

Continuous-Time Optimal Portfolio Problems with Stochastic Investment Opportunity Set

Shoji Kamimura *

October 20, 2005

We study a continuous-time portfolio optimization problem when the market price of risk is driven by linear Gaussian processes. We show sufficient conditions to verify that a solution derived from the Hamilton-Jacobi-Bellman equation is in fact an optimal solution to the portfolio selection problem. We also discuss the properties of an optimal portfolio strategy.

*Graduate School of International Corporate Strategy, Hitotsubashi University, 2-1-2 Hitotsubashi, Chiyoda-ku, Tokyo 101-8439, Japan; Email: kamimura@ics.hit-u.ac.jp