

# A study of the stock selection preferences of "national team" funds

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*Abstract:* This paper investigates the stock selection preference of "national team" funds. It introduces industrial policy variables and equity nature variables on top of the traditional characteristics of institutional investors' stock selection preferences. The findings indicate that "national team" funds prefer to hold stocks with high liquidity, low risk, and low transparency of listed companies, value stocks, stocks in industries supported by the national industrial policy, and stocks with state-owned enterprises as the nature of equity. *Keywords:* "National Team" Funds; Stock Selection Preference

## 1. Introduction

China's stock market experienced a continuous plunge from June 15 to July 9, 2015. In order to eliminate possible systemic financial risks, the Chinese government formed a "national team" of funds, represented by CSF and the Central Huijin Investment, to directly enter the market and trade stocks.

Academic research on the "national team" fund is still emerging due to the late establishment of China's "national team" fund and its intervention in the market. Li Zhisheng decomposes stock price volatility into systematic volatility and heterogeneous volatility through the CAPM model and studies the impact of "national team" fund holdings on each type of volatility in the stock market. They found that the shareholding of "national team" funds significantly reduces the heterogeneous volatility of individual stocks by improving the information environment of listed companies, reducing noise trading, and reinforcing investor confidence <sup>[1]</sup>. With the in-depth study of the "national team" fund holdings, academics have shifted their attention from the stock market to the listed companies, it plays a vital role in corporate regulation. Wen Wen investigated the impact of "national team" funds' shareholding on corporate governance decisions. The study found that "national team" funds' shareholding can significantly prevent corporate violations, with serious corporate violations being more effectively inhibited <sup>[2]</sup>. Sun Weiyan and Hu Shijie found that the shareholding of "national team" funds can significantly reduce corporate principal-agent costs, alleviate corporate financing constraints, and improve the information environment of listed companies, which in turn reduces tax avoidance behavior of listed companies<sup>[3]</sup>. Zhang Hengrui and Chen Chao found that "national team" funds prefer to hold stocks of listed companies with higher audit quality<sup>[4]</sup>.

Most scholars who study the stock selection preference of institutional investors classified different types of institutional investors in their literature to conduct comparative studies. Mao Lei investigated the relationship between institutional investors' stockholding preferences and corporate social performance. He divided institutional investors into five categories ,including funds, QFIIS, brokerage firms, social security and trusts and introduced a screening strategy to analyze the degree of influence of positive and negative screening strategies when making investment decisions<sup>[5]</sup>. Zhou Fangzao classified institutional investors into four categories, including independent and non-independent, short-term trading and long-term stability when they studied the relationship between institutional investors shareholding preferences and corporate ESG responsibility performance<sup>[6]</sup>.

## 2. Research design

#### 2.1 Data sources

The data of "national team" fund holdings are obtained from the Wind database, and the rest of the data are obtained from the CSMAR database. The samples select all "national team" fund holdings of A-share market from July 2015 to December 2021, excluding samples of

listed companies in the financial industry, abnormal trading status (ST) and missing data. All the data are refined by shrinking at the 1% and 99% bins.

## 2.2 Variable settings

(1) Explained variable

In this paper, the relative shareholding ratio (excel) of "national team" funds is used to measure the shareholding preference of "national team" funds. The specific calculation formula is as follows:

 $excel_{i, t} = wIns_{i, t}/wMar_{i, t}$  (1)

Where wIns<sub>i,t</sub> represents the proportion of the outstanding market value of the stocks of the listed company held by the "national team" funds to the total market value of its portfolio at the moment t. wMar<sub>i,t</sub> represents the proportion of the outstanding market value of the stocks of listed company i to the total market value of A-share market at the moment t.

(2) Explanatory variables

1) Prudence

Volatility  $Vol_{i,t}$  is chosen as an indicator of the prudence principle of selection preferences of "national team" funds. "National team" funds is responsible for maintaining stock market stability. So we believe that it will choice lower-volatility and less risky stocks. Therefore, we makes the following assumptions:

H1: The "national team" funds have the principle of prudence in stock selection, preferring stocks with lower volatility.

2) liquidity

We choice the stock turnover rate  $(QT_{i,t})$  as an indicator of stock liquidity. During a stock market crash, "national team" funds will not choice bying low-turnover rate stocks due to it will sell its shareholdings after the stock market crash. So we makes the following assumptions:

H2: The "national team" funds choose stocks that are more liquid.

3) Information Transparency of Listed Companies

In this paper, share price synchronization  $(SYN_{i,t})$  is used as an indicator to measure the information transparency of listed companies. The calculation method of Wang Yaping is adopted in this study<sup>[7]</sup>.

"National team" funds have the responsibility to guide the plummeting stock price back to its intrinsic value. If the information contained in the stock price of a listed company is comprehensive and the transparency of the listed company's information is high, the stock price of the listed company reflects the real market situation, and there is no need for "national team" funds to intervene. On the contrary, if the share prices of listed companies contain too much noise due to the low information transparency of listed companies, it results in a sharp fall in share prices, and such stocks should be the target of the "national team" fund.

Therefore, this paper makes the following assumptions:

H3: The "national team" funds choose stocks with low price synchronization.

4) industrial policy

In this paper, the industrial policy variable (Indpolicy<sub>i,t</sub>) is chosen as a variable to measure whether the "national team" funds will consider the central industrial policy in stock selection.

According to the contents of the "Outline of the Twelfth Five-Year Plan for National Economic and Social Development," "Outline of the Thirteenth Five-Year Plan for National Economic and Social Development," and "Outline of the Fourteenth Five-Year Plan for National Economic and Social Development," the industries with the policy attitude of encouraging or focusing on supporting are recorded as 1. The rest of the samples are recorded as 0. Since the "national team" fund has a government background, it may assume the role of supporting the national industrial policy approach, so this paper makes the following assumptions:

H4: The "national team" funds will prefer to hold stocks in sectors where policy attitudes are encouraging.

5) Growth stocks/value stocks

In this paper, price-to-earnings (P/E) and price-to-book (P/B) ratios are selected as variable indicators of stock type. Stocks can be classified into growth stocks and value stocks, and it is generally believed that value stocks are generally characterized by low price-earnings ratios (P/E) or low price-book ratios (P/B), while growth stocks are generally characterized by high price-earnings ratios (P/E) or high price-book ratios (P/B).

This paper argues that the "national team" funds prefer value stocks when choosing stocks. Therefore, this paper makes the following assumptions:

H5: The "national team" funds prefer value stocks in their stock selection.

6) Nature of shareholding

In this paper, the variable of equity nature  $(scc_{i,i})$  is chosen as a measure of whether the "national team" funds will prioritize the selection of state-owned enterprises (SOEs) in their stock selection.

Compared to private enterprises, state-owned enterprises have better fundamentals and lower business risks. So we make the following assumptions:

H6: The "national team" funds will prefer the stocks of listed companies whose equity nature is state-owned when choosing stocks.

(3) control variables

Size of listed companies (size<sub>i,i</sub>),number of years listed (ListAge<sub>i,i</sub>),total assets growth rate (Lagr<sub>i,i</sub>), gearing ratio (Lev<sub>i,i</sub>), return on net assets (Roe<sub>i,i</sub>), return on total assets (Roa<sub>i,i</sub>), and shareholding concentration (Conc<sub>i,i</sub>)are selected as control variables.

#### 2.3 Model building

This paper designs the following regression model and controls for industry fixed effects and quarterly fixed effects.

 $excel_{i, t} = \alpha_0 + \alpha_1 PE_{i, t} + \alpha_2 PB_{i, t} + \alpha_3 QT_{i, t} + \alpha_4 Vol_{i, t} + \alpha_5 SYN_{i, t} + \alpha_6 Ctrl_{i, t} + Ind + Qtr + \varepsilon_{i, t}$ (4)  $excel_{i, t} = \beta_0 + \beta_1 PE_{i, t} + \beta_2 PB_{i, t} + \beta_3 QT_{i, t} + \beta_4 Vol_{i, t} + \beta_5 SYN_{i, t} + \beta_6 Indpolicy_{i, t} + \beta_7 Ctrl_{i, t} + Ind + Qtr + \varepsilon_{i, t}$ (5)  $excel_{i, t} = \gamma_0 + \gamma_1 PE_{i, t} + \gamma_2 PB_{i, t} + \gamma_3 QT_{i, t} + \gamma_4 Vol_{i, t} + \gamma_5 SYN_{i, t} + \gamma_6 scc_{i, t} + \gamma_7 Ctrl_{i, t} + Ind + Qtr + \varepsilon_{i, t}$ (6)

where Ctrl<sub>i,t</sub> represents all control variables for firm i in quarter t, and Ind and Qtr represent industry fixed effects and quarterly fixed effects, respectively.

### 3. Analysis of empirical results

Table1 Regression results						
	(1)	(2)	(3)			
	0.000	0.000	0.000			
	(0.53)	(0.54)	(0.50)			
PB	-0.004***	-0.004***	-0.004***			
	(-3.83)	(-3.96)	(-3.80)			
QT	0.017***	0.017***	0.017***			
	(9.12)	(9.13)	(9.07)			
Vol	-1.728***	-1.765***	-1.729***			
	(-7.92)	(-8.09)	(-7.93)			
SYN	0.005***	0.005***	0.005***			
	(3.08)	(3.18)	(3.04)			
Indpolicy		0.056***				
		(5.52)				
scc				0.040***		

				(4.31)
Ν	17867	17867	17867	•
adj. R2	0.1450	0.1466	0.1453	
controls	YES	YES	YES	
Ind	YES	YES	YES	
Qtr	YES	YES	YES	

Table 1 shows the regression results of stock selection preferences of "national team" funds.

Column (1) shows the regression results using traditional institutional investors' stock selection preferences, in which the regression coefficients of QT and Vol are 0.017 and -1.728, which are both significant at the 1% level, indicating that the "national team" funds prefer to hold stocks with higher liquidity and lower risk, which confirms hypothesis 1 and hypothesis 2 of the previous section. The regression coefficient of PB is -0.004, which is significant at the 1% level, proving that the investment style of "national team" funds is more documented, and they prefer to invest in value stocks, which confirms the previous hypothesis 5. If the "national team" funds prefer to invest in value stocks, they will be more likely to do so. On the other hand, if the "national team" fund prefers to invest in growth stocks, which generally have high price-earnings ratios (PE) and price-to-book ratios (PB), it would not only fail to stabilize the stock market, but also further increase the price of the stocks, causing stock market volatility. The regression coefficient of SYN is 0.005, which is significant at the 1% level, indicating that the "national team" funds may select stocks with higher stock price synchronization when choosing stocks. The higher the stock price synchronization, the lower the information transparency of listed companies and the regression results confirm Hypothesis 3.

Column (2) adds an industrial policy variable (Indpolicy) to the traditional institutional investors' stock selection preferences to study whether "national team" funds prioritize policy-supported industries in stock selection. The regression result shows that the regression coefficient of Indpolicy is 0.056, which is significant at a 1% level, indicating that the "national team" funds are more willing to hold stocks in industries supported by industrial policies, which confirms hypothesis 4.

Column (3) adds the state-owned enterprise variable (scc) on the basis of the traditional institutional investors' stock selection preferences. The regression results show that the regression coefficient of scc is 0.04, which is significant at the 1% level. It indicates that the "national team" funds prefer to select the stocks with the nature of listed companies' equity as state-owned enterprises, which confirms hypothesis 6.

#### 4. Findings

The main focus of this paper is to explore the key questions: What are the stock selection preferences of the "national team" funds? Based on the study's findings, "national team" funds prefer to hold stocks with high liquidity, low risk, and low information transparency of listed companies. Value stocks are also preferred by these funds. Additionally, it is found that "national team" funds prefer to invest in industries that are supported by the national industrial policy and stocks of state-owned enterprises.

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