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AN ANALYSIS OF HOW INDIVIDUALS REACT TO MARKET RETURNS IN ONE 401(K) PLAN

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Recent financial research has focused on how individual trading behavior relates to daily asset returns. A strong motivating factor behind this research is the potential influence that individual traders may have on the financial markets. Indeed, several theoretical findings suggest that certain trading strategies can influence the returns and volatility of these markets. As a result, empirical research on individuals' trading strategies has broad market implications. Furthermore, this research is becoming increasingly important as the number of individuals trading in their own accounts increases and the debate over the introduction of private Social Security accounts intensifies in Washington.

This paper contributes to the literature by analyzing a new and unique dataset of individual trades in one 401(k) plan. The most novel feature of this dataset is that each trade can be classified based on its source fund and destination fund. Thus, the results from this study provide an even closer examination of how individuals trade relative to daily asset returns.

This paper uses administrative data from one 401(k) plan. This study focuses on approximately four years of trading data from April 1994 to August 1998. The dataset follows 4,783 participants who were enrolled in the plan for the entire time period. The dates of each individual's trade and the changes to the allocations to each fund are included. In addition, each trade can be broadly classified into seven categories that are determined by the source fund and the destination fund.

Several interesting results emerge from this analysis. First, the results confirm earlier findings from Goetzmann and Massa (2003) that in most cases only equity fund outflows, not inflows, are significantly related to their own past returns. Second, the strong correlation between flows and lagged returns is only significant when fund returns are extremely low. This suggests that extremely negative returns are required to induce 401(k) participants to trade based on past returns. Third, the results support the assertion that most trades are from equities to risk-free assets, or vice versa. In this case, 48 percent of the total trades fit this category. Finally, it is only the flows from equities to GICs that show a strong correlation with one-day lagged returns. This suggests that most of the trades are "flights to safety" not return chasing.

The results of this study have important implications for further research. First, it reinforces the importance of focusing on inflows and outflows separately, as well as extreme return days, in this type of research. It seems possible that, when net flows to equities are studied, the outflows are driving all the results. The results also have important policy implications because of the potential influence that observed trading behavior might have on the markets. The results from this sample suggest that if returns are extremely low in equities, then this performance will induce infrequent traders to "fly to safety." An interesting area for future study is whether this behavior could depress the market even further. As the number of 401(k) participants grows, this is an important consideration.

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