Hedging Against Insolvency of Insurance Companies

Yunzhou Chen[1], Hirbod Assa[2] *

University of Liverpool

Abstract

This paper introduces an heding approach to find the optimal capital reserve for an insurance company to avoid insolvency. In this method, the company is assumed to have fully access to financial market. By constructing a viable portfolio of financial instruments, this hedging strategy requires the minimal captial reserve. Instead of classic ruin models, we apply coherent risk measures to keep the company solvent. We will discuss an example of hedging the solvency by mean-variance risk measure.

Keywords. Capital requirement, solvency, mean-variance risk measure.

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*Mailing address: Institute for Financial and Actuarial Mathematics. University of Liverpool. UK. L69 7ZL Email: [1]sgyche14@liv.ac.uk [2]assa@liverpool.ac.uk. Telephone: [1]07784369186.