Universe Scientific Publishing

10.18686/ahe.v6i20.6382

QDII Index Funds Analysis

Kaikai Ma

University of Waterloo Faculty of Mathematics N2L 3G1

Lvhe Zhengze Private Equity Fund Management Co Ltd-Divisional Office Xi'an, Shaanxi 710077

Abstract: Although plenty of research has been done on domestic stock market index funds, few has talked about QDII index funds. QDII, Qualified Domestic Institutional Investor, is a qualified domestic investor who is allowed to make indirect investment in overseas markets. This report is written to discuss the QDII index funds which have last for more than three years in Chinese securities investment market. These index funds, classified by their investment targets, include S&P 500 Index, NASDAQ Index, Hang Seng Index and other regional and industrial index. The comparative indicators used in the report include three years' annualized rate of return, standard deviation and sharp ratio, and grouping to analyze different kinds of index funds. Report reach the conclusion that the market of QDII index funds has great potential, while investing in QDII index funds can help decentralize global assets and acquire profits. Besides, report provides recommendations to government, financial institutions and investors.

Keywords: QDII index fund

1. Introduction

Index fund is a type of mutual fund or exchanged-traded fund that seeks to track components of a financial market index (such as Standard & Poor's 500 Index), takes the component stocks as investment objects and constructs a portfolio bu purchasing all or part of the component stocks. In 1976, the first index fund was introduced by Bogle, named the Vanguard 500 fund which tracks the S&P 500(Mitchell, 2021). About 25 years later, in 2002, the first open-end index fund was created in China, named the Hua'an SSE 180 Index exchanged fund.

Study has shown the return level of domestic index funds was not as good as expected. As the continuous improvement of domestic securities market supervision system and the maturity of investors, the efficiency of market will be enhanced, while passively managed index funds will be more popular compared to actively managed funds.

QDII, Qualified Domestic Institutional Investor, is a qualified domestic investor who is allowed to make indirect investment in overseas markets. Under the condition where RMB is not yet acceptable in most markets, investment in QDII index funds can bring following benefits: First, due to the small correlation between domestic and overseas markets, the systematic risks exist in a single market can be eliminate through investment in overseas market. Second, overseas investment targets can bring better profits. Third, specific investment purposes, such as risk management, can be realized with the help of abundant financial instruments in overseas markets.

2. Analysis

2.1 Selection of QDII Index Funds and Comparative Indicators

2.1.1 QDII Index Funds Selection

As a long-term investment tool, fund established within a short period is of little significance due to too few data. Thus, QDII index funds that have been selected for analysis will be more than three years. This report will be focusing on the 4 types of QDII index funds that has history data longer than three years, which will be classified by its investment target. All the data are derived from private placement internet("Simupaipai Internet."2022).

2.1.2 Comparative Indicators Selected

From the view of investors, the basic indicator is rate of return. As each fund is more than three years, and absolute return is our priority, this report will be using three years' annualized rate of return to compare each fund level of profitable.

Besides, standard deviation of three years is also used as it reflects the fluctuation of the total rate rate of return. The standard deviation increases as the investment becomes more risky, and decreases when the investment becomes more stable. When investors invest most of their money in one fund, they will be concerned about the total risk they are facing.

Sharp ratio is also used in this report as it measures the risk adjusted return of the fund. It reflects the excess returns from taking unit risk, as compared to risk-free return. Generally, higher sharp ratio represents higher profits gained taking unit risk.

2.2 Grouping and comparison

2.2.1 S&P 500 Index

S&P 500 index records 500 listed companies in the United States. It is generally considered as an ideal benchmark for American stocks index and portfolio index for having wide sample selection area, strong representative, high accuracy and good continuity.

The funds that have been selected include Dacheng S&P 500 equal weighted index fund (QDII) and Efangda fund S&P 500 index (QDII-LOF). The data are shown in Table 1.

Table 1 S&P 500 Index

Fund Name	Date Created	Annualized Rate of Return (3 years)	Standard Deviation(3 years)	Sharp Ratio
Dacheng S&P 500 equal weighted index fund (QDII)	2011/03/23	10.87%	18.63%	0.56
Efangda fund S&P 500 index (QDII-LOF)	2016/12/02	13.70%	16.45%	0.77

The annualized rate of return of Efangda is higher than Dacheng. This tells us normal index fund might be better than weighted index fund. The standard deviation and sharp ratio of both funds are close. Since there are only two funds invest in S&P 500 index that are more than three years, we can derive limited information.

2.2.2 NASDAQ 100 Index

NASDAQ 100 index contains 100 high technology, high growth and non-financial-related stocks. These stocks are the representative of tech stocks in United States.

There are four funds created for more than three years that track the NASDAQ 100 index. The data are shown in Table 2.

The data are shown in Table 2.

Table 2 NASDAQ Index

Fund Name	Date Created	Annualized Rate of Return(3 years)	Standard Deviation (3 years)	Sharp Ratio
Guotai NASDAQ 100 Index fund(QDII)	2010-04-29	23.14%	19.21%	1.10
Guangfa NASDAQ 100 Index fund(QDII)	2012-08-15	23.02%	19.31%	1.09
Hua'an NASDAQ 100 Index fund(QDII)	2013-08-02	23.91%	18.44%	1.17
Dacheng NASDAQ 100 Index (QDII)	2014-11-13	22.02%	18.56%	1.08

The four NASDAQ 100 index funds are valuable in terms of great indicators in the past three years. From the perspective of three-year standard deviation and sharp ratio, Hua'an NASDAQ 100 Index fund has better performance. The rate of return and the sharp ratio is rather high which shows the valuable of those funds. There are only four funds tracking the NASDAQ 100 index that have been established for more than three years, which is still relatively few.

2.2.3 Hang Seng Index

Hang Seng index is an important indicator in the Hong Kong stock market. It mostly focus on 50 listed stocks in the market, which reflects the fluctuation trend of the Honk Kong stock market.

Five funds that are more than three years track the Hang Seng Index. The data are shown in Table 3.

Table 3 Hang Seng Index

Fund Name	Date Created	Annualized Rate of Return(3 years)	Standard Deviation (3 years)	Sharp Ratio
Huaxia Hang Seng ETF(QDII)	2012-08-09	-10.00%	15.36%	-0.67
Huaxia Shanghai Hongkong Hang Seng ETF(QDII)	2014-12-23	-7.18%	14.94%	-0.50
Southern Hang Seng ETF(QDII)	2014-12-23	-22.87%	15.28%	-0.56
Dacheng Hang Seng Index(QDII-LOF)	2014-03-06	-27.74%	13.42%	-0.81
Huitianfu Hang Seng Index(QDII-LOF)	2017-08-10	-26.62%	14.11%	-0.72

As it's shown in the table, the rate of return and sharp ratio of all five funds are below zero. This shows that the stock market of Hong Kong has lost its investment advantage in recent years. The net value of funds are decreasing yearly at the same time.

Two main reasons effect the market. First, domestic policy against real estate, education and internet has limited big companies in China from going to Hong Kong market. Second, Corona Virus has caused foreign capital outflow the market which leads to bad influence in stock market.

In the short term, the Hang Seng index fund has lost its value compared to other funds. However, the companies included in the index are still profitable and have potential in recovering from economic depression, thus chances exist for Hang Seng index to rise in the long-term.

2.2.4 Other Regional and Industrial Index

Index funds in this part include funds investing in global oil stocks, preferred global stocks, global health care stocks and global expensive goods stocks.

The data are shown in Table 4.

Table 4 Other Regional and Industrial Index

Fund Name	Date Created	Annualized Rate of Return(3 years)	Standard Deviation (3 years)	Sharp Ratio
Hua'an S&P Global Oil Index(QDII-LOF)	2012-03-29	6.40%	27.16%	0.30
Zhongyin S&P Global Stock Selected(QDII)	2013-03-19	12.90%	22.35%	0.57
Guangfa Global Health Care Index(QDII)	2013-12-10	10.66%	13.91%	0.67
Yifangda Global Expensive Goods Enhanced Index(QDII)	2012-06-04	13.63%	18.88%	0.71

It can be seen from the data in Table 6 that except for the global oil index fund, all other three funds have high annualized rate of return and sharp ratio. Besides, global health care index has very low standard deviation, thus the investment risk of global health care is lower than other index funds. At the same time, the number of index funds in various regional industries is still small, however corresponding index funds have appeared in representative industries such as oil, consumption, natural resources and real estate.

Conclusions

Although the number of QDII index funds is relatively small, with the increasing demand for domestic investors' global asset allocation, the space for development of QDII index funds is still large. Based on the analysis, it can be seen that the QDII index fund established for more than three years basically covers the American S&P 500 index, NASDAQ 100 index, Hang Seng Index, oil, health care, expensive goods and other major industry indexes. The index funds has met the needs of investors for decentralized allocation of global assets in the first pace. Under the current situation of RMB devaluation and lack of investable assets, properly allocate some assets to high-tech and high growth fields in foreign markets can acquire profits.

Recommendations

For the government, the primary task is to promote the efficiency of the capital market. At present, false information and stock price manipulation occur from time to time. Regulatory authorities should make full use of the big data and other technology to strengthen the power against illegal acts. On the other hand, government needs to encourage Internet financial innovation as long as clarifying the bottom line of supervision.

For financial institutions, actively learning pattern of issuing index funds in mature markets and constantly forming better understanding of index funds are essential ways of helping institutions selecting the right index. On the other hand, institutions should strengthen the ability of index tracking management to secure the interests of fund investors. In addition, as the main body of Internet financial innovation, companies should make full use of its own advantages and new technologies such as big data and artificial intelligence to develop more intelligent financial tools.

For investors, being the weak side in the market, investors should adopt passive investment strategy. Second, avoid buying low and selling high through automatic investment plan, appropriately select the timing of long-term investment according to market indicators. Third, disperse personal assets in global regions and different industries to ensure global asset allocation.

References:

[1]"Simupaipai Internet." Accessed April 8, 2022. https://www.simuwang.com/.

[2]Mitchell, Cory. "Who Is William F. Sharpe?" Investopedia. Investopedia, October 5, 2021. https://www.investopedia.com/terms/w/william-f-sharpe.asp.