
VATHANA LY VATH, ENSIIE/Université d'Evry

Liquidity risk and optimal dividend/investment strategies

In this paper, we study the problem of determining an optimal control on the dividend and investment policy of a firm operating under uncertain environment and risk constraints. We allow the company to make investment decisions by acquiring or selling productive assets whose value is governed by a stochastic process. The firm may face liquidity costs when it decides to buy or sell assets. We formulate this problem as a multi-dimensional mixed singular and multi-switching control problem and use a viscosity solution approach. We numerically compute our optimal strategies and enrich our studies with numerical results and illustrations.