Quantitative Finance > Portfolio Management

Risk-Sensitive Asset Management in a Jump-Diffusion Factor Model

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In this article we extend earlier work on the jump-diffusion risk-sensitive asset management problem by allowing for jumps in both the factor process and the asset prices as well as stochastic volatility and investment constraints. In this case, the HJB equation is a PIDE. By combining viscosity solutions with a change of notation, a policy improvement argument and classical results on parabolic PDEs we prove that the PIDE admits a unique smooth solution. A verification theorem concludes the resolutions of this problem.

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