

The Influence of Fund Management Company Characteristics on ETF Performance

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Abstract: *Due to the continuous increase in the number and types of funds, the choices of investors are also diversified. Index funds have gained popularity as star market products. Investors are favored, for investors, the performance of ETFs is their first concern. Based on this, this article elaborates on the impact of the characteristics of the fund management company where the ETF is located on its performance. Based on the panel data of ETFs that have been established for more than three years from 2016 to 2020 as a sample to study the impact of the characteristics of the fund management company. The results show there is no correlation between equity concentration of fund management companies and ETF performance. Equity checks and balances are negatively correlated with performance, and the proportion of foreign shareholding is significantly positively correlated with ETF performance; the size of the board of directors, the size of the board of supervisors, and the proportion of independent directors are all related to the ETF. Performance is significantly negatively correlated; the registered capital of fund companies is positively correlated with ETF performance, the number of funds held by fund management companies is positively correlated with ETF performance.*

Keywords: ETF performance, fund management company characteristics, correlation

1. Introduction

Based on the panel data of ETFs that have been established for more than three years from 2016 to 2020 as a sample to study the impact of the characteristics of the fund management company. The results show there is no correlation between equity concentration of fund management companies and ETF performance. Equity checks and balances are negatively correlated with performance, and the proportion of foreign shareholding is significantly positively correlated with ETF performance; the size of the board of directors, the size of the board of supervisors, and the proportion of independent directors are all related to the ETF. Performance is significantly negatively correlated; the registered capital of fund companies is positively correlated with ETF performance, the number of funds held by fund management companies is positively correlated with ETF performance.

2. Literature Survey

The literature on the impact of fund management company characteristics on performance involves three aspects: the relationship between fund management company's equity structure and fund performance, the impact of fund management company governance structure on performance, and the impact of fund management company competitiveness on performance.

Regarding the relationship between the equity structure of fund management companies and fund performance, Wang Jiajun's (2019) empirical study found that the impact of equity structure and property rights on company performance changes with the life cycle of the company: when the company is in the growth stage, its There is a positive correlation between equity concentration and performance. At this time, the relationship between equity

checks and balances and company performance is not significant; when the company enters the mature stage, the relationship between equity checks and balances and company performance becomes insignificant. The increase in the degree of equity checks and balances will bring about a significant improvement in company performance. Regardless of the mature stage or the growth stage, state-owned holdings will have a significant negative effect on performance. Further research found that state-owned holdings have a significantly greater impact on company performance during the growth period than in the mature period. Zhao Wenqian (2019) used Vanke as an example to demonstrate the relationship between the ownership structure and the company's operating performance. Different types of shareholders also have games in the development mode, and shareholders with different shareholding numbers also have conflicts of interest. Therefore, it is necessary to study the ownership structure. Take into account the types of shareholders and the number of shares held by shareholders. In addition, the nature of equity also has an impact on company performance, and state-owned and non-state-owned have different effects on performance. Huang Chun (2019) took a state-owned holding company as an example, and finally concluded that there is a significant positive correlation between the corporate governance, internal control and short-term performance of the state-owned holding company; the long-term performance of the company is affected by the shareholding ratio of the largest shareholder There is no significant relationship with corporate governance and internal control, but when the largest shareholder's shareholding ratio is less than or equal to 60%, corporate governance and long-term performance of the company are significantly positively correlated; internal control has a positive adjustment to corporate governance and short-term performance of the company However, due to the particularity of the equity nature and equity ratio of the

sample companies, this adjustment effect is not significant in the long-term performance of the company.

Regarding the impact of fund management company governance structure on performance, Zhang Yimeng (2018) believes that equity structure will affect company performance. Equity structure mainly affects company performance from two aspects: equity concentration and equity nature; board governance will also affect company performance. The impact mainly includes the size of the board of directors and the structure of the board of directors. Executive incentives are also an important part of corporate governance, which also has an impact on corporate performance. Zhao Haiyan and Song Yi (2018) studied the direct impact of financing structure on R&D investment and company performance, and the impact of financing structure on company performance through R&D investment. The results show that debt financing has a negative impact on company performance; the degree of equity balance and the intensity of R&D investment have a positive impact on company performance; companies prefer to adopt passive R&D investment strategies in a debt financing environment; the higher the degree of equity balance, the more inclined the company is to adopt an active R&D investment strategy. Sun Yidi (2020) studied the impact of the governance of the board of supervisors on corporate performance under the heterogeneous ownership structure, and analyzed that certain characteristics of the board of supervisors have a significant role in promoting corporate performance. There is a significant positive correlation between the shareholding of the members of the board of supervisors and the rate of return on assets, that is, the use of equity incentives for the members of the board of supervisors by state-owned enterprises can increase the enthusiasm of the members of the board of supervisors, thereby improving corporate performance. There is a significant positive correlation between the frequency of the board of supervisors' meetings and Tobin's Q. The more the board of supervisors holds meetings, the more active the board of supervisors will perform its supervisory duties, and the increased enthusiasm of the board of supervisors can improve corporate performance. The background characteristics of the board of supervisors and the proportion of external supervisors have no significant correlation with corporate performance.

Regarding the impact of fund management company competitiveness on performance, Liu Chen (2018) studied the performance of securities companies and found that the asset-liability ratio is negatively correlated with performance; corporate size, business innovation capabilities and operating performance are positively correlated; in terms of external factors, the stock market. The market situation and operating performance are significantly positively correlated; the region where the company is located has the greatest impact on the company's operating performance, and the operating performance of securities companies in the eastern region is significantly better than that of securities companies in the central and western regions. Gao Ruoyu (2019) proposed

that there is a positive correlation between company size and company performance.

3. Problem Definition

On the basis of summarizing domestic and foreign literature and empirical analysis, this paper uses the panel data of ETFs that have been established for more than three years from 2016 to 2020 as a sample to study the impact of the characteristics of the fund management company where the ETF is located on its performance. These characteristics include fund management. The company's shareholding structure, governance mechanism and competitiveness.

4. Methodology / Approach

1) Literature research method

By summarizing the evaluation methods of fund performance at home and abroad and the influencing factors of performance, I found that scholars' choices of fund objects are inconsistent. This laid a certain foundation for me to use ETF as a research object in the following, and then summarized the influence fund based on the literature. In terms of performance, we then look for possible factors that affect ETF performance, and on this basis put forward our own research hypotheses, establish models, and draw final conclusions. The literature research method provides a great help for the writing of this article.

2) Empirical research method

This paper uses the method of empirical analysis to mainly explore the factors that affect the performance of ETFs. It takes ETFs established over three years as the research object, and uses panel data from 2016 to 2020 as sample observations. The influencing factors are classified into two categories, one is the characteristics of fund management companies, and the other is the characteristics of ETFs. Two major multiple linear regression models are constructed to describe the correlation between influencing factors and performance, and recommendations suitable for the development of ETFs are proposed based on the correlation. In addition, the combination of descriptive analysis and empirical analysis enables investors to better understand the characteristics of fund management companies and ETFs, which to a certain extent lays the foundation for rational investment by investors.

5. Results & Discussion

Sample source

The sample in this article is selected from 343 ETFs established more than three years ago, because internationally, funds established more than three years ago are rated. According to the WIND database, 147 managed by 30 different fund management companies can be obtained. ETF, using data as of December 31, 2020.

Variable selection

In order to explain the characteristics of fund management companies more intuitively, we divide the characteristics

into equity structure, corporate governance mechanism, and competitiveness. Regarding the equity structure, the indicators I selected are equity concentration, equity checks and balances, and the proportion of foreign shareholding; in terms of corporate governance structure, I selected the size of the board of directors, the board of supervisors, and the proportion of independent directors; I selected the indicators of competitiveness It is the number of fund managers, the registered capital of the fund company, the number of funds held by the company, and the company's duration. The details below as table 1.1.

Table 1.1: Variable selection and definition

Variable selection and definition	
Explained variable	definition
Geometric mean rate of return (Y)	An indicator reflecting fund performance
Explanatory variables	
Variables of equity structure of fund management companies	
Ownership concentration (X1)	Proportion of the largest shareholder
Equity checks and balances (X2)	Percentage held by the largest shareholder / (Percentage held by the second largest shareholder + the third largest shareholder)
Percentage of foreign shareholding (X3)	Percentage of equity in fund management companies held by foreign capital
Corporate Governance Variables of Fund Management Companies	
Board size (X4)	Number of board members
Size of the Board of Supervisors (X5)	Number of members of the Board of Supervisors
Proportion of independent directors (X6)	Number of independent directors/total number of board members
Competitiveness of fund management companies	
Number of fund managers (X7)	
Fund company registered capital (X8)	Initial registered capital, in ten thousand yuan
Number of funds held (X9)	Funds managed by fund management companies
The duration of fund management company (X10)	It is calculated from the date of establishment, in years

Based on the panel data, we established the following regression model to more intuitively see the influence of ETF fund management company's own characteristics on ETF performance.

$$Y_{it} = a_{it} + c_1x_{1it} + c_2x_{2it} + c_3x_{3it} + c_4x_{4it} + c_5x_{5it} + c_6x_{6it} + c_7x_{7it} + c_8x_{8it} + c_9x_{9it} + c_{10}x_{10it} + \sigma_{it}$$

where c_1 to c_{12} are parameters to be estimated, and σ_{it} is a random variable.

5.1 Results

The result as table 1.2 follows.

Table 1.2: Aalyse result

Explanatory variables	Model 1
X1	.0214346 (0.16)
X2	-1.76 (-1.76)*
X3	40.91389 (3.08)***
X4	-3.349123 (-3.54)***
X5	-4.009538 (-3.00)***
X6	-63.74836 (-3.49)***
X7	-1.254434 (-3.95)***
X8	.0001442 (2.13)***
X9	.6553 (7.07)***
X10	.6844956 (1.15)
Model selection	mixed regression

Robustness test

In the above model, an indicator that directly reflects the performance of the ETF is selected-the geometric mean return rate. In order to test whether the constructed model is robust, the variable substitution method is used to replace the geometric mean return rate of the explained variable in the model with our regular Use the Sharpe index, and then use the same method to regress the panel data. The conclusions of the regression are as follows.

Explanatory variables	Model 1
X1	-.2307195 (-0.29)
X2	-15.51646 (-2.03)**
X3	142.4752 (1.81)*
X4	-11.677 (-2.14)***
X5	-18.80074 (-2.15)***
X6	-290.2555 (-2.62)***
X7	-4.11502 (-2.54)***
X8	.001102 (2.57)***
X9	2.128562 (4.44)***
X10	-1.526235 (-0.41)
Model selection	mixed regression

*** means significant at the 1% significance level, ** means significant at the 5% significance level, * means significant at the 10% significance level

On the whole, we changed the explanatory variable from the geometric mean rate of return to the Sharpe index. The regression results show that the model is robust. For significantly correlated variables, the positive and negative correlations have not changed. For uncorrelated variables , We can ignore its changes.

6. Conclusion

(1) In terms of the equity structure of fund management companies, there is no significant relationship between equity concentration and ETF performance. Equity checks and balances are negatively correlated with ETF performance, and the degree of significance is not particularly high. Foreign shareholding ratio is significantly positively correlated with ETF performance The introduction of foreign capital is a supplement to domestic capital. The introduction of advanced systems and management experience from abroad can complement

domestic related systems to a certain extent, so that fund companies can better exert their capabilities and improve ETF performance.

(2) In terms of the governance structure of fund management companies, the size of the board of directors, the size of the board of supervisors, and the proportion of independent directors are all significantly negatively correlated with ETF performance. The reason is that the larger the number of people in the management of a fund company, the disagreement of everyone on the same thing will result in disagreements. This disagreement will affect the operation of the ETF to a certain extent, so the performance is not good. In the existing literature, scholars' current views on the relationship between fund governance structure and performance are divided into two categories, one is irrelevant, and the other is positive correlation. The result of my empirical results is a significant negative correlation. This may be because the research samples are inconsistent. As a special late-established fund, ETF has produced this result due to its unique characteristics.

(3) In terms of the competitiveness of fund management companies, the number of fund managers held by fund management companies is negatively correlated with ETF performance, the registered capital of fund companies is positively correlated with ETF performance, and the number of funds held by fund management companies is positively correlated with ETF performance. ETF performance is positively correlated, and the duration of the fund company has nothing to do with ETF performance. The greater the number of fund managers, the greater the competitiveness, and the ability to control the fund is prone to divergence. Due to the psychological reasons of investors, it is possible that most investors tend to invest in management companies with few fund managers when investing in ETFs. The larger the initial registered capital of a fund management company, the stronger its capital and the relatively complete capital chain, which will lay a solid foundation for future development. The larger the number of funds of the fund management company, the more conducive to the ETF's free investment portfolio. Fund managers try different fund combinations and composition ratios and choose the best ETF components, which promotes ETF performance

7. Future Scope

- 1) The relationship between the factors that affect ETF performance can be expressed through structural equations
- 2) Study the law of ETF investment portfolio

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