

Horizon and stages in applications of stochastic programming in finance

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Abstract

To solve a decision problem under uncertainty via stochastic programming means to choose or to build a suitable stochastic programming model taking into account the nature of the real-life problem, character of input data, availability of software and computer technology. In applications of multistage stochastic programs additional rather complicated modeling issues come to the fore. They concern the choice of the horizon, stages, methods for generating scenario trees, etc. We shall discuss briefly the ways of selecting horizon and stages in financial applications. In our numerical studies, we focus on alternative choices of stages and their impact on optimal first-stage solutions of bond portfolio optimization problems.

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