论文摘要

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考虑通货膨胀影响的最优消费投资模型

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摘　要：最优消费投资问题是指投资者的资产在消费和投资之间进行分配,期望在时间区间[0,T]或[0,+∞)的消费效用或终值财富效用最大化。研究了在金融市场和消费市场上同时存在通货膨胀或通货紧缩情况下的最优消费投资问题,建立了通货膨胀折扣率的随机模型及最优消费投资模型,利用鞅方法和随机分析理论,求得了控制问题的值函数和具有反馈形式的最优消费投资过程。

关键字：随机微分方程;随机控制;最优消费投资

Optimal consumption and investment model considering effect of currency inflation

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Abstract: Optimal consumption and investment is a fundamental problem. Investors may choose freely his consumption and investment to expect to maximum the consumption and final wealth utility in [0,T] or [0,∞). This paper treats the problem of the optimal consumption and investment when there is a currency inflation or deflation in financial market and consumer goods market. The stochastic model of deflator and optimal consumption and investment model is built. The value function of the optimum control question, optimal consumption and investment formulas in feedback form are obtained by means of martingale and stochastic analysis theory.

Key words:stochastic differential equation; stochastic control; optimal consumption and investment