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Do mutual fund managers time market liquidity?[☆]

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Abstract

This paper examines mutual fund managers' ability to time market-wide liquidity. Using the CRSP mutual fund database, we find strong evidence that over the 1974–2009 period, mutual fund managers demonstrate the ability to time market liquidity at both the portfolio level and the individual fund level. Liquidity timing predicts future fund performance and the difference in the risk-adjusted returns between top and bottom liquidity-timing funds is approximately 2% per year. Funds exhibiting liquidity-timing ability tend to have longer histories, higher expense ratios, and higher turnover rates.

JEL classification: G11; G19; G23

Keywords: Liquidity timing; Mutual fund performance; Market liquidity; Bootstrap

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1. Introduction

The literature on the timing ability of mutual fund managers has traditionally focused on managers' ability to time market returns or volatility. There is little evidence that fund managers successfully time the market by increasing (decreasing) portfolio exposure prior to market advances (declines) (e.g., Treynor and Mazuy, 1966; Chang and Lewellen, 1984; Henriksson, 1984; Ferson and Schadt, 1996; Graham and Harvey, 1996; Becker, Ferson, Myers, and Schill, 1999).[1] On the other hand, Busse (1999) documents that fund managers demonstrate the ability to time market volatility by increasing (reducing) portfolio exposure to the market when the market is less (more) volatile. In this paper, we investigate the traditional timing issue from a new perspective by examining mutual fund managers' ability to time market liquidity. Specifically, we test whether fund managers adjust market exposure when market liquidity changes.

We focus on liquidity timing for several reasons. First, there is a clear connection between market-wide liquidity and mutual fund performance. For example, during the 2008 financial crisis, massive market-wide liquidity squeezes were coupled with dramatic stock market declines. If fund managers can correctly predict future market liquidity conditions, they can adapt their portfolio exposure accordingly to alleviate losses and improve performance. As fund performance affects investor money flows and hence manager compensation, mutual fund managers are incentivized to adjust asset allocation according to market liquidity conditions. Secondly, while market returns lack sufficient persistence to be reliably predictable, market liquidity, like market volatility, is more persistent. Therefore, it might be easier for fund managers to time market liquidity than market returns. Finally, the asset pricing literature has identified market liquidity as a state variable that is important for asset pricing. For example, Acharya and Pedersen (2005) show that persistent positive shocks to liquidity predict high future liquidity, which lowers required future returns and raises contemporaneous prices; therefore, a high liquidity state is associated with high contemporaneous returns and vice versa. Given the co-movement of market liquidity and market returns, it is natural to ask whether market liquidity is an important factor for asset allocation decisions.

To understand how fund managers might time market liquidity when making asset allocation decisions, consider a simple scenario in which funds either hold cash or invest in stocks. Since market liquidity co-moves with market returns, fund managers with liquidity-timing ability shift out of cash and into stocks to increase market exposure prior to higher market liquidity (and hence higher market returns). Similarly, fund managers shift out of stocks and into cash to reduce exposure to the equity market prior to more illiquid markets (and hence market declines). Based on the above intuition, if managers demonstrate the ability to time market liquidity, we expect a positive relation between funds' systematic risk (market beta) and market liquidity.

Using the CRSP Survivorship-Bias-Free Mutual Fund Database, we examine mutual fund managers' liquidity-timing ability during the period of 1974–2009. In the empirical analysis, we use two measures of market liquidity to evaluate the liquidity-timing ability of

[1] Notable exceptions that document significant market timing ability include Bollen and Busse (2001), who use daily fund returns, and Jiang, Yao, and Yu (2007) and Huang and Wang (2010), who employ a holdings-based approach. A recent study by Cao, Chen, Liang, and Lo (2011) finds that hedge fund managers possess liquidity timing ability.