View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Xiamen University Institutional Repository

学校编码：10384　　分类号＿＿＿密级＿
学号：B200342013　　UDC ＿＿＿＿＿

厦　门　大　学

博　士　学　位　论　文

保险市场信息风险与控制研究

Studies on Information Risk and Control in Insurance Markets

林　泓

指导教师姓名：林宝清　教授

专　业　名　称：金　融　学
论文提交日期：2006 年 4 月
论文答辩时间：2006 年 6 月
学位授予日期：2006 年　　月

答辩委员会主席：＿＿＿＿＿
评　　阅　　人：＿＿＿＿＿

2006 年 4 月

厦门大学博硕士论文摘要库

厦门大学学位论文原创性声明

兹呈交的学位论文，是本人在导师指导下独立完成的研究成果。本人在论文写作中参考的其他个人或集体的研究成果，均在文中以明确方式标明。本人依法享有和承担由此论文产生的权利和责任。

声明人（签名）：

年　　月　　日

厦门大学博硕士论文摘要库

厦门大学学位论文著作权使用声明

本人完全了解厦门大学有关保留、使用学位论文的规定。厦门大学有权保留并向国家主管部门或其指定机构送交论文的纸质版和电子版，有权将学位论文用于非赢利目的的少量复制并允许论文进入学校图书馆被查阅，有权将学位论文的内容编入有关数据库进行检索，有权将学位论文的标题和摘要汇编出版。保密的学位论文在解密后适用本规定。

本学位论文属于

1、保密（　），在　　年解密后适用本授权书。

2、不保密（　）

（请在以上相应括号内打“√”）

作者签名：　　日期：　　年　月　日

导师签名：　　日期：　　年　月　日

厦门大学博硕士论文摘要库

厦门大学博硕士论文摘要库

内 容 摘 要

保险的行业特点决定了保险市场是一个典型的信息市场，存在着多层次的信息风险。尤其是在目前我国保险市场尚未成熟的历史时期，由于信息风险所导致的各种问题已严重影响了保险市场的效率，对保险行业健康有序的发展构成了一定的威胁。

本文以信息经济学为理论依托，以博弈论为研究工具，以保险市场中的信息风险为切入点和逻辑主线，对不对称信息下保险人与投保人之间，保险人与保险中介之间以及政府与保险人之间的信息风险进行了系列研究，并运用模型分析等方法提出了控制信息风险的制度安排。

论文共分五章：第一章在探讨了风险和信息内涵的基础上，定义了信息风险的概念并进行了相关的理论研究；第二章对保险市场上信息风险做了概述，着重分析了保险市场上信息风险的特点、主体等；第三章至五章是文章展开性的章节，分别对保险市场上的三对信息风险主体——保险人与投保人、保险人与保险中介、保险人与政府之间的信息风险及其控制问题进行了点面结合的系列分析，既有对一般问题的总括阐述，又有对具体问题的模型分析。其研究成果，一方面可以为保险市场中的交易参与者，如保险公司和投保人控制信息风险提供思路，另一方面还可以给政府及相关保险监管部门提供有益的政策建议。

论文的创新之处主要体现在以下几个方面：（1）由于信息风险的概念在既往文献中未有明确定义，笔者通过对信息和风险相关概念和理论的研究，提出信息风险广义和狭义的定义；（2）与以往对保险市场信息问题的研究集中在保险人和投保人之间的道德风险和逆向选择问题上不同，本文将保险公司与保险代理人之间的信息关系以及政府与保险公司之间的信息关系也纳入了保险市场信息风险的研究范围；（3）将道德风险细化为善意与恶意道德风险，因为它们在产生的原因、性质、和风险控制上都有较大差异，所以应当区分开来进行研究；（4）开创性地利用 “效率工资”理论来分析保险代理人行为并建立委托人最优监督水平模型，并以此为基础提出抑制代理人恶意道德风险的建议；（5）将某些具有“准公共产品”性质的险种，如农业保险、养老保险、机动车第三者责任保险等，定

厦门大学博硕士论文摘要库

义为“准公共保险”。在此基础上利用博弈理论分析了政府在信息劣势的情况下，应采取何种激励措施，使得经营这类险种的保险公司有效地为社会提供准公共产品。

关键词：保险市场；信息风险；保险博弈

厦门大学博硕士论文摘要库

Abstract

The characteristic of insurance sector determines that insurance markets are typical information markets where exists multi-layer information risk. Especially in the period that the insurance markets of our country are immature, all kinds of problems causing by information risk have affected the efficiency of insurance markets badly and have threatened the healthy and orderly development of insurance sector.

Taking the information economics as the theory support and the game theory as the studying tool, the dissertation conducts series research on information risk between insurers and policy-holders, insurers and insurance intermediaries, and government and insurers. Then it brings out some mechanism designs by models to control information risk.

The dissertation is organized as follows. In Chapter 1, relying on the study of the connotation of information and risk, it defines the concept of information risk and does some research on the relevant theory. In Chapter 2, it summarizes the information risk in insurance markets, and analyzes the traits and entities of information risk in insurance markets. Chapter 3 to Chapter 5 is the outspread part of the dissertation. In these chapters, the author respectively conducts series research on information risk and its control of the three pairs in insurance markets, that is, insurers and policy-holders, insurers and insurance intermediaries, government and insurers. It studies not only general subjects but also specific subjects, and tries to give some useful ideas to market players (such as insurers and policy-holders) as well as to relevant regulatory authorities to control information risk.

The innovations of the dissertation are listed below: (1) It brings out the broad sense definition and narrow sense definition of information risk basing on the research on concepts and theories of information and risk. (2) Differing from the past study just focusing on the moral hazard and adverse selection between insurers and policy-holders, it extends the study scope to the information relationship between insurers and insurance intermediaries, and government and insurers. (3)It tries to fractionize moral hazard into moral hazard with bad-meaning and moral hazard with good-meaning, because the two parts have big difference in the cause of formation, characters and risk control. (4)It initiates to analyze the behavior of insurance agents by theory of “efficiency wage” and establishes the model about optimal level of

厦门大学博硕士论文摘要库

principal supervision. (5) It tries to define some kinds of insurances with certain characters of “semi-public product” as “semi-public insurance”, such as agriculture insurance, endowment insurance and third party liability insurance on mobile car. Based on that, it uses game theory to study what kinds of incentive measures the government would take to stimulate the underwriters running this kind of insurance to provide the semi-public product to society in the efficient way.

Keywords: Insurance Markets; Information Risk; Insurance Game

厦门大学博硕士论文摘要库

目　　录

0 导　论.....1

0.1 论文选题.....1

0.2 研究方法.....3

0.3 论文结构.....5

0.4 创新及进一步研究方向.....7

1 信息风险理论研究.....12

1.1 信息与风险.....12

1.1.1 信息概述.....12

1.1.2 风险概述.....17

1.2 信息风险的范畴界定.....21

1.2.1 信息风险的涵义.....21

1.2.2 信息风险的特征.....23

1.2.3 信息风险的分类.....24

1.3 信息风险研究的理论与方法.....27

1.3.1 信息经济学

——信息风险研究的理论依托.....27

1.3.2 博弈理论

——信息风险研究的分析工具.....31

1.4 本章小结.....35

2 保险市场信息风险概述.....37

2.1 保险市场信息的特点.....37

2.1.1 保险产品的特殊性.....37

2.1.2 保险市场信息风险的特点.....38

2.2 保险市场上的信息流.....41

2.2.1 保险市场上信息流的类型.....41

2.2.2 保险市场上信息流的传递渠道.....44

2.3 保险市场上信息风险的类型.....48

厦门大学博硕士论文摘要库

2.3.1 保险市场道德风险的社会学与经济学内涵.....48
2.3.2 保险市场的善意道德风险与恶意道德风险.....49
2.4 保险市场上信息风险的主体 50
2.4.1 保险人与投保人.....50
2.4.2 保险人与保险中介.....52
2.4.3 保险人与政府监管当局.....53
2.5 本章小结 55
3 保险人与投保人的信息风险与控制 57
3.1 投保人善意道德风险及其控制 57
3.1.1 善意道德风险的产生.....57
3.1.2 善意道德风险模型.....59
3.1.3 善意道德风险的控制.....66
3.2 投保人恶意道德风险及其控制 68
3.2.1 恶意道德风险的主要特征.....69
3.2.2 恶意道德风险的表现形式.....70
3.2.1 恶意道德风险的控制.....71
3.3 投保险人逆向选择及其控制 72
3.3.1 投保人逆向选择模型.....73
3.3.2 逆向选择风险的控制.....77
3.4 本章小结 79
4 保险人与保险中介的信息风险与控制 81
4.1 保险中介及目前市场状况 81
4.1.1 保险中介的界定.....81
4.1.2 保险中介存在的理论基础.....82
4.1.3 我国保险中介的市场状况.....84
4.1.4 保险中介市场的信息风险.....87
4.2 保险代理合同激励机制的设计
—— 控制保险代理人善意的道德风险 88
4.2.1 保险代理激励机制模型假设.....89

厦门大学博硕士论文摘要库

4.2.2 信息对称条件下最优保险代理合同.....91
4.2.3 信息不对称条件下最优保险代理合同.....93
4.2.4 保险代理成本的计算.....95
4.2.5 其他可观测变量对最优激励合同的影响.....97
4.3 监督保险代理人行为的模型设计
——控制保险代理人恶意道德风险 101
4.3.1 保险代理人欺诈行为博弈模型及其假设.....101
4.3.2 约束条件下的工资结构分析.....103
4.3.3 委托人的代理成本.....104
4.3.4 参数决定及其分析.....105
4.3.5 控制保险代理人恶意道德风险的建议及模型提供的解释.....109
4.4 本章小结 110
5 政府与保险人的信息风险与控制 112
5.1 保险监管理论的经济根源 112
5.1.1 公共利益理论.....112
5.1.2 公共选择理论.....115
5.2 保险监管中信息风险的控制 117
5.2.1 监管机构与保险公司市场准入的博弈
——逆向选择风险的控制.....119
5.2.3 监管机构与保险公司现场检查博弈
——恶意道德风险的控制.....121
5.3 “准公共保险”中善意道德风险的控制
——以机动车第三者责任强制保险为例 125
5.3.1 问题的提出.....126
5.3.2 模型的设计.....127
5.3.3 信息对称时政府的最优决策.....128
5.3.4 信息劣势下政府的最优决策.....130
5.4 本章小结 132
结 语.....134
厦门大学博硕士论文摘要库

参 考 文 献 135
作者在攻读博士期间完成的科研成果 139
后记.....140

厦门大学博硕士论文摘要库

Catalog

0. Introduction……1

0.1 About the Theme……1

0.2 Research Approach……3

0.3 Structure Arrangement……5

0.4 Innovation and Future Studies……7

1. Theory Studies on Information Risk……12

1.1 Information and Risk……12

1.1.1 Summary of Information……12

1.1.2 Summary of Risk……17

1.2 Category of Information Risk……21

1.2.1 Connotation of Information Risk……22

1.2.2 Characters of Information Risk……23

1.2.3 Types of Information Risk……24

1.3 Theory and Method of Information Risk Study……27

1.3.1 Information Economics
——the Theory of Information Risk Study……27

1.3.2 Game Theory
——the Tool of Information Risk Study……32

1.4 Summaries……35

2 Summery of Information Risk in Insurance Markets……37

2.1 Characteristics of Information Risk in Insurance Markets……37

2.1.1 Particularities of Insurance Products……37

2.1.2 Characteristics of Information Risk in Insurance Markets……38

2.2 Information Flows in Insurance Markets……41

2.2.1 Types of Information Flows in Insurance Markets……41

2.2.2 Transfer Channels of Insurance Markets……45

2.3 Types of Information Risk in Insurance Markets……48

2.3.1 The Connotation of Moral Hazard in Sociology and Economics……48

2.3.2 Moral Hazard with Bad-meaning and Moral Hazard with Good-meaning in Insurance Markets……49

厦门大学博硕士论文摘要库

2.4 Entities of Information Risk in Insurance Markets·····50
2.4.1 Insurers and Policy-holders·····**50**
2.4.2 Insurers and Insurance Intermediaries·····**52**
2.4.3 Government Regulatory Authorities and Insurers·····**53**
2.5 Summaries·····55
3 Information Risk and Control between Insurers and Policy-holders·····57
3.1 Moral Hazard with Good-meaning of Policy-holders and Its Control·····57
3.1.1 Provenance of Moral Hazard with Good-meaning·····**57**
3.1.2 Model of Moral Hazard with Good-meaning·····**59**
3.1.3 Control of Moral Hazard with Good-meaning·····**66**
3.2 Moral Hazard with Bad-meaning of Policy-holders and Its Control·····68
3.2.1 Main Characteristics of Moral Hazard with Bad-meaning·····**69**
3.2.2 Manifestation of Moral Hazard with Bad-meaning·····**70**
3.3.3 Control of Moral Hazard with Bad-meaning·····**71**
3.3 Adverse Selection of Policy-holders and Its Control·····72
3.3.1 Model of Adverse Selection·····**73**
3.3.2 Control of Adverse Selection·····**77**
3.4 Summaries·····79
4. Information Risk and Control between Insurers and Insurance Intermediaries·····81
4.1 Insurance Intermediaries and Its Market Conditions·····81
4.1.1 Circumscription of Insurance Intermediaries·····**81**
4.1.2 Theoretical Basis of Why Insurance Intermediaries Exist·····**82**
4.1.3 Market Conditions of Insurance Intermediaries·····**84**
4.1.4 Information Risk in Insurance Intermediary Markets·····**87**
4.2 Incentive Mechanism Design in Insurance Agency Contracts -- Control of Moral Hazard with Good-meaning of Insurance Agents··88
4.2.1 Hypothesis of Incentive Model·····**89**
4.2.2 Insurance Agency Contract under Symmetric Information·····**91**
4.2.3 Insurance Agency Contract under Asymmetric Information·····**93**
4.2.4 Calculation of Costs in Insurance Agency·····**95**
4.2.5 Influence of Other Observable Variables to Optimal Incentive Contracts····**97**
4.3 Model of Supervising the Frauds of Insurance Agents

厦门大学博硕士论文摘要库

--Control of Moral Hazard with Bad-meaning of Insurance Agents····101
4.3.1 Hypothesis of the Model·····**101**
4.3.2 Payoff Structure under Constraints·····**103**
4.3.3 Agency Costs of Principal·····**104**
4.3.4 Parameters Determine and Analysis·····**105**
4.3.5 Suggestions of Controlling Moral Hazard with Bad-meaning of Insurance Agents and Model's Explanation·····**109**
4.4 Summaries·····**110**
5 Information Risk and Control between Government and Insurers·····112
5.1 Economics Springhead of Insurance Supervision·····**112**
5.1.1 Theory of Public Interests·····**112**
5.1.2 Theory of Public Selection·····**115**
5.2 Information Risk Control in the Insurance Supervision·····**117**
5.2.1 Game of Market Access between Regulatory Authorities and Underwriters —Control of Adverse Selection·····**119**
5.2.2 Game of On-sit Examination between Regulatory Authorities and Underwriters —Control of Moral Hazard with Bad-meaning·····**121**
5.3 Moral Hazard with Good-meaning in "Semi-public Insurance"
—Take the Third Party Liability Insurance of Mobile Car as Example····125
5.3.1 Bring out the Issue·····**126**
5.3.2 Design the Model·····**127**
5.3.3 Optimal Strategy of Government under Symmetric Information·····**128**
5.3.4 Optimal Strategy of Government under Asymmetric Information·····**130**
5.4 Summaries·····**132**
Conclusion·····**134**
Reference·····**135**
Research Fruits·····**139**
Postscript·····**140**

厦门大学博硕士论文摘要库

厦门大学博硕士论文摘要库

Degree papers are in the “Xiamen University Electronic Theses and Dissertations Database”. Full texts are available in the following ways:
1. If your library is a CALIS member libraries, please log on http://etd.calis.edu.cn/ and submit requests online, or consult the interlibrary loan department in your library.
2. For users of non-CALIS member libraries, please mail to etd@xmu.edu.cn for delivery details.

厦门大学博硕士论文摘要库