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新型广义加权保费原理下风险保费的信度估计

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The Credibility Estimators of Risk Premium Under a New Type of Generalized Weighted Premium Principle

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全文: PDF (411 KB)   HTML (1 KB)   输出: BibTeX | EndNote (RIS)   背景资料

摘要 本文研究了新型广义加权保费原理下风险保费的信度估计问题. 利用了损失函数法, 将新型广义加权保费原理 定义为新型广义加权损失函数下风险的最优估计. 在该损失函数下, 把估计限定在经验估计的线性组合, 根据均方误差最小原则得到风险保费的信度估计, 并证明了信度估计的相合性. 最后, 在 Esscher保费原理下对信度估计的相合性进行模拟验证, 并在指数保费原理下与前人的结果进行了比较, 结果发现已有的 研究只是本文的一种特殊情况.

关键词: 新型广义加权保费原理   风险保费   信度估计   Bayes估计   相合性

Abstract: In this paper, we study the credibility estimator of risk premium under the new-type generalized weighted premium principle. Use of a loss function method, the new generalized weighted premium principle is defined as the optimal estimate of the risk under the new-type generalized weighted loss function. Under this type of loss function, we constrain the estimator of risk premium to linear combination of empirical estimate and derive the credibility estimator of risk premium by minimizing the mean square error. We also prove the consistency of the credibility estimator. Finally, the numerical example is given under Esscher principle to verify the results of the paper. In addition, we also compare the credibility estimator under exponential principle with previous research. The results show that the previous estimator is the special case of this paper.

Key words: new type of generalized weighted premium principle   risk premium   credibility estimator   bayes estimator   consistency

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