“Stochastic Dominance methods in Finance”

Abstract

We develop theoretical concepts together with estimation and optimization methods for portfolio choice based on Stochastic Dominance. First, we develop and implement methods for determining whether introducing new securities or relaxing investment constraints improves the investment opportunity set for for risk averse investors, or investors with mixed attitudes towards risk. Then, we develop methods to determine the stochastic bound, that is a portfolio that stochastically dominates all alternatives in a reference portfolio set. Finally, we develop and implement methods for determining whether relaxing sparsity constraints on portfolios improves the investment opportunity set for risk-averse investors. Empirical application for all these new stochastic dominance concepts will be presented.