Fifty Ways to Beat the Market?
A Portfolio Perspective on Investment Anomalies*

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Abstract

More than 300 characteristics have been proposed to explain the cross-section of stock returns. The existing literature employs Fama-MacBeth regressions to examine which characteristics are significant when considered jointly, but this approach ignores portfolio selection features such as diversification and transaction costs. We study which characteristics are jointly significant for portfolio construction and why. Using the parametric portfolios of Brandt et al. (2009), we find that although 12 characteristics are significant in the absence of transaction costs, only five are significant once transaction costs are taken into account. Moreover, we find that prominent characteristics such as momentum and book to market are not significant because, although their expected returns are higher than their associated transaction costs, these characteristics do not help to diversify the portfolio. We also propose a class of big-data parametric portfolios that an investor can use to exploit a large set of characteristics, and show that these portfolios attain out-of-sample Sharpe ratios around 150% larger than those of the benchmark value-weighted portfolio and around 75% larger than that of portfolios that exploit only the traditional size, momentum, and book-to-market characteristics.

Keywords: cross section of stock returns, return predictability, portfolio construction, parametric portfolios, big data.

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