Yu, Wenguang; Huang, Yujuan; Cui, Chaoran
The absolute ruin insurance risk model with a threshold dividend strategy. (English)
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Summary: The absolute ruin insurance risk model is modified by including some valuable market economic information factors, such as credit interest, debit interest and dividend payments. Such information is especially important for insurance companies to control risks. We further assume that the insurance company is able to finance and continue to operate when its reserve is negative. We investigate the integro-differential equations for some interest actuarial diagnostics. We also provide numerical examples to explain the effects of relevant parameters on actuarial diagnostics.

MSC:
91B30 Risk theory, insurance (MSC2010)
45K05 Integro-partial differential equations

Keywords:
absolute ruin; integro-differential equations; moment generating function; threshold dividend strategy; debit interest

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