

Minimizing down-side risk probability and risk-sensitive asset allocation for linear Gaussian models

Hiroaki HATA

Academia Sinica, Taiwan,

Hideo NAGAI

Graduate School of Engineering Science, Osaka University

560-8531 Toyonaka, Osaka, Japan

e-mail: nagai@sigmath.es.osaka-u.ac.jp

and

Shuenn-jyi SHEU

Academia Sinica, Taiwan

Abstract:

Asymptotic behavior of probability minimizing the down-sided risk is considered in relation to risk-sensitive asset allocation problems for linear Gaussian models. Through analysis of the H-J-B equations and the related Riccati equations the asymptotics is seen to be characterized as the dual of the risk-sensitive asset allocation problem on infinite time horizon.