ($\gamma=2$), and the worst possible result ($\gamma \rightarrow \infty$).

When $\gamma < 1$, investors would show a risk-loving characteristics when they face to the loss, in this case, investors are willing to gamble; When $\gamma > 1$, investors would show the characteristics of risk aversion when they face to the loss. When the expected return ratio lower than the target θ , the risk aversion function will show as follows:

$$R(x) = -\frac{xU''(x)}{U'(x)} = \frac{Ax\gamma(\gamma-1)(\theta-x)^{\gamma-2}}{1+A\gamma(\theta-x)^{\gamma-1}}$$

It is easy to see, when $1 < \gamma \leq 2$, investors will show an increase in risk aversion, and when $\gamma \geq 2$, in its definition domain will show an increase or decrease of risk aversion.

2.2 The Empirical Analysis on Asset Allocation Efficiency of China Securities Investment Fund

This paragraph we will combine the major assets allocation of fund and its contribution ratio to its returns to inspect and analyze the efficiency of asset allocation.

2.2.1 The Sample Data and Research Methods

From China HaiTong Securities Research Institute analysis system, we obtain the related data of 63 funds asset allocation's contribution rate from the first quarter of 2000 to fourth quarter of 2004. At the same time, we make an analysis according to the calculation methods, from China HaiTong Securities Institute financial engineering. Specific expression formula is as follows:

$$AIC_i = \sum_{t=1}^T NAV_{it} * W_{sit} * R_{st} + \sum_{t=1}^T NAV_{it} * W_{bit} * R_{bt} - r_f$$

Table2.1 The cross-section explanation degrees of the China funds' asset allocation to their net value return ratios from 2000 to 2005.

Period	2000 - 2005	2001 -200 5	2002 -200 5	2003 -200 5	2004 -200 5
Fund number	17	32	49	64	89
total	19.9 %	-3.1 %	21.3 %	-0.5 %	-0.5 %
2005y	1.8%	-0.9 %	0.3%	-0.4 %	2.8%
2004y	8.0%	2.8%	7.7%	3.9%	1.2%
2003y	4.8%	-2.7 %	-1.3 %	-0.5 %	
2002y	15.7 %	18.2 %	8.0%		
2001y	-4.2 %	9.0%			
2000y	-2.1 %				

Table2.2 The compare between USA and China of the cross-section explanation degrees of the funds' asset allocation to their net value return ratios

	Ibbotson, Kaplan(20 00)	Ibbotson, Kaplan(200 0)	China market

Fund types	pension funds	Mutual funds	Mutual funds
Fund numbers	58	94	32
Sample times	1993-1997 7	1988-1997	2001-2005 5
R ²	40.00%	35.00%	-3.10%

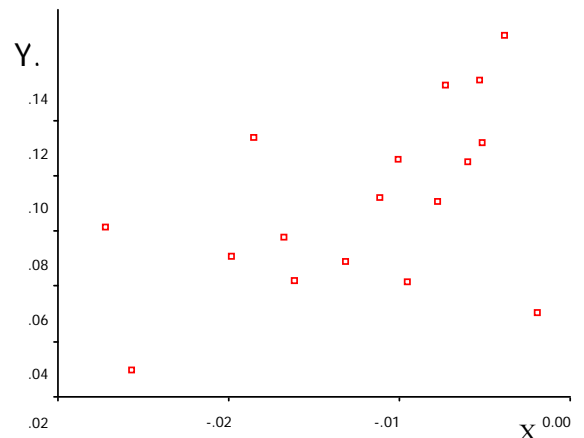
The data is from: WangZhen, economy science, 2005.4

Here, the AIC_i represents the over-profit over risk-free income of the fund allocation on stock and bond; NAV_{it} refers to the fund I's net-value on T day; W_{sit} refers to the stock store of the fund I on T day. R_{st} is the return ratio of A-share market on T day; W_{bit} refers to the bond store of fund on T day; R_{bt} refers to the return rate of bond market on T day; r_f means risk-free income (assume the stock and bond stores changed uniformly in accordance with the quarter portfolio).

We have done the cross-section regression on all stock funds' accumulative total growth ratios of the annual net value to the accumulative total return ratios of the funds' asset allocation, and received the adjusted R² which can represent the cross-section explanation degree of the funds' asset allocation to net value growth ratio of the funds.

2.2.2 The Empirical Analyzing Results

The studies have shown that in Chinese market, the explanation of asset allocation for net-value of fund in the cross-section was significantly lower than that of pension funds and mutual funds in America. It shows that the contribution rate of China's major fund asset allocation to their income rate are overall low degree.

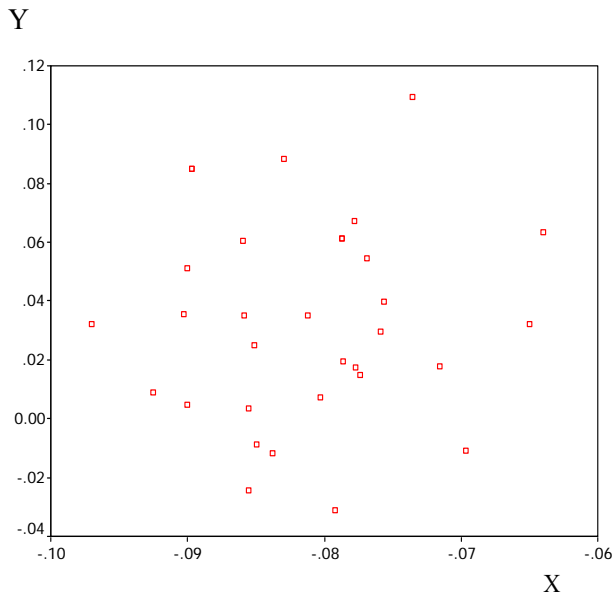


X: the accumulative total return ratios of the funds' asset allocation

Y: the stock funds' accumulative total growth ratios of the annual net value

Fig. 2.1 The cross-section explanation degrees of

the China funds' asset allocation to their net value return ratios in 6 years.



X: the accumulative total return ratios of the funds' asset allocation

Y: the stock funds' accumulative total growth ratios of the annual net value

Fig. 2.2 The cross-section explanation degrees of the China funds' asset allocation to their net value return ratios in 5 years.

2.3 The Empirical Analysis on the Correlation Between China's Securities Investment Fund Asset Allocation and the Market Index Fluctuations.

The question about China's securities investment fund asset allocation and the impact of market conduct on China's securities market can examine and evaluate with the correlation between the fund's asset allocation and market index volatility.

2.3.1 The Samples and the Method of Analysis

About the impact to China's securities market from China's securities investment fund asset allocation and investment behavior, we used China fund data from June 1999 to June 2005 and did some empirical researches on the correlation between asset allocation changes and the market index fluctuations. Here, we mainly use the return rate of Shanghai Composite Index as a frame of reference, by analyzing the correlation between the changes of Chinese securities investment fund asset allocation and the market index fluctuations to measure and analyze the impact of China's securities investment fund asset allocation and market conduct on China's securities market. First of all, we use the two ways

of the frequency analysis and the average-median analysis to review and analyze the changes of funds shares asset allocation is in the same direction as the market return rate ratio or not, and then on that basis, we will use the Pearson and Bivariate method to analyze the correlation between them and do some regression tests to the major variables.

2.3.2 Empirical Analysis and Testing

Table 2.3 The correlation between the changes of China's securities investment fund asset allocation and the market index fluctuations.

The difference of SZ_t and AS_t changes	Date numbers (quarter)	proportion
The same direction	14	56.00%
The opposite direction	7	28.00%
No instinctive difference	4	16.00%
Total data from	25	100%

Source: Tianxiang investment co.

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Table 2.4 The Pearson correlation coefficient

Variable	Statistical indicators	Market rate of return	Stock changes in the average asset allocation ratio
Market rate of return	Pearson correlation coefficient	1	0.908(**)
	P value	0	0.000
	Sample size	16	16
Stock changes in the average asset allocation ratio	Pearson correlation coefficient	0.908(**)	1
	P value	0.000	0
	Sample size	16	16

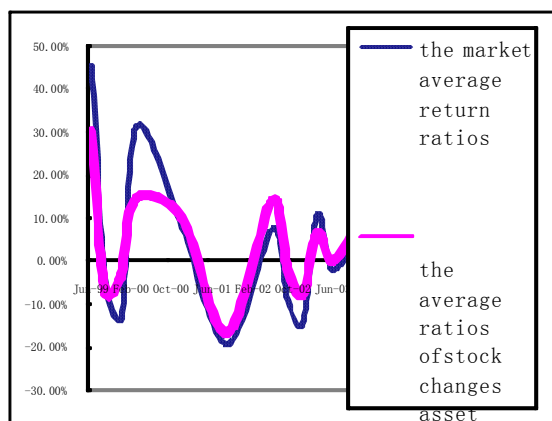


Fig. 2.3 The relationship between the market average ratios of return and the average ratios of stock changes asset allocation when in the same direction.

2.3.3 basic conclusion

The empirical analysis found that: In China's securities market, there are more than 60% investment funds' shares asset allocation changes are completely the same with the index return changes in 56% of time; and there are only 30% investment funds' shares asset allocation changes was reverse with the index return changes in 25% of the time (the details may see the "empirical study on the relevance between China's fund asset allocation and the return rate of the market index, Shanghai Investment, China, 2007.3).

Table2.5 The main analysis results

	No Standardization coefficient		Standardization coefficient	T testing value	P value
	B	Std. Error	Beta		
Constant	1.455	1.229		1.184	0.256
Market return ratios	0.558	0.069	0.908	8.106	0.000

These above empirical findings may show that China's securities investment funds have some problems: its ability to grasp market timing is not strong in overall; its asset allocation is less efficient; it shows a basic and passive nature in the market operation, investment philosophy, the market hot grasping and on the market rhythm taking; it doesn't yet give full play to the market as a leader in its effect, to a certain extent, we even could say that as a major institutional investor in the market, the fund did not play a important role in stabilizing the

market, it aggravated the market fluctuation on the contrary.

3 The Explanation of Chinese Fund Managers' Investment Behavior deviation

China's securities investment fund operational efficiency is lower and it did some negative effects by its investment behavior to increase the market shock. There are a wide range of factors, and the fund manager's investment behavior is the most important of them. Securities investment funds' behaviors, to a certain extent, depend on the fund managers' judgment and behavior performance. A large number of empirical studies have shown that people's subjective factors such as emotions, personality and psychological sense and so on, play an important role in the financial investment, which can not be ignored. And investors are not always in a rational manner to make decision-making, their investment behaviors are not only impacted by its own cognitive bias, but also interfered by the external environment. Among them, the individual characteristics and psychology are two major factors in the fund managers' decision-making behavior. In fact, as the most relative rational investors, fund managers are not absolutely rational but with some kind of emotion, that is limited rationality! They tend to be interfered in making decisions by some irrational factors, such as the investment bias (including feelings bias, prejudice asymmetry and over-confident "herding"), the cognitive bias and subjective mood swings, so their investment behaviors will show a variety of extreme and even emotional characteristics.

3.1 The Deviation of Fund Managers Behavior in Relation to the Client's Interests

From the institutional arrangements of investment funds, we can see that investment funds showing a typical principal - agent relationship which actually is a gain relationship between the advantage and disadvantage of information. As the investors are principals, and the fund managers are agents, they are at the location of asymmetric information, which is the agents being at the advantages and the clients being at the disadvantages. So the investors are hard to know whether the fund managers work hard to get more income or not, but only can observe the final results of the work called proceeds. At the same time, During the Securities Investment Fund, the utility of the agent and client is different, there is

a phenomenon of incentive incompatible, the increase of agents utility often means the reduce of clients' utility. Because of the asymmetric information of principal-agent relationship and the utility difference between the fund investors and fund managers. Fund managers' behavior will cause a deviation on investors' interests. So under the principal-agent system, there are distortions in the incentive mechanism, fund managers are easier to have herding behavior, even make a cognitive bias in investment decision-making with, and finally leading to ineffective portfolio.

3.2 The External and Internal Behavior Deviation of Fund Managers

There are lots of herding behavior in China securities investment fund, the investment idea of are nearly the same, and the investment style also is vague. The factors for the act of deviation mainly come from internal and external.

From the deviation of external behavior, the reason for external behavior deviation of securities investment fund managers lies in many ways: the financial development of china is lower and not normative, the investment idea is not mature, and the fund managers' investment behaviors have blindness on a certain degree. What is more important, there is a serious imbalance in the structure and system defects in the stock market, so there is an acute conflict between the fund managers' rational operation and external non-efficiency market which naturally adds the deviation of fund manager.

From the deviation of internal behavior, there is a universal phenomenon of damage to the interests of fund investors in China Securities Investment Fund. For example, the fund managers make use of the controlled fund assets to make a lot of stock transactions to get a kickback or send profits to fund company and so on. As the incentive mechanism of China securities investment fund on fund managers is based on a given proportion of fees according to the fund asset net-value and the performance to pay the management when the growth of net value is more than the standard ratio. The imperfect management structure and less incentive system of funds is the basic reason of internal behavior deviation. It made fund managers to have the motive to manipulate the net value and leads to the investment behavior deviated from the track.

3.3 The Cognitive Bias of Fund Investment Managers

The securities investment fund managers often have some behavior deviation in reality. On the one hand, fund manager's ration is limited and the irrational behavior will occur in the process of their investment decision-making. On the other hand, fund managers face the non-full effective market, and their investment idea also effected by the market noise and imperfections, which may lead to their some short-term irrational operation behavior. More important, in view of the cognitive bias, the fund manager's investment decision-making often lacks science and flexibility, and the characteristics of discretionary choice is the more prominent, they often make a different choice according to the decision-making nature and environment. Over-reliance on intuition and experience will result in low efficiency in decision-making, so the fund manager's objective function is limited and is only satisfied but not utmost.

4 Empirical Analysis and Measurement Test on China's Fund Investment Behavior Bias

4.1 The Empirical Methods

Fund manager as an investor, his investment behavior is also effected by their own psychological factors. It is generally beginning from the interpretation to the abnormal phenomenon when the behavioral finance theory discusses the investors' behavior. At present, there are such famous models in this area as BSV, HS, LSV and so on. On the whole, the LSV model is the most widely used because of its simple and easy access to data. In contrast, other models required data collection is difficult, so in this paper, we will mainly use the LSV model to analyze the fund investment behavior deviation.

4.2 The choice of Empirical data

We had gotten all the securities investment funds portfolio quarterly report from the first quarter of 1999 to the second quarter of 2005 which was published by Shanghai and Shenzhen stock exchanges Web site, and used them as the sample data.

Beside the whole herding test of Shanghai and Shenzhen stock funds, this article also tested all

shares-quarter samples according to the good or bad stock earnings in history, the size of stock exchange and the extent of the fund participation activity.

4.3 The Empirical Test Results

If we make a whole test on China's stock market institutional investors herding behavior, namely getting all the value of the stock-quarter sample $HM_{i,t}$, $BHM_{i,t}$ and $SHM_{i,t}$, and then calculate the arithmetic mean value of them, we can find that: the test results showed that the \overline{HM} is 8.8% (it may be seen in the table 4.1), which means that if there are 100 funds are doing the stock transaction, the fund number in unilateral market (that is the seller or the buyer) is more nearly 8.8 funds than the independent transaction (that is there is no herding), this means that herding behavior actually exists in the funds of China's stock market .

Table4.1 the whole test on China's stock market institutional investors' herding behavior

\overline{HM}	\overline{BHM}	\overline{SHM}
8.80 (222)	-0.52 (112)	0.97 (110)

Note: The number in the bracket is number of the stock-quarter samples which are used to empirical test.

At the same time, if we do classify test according to the stock historic return ratios, the test shows that herding behavior is obvious in these investment fund (it may be seen in the table 4.2). In addition, the \overline{HM} of the best and the worst of stock historical return rate is bigger than that of the moderate historic return rate, which indicates that investment fund would show more obvious herding behavior when they face to the extreme of historic return rate.

Table 4.2 The classify testing on China's stock market institutional investors' herding behavior according to the stock historic return ratios (HRR).

HRR	\overline{HM}	\overline{BHM}	\overline{SHM}
The best	10.50 (74)	1.70 (74)	0.64 (74)
The moderate	6.93 (74)	1.17 (74)	0.96 (74)
The worst	8.98 (74)	-3.01 (74)	2.39 (74)

By using the classic model LSV, we have tested and done some empirical researches on China's

stock market herding behavior of institutional investors. The study found evidence: there is obvious herding in China's stock market investment funds, the tendency of chasing rise and fleeing fall are not only existed among individual investors but in the institutional investors represented by the funds.

In the stock market, fund manager investment behavior is a response to the specific market system, culture and environment, and its investment behavior is formed in the process of interaction and evolution with a wide range of uncertainty, ambiguity and random factors. As a result, in the process of fund managers investment behavior analysis, we not only should consider the system and the cultural factors, but the main thing is to consider which is the impact from individual characteristics of fund managers to their investment behaviors and abnormal behavior performance in order to reveal the internal mechanisms which decide the fund managers investment behaviors and the nature of the characteristics. As a China's fund manager, his investment behavior is complex and has its special system backgrounds. The low asset allocation efficiency of China's securities investment fund and its positive impact on the market are mainly related to the fund managers investment behavior bias, which include the interests departures between the fund managers and the client, the investment cognitive bias, the fund industry internal Game, and the fund managers' internal and external acts of bias which arisen from the excessive concern on their career.

5 The Amending Path of China's Fund Investment Behavior Deviation

We analyzed ahead the investment behavior bias of China's investment fund and its causes in many ways and multi-angle. There are many reasons leading to China's investment fund behavior bias, they basically can be summed up as two facts: the external market environment and the internal institutional arrangements. we believe that we may take some micro and macro acts from two different levels to correct the China's investment fund behavior bias .

5.1 The Government's Macro-Level Acts

Enlarge the market capacity and improve the quality of the listed company shares. By these ways, the selection areas of investment funds will be widened, and then the fund have many sorts of investment

ways to choose, which may effectively reduce the market risks and vulnerability that arise from the fund acts of bias caused by "herding behaviour".

Expediting the money market and bond market development, widen the investment channels.

Chinese securities investment funds have a lot of communion characteristics, their differences in operation style are not obvious. The reasons for those are that the bond market limited variety of transactions, and the money market development is far from satisfactory, so that the market liquidity is relatively lower, which resulted in many obstacles to the Money market fund investment. Therefore, we think that Chinese government should vigorously develop the bond market and money market, and rich the bond trading varieties and currency transactions to increase the fund's investment channels, which are some effective ways in controlling the fund herding behaviours.

Energetically develop the financial derivatives market to enhance the price discovery function. China's financial derivatives are lagged behind the development of the stock market, the financial basic tools such as the futures and options does not yet exist, and the market is short of a mechanism of making hollow, so there are very high systemic risks in the market which can not effectively circumvent. These objectively resulted that the fund can only choose those better performances of stocks, which formed the fund act bias that is characterized by the "herding behavior". We believe that timely launching the financial derivatives market will help to promote the reform and development of the China's securities market.

Encourage more high-quality and independent intermediary institutions to engage in the fund ratings and securities analysis business. The establishment of scientific and impartial evaluation system of the fund will help to change the fund selection criteria of the investors, which will guide the fund to establish their own unique style.

Focus on cultivating a high-performance securities market environment for the investment fund managers. We believe that they are all very needed: to rich the securities investment products of funds; as soon as possible to launch the financial derivatives such as the stock index futures, options to guard against the risk of securities investment funds; to improve the quality of listed companies; to expand the "blue shares" group; to strengthen information disclosure system to reduce information costs; to further improve the environment of law in China's stock market and so on.

Establish the three-co-regulatory modes and monitor the investment funds behaviours from the

perspective of market. We believe that the management of the fund should establish a three-co-regulatory approach that is based on the building of laws and regulations, improving the fund industry and its self-regulatory mechanism.

5.2 The Fund's Micro-Level Acts

Optimize the internal management structure of securities investment funds. It is needed to give full play to the incentive effect and binding function of the market to the fund manager's reputation in order to regulate fund managers' investment behaviour and to reduce the irrational behaviour of the operation.

Establish a scientific and effective system of fund investment decisions. It should be do to use the quantitative portfolio model to build investment portfolio in order to control investment risks and to ensure the investment decision-making process normalized, routinely and scientific, and to reduce the risk which brought by the irrational subjective factors .

Attach importance to the personality character of the Fund and give full play to the effect of a fund manager star. The personality characteristics of fund managers should be stressed, and we should enhance the overall quality and ability of fund managers, which is great significant to regulate fund managers investment actions. In addition, the "star of fund managers" always has his excellent psychological quality and comprehensive analysis ability, so his ability to control risk is relatively strong, and be able to promote the investment funds to play an important role in stability the securities market.

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