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A DOUBLE SHARPE RATIO

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ABSTRACT

Sharpe's (1966) portfolio performance ratio, the ratio of the portfolio's expected return to its standard deviation, is a very well known tool for comparing portfolios. However, due to the presence of random denominators in the definition of the ratio, the sampling distribution of the Sharpe ratio is difficult to determine. Hence, measurement of estimation risk of the Sharpe ratio has often been ignored in practice. This paper uses the bootstrap methodology to suggest a new "Double" Sharpe ratio that allows an investor to make a tradeoff between risk-adjusted performance and estimation risk using the same weighting for estimation risk as the original Sharpe ratio uses for standard deviation. The use of this Double Sharpe ratio along with the original ratio, provides investors with a relatively simple method for measuring risk- and estimation risk-adjusted performance.

INTRODUCTION

The Sharpe (1966) portfolio performance ratio, the ratio of a portfolio's expected return to its standard deviation, is widely used and cited in the literature and pedagogy of finance. Indeed, in a recent finance literature search, over 30 papers published between 1995–1998 cited the Sharpe ratio.¹

Despite its popularity, the Sharpe ratio suffers from a methodological limitation: because of the presence of random denominators in its definition and the difficulty in determining the sample size needed to achieve asymptotic

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