

主题:

天气指数保险指数指标的选择与赔付方案设计

The Design of Index and Payment Solutions of Weather Index Insurance

摘要:

本研究集中于海南橡胶树风灾指数保险指数指标的选择与赔付方案设计,是世界银行支持的项目“海南橡胶树风灾指数保险研究与试点”的一个子项目。

指数指标的研究主要包括两步:首先利用第一子课题提供的致灾因子强度的参数,辅以其他孕灾环境、承灾体的基础数据,设计若干可能的保险指数。在构建过程中,应充分考虑保险指数的基本要求。在此基础上,利用指数指标与历史损失进行脆弱性建模。脆弱性建模的核心是在指数(即致灾因子强度,例如,风速)与外部损失(例如,已开割树损失率)之间找到一个合理的经验关系(指数-损失关系)。指数能够解释的外部损失的变差(variation)越多,则表明指数的敏感性越好,对外部损失的表达越准确。

赔付方案选择研究依据指数以及对应的指数-损失关系,研究单场台风事件赔付方案,设定若干保险保障水平,确定指数与保险赔付的函数关系;研究多台风事件赔付方案,包括特定保险周期内多台风事件条件下,赔付的起始条件、终止条件,赔付金额累计办法与终止方案等;形成若干套指数产品赔付方案供指数保险产品设计方案参考。

The research aims to design the index and to develop paymentsolutions for rubber trees typhoon index insurance in Hainan province, China.It is a sub-project of Research and Pilots of Rubber Tree Typhoon Index Insurance in Hainan Province, which is supported by World Bank.

The selection of index selection includes two parts. Firstly, design a number of possible insurance index, depend on the data of hazard factors, hazard inducing environment and hazard-affected body. Secondly, make vulnerability model using index and the historical loss. The core of vulnerability modeling is finding a reasonable experience relationship between the index and the loss. The more the Index could explain the loss of variation, the better is the index sensitivity,and the more accurate expression of the external loss.

Payment solution design include set a number of insurance level and determine the index as a function of insurance claims to one typhoon event, depend on the relation of index and loss. Payment solutionto more than a typhoon event, include starting conditions for compensation, termination conditions, compensation amount accumulative total solution and termination. Finally, we form sets of product compensation scheme for index insurance product design reference.

个人简介:

刘新立,北京大学经济学院风险管理与保险学系副教授,副主任;2000年,获北京师范大学理学博士学位。研究兴趣:巨灾风险管理、金融风险管理。

LIU Xinli is associate professor and vice director of department of risk management and insurance, School of Economics, Peking University. LIU Xinli received PhD degree of catastrophe risk management in Beijing Normal University in 2000. Her research interests include catastrophe risk management and financial risk management.