The effect of unexpected macro news on the liquidity profile of mutual funds

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Abstract

We analyze of the sensitivity of open-end mutual fund portfolios to aggregate market liquidity around macroeconomic announcements that reveal unexpected news about the state of the economy. We interpret an increase in the sensitivity as a deterioration of the fund's liquidity profile. While the reasons behind changes in liquidity risk could be different, poorer fund liquidity might amplify certain fund vulnerabilities in situations of low and deteriorating aggregate market liquidity. For example, funds could meet unexpected redemptions by disposing of the most liquid assets instead of selling the less-liquid assets on short notice and at a discount. Such a strategy, however, may leave the remaining investors with a less liquid and riskier fund. Recent studies have analyzed how the liquidity transformation offered by mutual funds can give rise to a first-mover advantage in conditions of deteriorating fund-specific and aggregate liquidity.

*Federal Reserve Board. This paper reflects the views of the authors and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or of any other person associated with the Federal Reserve System.

We contribute to this literature by proposing a novel methodology for studying changes in fund-specific liquidity after macroeconomic announcements that reveal important information about the state of the economy. The patterns of fund liquidity around these announcements are especially interesting because it is precisely after news-worthy announcements that funds are most likely to face significant inflows or outflows.

We proxy for fund liquidity with the coefficient on a market-wide liquidity factor in standard factor-model regressions. This coefficient measures the sensitivity of a fund return to market liquidity, thus the change in sensitivity after macro announcements can be considered as a proxy for the change in the liquidity profile of a fund. We calculate liquidity loadings using daily fund returns over the three weeks prior to the release of selected real-activity announcements, and we compare them with the factor loadings calculated over the three weeks after each of the announcements. If the manager sells liquid assets or invests in less liquid assets, making the overall portfolio less liquid, the sensitivity of the portfolio to the market liquidity following the event should be significantly higher.

The set of macroeconomic announcements we study is selected on the basis of how large their surprise is. Focusing on these days is of interest for two reasons. First, it is possible that a fund's exposure to market liquidity is affected differently by expected and unexpected events. Second, by looking at these specific episodes, we can address the endogeneity inherent to this kind of analysis: under the assumption that most fund managers' expectations overlap with median expectations, large surprises would most likely trigger unanticipated portfolio adjustments to manage unexpected redemptions or to reallocate investments.

The results show an increase in the post-announcement sensitivity of less liquid open-end mutual funds, like those that invest in the stocks of small companies, high-yield corporate bonds and municipal bonds, with larger effects following negative news during bad times than negative news during good times.