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The investment technology of foreign and domestic institutional investors in an emerging market

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A B S T R A C T

We compare the investment technology of foreign versus domestic investors with a focus on decomposing outcomes attributable to asset allocation and security selection. We document significant differences in exposure to systematic asset pricing factors between foreign and domestic investors. A quasi-experimental strategy is introduced, for comparing security selection after controlling for differences in asset allocation. Our results show that foreign investors in India fare poorly at security selection, while domestic investors fare well.

1. Introduction

Policy debates about financial globalisation are closely connected to the investment technology of foreign investors in emerging markets. On one hand, it is argued that foreign investors bring capital to good projects. At the same time, there are concerns that foreign investors are afflicted with weaknesses of information and analysis, which yields problems such as home bias, misallocation of capital, pro-cyclicality of capital flows, and vulnerability to sudden stops.

The home bias literature has shown that foreign investors often invest in only a small set of firms in an emerging market. As an example, while there are over 5000 listed firms in India, in 2011 there were only 703 firms where foreign investors owned above 5 per cent of the publicly traded (i.e. 'floating') market value. This raises questions about these chosen firms. What is the process of portfolio formation adopted by foreign investors? Do foreign investors possess a strong investment technology, through which their capital is channelled into good projects?

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Numerous papers have been written in this literature, with often contradictory results. The key innovation of this paper lies in disentangling asset allocation and security selection in understanding the investment technology of foreign investment. The distinction between asset allocation and security selection has been a central organising principle in the analysis of fund performance from the mid-1960s. Portfolio returns can be decomposed into exposure to systematic asset pricing factors, such as size or book-to-market, as opposed to returns from security selection. Differences in asset allocation reflect the portfolio strategy of the investor, and there can be legitimate reasons for differences in exposures to asset pricing factors. In contrast, performance in security selection unambiguously reflects investment technology.

We analyse the behaviour of foreign versus domestic institutional investors in India and find substantial differences in asset allocation. In some respects, foreign investors take on more risk, and should therefore obtain higher expected returns. In other respects, this operates in reverse; foreign investors take on reduced risk.

We then turn to the question of security selection. After controlling for differences in asset allocation, do foreign investors do well in choosing securities? Specifically, do firms chosen by foreign investors exhibit superior stock market returns? We look beyond the emphasis on returns in the finance perspective to also examine firm fundamentals. Do the firms chosen by foreign investors do better on growth in output, and growth of productivity?

This analysis of security selection contains a mix of a selection process – *do foreign investors forecast well, and manage to identify firms that are going to do well?* – and a treatment effect – *does the decision by a foreign investor to buy shares in a company have a causal impact upon improved firm performance?* We pursue the reduced form outcome, and make no attempt to disentangle selection from treatment effects.

We devise a quasi-experimental strategy for measuring the ability of foreign or domestic investors to do security selection, after controlling for differences in asset allocation. This involves identifying and addressing numerous threats to validity. Differences between firms in systematic asset pricing factors, such as size, B/P and β, are correlated with future outcomes. As an example, high β firms are likely to see high output growth in a business cycle expansion. In order to measure security selection, firms with high foreign institutional investment (but not domestic institutional investment) are matched against firms which got neither. Controls are identified which have similar size, B/P and β to the chosen firms. The comparison of outcomes identifies the security selection process, without being confounded by differences in asset allocation.

Our results may be summarised as follows. The firms chosen by foreign investors are those that have experienced high growth of capital (when compared with the control) *prior* to the observation date. They continue to obtain high growth of *capital* after the observation date. There is some evidence of superior output growth. However, the chosen firms have inferior productivity growth, and deliver weak stock market returns when compared with the controls.

In contrast, the firms chosen by domestic institutional investors appear to deliver superior returns, and superior productivity growth, in the years after measurement date. This suggests that domestic institutions possess a valuable investment technology.

The methodology and the results of this paper have many implications. The literature on investment technology of foreign versus domestic investors, which has generally emphasised reduced form portfolio returns, has inconclusive results. We would emphasise that differences in overall portfolio returns reflect a combination of differences in asset allocation and differences in security selection, which may explain how different researchers have obtained different results on the superiority of the investment technology of foreign investors. For foreign investors in India, these results suggest that the returns drag associated with poor security selection could be avoided by achieving the desired asset allocation through index funds that express systematic asset pricing factors. The methodology of this paper can be easily extended to other countries, since the data requirements are met in all emerging markets.

The remainder of this paper is organised as follows. Section 2 describes the dataset used in the paper. Section 3 sketches the questions and the measurement strategy. Section 4 examines the asset allocation choices of foreign and domestic institutional investors and finds substantial differences between the two. Section 5 measures the security selection process, after controlling for differences in asset allocation. Section 6 undertakes a series of modifications to the analysis in order to gauge the sensitivity of the results. Finally, Section 7 concludes.