Factor Momentum and the Momentum Factor

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1 Data

The study uses monthly factor data from three sources: Kenneth French's data library, AQR's data library, and Robert Stambaugh's data library. The factors include 15 U.S. anomalies and 7 global factors. The timeframe for the study is from July 1963 to December 2019.

2 Summary

The paper explores the relationship between momentum in individual stock returns and momentum in factor returns. The authors argue that momentum in factor returns may be driving momentum in individual stock returns and set out to investigate this relationship. They construct a dataset of monthly returns for a broad set of factors and individual stocks and find that most factors exhibit positive autocorrelation, indicating the prevalence of factor momentum. Additionally, they find that factor momentum is concentrated in factors that explain more of the cross section of returns, suggesting that it is not incidental to individual stock momentum. The authors propose that factor momentum is a result of the timing of other factors, indicating that momentum is not a distinct risk factor but rather a factor that times other factors. They also demonstrate that momentum in high-eigenvalue principal component (PC) factors subsumes all forms of individual stock momentum, providing further support for the idea that factor momentum is the primary driver of momentum in individual stock returns.

The authors discuss different strategies used to exploit momentum in factor returns. They explain that a time-series strategy involves going long on factors with above-median returns and shorting those with below-median returns, while a cross-sectional strategy bets on the relationship between high returns on one factor and low returns on other factors. The authors argue that factors exhibit autocorrelation due to the persistence of sentiment among investors. They propose that if sentiment is persistent, it carries over to factor returns, leading to factor reversal or momentum. However, arbitrageurs do not trade aggressively enough to neutralize this effect because they would expose themselves to factor

risk. The authors suggest that momentum should concentrate in more systematic factors, similar to how sentiment-driven demand aligns with covariances that distort asset prices.

The authors then extract principal components from 47 factors and find that factor momentum concentrates in the high-eigenvalue principal components (PCs). These high-eigenvalue factors explain more of the cross section of returns. A strategy that trades the first ten high-eigenvalue PCs exhibits significant alpha, indicating the presence of momentum. The authors note that momentum in these high-eigenvalue factors either reduces or fully subsumes the momentum in other subsets of PCs. This finding suggests that if low-eigenvalue factors exhibited momentum, arbitrageurs could profit from it without assuming much factor risk. The authors reference another study that finds a similar concentration of predictability based on factors' valuation ratios.

The authors further discuss how momentum in factor returns transmits into the cross section of security returns. The amount of transmission depends on the dispersion in factor loadings across assets. When factor loadings differ significantly, more of the factor momentum shows up as cross-sectional momentum in individual security returns. This transmission mechanism leads to the main hypothesis tested in the paper: whether individual stock returns display momentum beyond that which emanates from factor momentum.

In conclusion, the authors find that factor momentum is prevalent and concentrated in factors that explain more of the cross section of returns. They argue that factor momentum is a result of the timing of other factors and is not a distinct risk factor. The authors also show that momentum in high-eigenvalue principal component factors subsumes all forms of individual stock momentum, further supporting the idea that factor momentum is the primary driver of momentum in individual stock returns. Based on these findings, the authors suggest that momentum is a factor that times other factors rather than a distinct risk factor. Additionally, the authors demonstrate that momentum-neutral factors exhibit more momentum than standard factors, further supporting the idea that factor momentum is a distinct phenomenon. The authors also discuss the challenges of disentangling factor momentum from residual momentum in firm-specific returns and provide simulation evidence to illustrate this issue.