

CHANCE CONSTRAINED PROGRAMMING FOR MULTI PERIOD PORTFOLIO SELECTION

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Abstract

This paper selects the portfolio with normally distributed returns and different rates for borrowing and lending. The primary concern is to determine the amount of investment in different planning horizon when the rate of borrowing is greater than the rate of lending. Chance constrained programming as an appropriate tool for addressing intrinsic uncertainty in portfolio selection problem is used. No study have ever proposed and solved this expanded model. To solve this nonlinear programming (NLP), Genetic Algorithm is utilized. Numerical experiment is performed and the results are analyzed to validate proposed methodology.

Keywords and phrases: multi period portfolio selection, chance constrained programming, borrowing/lending.

