

**MEAN-VARIANCE OPTIMAL PORTFOLIOS CONSIDERING SKEWNESS AND KURTOSIS**

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**ABSTRACT**

This study identified optimal portfolios of five major U.S. financial assets that maximized real return and skewness, minimized standard deviation and kurtosis, and maximized the Sharpe ratio with and without objective constraints regarding skewness and excess kurtosis, for monthly, annual, and 5-year periods. The asset allocations and risk-return profiles of optimal portfolios generally varied with the objective function and investment horizon. The results indicate that investors can generally compose portfolios that address concerns about negative skewness and/or excess kurtosis without a significant adverse impact on mean-variance optimization. Investors with a monthly horizon cannot avoid excess kurtosis even with optimal portfolios, but for investors with annual or longer horizons, mean-variance optimal portfolios have return distributions that are approximately normal regardless of objective constraints regarding skewness and kurtosis

Keywords: *Mean-Variance Optimization, Skewness, Kurtosis, Investment Horizon*