

# MULTIFACTOR EXPECTED-RETURNS MODELS AND THE PERFORMANCE OF SUPERSTOCK PORTFOLIOS IN THE UK EQUITY MARKET

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## Abstract

*Two empirically testable behavioural finance hypotheses are that (1) 'superstock' portfolios derived from multifactor expected-returns models will have higher than average returns and lower than average risk in terms of statistical and economic significance; and, (2) the expected-returns factor models will demonstrate greater predictive and explanatory power than the risk-factor models of modern finance. Motivated by the views of the behaviourists we extend the work of Haugen and Baker (1996) on the US market by building a multifactor expected-returns model for the UK equity market. The purpose of this study therefore is not to test particular behavioural biases, such as the under- and over-reaction hypotheses, but rather to test the more general behavioural finance hypothesis that the explanatory and predictive power of expected-returns factor models is superior to that of traditional risk-factor models. Using a dataset comprised of the entire universe of fully-listed stocks in the UK market for the period 1987 to 2002 a multifactor expected-returns model with 24 factors is constructed to estimate security payoffs to factors related to various characteristics such as risk, price level, liquidity, growth potential and previous performance. These payoffs are then used to estimate out-of-sample expected returns and to construct a 'superstock' portfolio. We find that short-term and medium-term performance factors have a significant power in explaining expected stock returns providing support for short-term reversals and momentum patterns, whereas risk-related factors have very small statistical power. Our analysis suggests that compared to the three factor model of Fama and French (1993), an 'expected-returns' factor model exhibits increased predictive power of expected returns, and the 'superstocks' portfolio produced has consistently higher than average realised returns with lower than average risk. These results are significant in both statistical and economic terms and corroborate the above behavioural finance hypotheses.*

*Keywords:* Behavioural Finance, Multifactor Models, Superstocks, Expected-returns models.

*JEL classification:* G14, G32

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