

Gu, Mengdi; Yang, Yipeng; Li, Shoude; Zhang, Jingyi
Constant elasticity of variance model for proportional reinsurance and investment strategies. (English) [Zbl 1231.91193](#)
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Summary: The insurer is allowed to buy reinsurance and invest in a risk-free asset and a risky asset. The claim process is assumed to follow a Brownian motion with drift, while the price process of the risky asset is described by the constant elasticity of variance (CEV) model. The Hamilton-Jacobi-Bellman (HJB) equation associated with the optimal reinsurance and investment strategies is established, and solutions are found for insurers with CRRA or CARRA utility.

MSC:

91B30 Risk theory, insurance (MSC2010)
49L20 Dynamic programming in optimal control and differential games

Cited in **39** Documents

Keywords:

constant elasticity of variance; reinsurance; Hamilton-Jacobi-Bellman equation; optimal strategies

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