

 Mortality and Longevity

 Aging and Retirement

Quantification and Management of Longevity Risk in China





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Abstract

As the annuity market in China develops, the Chinese insurance industry is increasingly exposed to longevity risk. The recently introduced China Risk Oriented Solvency System (C-ROSS) requires both domestic and foreign insurers operating in China have to hold solvency risk capital for the longevity risk they take. In this paper, we study how the longevity risk facing insurers operating in China can be quantified using stochastic mortality models that are developed to suit the demographic situation in China. We also study how longevity risk management solutions such as securitization may reduce an insurer's C-ROSS solvency capital

Keywords: C-ROSS; Delta hedging; Solvency risk capital; Stochastic mortality modeling

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