

## Chapter 47

# An Investigation of the Return Risk and Liquidity Measure for Chinese Open-Ended Funds

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### ABSTRACT

*So far, the fund industry has become one of the four backbones of the Chinese financial system, together with the banking industry, the security industry and the insurance industry. In addition, open-ended fund shares are the mainstream of the fund industry, and the product characteristics and operational characteristics of open-ended funds will lead to an unavoidable risk of return with liquidity measure. Therefore, based on the theories of financial investment, this research profile the risk return and liquidity characteristics of three different open-ended funds in China, which are helpful to making rational investments. This article selects three different kinds of funds with the relevant data from 2012 to 2017 from the Huaxia Fund Management Co. Ltd., for each fund, the authors report the beta, Sharp Ratio, Information ratio and illiquidity. These risk-return features are discussed in the context of the different asset classes that each fund has invested, thus eventually obtaining a fund which has smaller relative liquidity risk and higher return after comparing. Hence, the investor can make the rational investment from the analysis of empirical results.*

### 1. INTRODUCTION

China is a developing country with high saving rates, however, the low interest rates of banks are difficult to satisfy the requirements of investors for increasing values in loans and investments (Li, 2014). When it is compared with the foreign financial securities market, it has been discovered that the Chinese securities market has a shorter development history and the Chinese government treasury bonds have a higher safety, lower return and poorer liquidity. Moreover, open-ended funds can make up for the deficiencies of the above-mentioned investment methods, thus being popular among a number of investors

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in Chinese financial market. With the popularization of open-ended funds, its research is becoming more and more intensive. The focused attention is gradually evaluated through the performance evaluation, which is extended to risk control. Because investors can redeem the fund, the open-ended funds will keep a certain ratio; however, the assets with the high liquidity usually have the lower return and less income of the funds. Besides, the decrease of fund return will lead to further redemption and higher liquidity risk. Therefore, the core issues for fund management lie in how to coordinate the contradiction between return and liquidity.

In terms of the theoretical significance, there are relatively more relevant analysis and research on the stock return and liquidity in the financial field. However, the researches on the fund return and liquidity are much fewer than those of the stock. Firstly, the investigations of open-ended funds have a certain research significance in China. Secondly, a number of scholars have various researches on the liquidity risk or the risk return for the stocks and funds, while there are few researches about the impact of the combination of risk return and measure of liquidity on the open-ended funds. Therefore, this study has accuracy significance on the research and analysis of the investment for open-ended funds. In addition, this paper selects three funds for keeping *ceteris paribus* and avoiding other uncertain factors. The factors of risk return, and measure of liquidity being addressed in the research could make shareholders and corporations take different measures briefly. Furthermore, it is helpful for the researchers to grasp the evolution law from studying the liquidity measure and risk return of Chinese open-ended funds.

This paper focuses on the liquidity measure and risk return of three specific and special open-ended funds (Huaxia Market Selection Mixed Fund, Huaxia CSI 300 ETF Fund and Huaxia Suelly Fund) in the Chinese fund market. Moreover, the research objectives of this module are to explore the different factors (Sharp Ratio, Beta, Information Ratio) of risk return combining with liquidity measures which have different influences on the three Chinese open-ended funds and explain which fund is significant for investors to make a valuable investment. In particular, it will address the following research questions:

1. As for the three different kinds of funds, whether the stock fund-Huaxia CSI 300 ETF Fund has a higher Sharp Ratio, Information ratio and Beta than the hybrid funds and bond funds;
2. To some extents, whether a higher Sharp Ratio, Information ratio and Beta have positive influence for the risk return of each fund in the two periods or not;
3. Combining the liquidity measure and comparing with other two funds, whether the Huaxia CSI 300 ETF Fund is the rational investment fund for the investors or not.

After that, the analysis results of Beta from the regression and Sharp Ratio, Information ratio from the formulation will be used. Combining the measurement of liquidity (ILLIQ), the three funds will be ranked based on single-sort for each factor. It is required to assign a score of 3 to the best, 2 to the middle and 1 for the lowest, so as to rank the funds. Afterwards, we will do this separately for each of the four characteristics and simply add up all the scores and see which fund has the highest score. Finally, we will select a fund with a higher return and a lower risk which is more conducive to investment.

This paper proceeds as follow. Section 2 provides a lit review and description of the funds and data. We outline the methodology in Section 3. Results are discussed in Section 4. Section 5 concludes.

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