Volume Title: The Economics of Property-Casualty Insurance

Volume Author/Editor: David F. Bradford, editor

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-07026-3

Volume URL: http://www.nber.org/books/brad98-1

Publication Date: January 1998

Chapter Title: Introduction to "Economics of Property-Casualty Insurance, The"

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Chapter URL: http://www.nber.org/chapters/c6936

Chapter pages in book: (p. 1 - 4)

Introduction

David F. Bradford

Although there has long been a community of scholars focusing on the study of insurance, it is fair to say that (pensions and life insurance aside) there has been relatively little attention paid to the subject in the economics profession more broadly. In this, insurance differs from banking, for example. In the hope of expanding the network of economists who work on insurance and the stock of empirical knowledge useful to those who develop policies related to the industry (both within companies and at the federal and state governmental levels), Gordon Stewart, president of the Insurance Information Institute (III), proposed to Martin Feldstein, president of the National Bureau of Economic Research (NBER), that the bureau undertake, with III support, a series of studies of the industry. Early in 1993, I was invited to direct for the bureau the first phase of a new program of empirical research addressed to the role of commercial insurance (nonlife and nonhealth) in the U.S. economy.

In a series of meetings and conferences over the next three years, several scholars who had not worked in the area before engaged in discussions with representatives of the industry and scholars with prior research experience in insurance about the industrial organization, regulation, and taxation of the industry, about its relationship to capital markets, about the accounting conventions so critical to understanding industry statistics, and about the sources of data for empirical work. The meetings were also sounding boards for successive versions of the papers collected in this volume, which represent the first fruit of the NBER's ongoing efforts.

In commissioning this initial round of papers we set as our objective studies

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relating to a series of broad topics, including competition and profitability in the property-casualty insurance industry, accounting and taxation issues, determinants of insurance availability, the role of guarantee funds, the relation between government and insurance, the reinsurance market, and the connection between the insurance industry and the process of national capital accumulation.

As work went along, these broad objectives were refined into specific empirical studies and became more particular. One topic, reinsurance, was postponed to the second phase of the project. Of the other topics, profitability is addressed in the paper by Gron and Lucas, which explores the "insurance cycle." Taxation and insurance accounting are at the heart of Bradford and Logue's paper on the impact of tax reform on insurance pricing. Availability is the underlying theme of Jaffee and Russell's and Suponcic and Tennyson's quite different papers on rate regulation. These papers, and especially the Jaffee-Russell paper, also contribute to understanding the connection between government and the industry. Bohn and Hall tell us about guarantee funds, and the team of Born, Gentry, Viscusi, and Zeckhauser contributes insights into the way the insurance industry, with its peculiar mixture of mutual and stock company forms, fits into the national financial puzzle.

To preview the papers in somewhat more detail:

In their paper, "External Financing and Insurance Cycles," Anne Gron and Deborah Lucas take a close look at the behavior of stock companies, asking whether the cost of raising external finance can plausibly explain the phenomenon of periods of high prices and rationing of insurance policies followed by periods of expanding coverage and lower prices. A natural question is why, given the implication that there is a predictable increase in profitability of writing policies in the time of high prices, suppliers of capital do not rush to fill the profit opportunity vacuum. Having established the chronology of the insurance cycle in the past, Gron and Lucas assemble a variety of data bearing on the extent to which stock companies took steps to attract fresh capital coming out of the troughs of the cycle. Looking specifically at the incidence of dividend cuts, repurchases or retirement, and fresh issues of equity and debt, they find evidence that companies respond in the predicted direction but conclude that the magnitudes of the responses are surprisingly small. In addition to the theoretical reasoning and empirical conclusions, readers will find highly informative the wealth of information on trends and patterns in the financial structure of the property-casualty insurance industry presented in the paper.

During the 1980s, federal income tax treatment of property-casualty insurers and their policyholders underwent several important changes, the most significant of which came in 1986. David Bradford and Kyle Logue's paper, "The Effects of Tax Law Changes on Property-Casualty Insurance Prices," develops theoretical predictions of how these changes should have affected the equilibrium prices of property-casualty insurance policies and explores the extent to which the theoretical predictions are realized in data on industry experience.

The paper is devoted mainly to a careful specification of the income tax rules, and to deriving the connection between predictions about simple forms of insurance policy and industry data on "premiums earned." The predicted impact of the changes in the tax rules enacted in 1986 translates into a tax on premiums that varies strongly with the length of the tail of policies. For medical malpractice, the longest tail line of insurance, the impact might have been as much as a 13 percent tax. Using data on industry aggregates for 1976–93 and assuming no biases in insurers' loss-reserving practices, the authors conclude, however, that tax law changes do not explain much of the large swings in the loss ratios observed in the industry.

Two of the papers focus on the impact and origins of rate regulation in a major component of the industry, the market for auto insurance. The studies by the teams of Jaffee and Russell and Suponcic and Tennyson can both also be recommended for the broad overviews they offer of the structure and economics of the insurance industry. In their paper, "The Causes and Consequences of Rate Regulation in the Auto Insurance Industry," Dwight Jaffee and Thomas Russell provide a compact review of what economic theory says about what a competitive auto insurance market ought to look like, an insightful discussion of the ways in which theory fails to predict reality, and a contribution to the economic theory of regulation. Their paper takes as its point of departure an explanation of the strong expansionary trend in the extent and detail of state regulatory control over the auto insurance industry, focusing on the case of Proposition 103 in California. Proposition 103 was a ballot initiative, passed in 1988, that put in place several restrictions on auto insurers, including a rollback of auto insurance rates, limits on the factors that companies could use in placing policyholders in risk classes, and a requirement that companies accept applications for insurance from "good drivers." Noting that prices of most goods and services are not regulated in California, the authors consider explanations based on distributional equity, welfare enhancement (regulatory intervention based on market failure), and fairness for the imposition of regulation on automobile insurance. The first two might be described as conventional economic motives for regulation. Jaffee and Russell, however, identify several reasons for thinking that fairness, the idea that price dispersion should bear some relationship to differences in cost, may play an important role in explaining both the structure of the automobile insurance industry and the politics of Proposition 103.

In "Rate Regulation and the Industrial Organization of Automobile Insurance," Susan Suponcic and Sharon Tennyson consider the theory and evidence relating to the impact of regulation on the number and types of companies operating in a state. To develop their hypotheses, the authors take the reader through data on the composition of the industry in terms of sizes of companies, types of distribution ("direct writers" versus companies that market through independent agents), extent of geographic coverage, and degree of specialization in automobile insurance. The authors relate these characteristics of com-

panies to the predicted strategic approaches they would take to differences in, and changes in, the stringency of rate regulation by states. Using annual data on state aggregates for the period 1987–92 and various measures of regulatory stringency, the authors find support for the conclusion that increased regulation lowers the number of companies, especially low-cost national companies, operating in a state.

James Bohn and Brian Hall take up the problem of who insures the insurers in "The Costs of Insurance Company Failures." Under the decentralized system of regulating insurance companies practiced in the United States, each state operates some form of guarantee or solvency fund, whereby surviving companies are assessed to cover the claims of state residents holding policies of a failed property-casualty company. Likening the system to a tax and social insurance program, Bohn and Hall point out that it raises the usual efficiency and moral hazard issues of such programs. Since the size of the problem has grown sharply, their exploration of the costs, time path, and determinants of resolving insolvency is timely. By painstakingly correlating data from a variety of sources, the authors are able to develop a detailed picture of a large fraction of resolutions of insolvent companies between 1986 and 1993. Their surprising finding is that the costs incurred to resolve insurance company insolvencies are remarkably high—roughly 100 percent of the book value of the assets in the year before the company was declared insolvent. They note that this is nearly three times as high as the costs of resolving bank failures. The implied question for further work, relevant for the design of policy in this area: Why is this so?

In "Organizational Form and Insurance Company Performance: Stocks versus Mutuals," Patricia Born, William Gentry, W. Kip Viscusi, and Richard Zeckhauser take a fresh look at the way the organizational form of an insurance company affects its responses to different situations, including changes in profitability of lines and in regulatory climate. Based on a compact overview of the implications of the theory that a particular form will prevail in an industry if it offers the most effective solution to the industry's particular agency problem, they argue that firms organized as for-profit stock companies will respond more quickly and, in a sense, more opportunistically to changes in their environments. Using data on individual companies in the National Association of Insurance Commissioners records of property-casualty companies' annual financial statements, the authors conclude that in many respects, there is little difference between the performance of stock and mutual companies. They conclude, however, that their central hypothesis of the quicker reactions of stock companies to changes in their circumstances is consistently supported in the data.