Insurer Profitability in Different Regulatory and Legal Environments*

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Abstract
This paper examines the variation in insurance company financial performance across states with different legal and regulatory environments. These environments are distinguished by a diverse set of measures created by the states to address problems in the insurance area. Using firm-level financial data for the period 1984–1991, quantile regression methodology is used to describe the differential relationships between profitability and these measures. The results indicate that the distribution of profitability is only weakly related to insurers’ regulatory and legal environments, and is significantly related to other factors, such as the size of the firm and the effective number of competitors.

1. Introduction

Insurance serves an essential purpose in society, so it is perhaps not surprising that the insurance industry is highly regulated and monitored. State insurance departments perform a variety of activities to ensure that insurance consumers have access to insurance and are treated fairly by insurers and their agents, and that insurance companies are financially viable.1 Despite this attention, recent events in the industry motivated a reexamination of the rules affecting insurer operations. Between 1984 and 1991, nearly ten percent of all property-casualty insurance companies were declared financially insolvent. The annual rates of insolvency more than doubled in the mid-1980s; the severity also increased dramatically when several large, multi-state companies failed.2

The problems of the mid-1980s were due, in part, to the crises that developed in the general liability and medical malpractice lines. Premiums in these lines escalated dramatically in response to an unanticipated increase in the frequency and severity of liability claims. The

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1 The McCarran Ferguson Act of 1945 assigned the task of insurance regulation to individual state governments rather than the federal government.

problems in the industry suggested that the existing rules governing insurer operations and the efforts to monitor insurance company activities were not adequate.

The historic forms of insurance regulation include laws that address the formation, licensing, and operations of insurers, designed to preserve the terms of the insurance contract. These laws include minimum capital and surplus requirements, prescribed methods for calculating reserves, and restrictions on the investment of statutory reserves. These regulations are deemed necessary because the long-term nature of the contract creates incentives for excessive risk taking by both parties in the contract. Insured policyholders may take fewer precautions to avoid losses. Insurance companies may under price risks to increase market share, compensating for underwriting losses with investment income. As this behavior increases the probability of insolvency, it creates an externality, especially when customers are unaware of the insurer’s risky pricing strategy.

Other longstanding measures are used to protect policyholders from unfair pricing practices, such as rules governing the ratemaking process. Rate regulations, ranging from strict prior approval to more competitive forms, protect policyholders from potentially unfair rate changes. The more restrictive forms of rate regulation may also limit an insurer’s ability to respond in a timely manner to changes in loss experience. Direct regulation of rates is most prevalent in the personal automobile lines, but states vary significantly in the degree to which other lines of insurance are regulated.

States responded to the insolvency and liability crises with new measures aimed at promoting solvency and reducing the uncertainty associated with liability underwriting. These new measures, enacted and enforced in different forms across the states, significantly altered the legal and regulatory environments in which every U.S. property and casualty insurance company operated. New restrictions on specific investment choices may have significantly influenced investment decisions, while a series of reforms in the legal system had important ramifications for underwriting in the liability lines of insurance.

In this paper, I assess the extent to which insurance company profitability in the late 1980s varied across different legal and regulatory environments. While the regulatory and legal measures that define these environments were supposed to improve solvency and preserve the terms of the insurance contract, they may have had the opposite effect if they created a significant constraint on the activities of the insurance companies. Profitability describes the ability of the firm, over a period of time, to operate successfully in its environment. Among insurers, low profitability may indicate errors in pricing risks or bad investment strategies, but since losses are stochastic in nature, it may also simply reflect

3 For a complete history of insurance regulation, see Grace and Barth (1993). For more background on regulation of the property-casualty insurance industry, see Joskow (1973), Joskow and McLaughlin (1991), and Harrington (1991, 1992).

4 This problem of asymmetric information exacerbates the inherent owner-policyholder conflicts of interest in insurance contracting (see Mayers and Smith 1988). On the other hand, incentives for maintaining a long-term relationship may counteract these risk-taking behaviors. Borch (1981) argues that if the management of the insurance company takes a long-term view, no regulation should be necessary in the industry. Regulation is necessary, however, if managers are out to make a quick profit.

5 A related concern, whether risk of insolvency varies across states with different legal and regulatory environments, is considered, but not addressed in the subsequent empirical analysis.