A Misdiagnosed Problem

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Central Issue of the Paper

The dramatic growth in hedge fund assets under management over the past 20 years (hedge fund assets increased from $118 billion in 1997 to $2.9 trillion in 2016) has led to a concern among investors, clients, investment committees, regulators, and the popular press that hedge funds act as a negative disruptive force in financial markets due to "contagion." The concept of widespread hedge fund "contagion" appears to be accepted as fact by many industry participants, regulators, and the popular press, and is supported by both theoretical and empirical academic literature. For example, both the popular press and academic literature propose that hedge fund contagion was a primary contributor to a number of recent crises including the 1998 financial crisis, the 2007 quant crisis, and the 2007–2008 financial crisis.

"Reconsidering Hedge Fund Contagion" by Richard Sias, H.J. Turtle and Blerina Zykaj provide an alternative, and contrary, view of hedge fund contagion, hedge fund crowding, hedge funds' role in the 2007–2008 financial crisis, and hedge funds' role the 2007 quant crisis. They begin by briefly summarizing two recent studies. First, Sias, Turtle, and Zykaj (2017) demonstrate that the dependence patterns across hedge fund style returns are inconsistent with liquidity shock induced contagion and model misspecification can explain why hedge fund returns tend to move together (i.e., exhibit dependence), even when controlling for economic fundamentals. Second, Sias, Turtle, and Zykaj (2015) show that relative to other investor types, hedge funds are much less likely to crowd into the same stocks and hedge fund demand shocks tend to push prices towards fundamentals, even in stressful periods.

Approach Employed by Paper

Despite the lack of a universal definition, contagion stories generally fall into two categories: inter-strategy and intra-strategy. First, inter-strategy contagion suggests that poor performance in one segment of the hedge fund world quickly propagates throughout the hedge fund industry. For instance, in an influential model of hedge fund contagion, Brunnermeier and Pedersen (2009) propose that when market liquidity is tight, negative externalities arise when levered hedge funds suffer an exogenous shock. Specifically, a negative shock causes liquidity-providing hedge funds to reduce liquidity which in turn increases margins (i.e., reductions in leverage) leading to further sales and reductions in liquidity and so on (a "margin spiral"). Moreover, the liquidity decline drives down the value of securities held by hedge funds forcing them to sell additional (knowingly undervalued) shares resulting in a further price decline and so on (a "loss spiral") The margin and loss spirals generate a self-reinforcing liquidity spiral.

Now to the research; their primary analysis focuses on new evidence of hedge fund's role in the recent 2007–2008 financial crisis and the August 2007 quant crises. They begin by attempting to better understand the reductions in aggregate hedge fund equity exposures during the last two quarters of 2007 and 2008. Contrary to the traditional interpretation that widespread investor withdrawals and forced leverage reductions drove hedge funds from

equity markets, the evidence suggests that the hedge fund exodus was driven, at least in part, by their strategic, and ex-post prescient, decision to delever and exit equity markets prior to the market bottom.

They also reconsider the 2007 quant crisis as: (a) a case study of whether a liquidity crisis in one sector (market neutral) propagates across the hedge fund universe (contagion), and (b) an opportunity to better understand the roles played by hedge funds versus other institutional investors during a liquidity crisis. Inconsistent with contagion, the quant crisis did not spill over to other (non-market-neutral) hedge fund strategies. Moreover, inconsistent with the conventional wisdom regarding the quant crisis, (a) hedge funds, in aggregate, benefited from the quant crisis (i.e., had more assets in growth/low momentum than in value/high momentum stocks), (b) hedge funds liquidated more growth/low momentum stocks than value/high momentum stocks in the crisis quarter, (c) a single non-hedge fund institution had more exposure to the quant crisis than the entire hedge fund universe of firms that had any exposure (i.e., when limited to only those hedge funds that were net exposed to the crisis), and (d) a single non-hedge fund institution sold more of the aggregate value/momentum portfolio than the entire hedge fund industry combined. In short, their research suggests a very different picture of hedge fund contagion, crowding, and the role of hedge funds in both the 2007–2008 financial crisis and the 2007 quant crisis.

Findings of the Paper

Empirically, Sias, Turtle, and Zykaj (2017) find little evidence of hedge fund inter-strategy contagion. Inconsistent with models of hedge fund contagion, they find no evidence of dependence asymmetry in hedge fund strategy returns (filtered for economic fundamentals). Li and Kazemi [2007] also find little evidence of asymmetric dependence for daily hedge fund returns. Moreover, consistent with a mis-specified factor model and inconsistent with liquidity shock induced hedge fund contagion, Sias, Turtle, and Zykaj (2017) also demonstrate that negative liquidity shocks are positively related to clustering in both the left and right tails of abnormal hedge fund returns. In addition, Sias, Turtle, and Zykaj (2015) find little evidence of excessive crowding by hedge funds—even at the tails of the distribution, hedge funds average substantially lower levels of long-equity portfolio overlap than other non-hedge fund institutions.

Their tests demonstrate that there is no evidence widespread investor withdrawals and forced deleveraging were the primary factors driving the hedge fund exodus from equity markets in the second half of 2007. In addition, the fact that hedge funds so strongly entered equity markets in early 2009, at the very height of the crisis, contradicts the hypothesis that investor withdrawals and forced deleveraging were solely responsible for hedge fund exodus in late 2008.

Inconsistent with inter-strategy contagion, they find no evidence that the quant crisis spread beyond the market-neutral strategy. Moreover, hedge funds, as a group benefited from the crisis (as they had more money in growth/low momentum stocks than value/high momentum stocks) and sold more of the growth/low momentum portfolio than the value/high momentum portfolio during the crisis quarter. In fact, a single large multinational finance company sold more of the value/ high momentum portfolio than the entire hedge fund universe combined.

Despite its theoretical potential and widely held views, the authors propose that evidence of hedge fund contagion is quite scarce. They recognize, of course, that both future tests and future events may also reveal new evidence of hedge fund contagion.

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