

THE STYLE PREFERENCE SWITCHING OF CHINESE INSTITUTIONAL INVESTORS AND STOCK RETURNS

NiJia Gu*, JiaNing Lu, Cong Chen

School of Finance and Economics, Jiangsu University, Zhenjiang 212013, Jiangsu, China.

Corresponding Author: NiJia Gu, Email: 2821300146@qq.com

Abstract: This paper investigates the relationship between investment style preference switching among Chinese institutional investors and stock returns. Against the backdrop of China's emerging and imperfect stock market, institutional investors—often assumed to be rational—exhibit significant behavioral biases and irrational tendencies, such as short-term speculation and style-driven trading. By categorizing stocks into extreme style pairs (e.g., large-cap vs. small-cap, value vs. growth, winner vs. loser portfolios), the study analyzes institutional holdings and style-switching behaviors using quantitative models. The results indicate that institutional investors frequently engage in style preference switching driven by past returns and macroeconomic factors, which in turn significantly affects stock price volatility and market stability. The findings suggest that such behavior often amplifies market fluctuations and contradicts the expected role of institutional investors as market stabilizers. Accordingly, the paper proposes policy recommendations aimed at improving internal governance, enhancing transparency, and strengthening regulatory guidance to promote long-term value investing and mitigate irrational market impacts.

Keywords: Institutional investors; Investor style; Stock returns

1 INTRODUCTION

1.1 Research Background

Traditional financial theory posits that markets are efficient and investors are perfectly rational. In reality, it is quite difficult for investors to gather comprehensive information and make accurate judgments within a limited time frame. Therefore, market investors often deviate from the "rational man" assumption of traditional financial theory. While institutional investors are often considered rational counterparts to individual investors, this is not necessarily the case. In the securities market, striving to achieve the expected goals of the institution and its clients, institutional investors are influenced by various environmental, cognitive, identity, and organizational factors, leading to various behavioral biases in their investment decision-making processes.

It is widely believed that institutional investors use style concepts to describe their portfolios and trading patterns, known as style investing. Institutional investors choose style investing not only because it provides an efficient method for asset allocation and risk management, as well as an objective way to evaluate performance, but also because it can deliver investment returns significantly superior to the market.

In recent years, with the continuous advancement of China's capital market, the development of the institutional investor team has accelerated, and the proportion of their shareholding market value to the circulating market value has increased year by year. However, compared to the more mature stock markets of Western developed countries, China's stock market started late and remains an imperfect emerging market. Institutional investors suffer from functional deficiencies, immaturity, relatively high degrees of irrationality, and problems such as short-term speculation and moral hazard. Therefore, the relationship between institutional investor style preferences and the stock market is more complex. Once they adopt style investing, stocks are viewed as combinations of a few style "factors" rather than independent entities. If investors use these factors, they will formulate views and make reallocation decisions between extreme style pairs such as large-cap vs. small-cap stocks, value vs. growth stocks, and winner vs. loser portfolios. An important characteristic of this style preference switching is the shift of institutional funds from one style extreme to another, and this switching is likely irrational. The powerful demand shock generated by this behavior can strongly impact stock prices.

Given the current state of development of China's stock market and the irrational biases of Chinese institutional investors, in-depth research on the relationship between institutional investors' style preference switching and stock returns is crucial. This explores how to ensure institutional investors truly practice long-term and value investing, playing the role of a "stabilizer" or "ballast" in the stock market.

1.2 LITERATURE REVIEW

1.2.1 Style preference switching of institutional investors

Regarding style investing, explanations based on rational theory suggest that investors' style preferences are driven by common fundamental factors within the style portfolio. As studied by Kyle, a group of investors, anticipating positive fundamental information at current prices, will buy securities from others[1]. Literature generally considers institutional

investors to be relatively sophisticated actors playing an arbitrage role, capable of exploiting and correcting mispricing caused by less sophisticated investors, thereby improving the informational efficiency of stock prices[2]. However, research by Fama & French found that the correlation between returns and cash flows within the same style portfolio is not high[3]. Other studies, such as DeLong and Barberis & Shleifer[4,5], also point out that noise traders' purchases are motivated purely by sentiment changes. Therefore, investors' style investing behavior is largely rooted in their irrational characteristics.

Meanwhile, Kahneman & Tversky pointed out that not only do individual investors' behaviors exhibit consistency, but institutional investors can also sometimes be correlated noise traders[6]. Relevant literature indicates that institutional investors also exhibit cognitive biases and are prone to irrational behavior; their trading decisions are similarly influenced by expert forecasts and recommendations, often showing greater trust and more pronounced behavioral reactions; furthermore, institutional investors operate within principal-agent relationships and cannot avoid the effects of information asymmetry, moral hazard, and agency costs[7]. Domestic research has found that institutional investors in the Chinese stock market not only fail to eliminate various speculative behaviors like gambling on small-cap, new, or poor-performing stocks but may even participate in them[8]. Institutional investors also exhibit gambling preferences, aiming to ride bubbles, and are the true root cause of the endless speculation on concept stocks in the Chinese market [9]. This research proves that institutional investors' style preference switching is highly likely irrational. Moreover, institutions might rationally speculate, deliberately engaging in irrational behavior to exploit or even induce individual investors to follow suit, thereby obtaining higher returns.

1.2.2 Institutional investor style preference switching and stock price volatility

As an important manifestation of investor irrationality, style investing is not only influenced by market behavior but also has systematic effects on the market itself. Therefore, studying it is an important supplement to understanding the interactive relationship between investors and the market. Kumar analyzed data on retail investors and found evidence of style-driven trading[10]. Unlike Kumar, our focus is on institutional investors.

A significant portion of financial market trading volume is attributed to institutional investors, with retail investors accounting for only a small fraction. Therefore, whether institutional investors' style preference switching is rational or irrational, due to their substantial market share, their style-level demand shocks will significantly impact prices and expected returns. Wei found that institutional investors' stock accumulation (buying) negatively affects stock price volatility in the securities market, while their stock selling positively affects volatility[11]. Thus, institutional buying helps reduce market volatility, but institutional selling does not help stabilize the broader market. Gao Haoyu et al., from a micro perspective, found that for individual stocks, the higher the proportion of shares sold by institutional investors in a single day, the more likely it is to cause significant price volatility, particularly strong in small-cap growth stocks[12].

Domestic research in behavioral finance started relatively late and mostly focuses on individual investors, considering their behavior irrational and riddled with behavioral biases. Research on institutional investors is scarce, or lacks breadth and depth. Due to their strong influence over individual investors, institutional investors can potentially become amplifiers of market booms and busts. This betrays societal expectations of institutional investors, runs counter to the requirements of the new era of high-quality economic development, and is detrimental to healthy, sustainable market development. Therefore, it is necessary to conduct in-depth research on institutional investors' style preference switching and its impact on the stock market. Research in this direction holds not only theoretical significance but also positive practical implications for precise market regulation and investor protection measures.

2 MAIN BODY

2.1 Analysis of Investor Style Preference Switching and Stock Returns

Referencing the method of Chi Yangchun and Hu Changsheng, sample stocks are divided into extreme style pairs: small-cap and large-cap stocks, value and growth stocks, winner and loser portfolios, grouping sample data on a monthly cycle[13]. The driving factors behind institutional investors' style preference switching, such as market style changes, return differences of extreme style pairs, macroeconomic variables, etc., are inferred by analyzing the holding proportions of institutional investors in different style portfolios and the average level of extreme style switching.

(1) Style Switching of Institutional Investors' Holding Portfolios

Formulas are used to calculate the proportion of institutional investors' holdings in each style portfolio. The excess holding proportion is compared to determine whether the construction of stock portfolios by institutional investors is influenced by style preferences, and the dynamic characteristics of institutional investors' preferences for extreme style pairs are further analyzed.

Holding Proportion (HPS_{st}): The holding proportions of all institutional investors for each style portfolio are obtained by aggregating the holding data of all institutional investors, using the formula:

$$HPS_{st} = \frac{\sum_{s=1}^{N_{st}} n_{st} * P_{st}}{\sum_{it=1}^{N_{it}} n_{it} * P_{it}} \quad (1)$$

calculated as HPS_{st} , Where N_{st} represents the number of sample stocks in style s at the end of month t, n_{st} represents

the number of shares of individual stock s held in all institutional investor accounts at the end of month t , P_{st} represents the closing price of stock ss at the end of month t , and N_t represents the total number of shares of all sample stocks held in all institutional investor accounts at the end of month t . The definitions of n_{it} , P_{it} are analogous to those of n_{st} , P_{st} respectively.

Excess Holding Proportion ($UHPS_{st}$): To isolate style preferences in portfolio construction from market style rotation effects, we calculate the excess holding proportion for each style portfolio using the formula:

$$UHPS_{st} = HPS_{st} - EHPS_{st} \quad (2)$$

calculated as: $UHPS_{st}$, where $EHPS_{st}$ represents the proportion of the circulating market value of style portfolio ss to the total circulating market value of all sample stocks at the end of month t .

(2) Driving Factors of Institutional Investors' Style Preference Switching

Irrational investors tend to extrapolate based on past and expected future return differences between style portfolios, while rational investors' trading behaviors and investment strategies are more influenced by macroeconomic variables. To investigate the factors driving institutional investors' style preference switching, we calculate the return differences between two extreme style portfolios belonging to the same style category over the sample period. Using a multi-factor model, we analyze the regression coefficients of historical return differences between the two style portfolios and macroeconomic variables to infer the driving factors behind institutional investors' style preference switching.

Average Style Switching ($SPSD_{st}$): The average level of relative changes in institutional investors' preferences for extreme styles is reflected through the difference in preferences between two extreme style portfolios, using the formula:

$$SPS_{st} = \frac{100}{N_{st}} \sum_{i=1}^{N_{st}} \frac{n_{it} - n_{it-1}}{n_{it} + n_{it-1}} \quad (3)$$

$$SPSD_{st} = SPS_{st}^1 - SPS_{st}^2 \quad (4)$$

Calculated as: $SPSD_{st}$, where N_{st} represents the number of sample stocks in style s at the end of month t , SPS_{st} represents the average change in institutional investors' holding quantity or preference for a specific style portfolio.

Study on Driving Factors: The impact of style return differences and macroeconomic variables on institutional investors' style preferences is examined through the return differentials between extreme style portfolios of the same style category, using the formula:

$$RED_{st} = R_{st}^1 - R_{st}^2 \quad (5)$$

Calculated as follows: RED_{st} , where R_{st}^1 and R_{st}^2 represent the time series of monthly equally-weighted average returns for the two extreme style portfolios, respectively. The formula is as follows:

$$SPSD_{st} = \alpha + \beta_1 RED_{st} + \beta_2 RED_{st-1} + \beta_3 RED_{st-6,t-1} + \beta_4 SPD_{st-1} + \beta_5 \Delta STIR_{t-1} + \beta_6 \Delta TS_{t-1} + \beta_7 \Delta DY_{t-1} + \varepsilon_{st} \quad (6)$$

Where, RED_{st-1} and $RED_{st-6,t-1}$ are defined as the return differences of the two extreme style portfolios over the previous 1 month and the cumulative returns over the previous 6 months, respectively, $\Delta STIR_{t-1}$ represents the change in the short-term interest rate in the previous month, ΔTS_{t-1} denotes the economic risk compensation, and ΔDY_{t-1} represents the change in the dividend yield in the previous month.

Institutional Investors' Style Preference Switching and Extreme Style Portfolio Returns

The trading behavior of institutional investors may contain timely information about asset prices. By comparing the signs of $SPSD_{st}$ under different scenarios—measuring institutional investors' preference for value stocks (large-cap stocks, winner portfolios) RED_s^+ versus growth stocks (small-cap stocks, loser portfolios) RED_s^- —we analyze the relationship between their investment strategies, trading behaviors, and future stock returns. This is done by comparing the excess returns of their preferred portfolios under these two scenarios, thereby assessing the rationality of institutional investors.

Furthermore, we conduct regression analysis based on the multi-factor model commonly employed in cross-sectional market return research, specified as follows:

$$R_{st} - R_{ft} = \alpha_s + \beta_{1s}(R_{mt} - R_{ft}) + \beta_{2s}SMB_t + \beta_{3s}HML_t + \beta_{4s}UMD_t + \varepsilon_{st} \\ R_{st} - R_{ft} = \alpha_s + \beta_{1s}(R_{mt} - R_{ft}) + \beta_{2s}SMB_t + \beta_{3s}HML_t + \beta_{4s}UMD_t + \beta_{5s}SPSD_{st} + \varepsilon_{st} \quad (7)$$

Where R_{ft} represents the risk-free rate of return, $R_{mt} - R_{ft}$, SMB_t and HML_t denote the market excess return, size factor, and value factor, respectively. Where UMD_t represents the momentum factor, $SPSD_{st}$ denotes the institutional investor

style preference switching factor. Through regression analysis of the above model, we examine whether the style preference switching factor provides additional explanatory power for the returns of extreme style portfolios.

2.2 Conclusion

Our research reveals that institutional investors exhibit significant style preference switching in their stock market trading behavior. They extrapolate and preset their investment style portfolios based on past and expected future return differences between style combinations, and also prefer extreme style portfolios due to market mechanisms and internal performance evaluation systems, reflecting their irrational side. Simultaneously, a bidirectional relationship exists between institutional investors' style preferences and stock prices. Stock price fluctuations are not only the result of institutional investors' style investing but also a key factor driving changes in their style preferences. For example, they may continue buying overvalued "bubble stocks" during price increases and sell before the bubble bursts to capture profits. A large number of bubble stocks can exacerbate stock market inflation, causing severe volatility in stock pricing, which in turn attracts institutional investors to seek new target stocks for another round of "rational" investing. Thus, institutional investors often engage in irrational speculative behavior from a "rational" perspective, profoundly impacting the stock market.

Compared to individual investors, institutional investors typically manage large-scale funds. Shifts in their style preferences directly trigger massive capital reallocation across sectors, industries, or style portfolios. For instance, when institutions collectively shift from value stocks to growth stocks, substantial funds flow into growth sectors, driving up related stock prices and creating structural trends in the short term. Conversely, divested styles may face liquidity pressures and price adjustments. Such large-scale capital transfers not only intensify volatility in individual stocks and sectors but also significantly impact the overall market's pricing efficiency and resource allocation effectiveness. Institutional investors, particularly large ones, serve as key information processors and price discoverers in the market, often acting as "bellwethers." Their style preference switching is frequently interpreted as a signal by other investors. Individual investors and even smaller institutions tend to follow the actions of large institutions, creating a "herding effect." Once institutions collectively shift to a certain style, it can easily trigger resonance in market sentiment, further amplifying price volatility and even leading to excessive speculation or overshooting in certain styles or assets, undermining market stability and efficiency. Theoretically, institutional investors should focus on long-term value investing, mitigating market noise and smoothing irrational fluctuations through in-depth fundamental analysis. However, if institutions frequently switch styles due to short-term performance pressures or trend-following motives, their behavior converges with that of retail investors, and they may even use their capital advantages to exacerbate style rotations, fostering short-termism and speculative sentiment in the market.

2.3 Recommendations

As evidenced above, institutional investors' style preference switching not only directly affects asset prices and capital flows but also profoundly influences the stability, efficiency, and resource allocation functions of the stock market through mechanisms such as signal transmission, investor imitation, and behavioral reinforcement. To encourage institutional investors to better serve as market stabilizers and value leaders, reduce short-term style volatility, practice long-term investment philosophies, enhance their operational resilience, significantly strengthen capital market resilience and resource allocation efficiency, and ultimately support high-quality economic development, we propose the following recommendations:

First, promote the optimization of internal governance and evaluation mechanisms for institutional investors. Guide institutions to establish long-term performance-oriented evaluation systems, extend investment managers' performance assessment cycles, and avoid excessive focus on short-term rankings and quarterly returns. Encourage institutions to improve internal risk control mechanisms, strengthen constraints on style drift, clarify investment decision-making processes and accountability, and prevent risk accumulation caused by excessive chasing of market trends.

Second, enhance information disclosure and market transparency. Further improve information disclosure standards for listed companies and institutional investors, particularly by strengthening periodic disclosures of institutional holdings changes and style strategy adjustments to reduce information asymmetry. Promote the establishment of a unified monitoring indicator system for institutional behavior, enhance market understanding of institutional capital flows and style preferences, and curb blind follow-up and irrational trading.

Third, strengthen regulatory coordination and behavioral guidance. Regulatory bodies such as the China Securities Regulatory Commission (CSRC) and industry associations should enhance the monitoring and evaluation of institutional investors' trading behaviors, implementing focused supervision on institutions that significantly deviate from their filed investment strategies or frequently engage in style drift. Clarify their social responsibilities in mitigating market volatility and establish an institutional evaluation system.

3 SUMMARY

Since the reform and opening-up, and over the thirty-plus years since the establishment of the Shanghai and Shenzhen stock exchanges, China's stock market has grown into a globally significant emerging market, contributing substantially to the nation's economic and social development. Simultaneously, with the growth of institutional investors in China's stock market, their influence on stock price changes has gradually increased. However, as China's stock market is

relatively young compared to those of developed countries, it remains imperfect, with prevalent irrational investment behaviors. Even sophisticated institutional investors may engage in "irrational" investments from a "rational" perspective.

Studying institutional investors' style preference switching helps reveal their investment decision-making processes and motivations under different market conditions, providing deeper insights into the behavioral patterns of market participants. Additionally, as institutional investors' behaviors often influence overall market performance, understanding their style preference switching can aid in predicting short-term and long-term market trends. Research on the relationship between institutional investors' style preference switching and stock returns can help evaluate the effectiveness of different investment strategies. By analyzing stock performance under various style preferences, the optimal investment strategies for specific market environments can be identified.

This paper divides sample stocks into extreme style portfolios, constructs relevant data models for investor style preferences, and analyzes the relationship between institutional investors' style preference switching and stock returns based on the dynamic characteristics of their preferences for extreme style portfolios and the driving factors behind these preferences. This contributes to the field of investor sentiment in behavioral finance and offers new perspectives for investor decision-making.

COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

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