OPTIMAL TRADING STRATEGIES IN A MODEL
WITH PARTIAL INFORMATION

Chung-Hsuan Hu[1], Chun-Chang Huang[2], Ching-Tang Wu[3]

Abstract

This paper studies a discrete-time financial model with or without transaction costs, in which only partial information can be observed. Partial information model means that the investors in the market can observe no more information except the stock prices. This model has been investigated in Karatzas and Xue (1991), Lakner (1995, 1998), and Cheng (2004), etc. Applying stochastic filtering theory, we investigate the optimal trading strategies in the sense of optimal expected utility, optimal hedging and risk-minimizing.

[1]Department of Applied Mathematics, National Chiao Tung University, Hsinchu, Taiwan.

[2]Institute of Statistics, National University of Kaohsiung, Kaohsiung, Taiwan.

[3]Corresponding author. Department of Applied Mathematics, National Chiao Tung University, Hsinchu, Taiwan; E-mail address: ctwu@math.nctu.edu.tw. The author's research is supported by the National Science Council under Grant #NSC 96-2115-M-009-005-MY2.