Portfolio Selection with Spectral Risk Measures under ARMA-EGARCH-copula Models

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Abstract

In this talk, a portfolio selection problem with spectral risk measure is considered, where the dynamics of the underlying asset returns are modeled by ARMA-EGARCH copula models. The spectral risk measure is a general family of coherent risk measures and is capable of reflecting investor's risk preference. A linearlization of the selection problem is developed and thus the technique of linear programming can be used to accurately determine the optimal asset allocation. Simulation and empirical studies are conducted for investigating the impact of the degrees of risk aversion and the magnitude of conditional heteroscedasticity on the performance of the optimal portfolio.

Keywords： CD vine, EGARCH, linear programming, portfolio selection, spectral risk measure.