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Eunju Sohn*, Boyd Graduate Studies Research Center, Department of Mathematics, University of Georgia, Athens, GA 30602, and **Qing Zhang**, Boyd Graduate Studies Research Center, Department of Mathematics, University of Georgia, Athens, GA 30602. *Near Optimal Selling Rule for a Mean-Reverting Asset.*

This paper is concerned with trading a stock of which the price fluctuates randomly. We assume that the price of the stock is governed by a switching geometric Brownian motion and a mean-reversion model. We also consider two time scales that reflect short-term and long-term market changes. The process is modeled as a continuous-time Markov chain with a finite number of states. Our objective is to find an optimal selling/buying rule to maximize the overall return. We solve the system of the Hamilton-Jacobi-Bellman equations for the limiting problem, obtain asymptotic solutions, and compare them with numerical results. (Received September 19, 2011)