The Risk Averse or the Risk Seeking Investor

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Abstract

With a brief investigation into prospect theory and the concept of stochastic dominance, we aim to maximize the expected utility of an investor making a portfolio selection under uncertainty. The one sample case will be considered, where one portfolio’s returns will be estimated using its empirical cumulative distribution function while the other portfolio’s cumulative distribution function will be assumed to be known via years of data. A hypothesis test will be conducted with the null hypothesis stating that the two portfolios are essentially the same (regarding their expected utilities). Computation of a $K_\alpha$ critical value will assist us in determining the probability of type one error as well as the power of the test. Finally, we shall choose to accept or refuse to accept the null hypothesis.