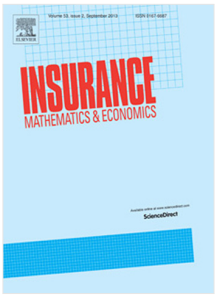
Accepted Manuscript



Optimal insurance design in the presence of exclusion clauses

Yichun Chi, Fangda Liu

PII: S0167-6687(16)30389-4
DOI: http://dx.doi.org/10.1016/j.insmatheco.2017.07.003
Reference: INSUMA 2367

To appear in: *Insurance: Mathematics and Economics*

Received date : September 2016
Revised date : March 2017
Accepted date : 13 July 2017

Please cite this article as: Chi, Y., Liu, F., Optimal insurance design in the presence of exclusion clauses. *Insurance: Mathematics and Economics* (2017), http://dx.doi.org/10.1016/j.insmatheco.2017.07.003

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Optimal Insurance Design in the Presence of Exclusion Clauses

Yichun Chi*, Fangda Liu†
China Institute for Actuarial Science
Central University of Finance and Economics
Beijing, China

Abstract

The present work studies the design of an optimal insurance policy from the perspective of an insured, where the insurable loss is mutually exclusive from another loss that is denied in the insurance coverage. To reduce ex post moral hazard, we assume that both the insured and the insurer would pay more for a larger realization of the insurable loss. When the insurance premium principle preserves the convex order, we show that any admissible insurance contract is suboptimal to a two-layer insurance policy under the criterion of minimizing the insured's total risk exposure quantified by value at risk, tail value at risk or an expectile. The form of optimal insurance can be further simplified to be one-layer by imposing an additional weak condition on the premium principle. Finally, we use Wang's premium principle and the expected value premium principle to illustrate the applicability of our results, and find that optimal insurance solutions are affected not only by the size of the excluded loss but also by the risk measure chosen to quantify the insured's risk exposure.

Keywords: Expectile; Layer insurance; Optimal insurance with exclusion clauses; Tail value at risk; Value at risk; Wang's premium principle.

*Email address: yichun_1982@hotmail.com.
†Corresponding author. Email address: andrealfd@163.com.

دریافت فوری ← متن کامل مقاله

ISIArticles
مرجع مقالات تخصصی ایران

✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
✓ امکان دانلود نسخه ترجمه شده مقالات
✓ پذیرش سفارش ترجمه تخصصی
✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
✓ دانلود فوری مقاله پس از پرداخت آنلاین
✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات