Adv. Math. Econ. 12, 129-152 (2009)

Advances in MATHEMATICAL ECONOMICS

Optimal growth rate in random trade time

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Received: March 28, 2008
Revised: September 3, 2008

JEL classification: G11

Mathematical Subject Classification (2000): 91B28, 91B16, 91B70

Abstract. We study the optimal growth rate in the market where there are a saving asset and a low liquid risky asset. In this paper the low liquid asset can be traded at random trade times. We show the optimal growth rate both with finite time horizon and with infinite time horizon. And we find an optimal strategy. Further we discuss the convergence of the optimal growth rate and the optimal strategy as the time horizon goes to infinity.

Key words: liquidity, optimal growth rate, optimal strategy