

仿射利率模型下确定缴费型养老金的最优投资

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Optimal investment for DC pension under the affine interest rate model

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摘要 论文研究了仿射利率模型(包括CIR模型和Vasicek模型)下的确定缴费型养老金的最优投资问题。在模型中, 养老基金被允许投资于一种无风险资产、一种零息债券和一种风险资产。通过运用HJB方程、Legendre转换和对偶理论, 分别找到对CRRRA和CARA效用函数的显性解。

关键词: 确定缴费型养老金 随机控制 随机利率 HJB方程 最优投资

Abstract: The paper studied the optimal investment strategies of DC pension under the affine interest rate model (including the CIR model and the Vasicek model). In our model, the pension fund was allowed to invest in a risk-free asset, a zero-coupon bond and a single risky asset. By applying the Hamilton-Jacobi-Bellman equation, Legendre transform and dual theory, found the explicit solutions for the CRRRA and CARA utility functions, respectively.

Key words: defined contribution pension stochastic control stochastic interest rate HJB equation optimal investment

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