论文

均值-方差模型下DC型养老金的随机最优控制

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Stochastic optimal control for DC pensionunder the mean-variance model

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摘要 从DB型养老金转向DC型养老金已被越来越多的国家所考虑. 以均值-方差为目标研究 风险资产符合CEV模型的DC型养老金最优投资问题. 利用随机控制建立了养老金最优投资的HJB方程, 通过Legendre变换和对偶理论求得养老金的最优投资策略, 最后推导出均值-方差下 DC型养老金最优投资的有效前沿.

关键词: DC型养老金   均值-方差   常方差弹性模型   随机控制   最优投资

Abstract： More and more countries begin to consider changing from the DB type to DC type for pension. This paper researches the optimal investment problem for DC pension with the target of mean-variance and the risky asset derived by the CEV model. By the stochastic control theory, the paper establishes the HJB equation about the optimal investment of DC pension, obtains the optimal investment strategies through the Legendre transform and duality theory, and finally deduces the effective frontier of the optimal investment of DC pension under the mean-variance model.

Key words： defined-contribution pension   mean-variance   constant elasticity of variance model   stochastic control   optimal investment

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