

The Comprehensive Performance Evaluation on Stock Investment Fund Based on Index System Analytic Method

(Taking Boshi Theme Industry, Jiashi-Hushen 300 and the Southern Merit-Based Development for Example)

Jianqiu Yu¹ & Zhe Cao²

¹ Anhui University of Finance and Economy, Bengbu, Anhui Province, China

Correspondence: Jianqiu Yu, Anhui University of Finance and Economy, Bengbu, Anhui Province, China. Tel: 183-2692-0583. E-mail: chinayujianqiu@163.com

Received: June 16, 2015

Accepted: June 19, 2015

Online Published: June 25, 2015

doi:10.5539/ijef.v7n7p283

URL: <http://dx.doi.org/10.5539/ijef.v7n7p283>

Abstract

The dramatic development of Chinese economy has made great contribution to the social fortune boom and the great development of finance demand. Recently, fund has been universally recognized as a best way of allocating asset with all kinds of advantages. For investors, they focus on how to select the best fund in plenty of those which are optimal. In this article, we evaluate fund's performance and anticipate future tendency by using the index system and the maximum retreat analytic method, selecting the closing net value of Boshi theme industry, Jiashi-Hushen 300 and the Southern merit-based development fund from 1st Jan, 2014 to 4th Jun, 2015.

Keywords: index system, fund's performance, the maximum retreat value, comprehensive evaluation

1. Introduction

With the high-speed development of Chinese economy, by the beginning of 2015, the kind of people that the amount of funds that can be invested freely by high net worth individuals in China has been up to 1000 thousand is over 1920 thousand, meanwhile, up to 5000 thousand, ranging from 7000 to 10000 thousand people; for 100 thousand, there are over 100 million. This part of people comprises the middle class in China. Nearly 100 thousand million RMB is finding a brand new type of finance allocation and value maintenance and increasing urgently. However, fund has been favored by investors as an approach of finance allocation assembling professional financing, combination investment and dispersal risks. What's more important is that how can we choose suitable fund for ourselves, how to evaluate fund performance effectively and reasonably both are imperative investment information that all investors need when they are confronted with a wild assortment of fund.

We choose three typical open stock fund from 1st Jan, 2014 to 4th Jun, 2015: Boshi theme industry, Jiashi-Hushen 300 and the Southern merit-based development. We discuss the comprehensive situation of fund's performance from different perspective by using the basic index analysis and the maximum retreat analytic method, respecting to provide the needs with valuable information.

2. The Summary of Fund

2.1 Boshi Theme Industry Fund

Boshi theme industry stock investment fund established in 6th Jan, 2005. By 31st Mar, 2015, its finance scale is up to 12469 million. The fund mainly are invested on stock. The stock accounts for about 60% to 80%. Its targets are sharing urbanization and industrialization in China, the great improvement of economy and asset market in the upgrade of consuming, making fund asset stable in a long term (Daily Fund).

2.2 Jiashi-Hushen 300 Fund

Jiashi-Hushen 300 fund exchange open index stock investment fund built in 5th July, 2005. By 31st Mar, 2015, its finance scale was up to 32667 million. This kind of fund is indexation-invested passively via strict quantitative risk-control method, striving for the deviation which is less than 0.3% (Daily Fund).

2.3 The Southern Merit-Based Development

the Southern merit-based development stock investment fund established in 10th Nov, 2006. By 31st Mar, 2015, this kind of stock fund's scale was up to 7695 million. The 20% Shangzhen bond index adds 80% Hushen 300 index and the consequence is the basic in the industry, trying to investment repay beyond basic for investor and steady value increasing in a long term (Daily Fund).

2.4 The Comparison between the Three Net Values with Hushen 300 Index

Hushen 300 index is rather important to fund's performance as the basic of all types of funds in the market. We compare the three fund's net values with Hushen 300 index from 1st Jan, 2014 to 4th Jun, 2015. We draw the picture as below.

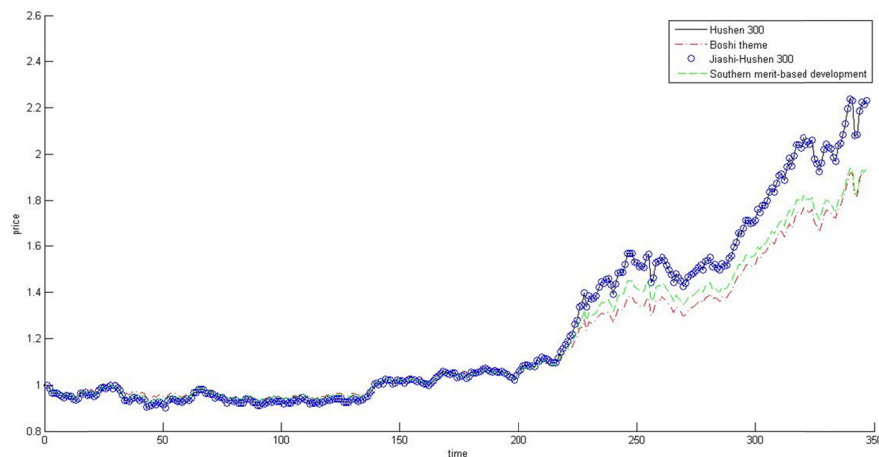


Figure 1. The time series tendency of fund net value

When it comes to the tendency of fund net value, the tendency of Hushen 300 is similar to those of the development of three funds. By comparison, the improvement of the net fund value of Jiashi 300 is higher than those of the Southern performance and Boshi theme.

3. The Comprehensive Evaluation on Fund's Performance

Index system analytic method is one of the most universal method of comprehensive evaluation on fund's performance, including basic technology indexes such as Sharpe Ratio, information ratio and the maximum retreat analytic method. The three methods can be used to all kinds of fund evaluation. Meanwhile, there are many other special indexes, specializing in being used in certain special fund, like trace deviation index, which is specialized in judge the deviation between synchronous degree and index fund when tracing the index.

3.1 Basic Index Analytic

3.1.1 The Analysis on Sharpe Ratio

Sharpe measure is a kind of risk performance weight index taking capital market line as criterion based on balance market assumption (Long & Wu, 1993). We can acquire profit offered by taking on unit risk by the sum of investment combination risk and its standard deviation premium divided by its risk premium.

By programming, the three fund's Sharpe Ratios of Boshi theme industry, Jiashi-Hushen 300 and the Southern merit-based development are 0.1533, 0.1472 and 0.1489 respectively. For the three funds, the Sharpe Ratio are very high and there is only a small difference among them. The Sharpe Ratio of Boshi theme industry is the highest, 0.1533, which indicates that its risk repay is rather high. The next is the Southern performance development, 0.1489, followed by Jiashi-Hushen 300, which has the lowest Sharpe Ratio. This situation is very common when the the unit risk of trace index fund is lower than non-index fund in bull market, for under the upward circumstances, the probability of extra profit earned by flexible allocated asset will be higher.

3.1.2 The Analysis on Information Ratio

Information ratio is based on CAPM model, weighing the extra profit brought by extra risk (Zhang, 2002). The

higher ratio, the higher extra profit, which shows that the extra profit offered by unit active risk compensates for Sharpe Ratio index.

We obtain the information ratio of three fund. Boshi theme industry, Jiashi-Hushen 300 and the Southern merit-based development are -0.1104, 0.0020 and -0.1401 respectively via MATLAB programming.

3.2 The Maximum Retreat Analytic Method

The maximum retreat analytic method is one of methods that describe absolute income products, which is based on the scale of fund's maximum retreat ratio, illustrating the maximum loss any investor could face to judge the ability of risk resistance (Wang, 2010).

We draw the maximum retreat pictures of Boshi theme industry, Jiashi-Hushen 300 and the Southern merit-based development from 2014 by Matlab programming (Yang & Huang, 2009).

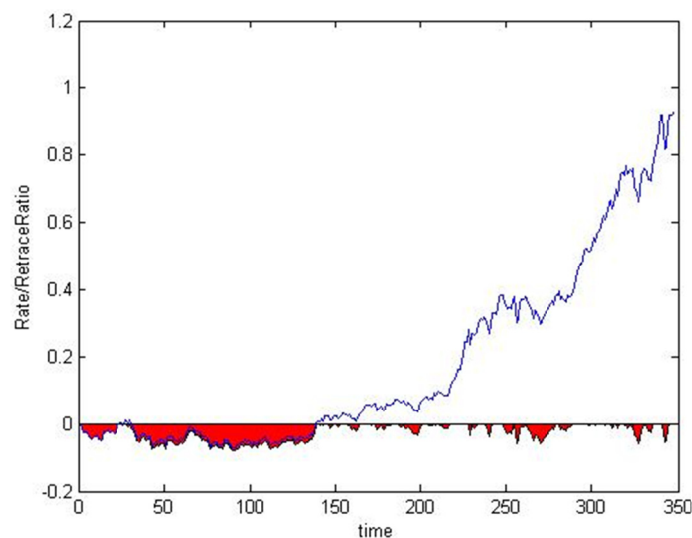


Figure 2. The maximum retreat pictures of Boshi theme industry

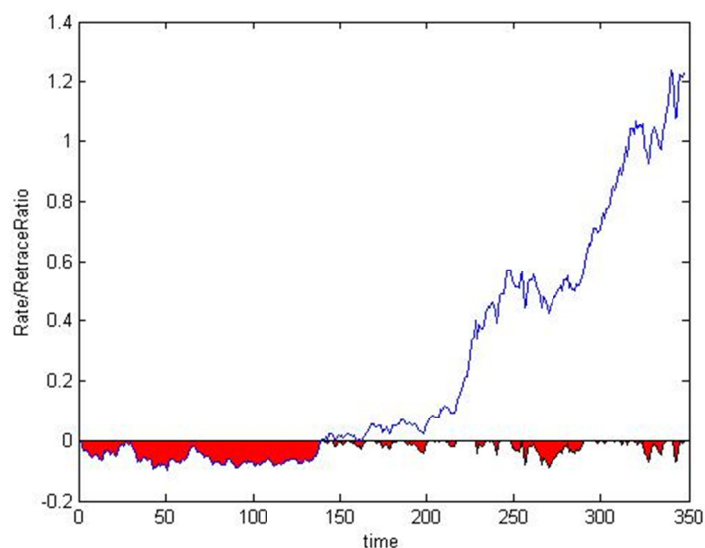


Figure 3. The maximum retreat pictures of Jiashi-Hushen 300

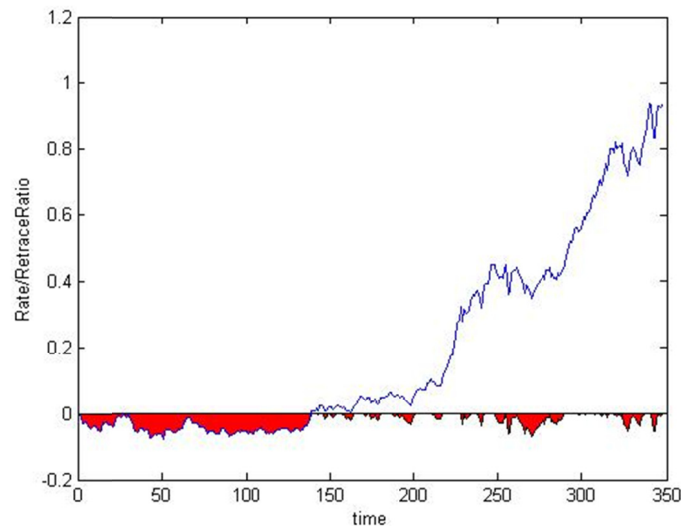


Figure 4. The maximum retreat pictures of the Southern merit-based development

From the whole tendency, the degree of the three funds in different period are similar. The percentage of whole retreat ratio of Jiashi-Hushen 300 fund is the highest, whose peak is about 330 to 350, and its ratio is 1.2. The next is Boshi theme industry, whose top is similar to those of Jiashi-Hushen 300, and its ratio is 0.9. Nevertheless, the Southern merit-based development has the lowest retreat ratio, its maximum appears at 340, ratio is 0.85.

4. Future Anticipation

With the increasingly development of bull market, our society hold optimistic view on the long-lasting increasing tendency of fund. For Boshi theme industry and the Southern merit-based development, its financing allocation is much more flexible than Jiashi-Hushen 300, easy to make progress in bull market, and its future profit ratio will be higher than index fund-Jiashi-Hushen 300. But for those, who show less preference on risk, would like to acquire profit provided by the increase of the stock market and at the same time, are concerned about the risk of non-scatter financing allocation. As a result, Jiashi-Hushen 300 fund is a reasonable choice. However, whatever kinds of fund, investors are supposed to be cautious and not to follow the trend blindly.

References

- Daily Fund. (n.d.). Retrieved from <http://fund.eastmoney.com/f10/>
- Long, X., & Wu, M. (1993). The survey of Chinese stock market efficiency theory. *Finance Survey*, 3, 21-25.
- Wang, L. (2010). The evaluation on open fund based on DEA method. *Modern Management*, (7), 224-225.
- Yang, G., & Huang, J. (2009). *Mathematical modeling* (2nd ed.). Hefei: Chinese Science & Technic Press.
- Zhang, Q. (2002). China index fund performance analysis. *Economy Survey of Nankai*, 6, 56.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).