

Co-momentum: Inferring Arbitrage Capital from Return Correlations

Abstract

We propose a novel measure of the amount of arbitrage capital allocated to the momentum strategy to test whether arbitrageurs can be destabilizing. Our measure, which we dub *co-momentum*, aims to capture the extent to which momentum trades by arbitrageurs become crowded based on high-frequency abnormal return correlations among momentum stocks. Consistent with this aim, we find that co-momentum is significantly correlated with existing variables plausibly linked to the size of arbitrage capital.

Furthermore, co-momentum explains and forecasts important characteristics of momentum returns. First, in the formation period, higher co-momentum is associated with higher return spreads between winner and loser stocks. Second, in the holding period, co-momentum forecasts relatively low momentum returns, relatively high momentum return volatility, and more negative momentum return skewness. Third, in the year after the holding period, high co-momentum forecasts a strong reversal to the momentum strategy. Taken together, these patterns indicate that in periods of low co-momentum, price momentum is an underreaction phenomenon, while in periods of high co-momentum, price momentum is primarily an overreaction phenomenon due to crowded trading by arbitrageurs which destabilizes stock prices.

In addition, we examine the trading behavior of long-short equity hedge funds in response to our co-momentum measure. We find that the typical hedge fund is able to time the momentum strategy in a way consistent with our co-momentum measure. However, this timing ability deteriorates as the fund gets larger.

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