Revisiting the out-of-Sample Performance of the Naive and Sharpe Portfolios: A Current Simulation Study

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Abstract: Recent research has reported that many optimal portfolio selection rules, including the famed Sharpe Portfolio, often fail to out-perform the naive (1/n) portfolio in out-of-sample testing. This paper revisits some these performance findings by applying cross-sectional and time-series cross validation techniques to thousands of data sets drawn at random from the S&P 500 during the 2007-2021 time frame. The results confirm prior findings, further highlighting the dubious out-of-sample performance of the Sharpe Portfolio. However, the naive model's advantage erodes in cross-sectional testing and when the ratio of assets to observations is small, i.e., when estimated error is well controlled.

Keywords: Optimal Portfolio Selection, Naive Diversification, Portfolio Choice JEL Classification Number: G02, G11, G17

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